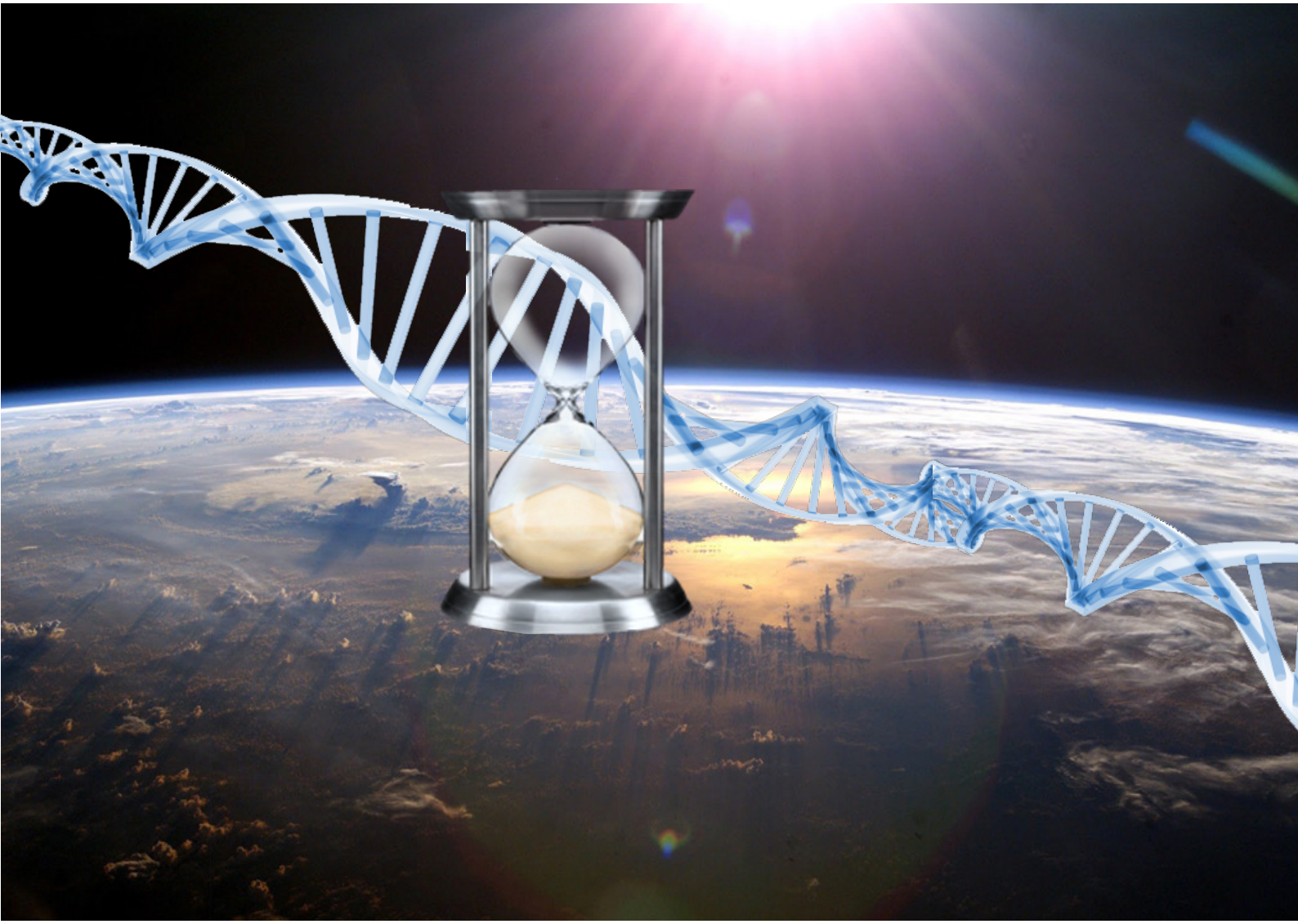
LONGEVITY INDUSTRY

The Science of Longevity: Geroscience, Policy, and Economics

The Paradigm Shift: from Treatment to Prevention



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Executive Summary

The list of major global hazards in the next century has grown long and familiar. It includes the proliferation of nuclear, biological, and chemical weapons, other types of high-tech terrorism, deadly superviruses, extreme climate change, the financial, economic, and political aftershocks of globalization, and the violent ethnic explosions waiting to be detonated in today's unsteady new democracies.

The greatest problem threatening global economic prosperity and social stability is demographic aging. Declining birthrates and increased lifespan are increasing population dependency ratios (working tax payers versus the elderly supported by taxes), placing a growing burden on already tenuous government budgets.

The Silver Tsunami, aptly, will hit Japan first, which already has the worst dependency ratio in the world and also the highest debt to GDP ratio of the OECD. China's workforce began shrinking in 2015, and China's 65+ population will double to 200 million by 2030.[2] The United States has trillions in unfunded pension and healthcare liabilities expected to expand as the Baby Boomers retire en masse over the next decade.[3]

> "Yet there is a less-understood challenge - the graying of the developed world's population - that may actually do more to reshape our collective future than any of the above."

- Former US Secretary of Commerce
- Co-Founder of the Blackstone Group
- Fmr. Deputy Chairman Federal Reserve Bank of New York
- Chairman emeritus of the Council on Foreign Relations
- Author of Gray Dawn: How the Coming Age Wave Will Transform America-and the World

– Peter G. Peterson, in Foreign Affairs(1999)[1]

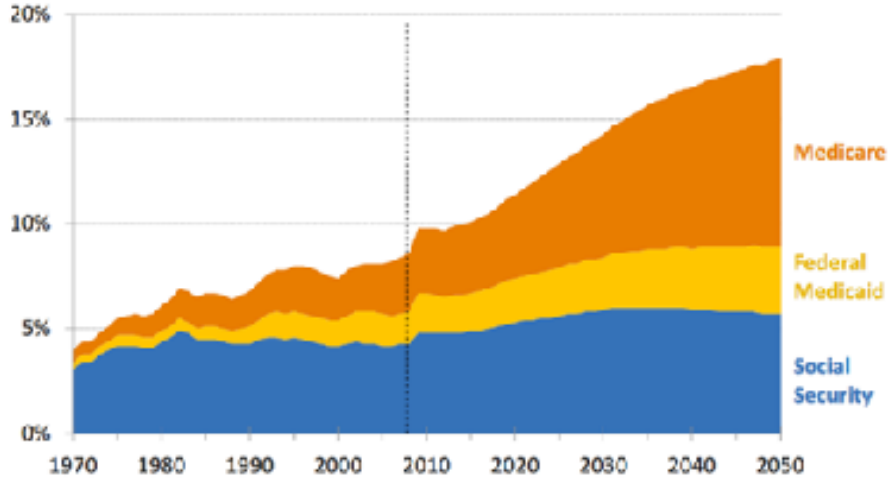
> "I see a storm coming. [Unfunded pension and medical liabilities are] the least sustainable situation I have seen in my career."

– Stanley Druckenmiller, of Duquesne Capital and formerly the Quantum Fund of Soros Fund Management, to Bloomberg March 1, 2016

1. Peterson, P. (1999) Grey Dawn: The Global Aging Crisis. Foreign Affairs.
2. UN World Population Prospects 2016, Stanford University Center on Longevity.
3. Zhavoronkov A, Debonneuil E, Mizra, N, Artuhov, I. (2012) Evaluating the impact of recent advances in biomedical sciences and the possible mortality decreases on the future of health care and Social Security in the United States. Pensions. doi:10.1057/pm.2012.28

Medicare poses a greater financial challenge than Social Security.

Medicare, federal Medicaid and Social Security spending as a % of GDP



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Source: Congressional Budget Office, 2009, extended baseline scenario.

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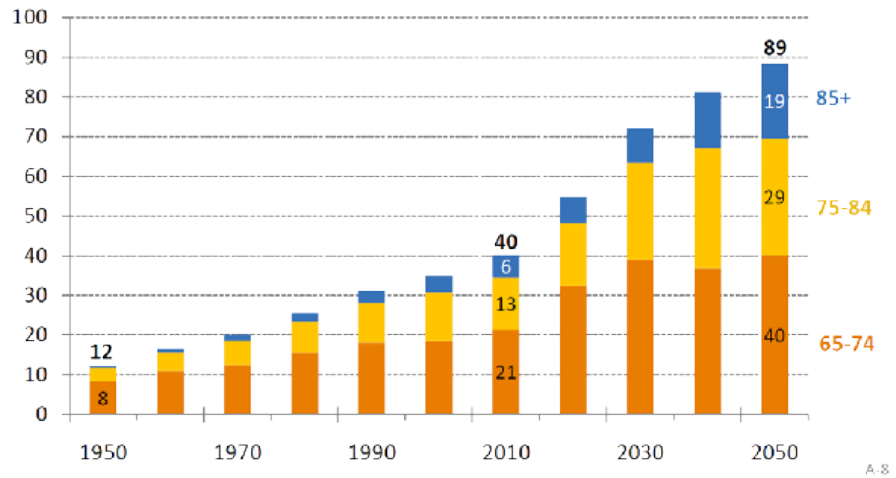
As the boomers reach 65, then 75, then 85, the population in each age bracket will swell; the age mix of the old will shift upward.

Population 65+, millions



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Source: U.S. Census Bureau, 2002b and 2008d

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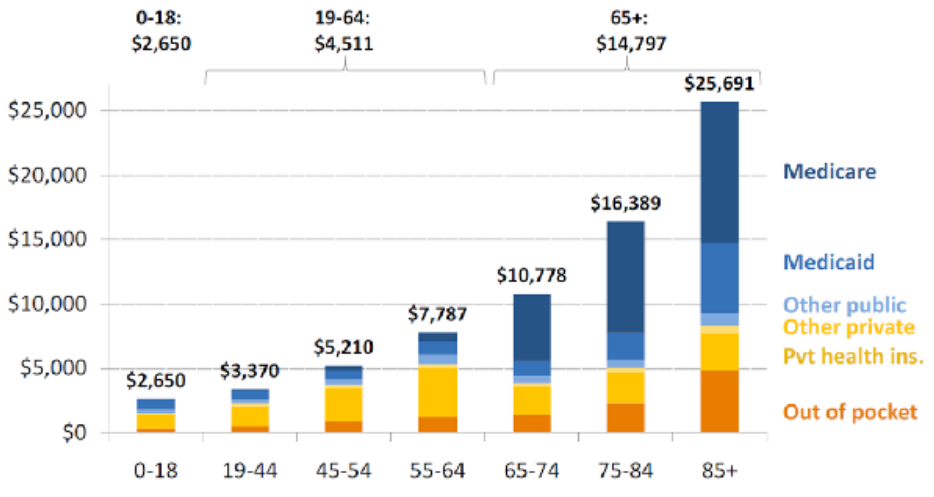
Per capita health care spending skyrockets with age.

Per capita health care spending, by age group and source of payment, 2004



Note: Other public: e.g. workers compensation. Other private: e.g. philanthropy.

Source: Centers for Medicare and Medicaid Services, 2009.

H-8

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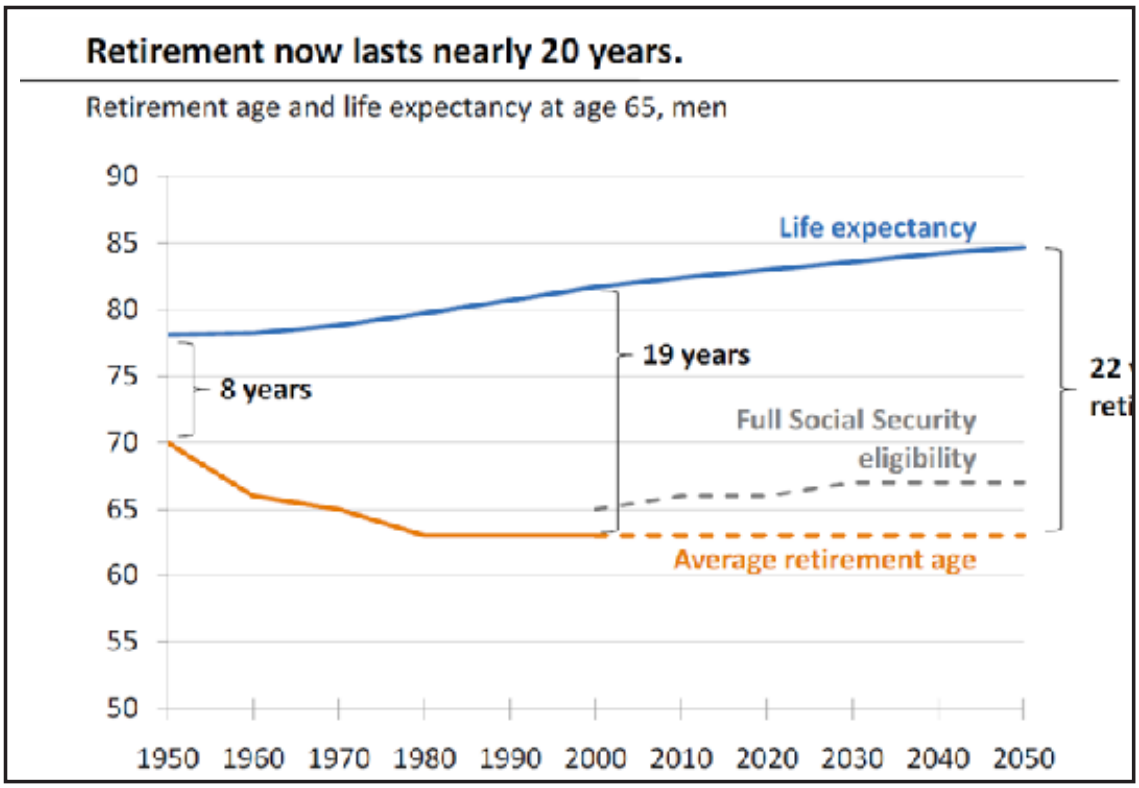
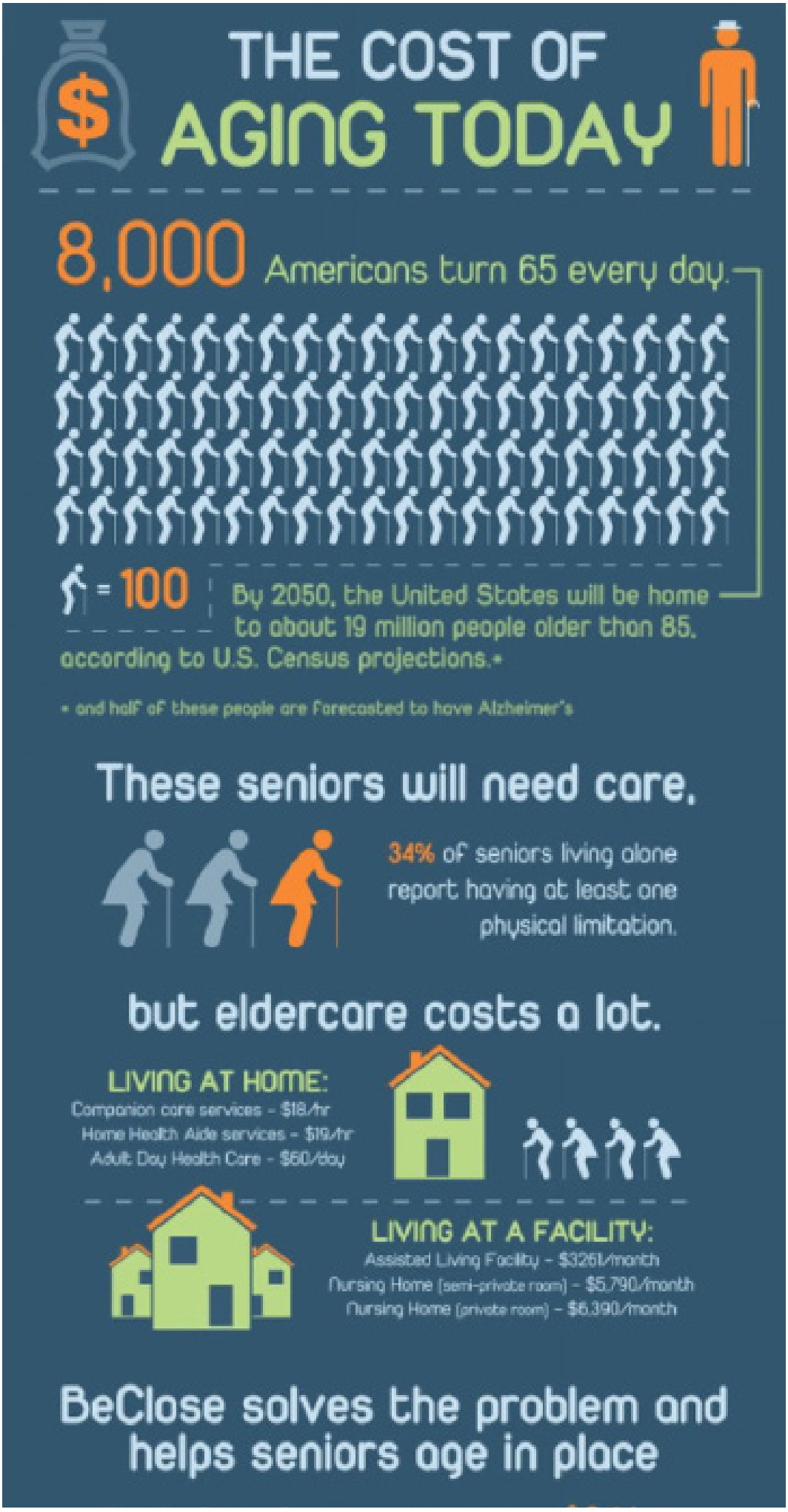
The current retirement age (OECD average of 64 years) was established prior to the rapid rise in life expectancy that occurred in the second half of the 20th century. Government and private sector pension schemes have not adjusted their actuarial tables to account for gains in life expectancy due to modern medicine (longevity risk).

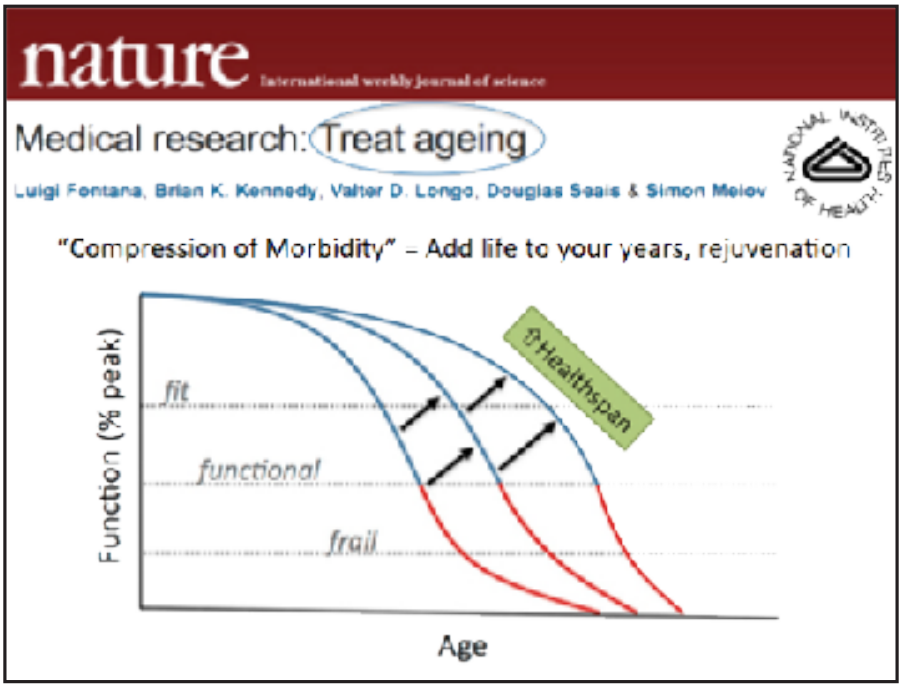
The rate of medical advancement is accelerating. This underestimation of rising life expectancy is a mistake worth many trillions of dollars[4]. Failure to meet pension obligations would result in rising poverty among elderly, higher taxes, inflation and political instability.[5] The post-war boom cohort is living longer but experiences an extended period of chronic disease in the years prior to death. The system of sick care is costly, particularly for diseases lacking any disease-modifying treatment, such as Alzheimer's disease. Due to the exponentially rising risk of disease as a function of age, curing any individual disease like cardiovascular disease or cancer only increases a population's healthy lifespan by 2-3 years before another age-related disease (diabetes, stroke, pulmonary disease) strikes.

The aim of geroscience and regenerative medicine is not for us to live longer in a sick, disabled state, but to prevent and delay the occurrence of age-related disease. An individual's final few years of chronic illness are their costliest to the healthcare system. The goal of the US National Institutes on Aging is the ***compression of morbidity*** – to extend years of healthy life. The only sustainable solution is to extend healthy lifespan (***healthspan***). This will require the use of



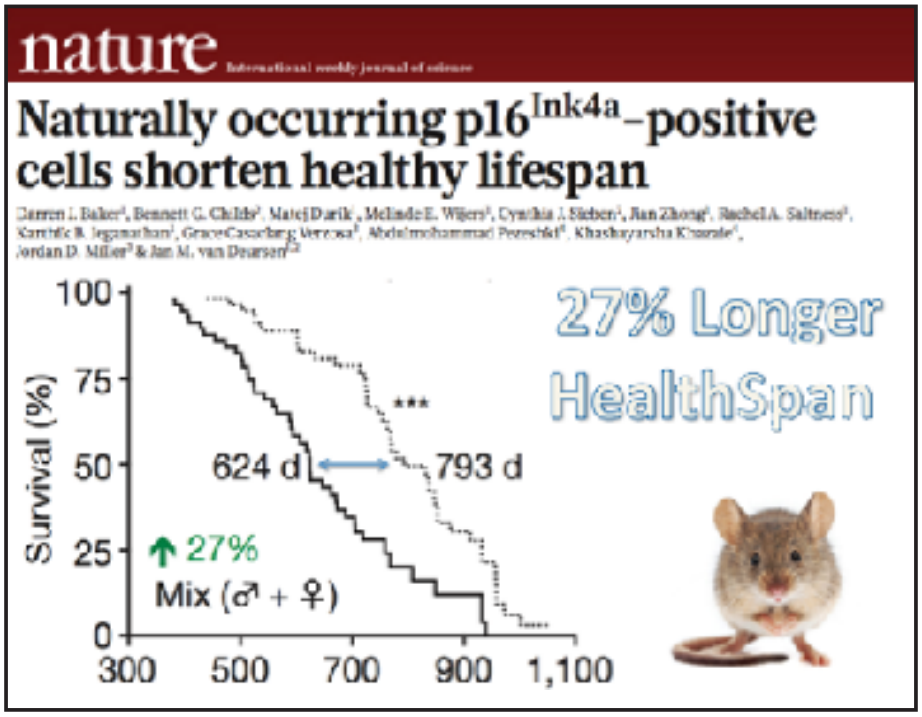
4. **Debonneuil E, Planchet F, Loisel S. (2015) Do actuaries believe in longevity deceleration? HAL Archives. hal-01219270**
5. **2 Kotlikoff L, Burns S. (2004) The Coming Generational Storm. The MIT Press.**


THE COST OF
AGING TODAY
8,000 Americans turn 65 every day.
= 100
By 2050, the United States will be home to about 19 million people older than 85, according to U.S. Census projections.*
* and half of these people are forecasted to have Alzheimer's
These seniors will need care,
34% of seniors living alone report having at least one physical limitation.
but eldercare costs a lot.
LIVING AT HOME:
Companion care services - $18/hr
Home Health Aide services - $19/hr
Adult Day Health Care - $60/day
LIVING AT A FACILITY:
Assisted Living Facility - $3261/month
Nursing Home (semi-private room) - $5,790/month
Nursing Home (private room) - $6,390/month
BeClose solves the problem and helps seniors age in place



geroprotective drugs, stem cells, and progressively complex genetic therapy to mimic the salutary mutations enjoyed by rare supercentenarians (who bear saluary mutations that delay or stop the onset of age related diseases – they are healthy past 100 years of age despite suboptimal diet and lifestyle).[6,7]

Clearly it would be desirable to add life to our years rather than merely years to our lives. But few are aware that health span extension is becoming routine in the laboratory. Scientific breakthroughs have demonstrated up to 30% increased healthspan extension in mice,[8] and much more in non-mammalian model organisms by various pharmacological, environmental and genetic interventions.



6. Collins F. (2014) Secrets of a Supercentenarian's Genome. NIH Director's Blog.
7. Barzilai N, Shuldiner A. (2000) Searching for Human Longevity Genes The Future History of Gerontology in the Post-genomic Era. The Journal of Gerontology.
8. Baker D. (2016) Naturally occurring p16Ink4a-positive cells shorten healthy lifespan. Nature.

Even though it has been known for a century that caloric and dietary restriction increases healthspan in model organisms, aging was once thought too complex to be tractable by mainstream science. The field was, and remains, held back by charlatans engaged in fraud.

In recent years, scientists have elucidated the fundamental mechanisms or hallmarks of aging, opening the field of geroscience – the understanding and manipulation of the fundamental biological processes in age-related disease.

The War on Aging received reinforcements in recent years from Google's company Calico and J. Craig Venter's Human Longevity Inc., both boasting considerable intellectual and financial resources.

In late 2016, Unity Biotechnology (a company developing drugs shown to slow aging

HUMAN LONGEVITY, INC. Calico UNITY BIOTECHNOLOGY

by eliminating damaged, senescent cells) raised over $116M from venture investors including Jeff Bezos, VenRock and ARCH Venture Partners.

The US National Institutes on Aging have also received budget increases as part of a new Alzheimer's Disease initiative, but of the vast majority of "aging research," less than 0.32%[9] of the US NIH budget goes to fundamental mechanisms of aging – the knowledge necessary to slow aging itself and all of its attendant diseases. This is

already possible in model organisms and translation to humans is underway but desperately underfunded relative to its importance.

The longevity industry trend is just the beginning. Combining geroscience with rapid advances in stem cell and gene therapies, the biopharmaceutical industry can expect major disruption to the current model of palliative chronic disease management as

9. **US National Institutes on Aging. Fiscal Year 2017 Budget. $183.1M for "Aging Biology" out of $32B NIH Budget.**
10. **Zhavoronkov A. (2013) The Ageless Generation: How Advances in Biomedicine Will Transform the Global Economy. St. Marten's Press.**

more true cures emerge.[10]

Despite the optimistic outlook for geroscience, it is unlikely that, at the current pace of funding and awareness, meaningful health span extensions will be available in time to avert the impending crisis of demographic aging. It is critical for investors, policymakers, scientists, NGOs and influential entities to prioritize the amelioration of the geriat-

The Hallmarks of Aging (Lopez-Otin et al. 2013, Cell)

"My lab is not concerned with diseases of aging, which are effects rather than causes; it's trying to get at the causes of aging and reverse them. And there are a fair number of precedents for this in animals, but the idea is to get it transferred to humans.

Some examples of this are if you take blood from a young mouse and exchange it with an old mouse. The small molecules, macromolecules, and cells in the blood result in a variety of biomarkers of aging being reversed. You can affect the vasculature, the blood vessels, the nerves, skeletal and cardiac muscles, and there are measures of these that indicate that it's not just prolonging a very aged state or going for longevity; you're actually reversing it."

– Dr. George M. Church, Professor of Genetics at Harvard, author of Regenesis: How Synthetic Biology Will Reinvent Nature and Ourselves

Part II

Geroscience Research Landscape Overview 2017

Longevity Research Landscape Overview 2017

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Part II: Geroscience Research Landscape Overview 2017

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Glossary of Terms

Geroscience Umbrella term for the interdisciplinary field that aims to understand the relationship between aging and age-related diseases and the prospects for biomedical intervention. A great many molecular biologists, neuroscientists, protein chemists, cell biologists, geneticists, endocrinologists, pharmacologists, and even mathematicians intersect with this field.

Geriatrics Branch of medicine dealing with particular diseases and debilities of aging directly, and the care of aged persons.

Gerontology Study of aging in general, including all social, cultural, psychological, cognitive, and biological aspects.

Biogerontology Sub-field of gerontology concerned with the biological aging process, its evolutionary origins, and potential means of intervention. Involves interdisciplinary research on biological aging causes, effects, and mechanisms.

Biomedical gerontology Collective name for attempts to intervene in the biological aging process, acting directly from knowledge gained from biogerontology research.

Regenerative medicine Branch of translational research dealing with the repair of damaged tissues and organs using tissue engineering and molecular biology to restore normal function.

Rejuvenation biotechnology The application of regenerative medicine to age-damage, reversing its accumulation.

The Silver Tsunami

"The scourge of a greying population is only a scourge if it is depicted as such»
- Douglas Murray

Figure 1: The Economist's Depiction of the Future [33]

Infectious disease is not the mystery it once was, and is now largely under biomedical control. The war on human illness has evolved from an invasion into a counter-insurgency operation.

With all our old foes dispatched, the future of late life is old age. Those stubborn illnesses inflicted from within -- cancer, Alzheimer's, arthritis, osteoporosis, not to mention more subtle defects such as progressive hearing loss and cognitive decline -- are biomedicine's next and perhaps final challenge.

The phrase "Silver Tsunami" has been used in mainstream publications to describe this coming future. It came up recently in Forbes[1] to describe rapid population[2] aging and has been used by medical journals and professional organisations such the American Psychological Association[3] to describe the impact on health and the economy.

This coming tsunami will be a global deluge. All but 18 of the world's countries have an ageing population and rising life expectancy, according to the UN[4]. As the world's population increases, a greater percentage of it is being claimed by the elderly, and it is predicted that by 2050 over 16% of it will be over 65, compared to under 6% only 100 years earlier in 1950[5].

An ageing population is sustained by two factors: an increased life expectancy and decreased fertility. Life expectancy has grown steadily over time. In 1840 the average female reported life span was 45 years; in 2009 it was 87[6]. This steady increase can be attributed to medical breakthroughs throughout this period, most importantly vaccines developed to counter major diseases and greater general knowledge concerning nutrition.

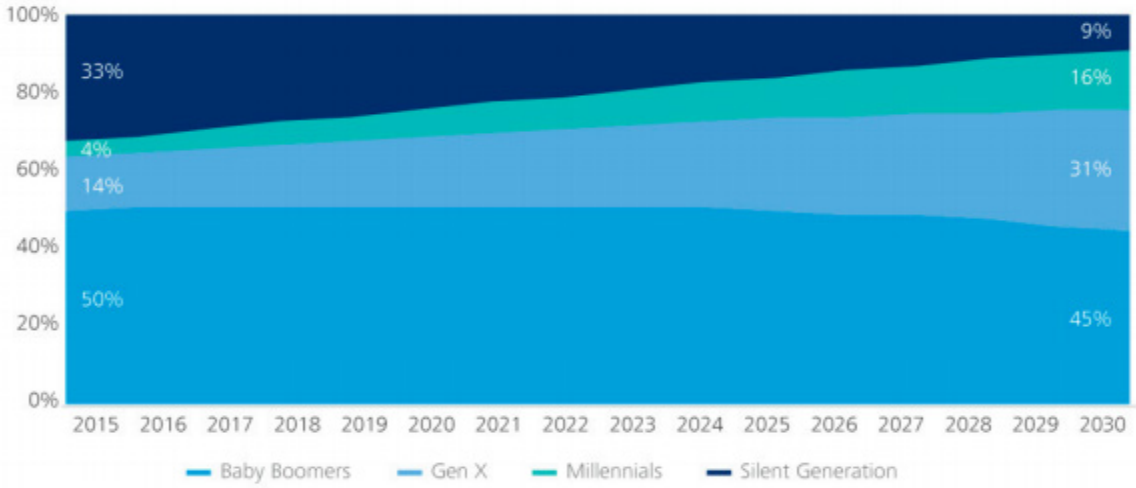
'Total fertility rate' is defined by the OECD as as "the total number of children that would be born to each woman if she were to live to the end of her childbearing years and give birth to children in alignment with the prevailing age-specific fertility rates"[31]. The global average of this has dropped from 2.8 children per woman in 1940 to 1.7 recently in 2014, meaning most women are now only having 1 or 2 children[7]. While some populations have had fluctuations in their fertility, the overall trend has been a decrease. For example, the United States experienced a significant increase in fertility post-World war II, from around 1946 to 1964, in an event often termed the "baby boom". This saw fertility rates rise above 2 children per woman[8], something that had not occurred since before 1927[9]; resulting in an estimated 78.3 million Americans born during this period[10]. The subsequent decline is due to many factors, mainly social changes over subsequent decades such as young women working and waiting until the 1970s to start families[11].

A woman's fertility is said to peak in the early 20s and drop around 35[12], yet in many developing countries women are having their first child around age 30[13], when it is harder to conceive, so for many women it becomes too late to bear children. Indeed 28.9% of American women between the ages of 30-34 have had no children at all according to a 2014 survey conducted by the U.S. Census Bureau[14].

As the economy has grown in America and other parts of the developed world, the main cause of death changed from infectious disease to chronic, non-communicable diseases such as heart disease, cancer, chronic lower respiratory disease, cerebrovascular disease and Alzheimer's. Unfortunately, while admirable progress has been made in respect to lifespan, many more people are consequently living with chronic, incurable conditions.

While often considered a problem of 'developed' nations, in fact these challenges arecommon to many countries with a wide range of wealth;

in particular BRIC nations such as China and India, which are both predicted to experience a massive increase in their elderly population. Experts agree that this wider 'age shift' is being driven as aspiring countries converge with the wealthiest in regards to nutrition, public health, and better education, rather than by disruptive technologies directly extending the life span of individuals.



The baby boomer financial psychology
http://www.mybudget360.com/psychologically-damaged-baby-boomers-wealth-retirement-funds-amount/

Baby Boomer Purchasing Power

The Baby Boomer generation, born after WWII, is a very large population cohort that is currently beginning to retire en masse. The oldest Boomers turned 65, US retirement age, beginning in 2011. They are also the wealthiest generation in history (holding 45-50% of all household wealth) - investor recognition of this purchasing power should incentivize the development of effective rejuvenation therapy to cater to the Baby Boomers. However, as biomedical research usually requires a lot of time before therapies are readily available, we must aim to accelerate the translation of basic research into treatments and medicines. Doing so will allow the Baby Boomers to benefit in time to avert major economic consequences.

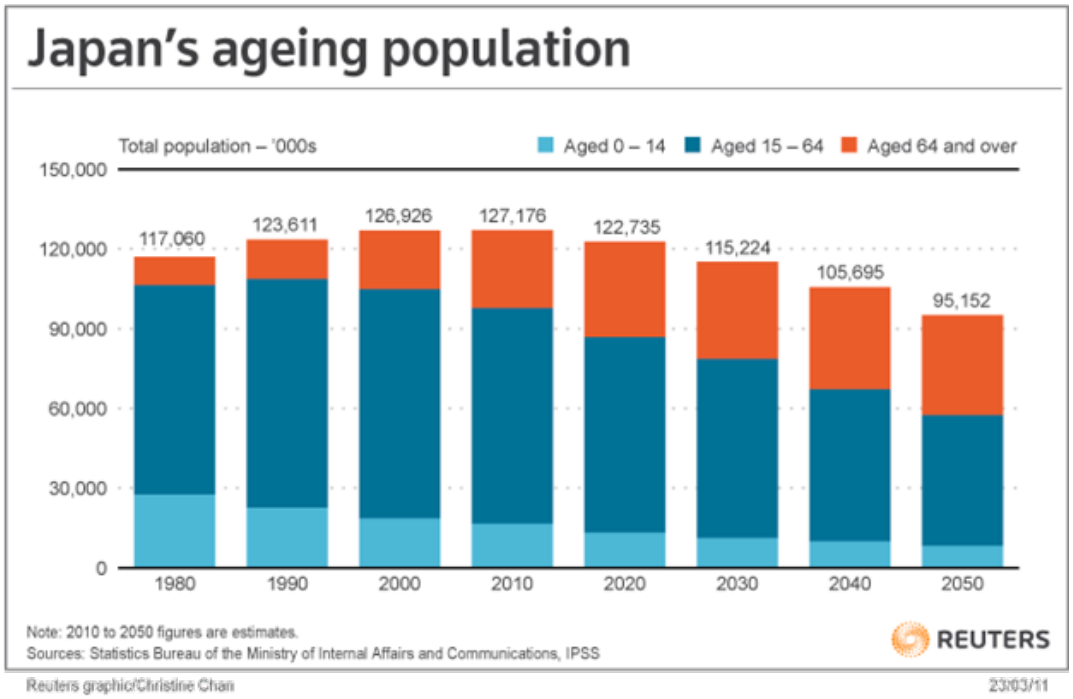


Figure 2: Japan's Aging Population [32]

Japan

A plain example of an aging population is Japan, and as its problems grow plainer, it could be seen as our canary down the mine. It has both high longevity and low fertility. The life expectancy is 81.7 years for men and 88.5 years for women[15}, owing to adept medical care and technologies, as well as the healthy diet and nutrition in the available to the Japanese people. But declining fertility is the main cause of this population ageing, with the total fertility rate being 1.41 children per woman in 2016[15], and even reaching an all time low of 1.26 in 2005[16]. There are many contributing factors to this, one being that most of the population is urban: 94.5% (as of 2017)[17] with around 25% of the population residing in the greater Tokyo area[18] and around 11% in the Tokyo prefecture alone[19], giving it a population density of 6,150 persons per square kilometre (2015)[19]. Due to being such a densely populated city many residences are very small in order to accommodate the population; with an average of 1.91 persons per household (2015)[19]. Combine this with the busy working life of a vast number of Tokyo citizens and there is not much space or time to focus on starting a family, and many men find themselves uninterested in getting married. Surveys on single Japanese men conducted in 2010: it found that 61% of men in their 20s and 70% in their 30s deemed themselves "herbivores"[20], a term used to describe men with no interest in intimate relationships with women[21]. The Japanese government believes this is contributing to the country's declining fertility[22].

Japan's aging bachelor population [76]

This ageing of Japan is changing the country in numerous ways, such as increasing the cost of care for the elderly. More nursing centres and adult day-cares are being constructed, forcing 400 primary and secondary schools per year to close due to the dwindling number of children and the need for some to be converted into adult care centres[24]. More nursing homes have increased the demand for care workers, with 6,000 centres caring for 420,000 elderly people.

This has caused the national budget to increase. In the early 1970s, only 6% of the country's budget went towards social welfare aspects; in 1992 it jumped to 18% and is projected to be 28% by 2028[25], diverting funds from other important areas such as education. Less young people means less able-bodied people in the work force. Many industries are burdened with irreplaceable ageing workers. This caused a number of companies to raise the mandatory retirement age from 55 to 60 or 65 in the 1980s and 1990s, with retired workers recently receiving permission to continue working after official retirement[25]; so as to avoid strain on the national pension system. This has incentivised many retirement age workers to continue working, in order to stay out of poverty brought nearer by the 1986 raise in the ages of entitlement to various state benefits[25]. This number will continue to increase if Japan cannot replenish its workforce, forecast in 2002 to drop by 18% by 2030[26], which unless countered leads inevitably to a shrinking economy[27].

The Japanese government have responded with policies to incentivise childbirth and keep more of its population in the workforce[28], such as benefits for people with children and more time and opportunities for childcare [23]. The Child Care and Family Care Leave Law for example, implemented in 2010, allows for a more lenient work schedule for those with children[29], by enabling new parents to take up to one year's leave after the birth of a child, and also allowing an extra six months off if the child isn't accepted into nursery. It also provides allowances and benefits to employees with preschool-aged children, such as up to five days leave if a child is sick or injured[30]. This law aims to improve female employment rate, decrease the percentage of those working 60 hours or more a week, increase the use of annual paid leave, increase the rate of child care leave for both men and women and also increase the hours spent by men on childcare and housework in households with one child under the age of six; all over a period of 10 years[29].

Government initiatives such as these are currently the only means available to us for withstanding the tsunami. Any more drastic response to population growth, such as a misguided attempt to curtail birth rates, would result in even fewer young people and reduce the quality of life for the elderly.

Ultimately it is we who will decide how population growth impacts the world.

This report seeks to offer a brief overview of the biomedical means of taking control of this situation.

A History of Modern Geroscience

The diseases and debilities of aging were described in the previous section as 'stubborn'. This is an understatement. They are distinguished from other types of disease and debility by the fact that they are inflicted from within by essential metabolic processes, and are therefore as much an eventuality of these processes as starvation is of fasting. Unlike Cholera for example, there is a 100% chance that Alzheimer's will kill you as you age if nothing else does first.

Geriatric medicine, the branch of medicine dealing with the individual diseases of old age in aged persons, is therefore fighting a losing battle. Further progress will require more profound interventions, and ultimately the full might of an entirely new industry.

The ultimate mystery

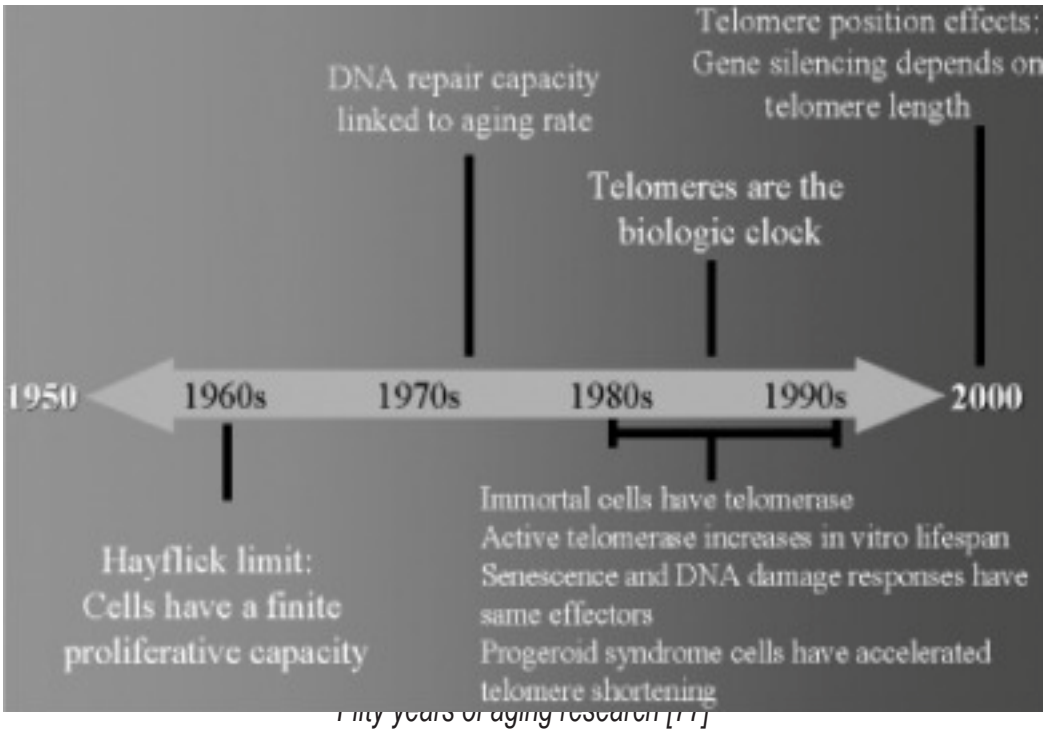
The longevity industry described herein comprises several very different technologies, and has undergone multiple direction changes over the past century. The first documented quest for a redress to human aging was in the Epic of Gilgamesh (circa 2500 B.C.) in which the fabled Mesopotamian king sought a divine herb conferring immortality. Since then aging has gone from being the ultimate mystery of nature to biomedicine's ultimate adversary, and multiple disparate approaches to aging have emerged ranging from purely academic geroscience to technologically motivated biomedical research and engineering. In recent years their paths have intersected, creating new synergies and resulting in the unique industry landscape described herein.

Early insight

By the beginning of the 20th century, the biology of aging was still largely opaque. Various vague theories had surfaced, ranging from vitalism, the belief in a depleting life force, to simple notions of wear and tear, but nothing concrete. The full light of science was not thrown on the biology of aging until the the middle of the 20th century. The discovery of DNA in the 1950s opened up new lines of enquiry into the genetic basis of aging. Scientific articles written since the 1960s on the pathogenic role of free radicals and the role of telomere shortening in chronic diseases made these into household terms, and decades of research into human and animal metabolism opened up new fields of speculation and theorising on the causes of aging.

1960s: Early research into DNA [68]

By the end of the 20th century, biogerontology, the study of biological aging, and geroscience, the interdisciplinary field that aims to understand the relationship between aging and age-related diseases, had come into their own.



Fifty years of aging research [71]

Early interventions

The 20th century had been a century of physics. These early insights laid the groundwork for a century of biology. The first decade of the 21st century rapidly threw up various proposals for biomedical intervention based on early conclusions reached by the emerging biological science of aging which had become known as 'biogerontology'. For example laboratory research into the metabolisms of organisms ranging from nematodes to rats revealed that a sharp reduction in caloric intake sharply slowed down aging, and so lengthy calorie restriction trials on primates were commenced with a view to artificially bottling the metabolic effects of this dietary alteration. But despite the undeniable promise of these biogerontological attempts to extend life, as knowledge of genetics and metabolism grew, the challenges of bringing aging under serious biomedical control grew plainer. It quickly became apparent that human genetics and human metabolism were an irreducibly complex tangle with aging as its inextricable consequence. Radically extending lifespan by taming metabolism would be like solving a Rubik's cube with a thousand sides.

Road to rejuvenation

In the second decade of the 21st century, just when we thought we knew the probable limits of successful intervention, the industry underwent a revolution in thinking when biogerontology began to intersect with regenerative medicine, an umbrella term for therapies which restore or regrow damaged tissue, from tissue engineering to stem cell and gene therapies. Technologists coming into biogerontology from other industries began to notice that biogerontology's findings could be used to fashion a damage report which could then be handed over to to regenerative medicine.

In the eyes of regenerative medicine, there is an overlap between accidental injury and age-related pathology. For example in 2010 scientists from Keele University in the UK began trials for a stem-cell therapy for repairing osteoarthritic knee-joints, partly a result of mechanical stress, but sometimes unavoidable for people in late life. It is a facet of old age, but one which falls within the purview of regenerative medicine.

This prospective application of regenerative medicine to the conditions of old age — through methods such as removal of unwanted matter from in and between cells with implications for conditions ranging from macular degeneration to immune system decline -- is termed 'rejuvenation biotechnology'. By simply seeking to repair aged tissue and avoiding the need for decoding genomes and mapping metabolisms, rejuvenation biotechnology sets the longevity industry on a very potent course indeed.

The twentieth century gave us biogerontology, an innovative approach to the problems identified by geriatric medicine, and the twenty-first century is in the process of producing rejuvenation biotechnology, an innovative approach to the damages identified by biogerontology.

The next section will take a closer look at further innovations as well as various converging trends technological, social and political, presently setting the future course of the industry.

Major Trends in Geroscience

Public and professional perception

Perhaps the most manifest development in the longevity industry has been public awareness, a fact which in a democracy has clear political and practical ramifications.

Throughout the 20th century, life extension as a biomedical aspiration went from being an academic backwater with vague connotations of Victorian crankishness, to an ill-defined and remote technological prospect of which only a few were dimly aware, to a technological revolution as abrupt and disruptive as the digital, with a clear presence in mainstream culture and ethically-motivated popular movement behind it.

It may seem hard to remember now, but prior to the 1990s not even the notion of DNA had fully penetrated public awareness, let alone any clear notion of the mechanisms of aging. Cancer had long been correctly imagined as an unwanted growth which everyone wanted a way to get rid of. Whereas aging was...what? Nobody told us. Little wonder then, that there was little public pressure to do anything about it, whatever 'it' was.

In the 1990s, terminology related to the biology of aging such as 'telomere' and 'free radical' sept into everyday vocabulary. TV documentaries and magazines made scientifically sound illustrations of the aging process widely available. These provided the public with the images they needed to envision the problem and the words they needed to demands solution.

And moreover these terms implied that aging was something tractable, at least in principle. Aging became imaginable and therefore vanquishable.

Yet there remained a conspiracy of silence over the possible mutability of aging. Or rather an inertia, brought about by the lack of any professional prognostication on the prospects of longer lifespans.

An 'anti-aging movement'

This changed somewhat in the mid-00s when technologists such as the inventor and futurist Ray Kurzweil and software engineer-turned-biogerontological theorist Dr, Aubrey de Grey began to notice the latent potential of nascent regenerative medical technologies, and set imaginations in motion with their visions of what they saw as biomedicine's limitless potential to increase lifespan. De Grey in particular became known for what he called his, 'engineering approach' to aging, and his prediction that the first person to live to age 1000 had already been born (as of about 2005). This brazen forecast drew opposition from fellow biogerontologists, who feared that such careless pronouncements would drag the field back to the backwater from which it had just clawed its way out.

But de Grey was speaking in his capacity as a technologist making a call to action rather than a scientific theorist pushing a hypothesis. It was a conditional statement to the effect of: "If, and only if, there is a concerted global effort to apply the regenerative medical toolkit to repair the human body faster than it accumulates damage, the sky's the limit."

A contestable statement to be sure, but as a complete regenerative medicine approach to aging was an unprecedented proposal at the time, there was no such thing as received wisdom one way or the other on the expectable longevity benefits, not even down to a particular order of magnitude. It received diverse responses ranging from outright derision to wholehearted popular and professional enthusiasm. But the overall effect of the controversy was that received wisdom came to regard the near-future of human lifespans as a wide open question.

In retrospect, de Grey would be seen the father of 'rejuvenation biotechnology' now the established term for the application of regenerative medicine to age, named after a seminal annual industry conference held every year in the San Francisco area. In the past decade the core concept of rejuvenation biotechnology has given a fresh sense of direction to a nexus of institutions with regenerative medical expertise, all lending their efforts to this overarching objective.

Institutions and expertise

See Part 2 : Top 100 Research Labs in Geroscience

An early focal point for this agenda was the SENS Research Foundation (or SRF, 'SENS' standing for Strategies for Engineered Negligible Senescence) in Mountain View California, the world's first biomedical research charity dedicated exclusively to the repair and restoration of aged tissues, and the host of the seminal Rejuvenation Biotechnology industry conference series. It was co-founded in 2009 by de Grey in a pragmatic split from the Methuselah Foundation, an earlier biomedical research foundation with a broader remit, with initial capital from venture capitalist Peter Thiel. It specifically subdivided its efforts into seven projects, each focusing on an particular category of age-damage, with names such as 'LysoSENS' (removing waste from the cell's lysosome), or AmyloSENS (removing waste such as amyloid from between cells), and so on.

At about this time the think-tank and business incubator Singularity University was established by Peter Diamandis and Ray Kurzweil at NASA retail park, with a focus on 'exponential technologies', of the life extending variety in particular. In 2013 Google and Arthur D. Levinson launched Calico with a mission statement echoing that of SRF, but a broader remit of "health, wellbeing and longevity", and in partnership with the pharmaceutical company AbbVie, founded the same year, set up a R&D facility focused on aging and age-related infirmity such as neurodegeneration and cancer.

As the fledgling rejuvenation biotechnology industry took flight it drew interest and co-operation from luminaries in diverse fields. No scientific or industry conference was complete without the presence of molecular geneticists such as **George Church,** regenerative medical technologists such as **Tony Atala**, molecular oncologists such as **Maria Blasco**, ethical philosophers such as **Peter Singer** or celebrity endorsers such as **Edward James Olmos.**

See Part 2: Top 100 Geroscientists

Around this Silicon Valley-based hub an international community of institutions formed like spokes. The industry relied on the labour of research facilities throughout the West from the **Wake Forest Institute for Regenerative Medicine(WFIRM), Rice University, Albert Einstein College of Medicine,** and **Stanford University**, to Britain's **Oxford** and **Cambridge** Universities.

Such a hodgepodge of expertise and approaches was always going to be necessary in the treatment of aging, for aging itself is a hodgepodge of metabolic processes, damages and pathologies with multiple points of possible intervention, and the road ahead therefore presents us with a great many potential false avenues. But there are already emerging attempts to navigate those avenues effectively and orchestrate research internationally, such as the use of artificially intelligent investment system to derisk global investment for maximum progress.

the guardian

Media coverage

By this point the prospect of radical life extension was already gripping the mainstream media.

Since the mid-'00s, radical life extension has been an increasingly common subject of books, TV documentaries, films and talks. After Kurzweil broke some the ice with his 2005 book **Fantastic Voyage: Live Long Enough to Live Forever,** Aubrey de Grey began to appear on prime time discussion shows such as **BBC's Hardtalk, Channel 4's Richard and Judy, CBC News**, and even **The Colbert Report** (to discuss his 2007 work **Ending Aging**) and documentary films such Mark Wexler's **How to Live Forever** the the Christopher Sykes documentary **Do You Want to Live Forever.**

See. Part 2: Top 100 Longevity Books

Longevity science and technology news has saturated popular online culture and is a major subject of **TED talks** and debates including one very major '**Debate of the Ages**' at Oxford's **Sheldonian Theatre** in 2012.

An increased public consciousness of the prospect of a technological redress to aging may even have influenced fiction. The 2011 dystopian film **In Time**, about a near-future post-aging world, appeared to rely on this public consciousness of it when it offered remarkably little explanatory prolog to explain how that world came about. It consisted of the single line *" I don't have time to explain how it happened. It is what it is. We're genetically engineered to stop aging at 25. "*

Key moments from the last decade

2010	Public interest in longevity has risen over the preceding decade. Peter Thiel, having already supported biogerontology research around the world, is showing an interest in rejuvenation biotechnologies: "If you have radical life extension, that could obviously lead to repercussions for society. But I think that's a problem we want to have." says the businessman. The SENS Research Foundation is a regular recipient of his donations. The entrepreneur James Hope also gave $500.000 to SRF. In the same year SRF's yearly budget has now reached $1M, allowing them to open an independent laboratory.
	An experiment in rejuvenation transplantation is conducted. It shows a neonatal thymus grafted to old mice to significantly reduce mortality rate, while restoring immune system function, most likely due to depleting number of T-cells in elderly organisms. The resulting paper sparks further interest in tissue engineering.[34]
2011	SRF continues to expand its efforts. After Aubrey de Grey donates most of his net worth to the Foundation it is finally able to simultaneously operate in all seven of SENS research branches, two years after the foundation of SRF.
	Scientists at the Mayo Clinic College of Medicine conduct an experiment on the clearance of senescent cells. The study proves the hypothesis that senescent cells play a large role in age-related decline by negatively affecting adjacent cells, provoking inflammation. [35]
2012	The most prevalent trend of the year is the commercialization of emerging longevity technologies. Gensight Biologics and Covalent Bioscience are founded, building on the Methuselah Foundation's technology in mitochondrial and neurodegenerative dysfunctions and SRF's catabody research.

2013	 *The Hallmarks of Aging[3]* Probably the most important year in the industry from the public outreach point of view. The landmark publication titled 'The Hallmarks of Aging' is published in Cell. The team of Carlos López-Otín has shown a new framework of aging research that serves as an alternative to SENS, providing a more holistic approach to aging, connecting different hallmarks hierarchically. To this day The Hallmarks of Aging remains the most cited biogerontology article [36]
	Alphabet launches its own biogerontology company known as Calico. This move gains yet unseen mainstream attention and has significantly increases public knowledge of the industry.
	The Methuselah Foundation continues to focus on tissue engineering. After launching the New Organ initiative and supporting organ engineering company Organovo in the previous years, the Foundation announces $1 million prize for a tissue engineered liver. The competitors must create a working liver from the patient's own cells. The call is active until the end of 2018. [37]

2014	The Buck Institute for Research on Aging has launched their own version of longevity research framework, known as the 'Seven Pillars of Aging'. This framework bears similarities to the SENS 'seven damages' approach and serves as a practical roadmap for life extension. [38]
	SRF reaches a breakthrough with its catabody technologies. Misfolded proteins form amyloids responsible for declining tissue function and increased death rates. The Foundation's catabodies prove capable of destroying a transthyretin amyloid, a particularly prevalent variety.
2015	The first senolytic drug candidates are introduced by the scientists of Mayo Clinic. These drugs, dasanitib and quercetin are capable of removing senescent cells, while leaving other cells unharmed. Senolytics are now a prospective drug group that can successfully combat one of the hallmarks of aging [39]
	SRF is now focusing on the anti-cancer telomere research. They conduct experiments both on telomerase blocking and alternative lengthening of telomeres (ALT) technologies. Meanwhile, transthyretin amyloid technologies are on their way to commercialization.
2016	Senolytic research is rapidly developing. Scientists from across the globe are actively finding evidence that removal of senescent cells improve respiratory, cardiovascular and immune functions.
	SENS Research Foundation launches a crowdfunding campaign as a part of the OncoSENS branch of their research program. The crowdfunding aims to further the ALT research. SRF states that the most effective way of fighting cancer is to strike at something that all cancers have in common: perpetual lengthening of telomeres.
	The Methuselah Foundation, now in collaboration with NASA, launch another prize. The $500.000 will be given to the group that will be able to produce thick vascular tissue [40]

2017	More than 10 different senolytic drug candidates are now being developed by both non- and for-profit facilities. Various organizations are racing to present the first true anti-aging medication.
	The Methuselah Foundation founds The Methuselah fund in order to assist emerging longevity-related companies in their earlier stages of development. [41]

Increasing insight into the genetic basis of aging

The genetics of aging and longevity remains a poorly understood topic, given the complexity of gene interactions and the usual lack of any significant effect associated with the expression of a single gene.

Current studies of longevity genetics usually focus on long-living populations to identify DNA sequences which correlate with longer lifespan.

A number of such studies have shown that a group of genes that encode forkhead box proteins (O subclass, to be specific) exist in many centenarians in various populations across the world. One such protein, FOXO3 has been found to induce apoptosis (the form of regulated cell death that hampers cellular senescence, a facet of aging), while FOXO4 is linked to various processes, including apoptosis regulation and oxidative stress pathways [80].

At this point studies diverge along two different paths with one being significantly more effective. The more obvious one involves discovering ways of expressing those genes. This is however a cost-inefficient approach, as the processes associated with FOXO genes happen across the organism, which makes them a hard target for somatic gene therapy. A more efficient approach is the study the molecular mechanisms that these proteins use to increase lifespan. This research will enable the design of pharmaceuticals that can emulate the proteins efficiently without the need for genetic intervention.

Increasing insight into oxidative stress

Oxidative stress is an aspect of aging that greatly harms the organism in the long run. As it is directly linked to mitochondrial function, combating mitochondrial dysfunction is considered a priority in longevity research, but has proven difficult.

In some cases it is easier and more effective to kill old mitochondria and recycle them in order to create new ones. This can be achieved by a special form of autophagy, known as mitophagy.

Recent studies are showing that mitophagy properties decline with age, and that active mitophagy greatly improves healthspan, suggesting that possible interventions could extend lifespan [81]. The next thing to do in this sub-field is to determine the most effective way of utilizing mitophagy mechanisms.

Increasing insight into environmental factors

The influence of environment on lifespan is an often omitted part of biogerontology research. While concentrating on developing novel means of extending lifespan, longevity scientists tend to overlook the impact that factors such as chemical pollution and radiation can have on life expectancy.

As China remains the most polluted region on Earth, it is an apt model for estimating the effect of pollution on lifespan. Recent studies show [82] that living in highly polluted areas, such as China's Huai River region decreases median life expectancy by 3 years. Moreover, they show that bringing the air policy in line with the WHO's Class I standards will bring almost 4 billion life-years to the populous as a whole.

Although not beyond dispute, there appears to be a simple correlation between the level of pollution and median wealth in the populace, and it is hard to deny the harmful effects that the negligence in the environmental protection will bring. As environmental studies and biogerontology don't have many intersections currently, it is hard to estimate the potential of any such future interdisciplinary research, but there is no doubt that improving living conditions will extend lifespan and, more importantly, healthspan.

Further progress to watch

As stated previously, the technological threads comprising this industry are extremely diverse and can approximately divided into the following strands:

Geroprotective drugs include small molecules, peptides, and proteins. Studies have identified over 1,000 compounds which extend the lifespan of at least one model organism. These include antioxidants, anti-inflammatory, anti-glycation, anti-amyloidogenesis, inhibitors of growth signaling, chelators, sirtuin activators, calorie restriction mimetics, and many more. Regenerative medicine involves the use of stem cells from various origins to rebuild, "regenerate" or improve the function of damaged organs and tissues.

[84]

Clinical translation in this area has been simplified greatly by the fact that many labs have been repurposing old drugs for longevity (examples include rapamycin, metformin, aspirin). So since these drugs have already been approved for human use, they need not undergo phase 1 trials a second time.

Regenerative medicine involves the use of stem cells from various origins to rebuild, "regenerate" or improve the function of damaged organs and tissues.

This can be promising for combating the degenerative pathologies of aging. Entire "replacement organs and tissues" can be grown outside of the body, using methods such as growing tissues on biodegradable scaffolds, 3D tissue printing.

An important recent development has been the induction of regeneration within the body by pharmacological means, e.g. using inhibitors of prostaglandin breakdown thus promoting cell proliferation.

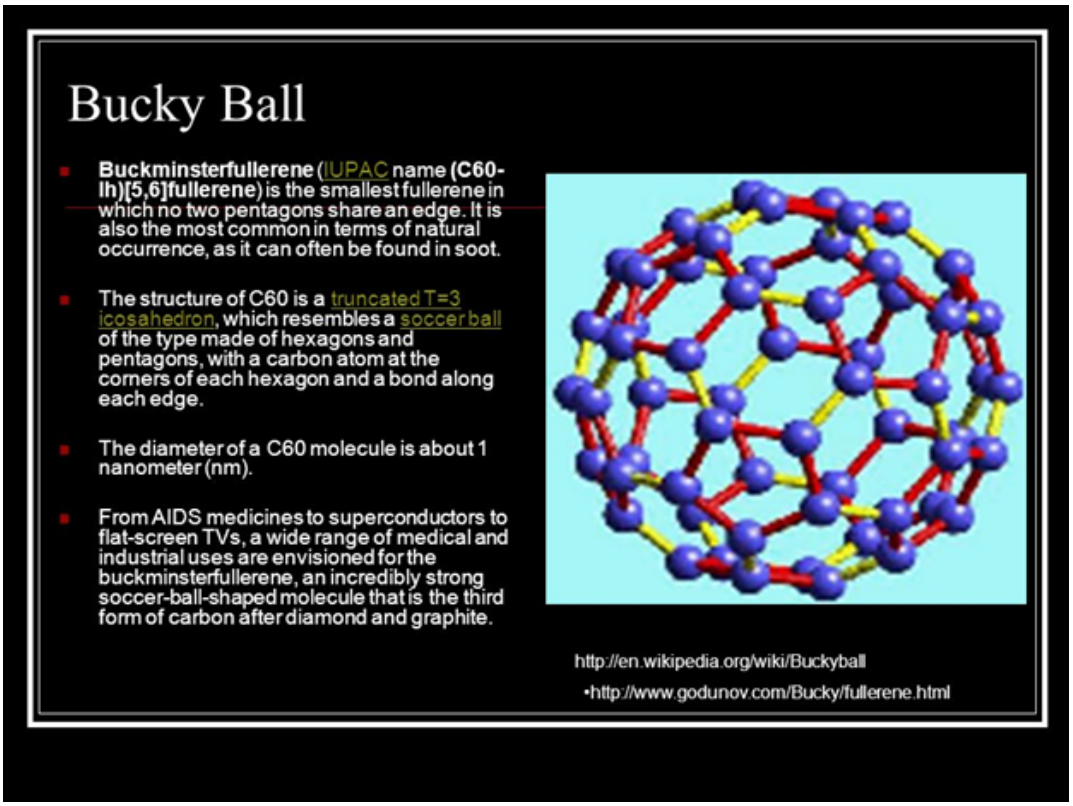
[83]

Nanotechnology, in medicine, is limited mainly to the treatment of cancer with nanoparticles.

But recent interventions into aging have also reached the “nano” level. Some involve nanoparticles such as Buckminsterfullerene or “bucky-ball” C60, believed to have antiviral, antioxidant, anti-amyloid, immune stimulating and other therapeutic effects, with reports of extended lifespans in mice.

Early operating medical nanodevices have even been announced, mainly intended to assist with precise drug delivery, acting as prototypes of artificial immune cells. These nanodevices are mainly intended to eliminate cancer cells, but could also be used to eliminate other types of problem cells such as senescent cells.

In another area of development, oxygenated micro-particles hold some promise for healthspan extension, especially in critical conditions where oxygen deprivation is the ultimate cause cause of death.



Polynucleotide therapeutics (gene therapy, anti-sense RNA, etc). Gene therapy with telomerase has already been shown to increase life- and healthspan in mice and gene therapy with myostatin inhibitor may help to prevent frailty in elderly people. The SENS Research Foundation is currently researching methods for inserting large pieces of DNA in the genome in a site-specific manner, and anti-sense therapeutics against lipoprotein(a) for the treatment of cardiovascular disease are currently in clinical testing.

Apheresis is a procedure in which blood is withdrawn from a patient, after which a specific component of the blood is removed, such as a particular type of cell, after which the blood is reintroduced in the patient.

One particular procedure to this effect is called heterochronic parabiosis: connecting the blood supplied of animals of different ages – used in stem cell and aging research for the last few decades. The evidence that heterochronic parabiosis extends the lifespan of old animals can be interpreted in two ways. Either the shared blood supply helps to dilute a pro-aging factor in the blood of the old animal, or it helps to introduce an anti-aging factor into the blood stream produced by the young animal. If the former turns out to be true then apheresis could potentially be used to remove the pro-aging factor from the blood of elderly people. The SENS Research Foundation has already patented an apheresis device to remove senescent white blood cells from the circulation (US20120145641 A1).

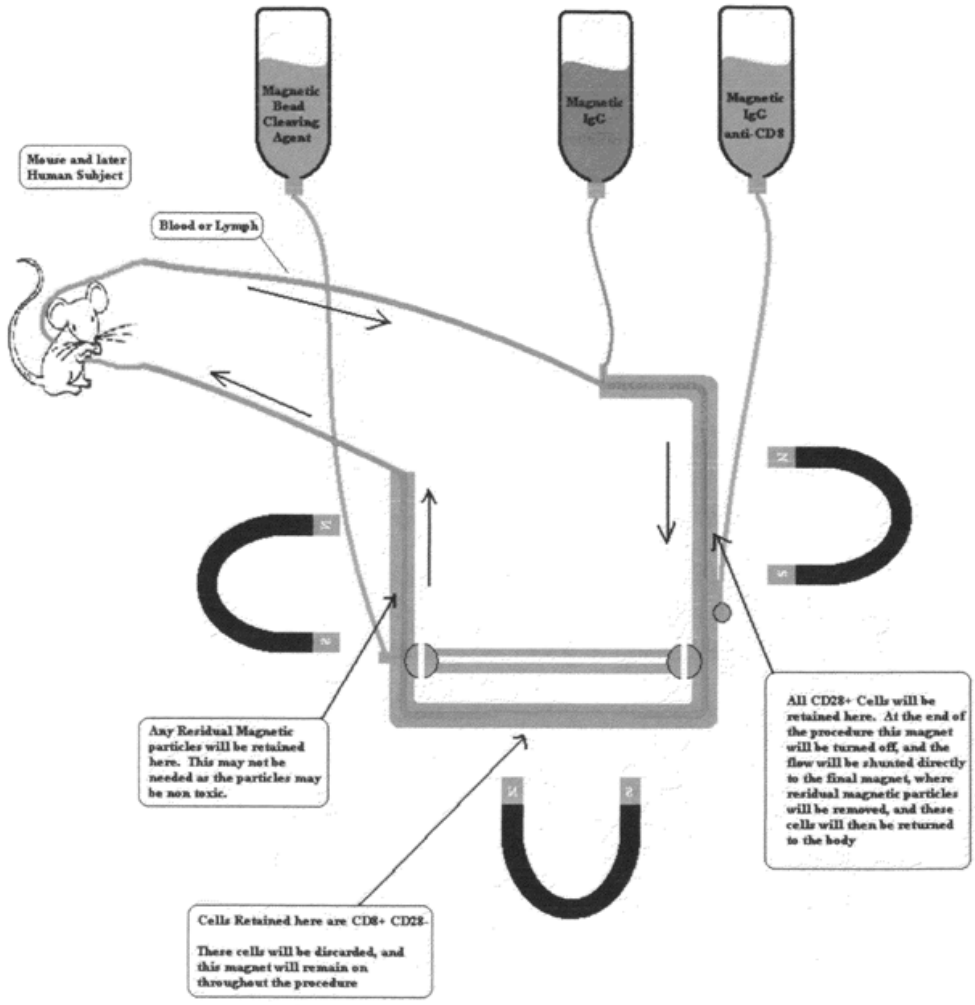


Figure 3

SENS Research Foundation patented apheresis device [85]

Probiotics are living microorganisms that, when administered in adequate amounts, confer a health benefit on the host. As the gut microbiome may play a role in aging and age-related diseases (such as atherosclerosis, rheumatoid arthritis, and type 2 diabetes) the use of probiotics may help to promote longevity. However its is likely to remain small.

Bionics is the replacement of diseased or damaged tissues, organs or other body parts with mechanical or other artificial substitutes.

Physical therapy. Anti-aging interventions need not be chemical and biological, but can also be physical, in particular as relates to various resuscitation technologies, e.g. hypothermia and suspended animation, oxygenation, electromagnetic stimulation. Such technologies represent veritable means for life extension, demonstrably saving people from an almost certain death. But similar principles could also be used for preventive anti-aging treatments and in less acute cases.

The Convergence of Regenerative Medicine, P3 Medicine and Geroscience

The widest ceiling over the aspirations of geroscience has always been the inextricability of disease from aging and the inextricability of aging from human metabolism, which, being so complex and integral to our day-to-day functioning, can only be amended rather than reconstructed.

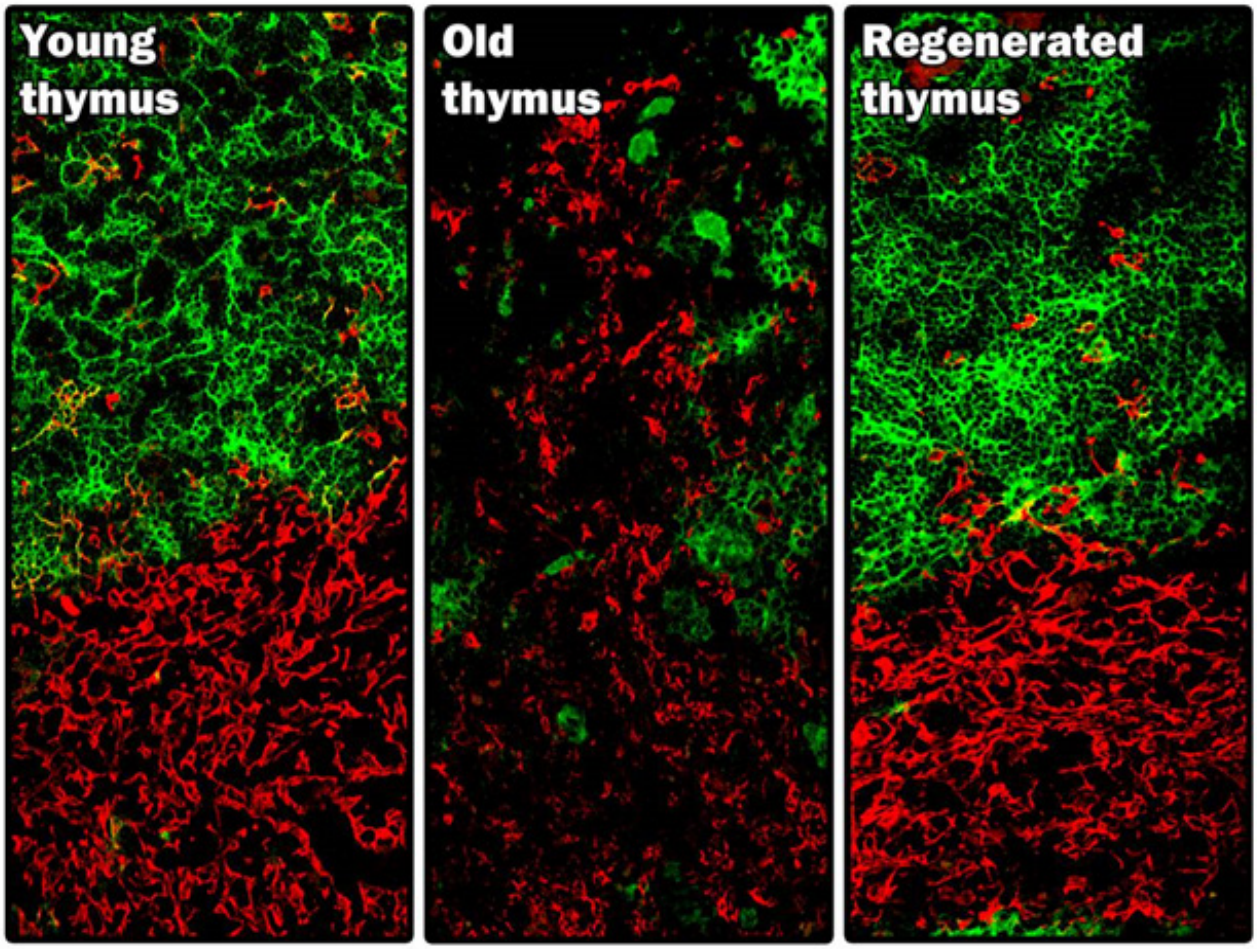
This limits us because it robs us of the most obvious approach to radical life extension: radical interference in human metabolism. For just as we might like to be able to alter a car's inner workings so that they inflict less wear and tear, so too might we like to be able to somehow rearrange metabolism so that it inflicts less wear and tear on body tissues.

Sadly this is not an option. While subtle interventions in areas such as calorie restriction mimetics hold some promise to appreciably increase life expectancy, anything amounting to a successful radical intervention in metabolism which radically extends life span is inconceivable for the foreseeable future for the above reasons.

This brings us to the alternative approach to vehicle longevity: repair and maintenance. Which in human terms means the continuous restoration of human tissues, irrespective of the various processes that age them.

These two approaches differ starkly. The former could be thought of as like meddling with the inner mechanisms of a clock, cogs and all, in order to slow it down. The latter could be imagined as forcing back the hands of a clock, setting back the progress, while inner clockwork, the process, remains unaffected.

In human terms 'setting back the hands' means taking knowledge obtained by geroscience, fashioning it into a damage report and devising a repair strategy. And just as setting back a clock does not require the same extensive knowledge of horology as would be involved with meddling with the clockwork, nor does the restoration of aging tissue require an unfeasibly extensive knowledge of geroscience, only enough enumerate of the manifest differences between old and young tissue.



The thymus of an old mouse rebuilt by scientists at Edinburgh University [75]

So could we then aspire to repair these enumerated damages comprehensively enough and rapidly enough to appreciably postpone disease? In other words might there be an extent to which we can afford to allow aging to proceed as it normally does while simultaneously clearing up the damage it leaves behind, kicking the can disease down the road?

We are in effect describing the application of **regenerative medicine** to aging. Regenerative medicine is an area of biotechnology which aims to restore damaged tissues and organs. So why not tissues and organs damaged by the miscellaneous ravages of age?

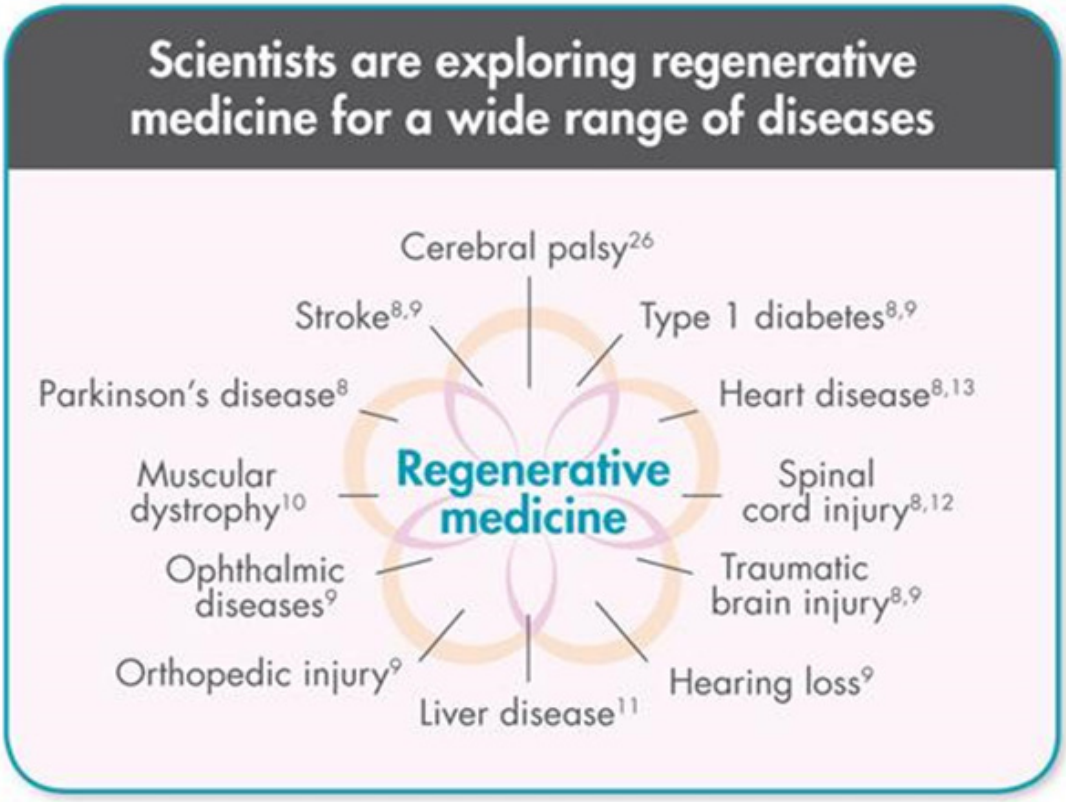


Figure 4 Applications of regenerative medicine [43]

Prior to the proliferation of regenerative medicine technique in the 1990s, organs and tissues were restored by one of two methods: either biomimetic implants (artificial organs', 'prosthetics') or transplants, biological material donated from another individual. Regenerative medicine is different from both. Unlike **implants**, products of regenerative medicine are organic living tissues, not bionic machines. Regenerative medicine shares this trait with **transplants** also. But whereas transplants are made from tissues and organs donated by another individual, regenerative medicine utilises a patient's own cells and tissues.

There are advantages to the regenerative medicine approach over the transplants and implants.

One is that both transplants and implants require immunosuppressants to keep the recipient organism from rejecting received organs, whereas regenerative medicine technologies avoids this need by utilising patient's' own stem cells.

But more importantly regenerative medicine technology allows treatment on a much smaller scale. Whereas implants and transplants can only replace tissues and organs, regenerative medicine can set things right at a cellular level. A 2013 academic paper in Cell entitled *Hallmarks of Aging* concluded that the main pathologies of aging are linked to errors in cell function, and specifically describes regenerative medicine as a solution. [44] Age, in other words, can be treated quite validly as an assortment of tissue damages at a cellular level, and regenerative medicine, acting on geroscientific knowledge to identify the damage, is an indispensable repair toolkit.

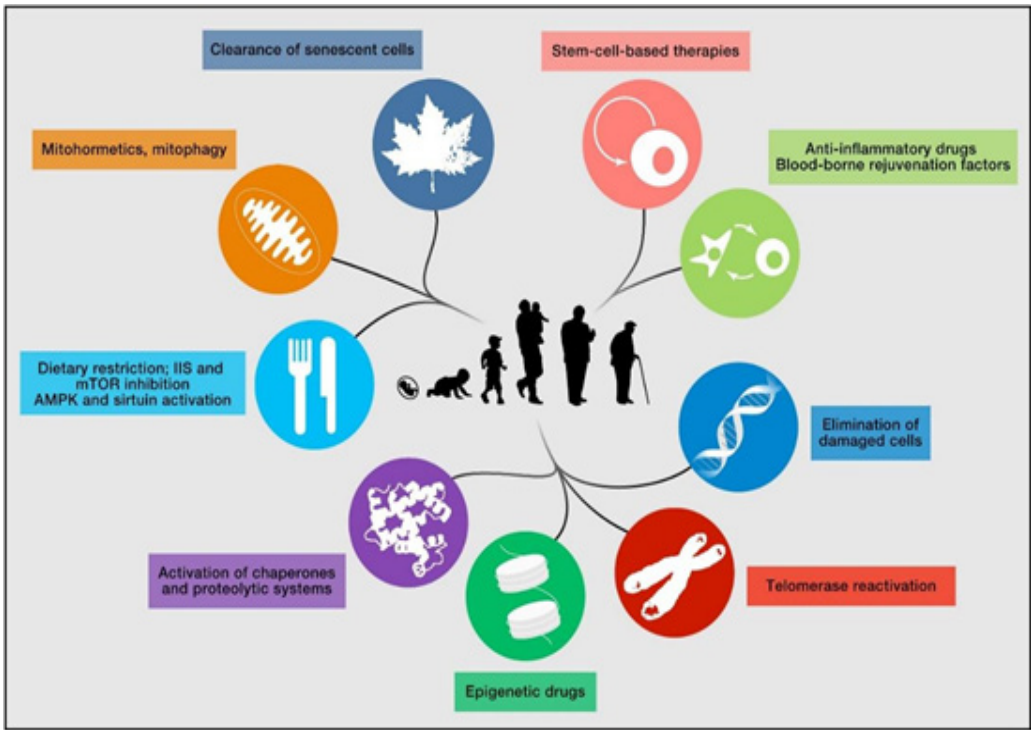


Figure 5 Prospective interventions to combat aging. [45]

Regenerative medicine is a relatively new concept. The term was first coined in 1992 to describe various treatment at the time that hampered chronic illness and regenerated failed organs. This marked the beginning of a general period of research into the possibility of inducing at will the natural self-regenerative capabilities in human.

Despite being fairly common among organisms (from the simple hydrae to the complex vertebrates), natural self-regeneration in human (as well as most mammalian) tissues is unusual, as most organs and tissues do not possess any restorative capabilities. There are however, some exceptions. The most notable being the liver.

Research into liver regeneration is still at an early stage but has already revealed that the liver can completely regenerate from a quarter of its original size, due to the stem capabilities of hepatocytes, the main cell type in the liver [46], and there is also evidence of other factors, such as cytokines and exosomes involved in this process [45].

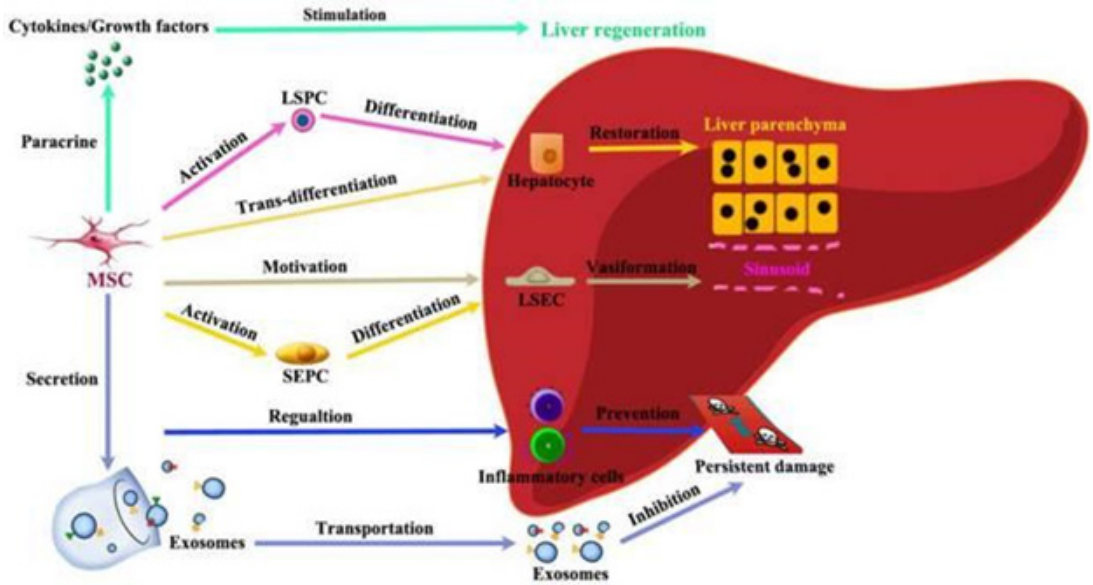


Figure 6 Liver regeneration [46]

Although regenerative medicine involves a great many methods and procedures, the most common involve the use of stem cells.
Stems cells are a type of cell that can form other types of cells in our body. They are categorised according to their their potency, which means their ability to differentiate into other cell types:

- Totipotent stem cells are cells that can differentiate into any cell in the organism. They are created after a sperm fuses with the egg and are quickly spent. To date no therapy has been yet been developed which uses totipotent stem cells.
- Pluripotent stem cells. They are formed from totipotent stem cells and are capable of forming into ectoderm, mesoderm, or endoderm..
- Multipotent stem cells can form a smaller yet more specialised group of cells, usually related to the specific organ or system.
- Oligopotent stem cells are even less potent than multipotent. They differentiate into only a small subsection of cells.
- Unipotent stem cells can only replicate themselves, however, they are still able to renew themselves and thus regaining stem properties.

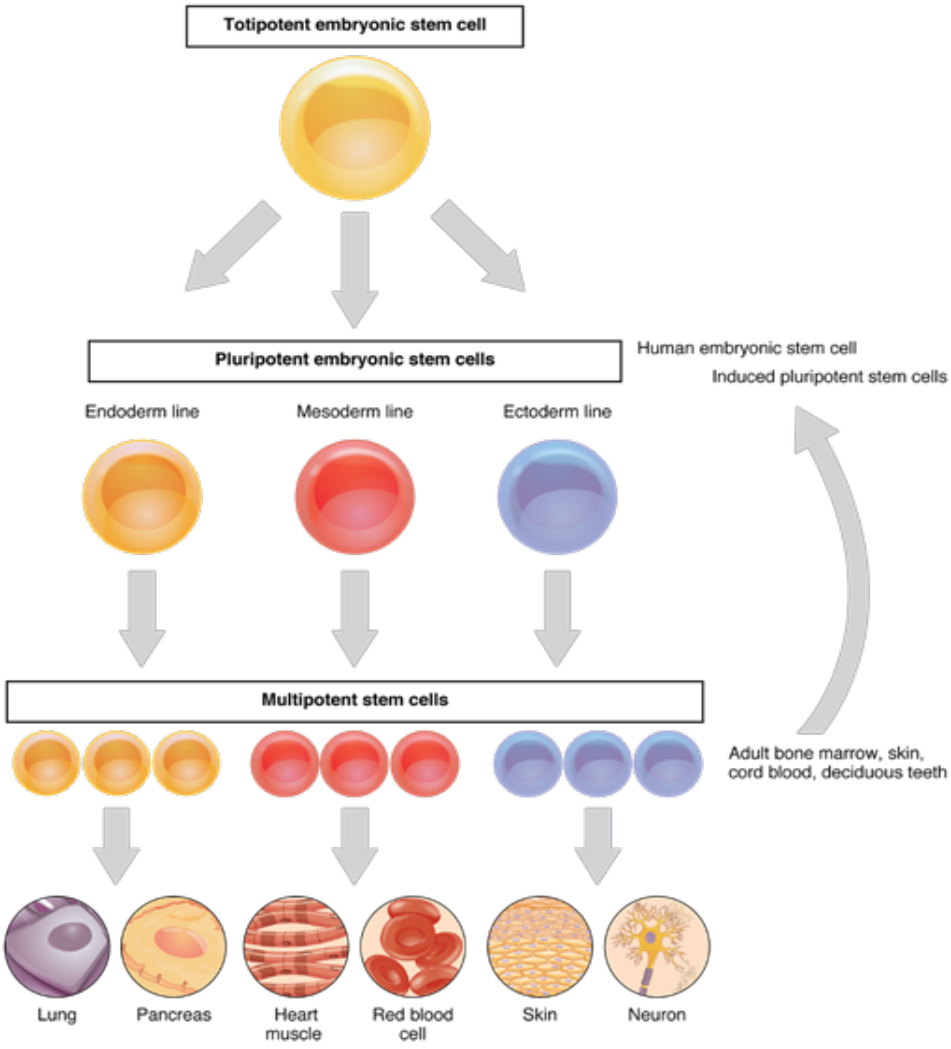


Figure 7 Stem cell differentiation [47]

There are multiple methods for obtaining stem cells for medical use, each with advantages and disadvantages, both practical and ethical. Stem cells can be obtained as:

Fetal or embryonic stem cells. These are stem cells received from aborted fetuses. They have high potency but come with practical and ethical concerns. These cells are directly linked to the increased probability of tumour formation. [51] Moreover there are fears that widespread use of fetal stem cells would eventually lead to modified fetuses created solely for the creation of such cells.

Adult stem cells. The most widespread type of stem cell. Generally it is advised to use **autologous** adult stem cells, meaning derived from patient's own tissues such as blood or bone marrow.

Induced pluripotent stem cells (iPSCs). Although autologous adult stem cells are safer and more effective than fetal stem cells, they lack potency. Recent breakthroughs have shown that it is possible to reprogram adult stem cells so that they become pluripotent. This discovery was so important it earned J. Gurdon and S. Yamanaka were awarded a Nobel Prize in Physiology or Medicine in 2012 [49]. Induced pluripotent stem cells have advantages over both previous types and are the source for the most disruptive stem cell therapies.

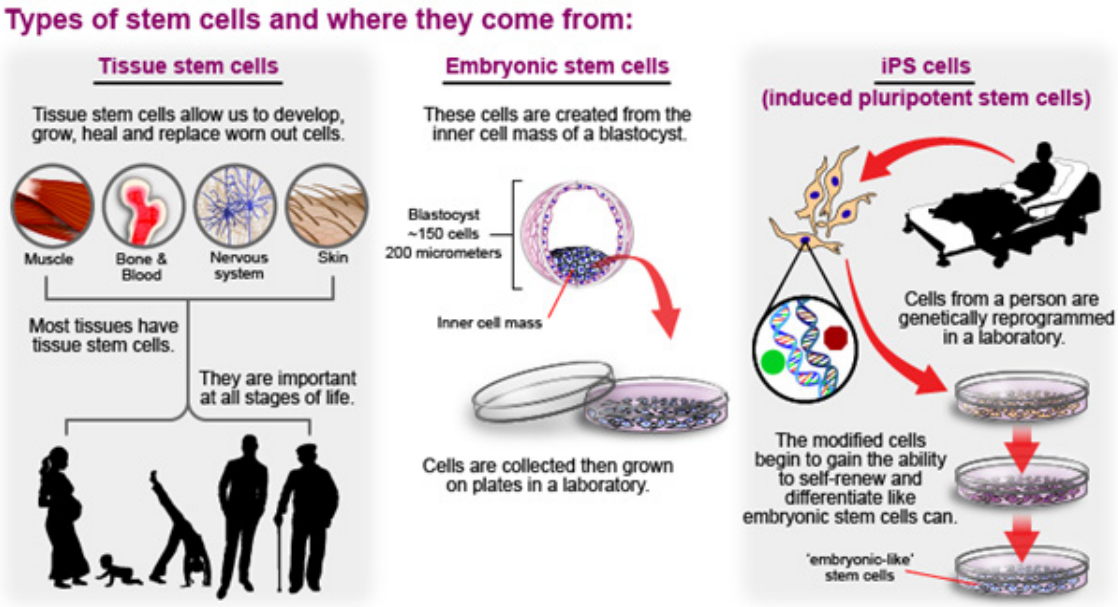


Figure 8 Possible origins of stem cells[52]

Since the discovery of iPSCs the rate of regenerative medicine research has been accelerating. It is now possible to use stem cells in the treatment of blood and eye disorders, with further applications currently being sought. Already research suggests that stem cell therapies can be implemented to treat cardiovascular disease, vision impairment, viral infections, such as HIV/AIDS, and neurodegeneration.

Neurodegeneration, the aging-related functional decline of the nervous system, is of particular importance here.

As the nervous system, and the brain especially, remain one of the most scientifically obscure areas of our anatomy, it is clear that without further advance in neuroscience itself, the preventive treatment of the neurodegenerative diseases will remain a challenge for the longevity industry.

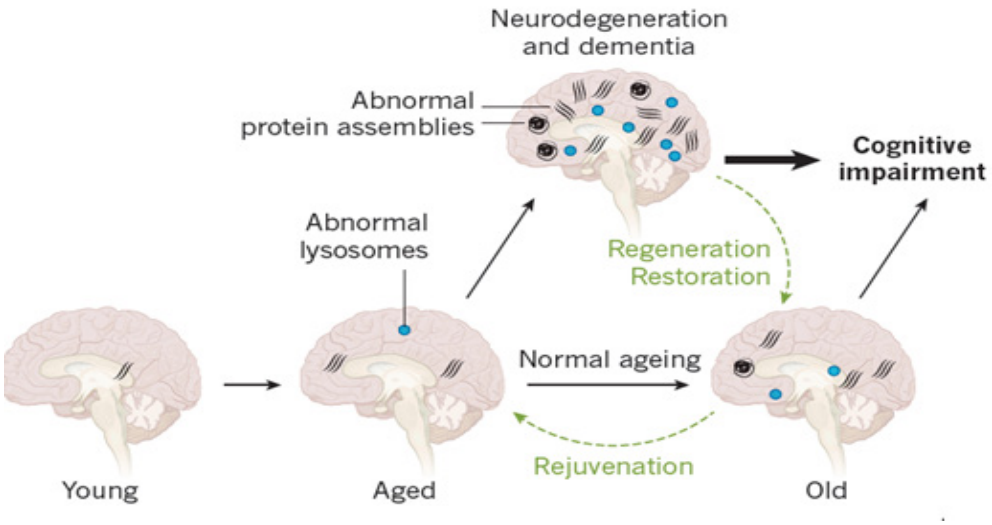


Figure 9 Neurodegeneration [52]

Neurodegeneration is not a singular process, but a confluence of processes which lead to overall cognitive decline, which in turn leads to a number of distinct disorders that include Alzheimer's disease, Huntington's disease, Parkinson's disease, Amyotrophic lateral sclerosis (ALS), and other miscellaneous cognitive impairments.

These diseases severely reduce life expectancy. For example the estimated lifespan of an Alzheimer's patient after diagnosis is usually no more than 9 years. [53]. And for the majority of these diseases there are no known cures.
Many prospective drugs for Alzheimer's and Parkinson's disease are being developed by companies all around the globe, but given the development cycle of therapeutics, they aren't likely to hit the market in the nearest future.

The treatments currently on the market are essentially palliative care therapeutics. The goal of those drugs is to slow down rather than halt the inevitable decline. [54]

The contributing factors to neurodegeneration fit into three main categories:
Genetic factors. Individuals who have a family history of neurodegenerative diseases have much higher risk of having it themselves compared to individuals that lack any such history (for example, the heritability of Alzheimer's diseases is 79%). [55]

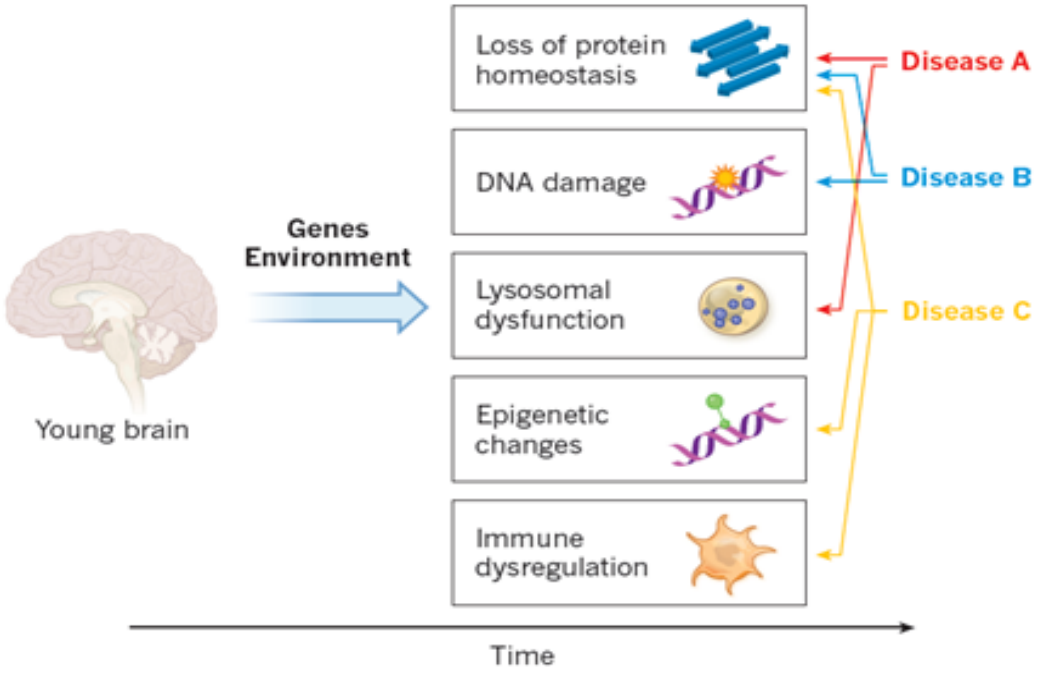


Figure 10 Mechanism of neurodegeneration [55]

Epigenetic factors. The involvement of epigenetics would explain the late onset of the majority of neurodegenerative disease. All three main epigenetic mechanisms (DNA methylation, histone modification and non-coding RNA (ncRNA)) influence the diseases. A number of therapeutics targeting each of these mechanisms is likely to hit the market soon.

Environmental factors. There is some evidence to suggest that environmental conditions directly affect the probability of neurodegenerative diseases. Research into this area is very incomplete, but there is at least evidence to suggest that poor environment can influence neurodegeneration at least indirectly, as the patterns of the epigenetic changes are modified by the environmental factors. [56]

The established approach to neurodegenerative diseases has been to seek treatments disease-by-disease, but this has been a losing battle biogerontological research has shown multiple neurodegenerative diseases to be clearly rooted in aging.

The remaining way forward for neurodegeneration is, aptly enough, a form of neuro-regeneration. Namely, the regenerative medical approach applied to this facet of aging.

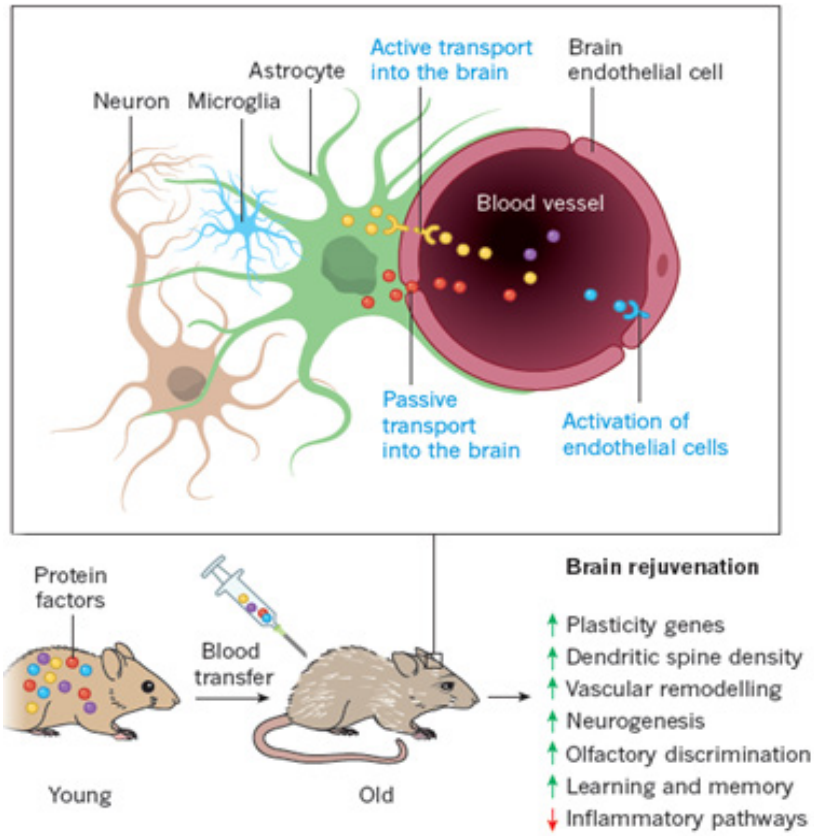


Figure 11 Prospective brain rejuvenation to combat neurodegeneration [54]

In February 2017 two landmark research institutions: The SENS Research Foundation and Buck Institute for Research on Aging launched a joint research program on age-related neurodegeneration.

Figure 12 SENS Research Foundation (left) and The Buck Institute for Research on Aging (right) logos

'*Our ultimate goal is to find treatments for Alzheimer's and Parkinson's disease. Working with SRF will enable us to look at whether it is possible to use a new method to reverse and prevent the formation of tau tangles* — said the program leader Dr. Julie K. Andersen, referring to the insoluble twisted fibers found inside the aged brain's cells -- '*which will help us make significant progress in addressing these complex disorders*'. [57]

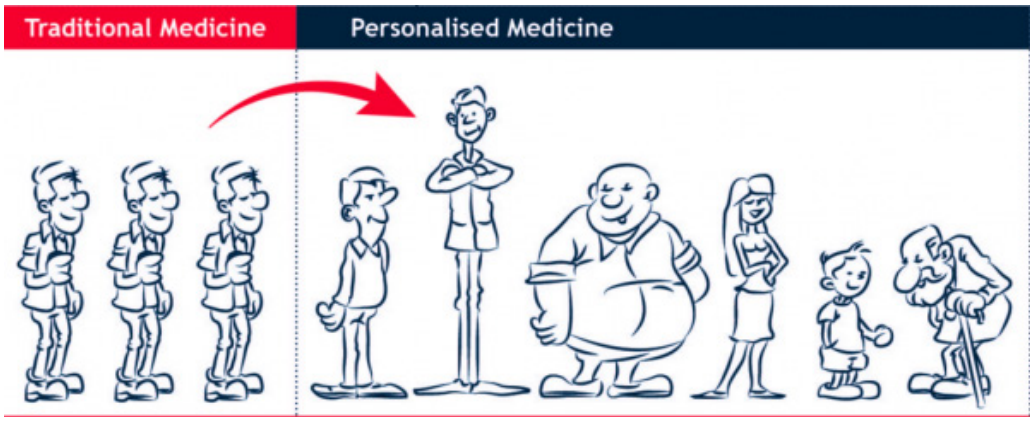
In light of SRF's previous work on macular degeneration and atherosclerosis, it is hoped this collaboration too will bring regenerative medical solutions to neurodegeneration a step closer to realisation.

The prospect of success in this area in particular makes regenerative medicine a potential pillar of the longevity industry, accelerating progress by an order of magnitude.

But it is fraught with risks, such as the propensity of stem cells to become cancerous. Indeed regenerative medicine is a toolkit of highly innovative, highly invasive technologies with clinical trials still a great many years off. Anti-aging gene therapy trials, for example, are still in their absolute infancy, as are the therapies themselves.

But what if there is a way to sidestep these risks also? What if we could make prospective interventions safer and less invasive, reducing the remaining degree of risk to be subject to trial, and thereby accelerating progress?

Enter **personalized or precision medicine,** already drawing popular, business, and academic interest. The core concept of personalized medicine can be summarized as follows: as people vary among themselves in various ways, including genetics and epigenetics, therapies should be adjusted based on personal characteristics of each individual patient.



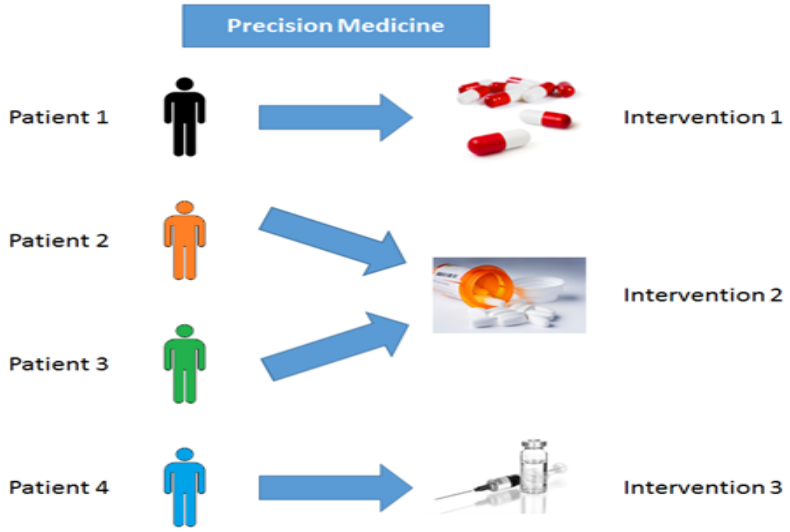
Often personalized medicine is used in conjunction with **participatory, preventive and predictive**, and hence it has become known as '**P3 medicine' approach**:

- To take personal traits of the patient into the consideration
- To involve patients in collaboration in the healthcare process
- To prevent diseases when possible, rather than to treat them
- To predict diseases before they do any substantial damage

Personalized medicine is heavily tied to the field of **genomics** and **bioinformatics.**

Whereas **gene therapy** strives to create genome-altering therapeutics for treating genetic ailments, P3 medicine seeks to learn from an individual's genetics instead of altering it.

This approach is safer and less invasive. However implementing it in the healthcare system can be truly a daunting task.



Even though the mass implementation of the P3 medicine was a long expected event, it took a long time to bring this approach to the healthcare system. But once the Human Genome project was completed, it became possible to reference human genetic information for meaningful results.

The development of P3 medicine was precipitated by three key enablers:

- Consumer-driven healthcare in conjunction with social networks has managed to bring big data to medicine, creating the ability to categorise patients for better personalized treatment choice.

- Systems biology has brought previously unknown bioinformatic capabilities. Nowadays, it is possible to sequence the entire human genome for only a $1000, while in 2001 it cost up to the $1T.
- The digital revolution itself had to happen in order to bring about modern machine learning and big data which are essential to P3.

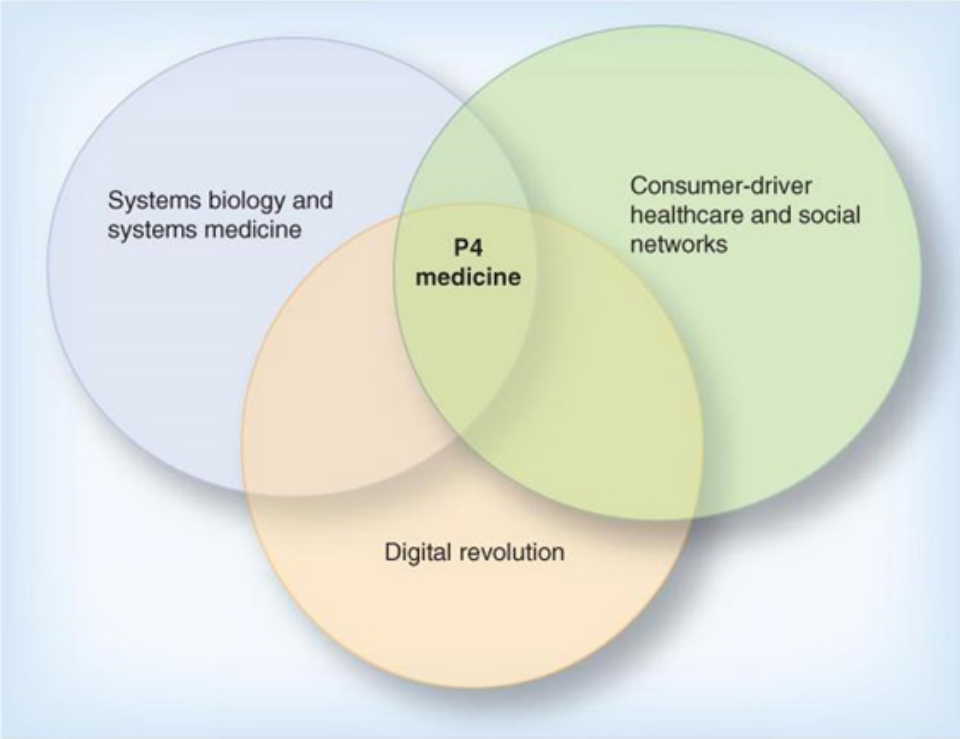


Figure 14 Key enablers of the P3 medicine [59]

Personalized medicine has already sown the seeds for five transformations in the modern healthcare system:

1. Medical data generated from the general human population instead of the limited clinical trials test groups. It will be like Phase IV clinical but on an unprecedented scale.
2. A global increase in cost-effectiveness of drug discovery enabled by breakthroughs in molecular and cellular studies.
3. A accelerated pace of innovation boosted by a combination of drug discovery and therapy innovations.
4. A proactive, rather than reactive, science-based approach to the medicine, and a patient-assisted self-surveillance of the benefits.
5. A rapidly-growing P3 medicine industry that will become bigger than the traditional healthcare system. [60]

The pace at which these trends will bear fruit is difficult to estimate precisely, but a rapid growth of personalized medicine in the healthcare system is expected in the next ten years.

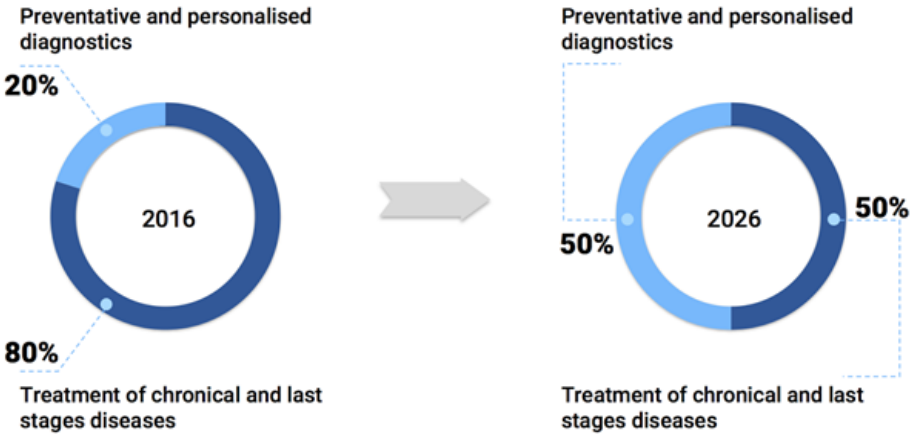
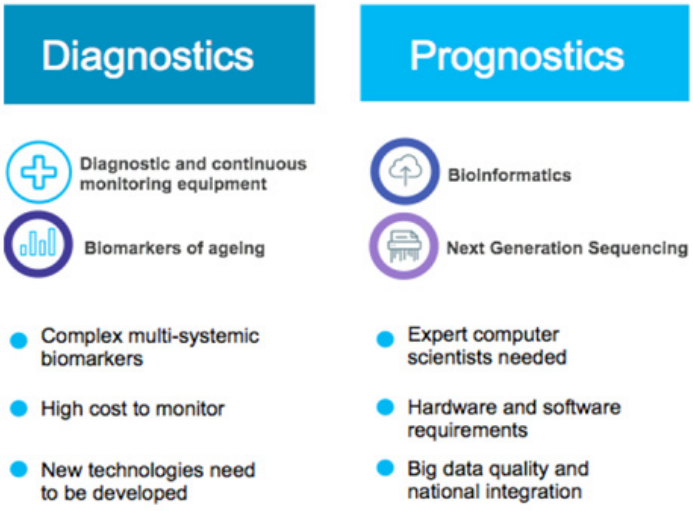


Figure 15 Perspectives on personalized medicine in the next 10 years

Finally, an important aspect of P3 medicine in the context of the longevity industry is the diagnostic and prognostic methods. In order to use personalised medicine to maximum effect the following would need to be implemented:

- Biomarker-based diagnostics for the efficient recognition of the hallmarks of aging
- Digital methods of prognostics based on bioinformatics and big data:



Personalized medicine promises to transform the healthcare industry and with it the future of human longevity. But it is still contingent on a multitude of enabling technologies and needs interdisciplinary research to make them work together in order to create a safer, more effective and more precise healthcare system.

AI in Healthcare and Geroscience

"Any sufficiently advanced technology is indistinguishable from magic"
~ Arthur C. Clarke

Artificial intelligence may just amount to this sufficiently advanced technology.

In the past ten years, while regenerative medicine was transplanting tracheas, building blood vessels, building bladders, growing heart valves, creating inner ear cells, and treating brain injuries, artificial intelligence has been driving vehicles, delivering parcels, managing households and marketing music.

And it may well prove to be another string to the bow of the longevity industry.

Precision and big data

Thus far we have looked at geroscientific interventions in metabolism, regenerative medicine workarounds to the limits of geroscience, and the precision approach to both of these.

But precision in medicine is only made possible by the consolidation and analysis of vast quantities of medical data.

Consider for example the precision approach to cancer. The approach to cancer as a single disease is already obsolete. We're identifying an ever-growing number of subsets of patient genetic profiles correlated with different mutations and variants of cancer. And drug candidates must be tailored for each subset.

The same goes for Parkinson's and Alzheimer's.

This precision approach to disease therefore requires a vast array of data types: complex genome sequences, cell structures, organ structures, patient demographics, patient medical records, lab test, experimental results, medical imaging data, records of drug interaction with affected cells and so on.

Or to put it simply, high precision requires big data.

The problem with big data

Data is only useful when it becomes information. That is, when it is properly processed, parsed, categorised and organised. And more healthcare data is being collected than can be processed manually. This currently involves error-prone specialists and clinicians sifting through seemingly endless amounts of data in order to develop the most rational diagnoses and treatments for a patient. Specialists and doctors spend far more time on this than on attending to patients and conducting new research. This increases the delay between diagnosis and treatment, and de-prioritises prevention and early detection of disease.

And as medicine becomes more 'data-driven', this workload will only increase.

Big medical data is particularly unwieldy in the following respects:

Medical data is not all in one place. Data from healthcare comes from many different sources and in various formats - from digital medical records to wearable devices.

Medical data is not integrated between medical facilities and their multiple departments, which inhibits accessibility to important data that could be used to help diagnose and treat patients with similar histories and diseases.

Medical data not all digitised. For example there are still old research papers and textbooks containing the necessary data.

Medical data is inconsistent. It is not yet centralised and the concepts and definitions used globally throughout the history of medical research are not strictly comparable, so it is difficult to glean from the sum of it definitions of what should now be considered to be 'best practice'.

Medical data is constantly updated. New research is constantly conducted all over the world which leads to changes in our medical understanding and new information. Professionals are encouraged to keep abreast of new research but this is difficult for the above reasons.

There is also inconsistency in how the data is collected, so that even well structured data such as patient medical records is compiled in a manner unique to the establishment from which it originates.

This adds a further layer of irregularity that makes data collected from multiple establishments difficult to analyse.

Introducing artificial intelligence(AI) and machine learning(ML)

If the problem is vast quantities of globally scattered, inconsistent and constantly updated medical data of diverse formats and disparate origins, then preparing it for use will take a miracle.

Or 'a technology indistinguishable from magic'.

We are alluding here not only to artificial intelligence (AI), the attempt to automate intelligent behaviour, but to 'machine learning' (ML), the use of AI to glean meaningful information from masses of raw data.

Fortunately biotech and AI are no strangers. Various innovators such as Elon Musk already see A.I. as a cornerstone of the industry. His company BioSpace, who are the brains behind SpaceX and Tesla, launched the biotech company Neuralink, whose ultimate goal is to link the human brain with a computer. The idea is to implant computers into a human brain as a way to merge man-made software with the brain in order to improve memory. Neuralink is currently developing a technology called "neural lace" that would allow the brain to communicate with a computer without having to physically interface with it. Following in the same footsteps, MyndYou, a data-driven platform that provides tools for maintaining cognitive abilities, has created an artificial intelligence diagnostics tool to track the subtle changes in speech patterns of Alzheimer's patients. The technology encompasses a unique method for analysing multiple parameters related to change in cognition that are collected as part of day to day life, which includes speech patterns. At present, the program is being tested through a collaboration with Massachusetts General Hospital. The study will validate MyndYou's technology for the remote, automated detection of subtle changes in speech patterns of Alzheimer's patients.

And in July, the Mayo Clinic together with the Massachusetts-based nference, who seek to synthesise the world's biomedical knowlege, launched a startup company called Qrativ, focused on drug development which, according to Murali Aravamudan, co-founder and Chief Executive Officer of Qrativ and nference, is powered by "*a core technology based on a neural network ensemble for identifying nascent drug-disease, drug-gene and other therapeutically-relevant associations from the vast biomedical literature".*

So already machine learning is making its influence gradually felt in biotech.

But why only now?

One reason is the sudden availability of data. Historically, even well into the information age, it has been difficult to access large quantities of biomedically relevant data, but now we see the sudden emergence of databases in the public domain. This was precipitated not only by recent advances in computing power and AI algorithms, but also a mandate from the USA's National Institute of Health (NIH) that any research body receiving Federal funding must place such data in the public domain.

Machine learning and big data

AI alleviates the burden of big data by intelligently consolidating vast quantities of irregular medical data into a single central database. This then becomes information that can be sorted through instantly so that relevant articles can be prioritised for different clinicians and specialists on a case by case basis.

It allows collaboration across a complex ecosystem of entities spread across the globe: universities carrying out primary research data, biobanks holding biomedical sample and sample data, pharmaceutical companies holding drug data and biotech companies holding patient data among many other things.

Collaboration among these entities, including innovative partnership models, customer engagement and trust in data is of paramount importance as it creates a platform for facilitating data processing and data access to all stakeholders.

Data thus consolidated also has the advantage of unmasking regular errors made by doctors or hospitals so that they could be held accountable and given the chance to improve.

How AI & ML are transforming drug discovery

Drug discovery comes at a very high cost, but success brings significant benefits to mankind. A breakthrough drug can cure a critical disease for hundreds of thousands of patients across the globe and can earn the company making the drug billions of dollars in revenue. That is why, just to bring one of the breakthrough drug to market, companies spend hundreds of millions of dollars on decades on a single avenue of research, not knowing where the research will bear fruit.

This deep exploration of potential false avenues brings with it the potential for a tremendous amount of wasted time, money and effort.

But this research landscape is changing. Machine learning, unencumbered by human intuition and armed with vast quantities of data, can cut down on waste by prioritising research.

The reliability of of AI-driven drug trials lies in the fact that hypotheses are generated not from occasional human epiphanies but from masses of cold hard data, yielding less wasteful hypotheses.

Drug companies have already been using artificial intelligence to decide in advance whether, for example, it is worth investigating whether a particular drug might bind to a particular protein. But there is trend toward ever more advanced estimates, such as how the same drug might subsequently affect a patient's cells or tissues.

Machine learning also has implications for patient safety and regulatory hurdles. The use of patient-derived data could help pharmaceutical companies better identify and recruit patients for clinical trials for the therapies most likely to work for them, boosting the chances of approval by regulatory agencies such as the [US's] Food and Drug Administration (FDA).

Project Survival, for example, is a $17 million seven-year study bankrolled by Berg, a Massachusetts biotech firm, one of several companies in the US and Europe currently using AI to make drug research and development less expensive and more efficient. Intelligent machines scour patient's genes for molecular fingerprints or biomarkers that can later be used to help measure a specific drug's impact and identify the patients in which such a drug is likely to be most useful.

Some companies such as Insilico Medicine Inc. in Baltimore, are forming research partnerships with universities and nonprofits or setting up AI services aimed at drug companies.

Based at Johns Hopkins University's Emerging Technology Centers, Insilico uses genomics, big data analysis and deep learning for in silico drug discovery. The company has drug discovery programs in cancer, amyotrophic lateral sclerosis and diabetes, as well as in age-related diseases such as sarcopenia, Parkinson's disease and Alzheimer's disease.

In January, GlaxoSmithKline PLC (GSK) and Lawrence Livermore National Laboratory in California announced a partnership to use AI for pharmaceutical R&D. The consortium is establishing itself in San Francisco and signing on further collaborators with the stated aim of using AI to slash development time from ten years down to one.

Now GSK is now partnering with Insilico Medicine to explore how

Insilico's AI technology could aid the drug discovery process by identifying novel biological targets and pathways of interest.

"In our opinion, GSK is one of the most innovative science-led healthcare companies, which realized the potential of artificial intelligence early and has demonstrated its ability to partner with innovative startups in the field. We are delighted to collaborate with arguably, some of the world's best scientists on chronic diseases with unmet need."
— Alex Zhavoronkov, Ph.D., founder and CEO of Insilico Medicine.

The Insilico collaboration is GSK's second drug discovery deal of the summer based around AI. Earlier in July of this year they secured a deal with Exscientia, which automates drug discovery with its AI-enabled platform that could see the Scotland-based company rake in up to £33 million in research payments.

In Europe, scientists are getting ready to launch a similar initiative, which will include Johnson & Johnson 's Janssen Pharmaceuticals division, plus several other drug companies and academic researchers.

AI's broader role in biotech

But we have yet to pull out all the stops. Progress is retarded by a catch 22 : Financers of science don't like taking scientific risks, and scientists don't like taking financial risks. And like the space industry, the longevity industry is comprised of many converging technologies and the road ahead has many false avenues and therefore a presents a landscape of clear and present risk in the eyes of investors.

But moves are already underway to addressing both sides of the catch 22: removing financial risk by using AI to orchestrate global investment, and removing scientific risk by offering tools for machine learning, deep learning, and artificial intelligence to the companies that receive it.[65]

This would also have implications for the geographical distribution of funding. Professional investors in biotech have traditionally tended to stick to familiar comfort zones such the San Francisco Bay Area and Boston, MA. While European life science remains mired in a culture of risk aversion and Britain is strewn from north to south with cash-starved regenerative medical centres and expertise.
But because machines have no comfort zones, we should not be surprised

if artificially intelligent investment results in a totally new and counterintuitive global distribution of funding for this industry. AI would not hesitate to exploit the talent and manpower of neglected regions, busting wide open the monopoly of traditional biotech hot spots, increasing the range and relevance of research, laying the groundwork necessary to raise regenerative medicine to the next levels.

An Undeclared War: Roadblocks in Geroscience and the Road Forward

In 2017, 'aging' remains an unnamed adversary in an undeclared war. For all intents and purposes it is mere abstraction in the eyes of regulatory authorities worldwide.

The World Health Organization (WHO), which sets the standards by which medical conditions are classified as specific diseases, subject to regulatory approval from specific nations, has never declared aging itself either a disease or any kind of target for biomedical intervention [61].

Any prospective therapy must aim to gain approval as a treatment for a particular recognised age-related disease or condition and this therefore leaves us with a difficulty. It is hard to argue to regulatory authorities that any age-related disease or infirmity already recognised is likely to be prevented by a given proposed therapeutic intervention in aging, even if aging were ostensibly retarded or reversed as a consequence. So much of the argument depends on incomplete knowledge of the links between aging and disease.

Unless an argument can be made based on shorter ramifications, geroscientific therapies cannot gain approval.

The result has been a series of proxy wars on this or that disease, while the empire of aging remains unmolested.

However there is emerging consensus in the geroscience community that aging can and should be classified as a distinct disease via the WHO's International Disease Classification (ICD) system. In a November 2015 a paper publish in Frontiers in Genetics made a carefully layered recommendation for the classification of aging as a disease in the 11th World Health Organization's (WHO) International Statistical Classification of Diseases and Related Health Problems (ICD-11) in 2018. [62] [63].

«Aging is a complex multifactorial process leading to loss of function and a very broad spectrum of diseases. While the notion of whether aging itself is a disease is usually disputed, classifying it as such will help shift the focus of biomedicine from treatment to prevention.

Classifying aging as a disease with multiple 'non-garbage' ICD codes may help create business cases for large pharmaceutical companies to focus more R&D resources on this important field. Considering the unprecedented increases in life expectancy and the heavy burden of medical costs in the developed countries, maintaining the human body in the disease-free youthful state for as long as possible is not just an altruistic cause, but a pressing economic necessity», said Alex Zhavoronkov, PhD, CEO of Insilico Medicine, Inc.

But the expression of such logic is highly innovative and starkly at odds with existing popular and professional ethics.

It comes just four years after Colin Blakemore, formerly the Chief Executive of the British Medical Research Council (MRC), in the UK, appeared in Oxford's Sheldonian Theatre in a 2011 public ethical debate to actively defend the presence of aging in the human body. Although the event got some mainstream media converge, the public spectacle of a former UK health chief defending medicine's eternal nemesis went entirely unremarked upon.

This lack of practical and ethical resolve among public and professionals is linked to the non-conceptual way in which aging is regarded by public and professionals. Years of silence from scientific authorities on the tractable nature of aging have allowed a near total absence of any popular conception of aging as something ultimately amenable to physical intervention.

Democratic demand for a war on cancer continues decades after its declaration because, despite it remaining unwon, a cure is still popularly conceived of as the removal or prevention of a tumour, and that very notion of the concrete and attainable objective continues to galvanise public demand for further research.

Whereas aging, despite being equally physical in nature to cancer, is still thought of as something mystically outside the realm of amenability, a habit of mind which makes itself immediately apparent in popular turns of phrase.

For example, a cancer patient may complain that his cancer is 'eating him alive', but a person left infirm by aging merely laments that 'time has taken its toll' on him. He does not complain that his cells are filled with junk or strewn with collagen crosslinks, which would be the equivalent verbal portrait of advanced biological age.

We have neither a declaration of war from the authorities nor an ability to conceive of the enemy among the public. The result has been inertia.

This inertia is further compounded by the fact that constituent technologies of the longevity industry, even those not known primarily for their anti-aging significance, are mired in regulation. Human gene therapy trials for example were been regulated down to a near-halt since since human trials produced their first death in 1999 in Arizona and another two in 2003 in France [64].

But the safety of the technology has improved dramatically in the past decade.

And in 2018, we are due see the first human clinical trials for heart failure treatment in several years [66].

Conclusion

Longevity is a simple metric, the simplest there is, being a single variable. But what is now its main inhibitor, aging, has a myriad of forms and causes, and a myriad of potential redresses, of which a balanced let alone detailed summary would be infeasible. As such this has necessarily been a rough sketch of uncharted waters.

But we are finally beginning to see an industry emerge from mankind's attempts to make sense of the biological chaos. This industry has the form of two parallel technologies: biomedical gerontology and rejuvenation biotechnology, built upon a foundation of knowledge mined by geroscience over decades.

None of these technologies will reach fruition in time to avert the immediate crisis. Japan is already in the shadow of silver tsunami, and the rest of are sure to get wet. The danger is real, and technological threads outlined here -- both the short-term and the more speculative -- are the only flood defenses yet conceived of. And their implementation is a matter of political, financial and scientific will.

In Part 2 we look at the people and institutions involved in making it happen.

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Part III

Infographic Summary

Longevity Research Landscape Overview 2017

AGING ANALYTICS AGENCY
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Biogerontology Research Foundation
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DEEP KNOWLEDGE
LIFE SCIENCES

GLOBAL LONGEVITY SCIENCE LANDSCAPE 2017

LONGEVITY.INTERNATIONAL

USA

SCIENCE LABS

NON-PROFIT

GEROSCIENCE HUBS

EU

United Kingdom

Other

Top 10 Geroscience Books

Top 10 Geroscience Journals

Top 10 Online Resources

Top 10 Geroscience Conferences

AGING ANALYTICS AGENCY
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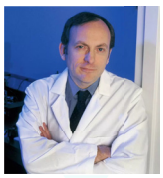
DEEP KNOWLEDGE LIFE SCIENCES

LONGEVITY.INTERNATIONAL

Top 10 Lists

Top 10 Longevity Scientists

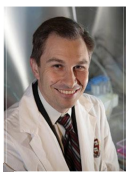

Michael West


Dr. Felipe Sierra


Cynthia Kenyon


Aubrey de Grey


Joao Pedro de Magalhaeres


David Sinclair


Nir Barzilai


George Church


Brian Kennedy

Top Longevity Investors


Dmitry Kaminskiy | Jeff Bezos | Peter Thiel | Jim Mellon | Bryan Johnson | Finian Tan

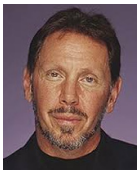
Top Longevity Influencers


Larry Page


Sergey Brin

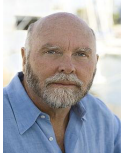

Ray Kurzweil


Martine Rothblatt


Larry Ellison


Nathaniel David


Bill Maris


J. Craig Venter


Alex Zhavoronkov

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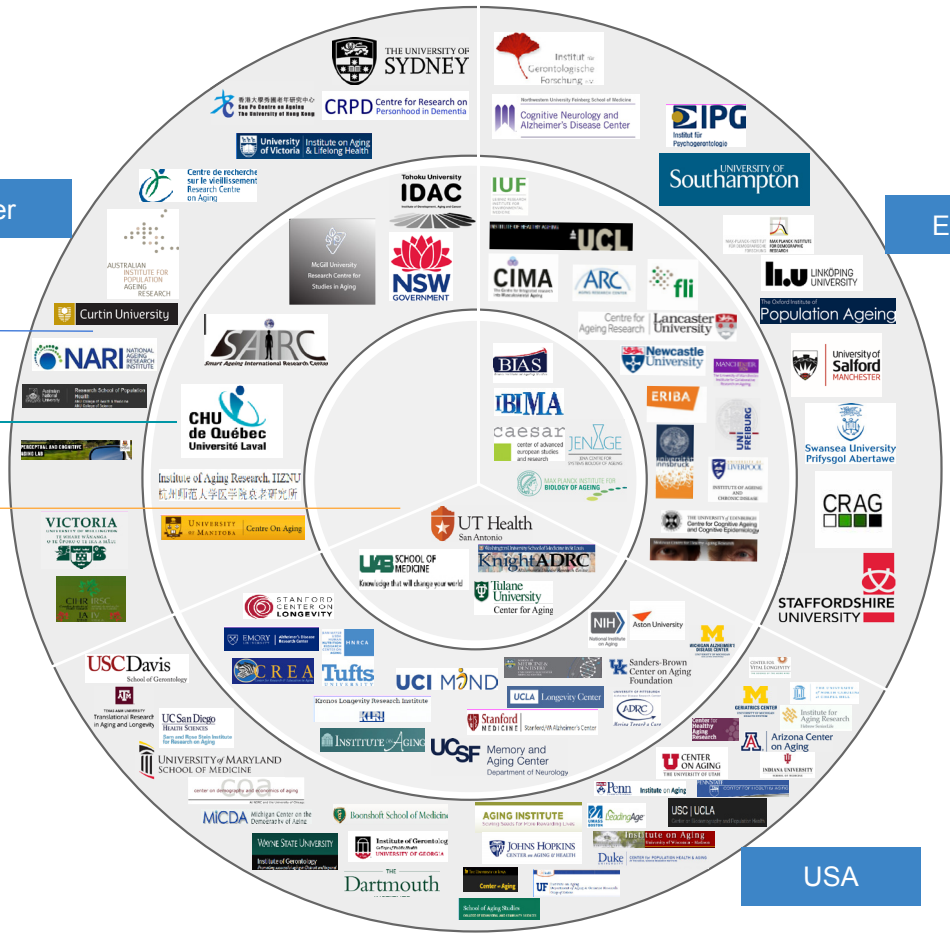
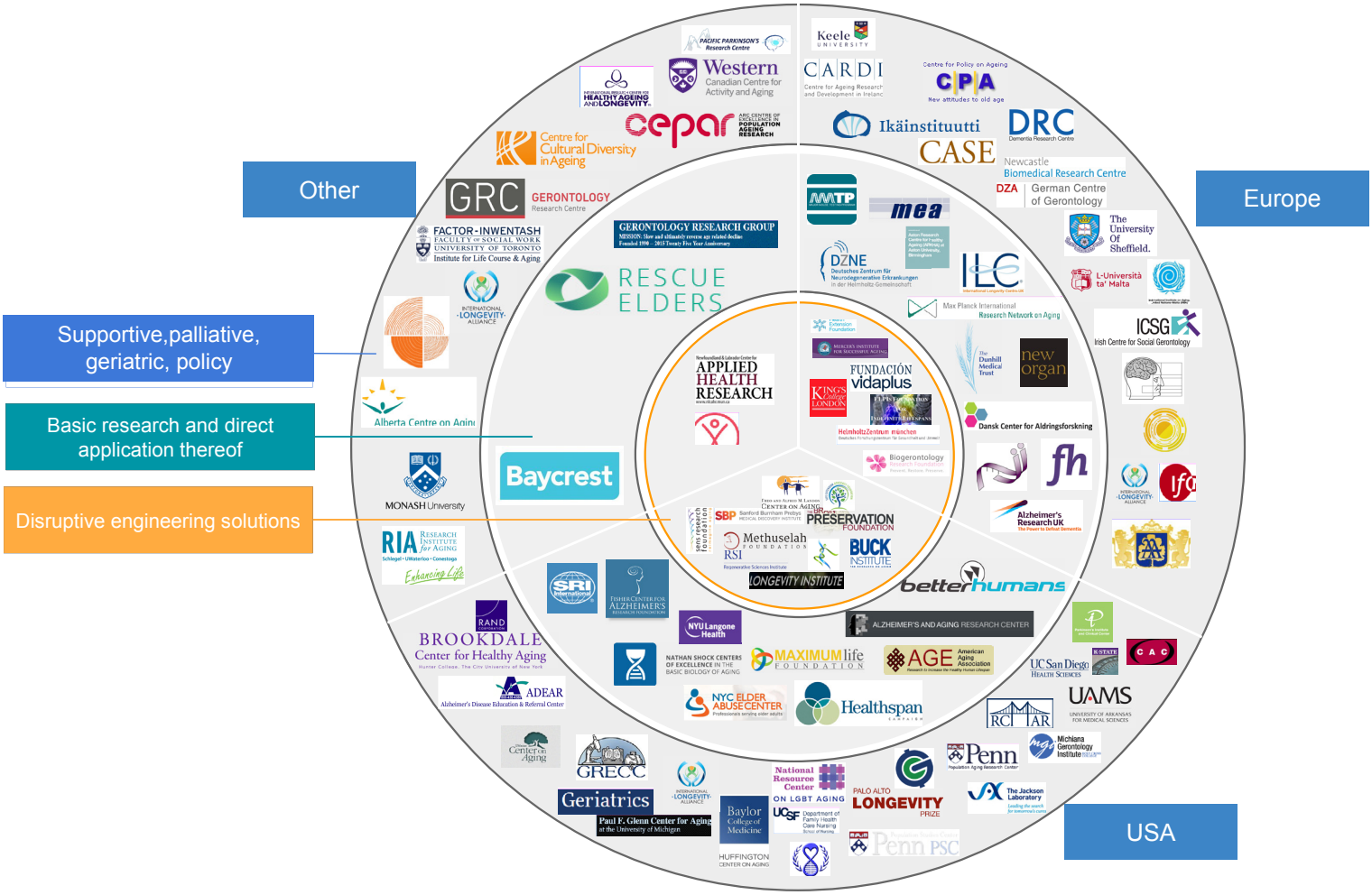
Top Longevity Research Labs



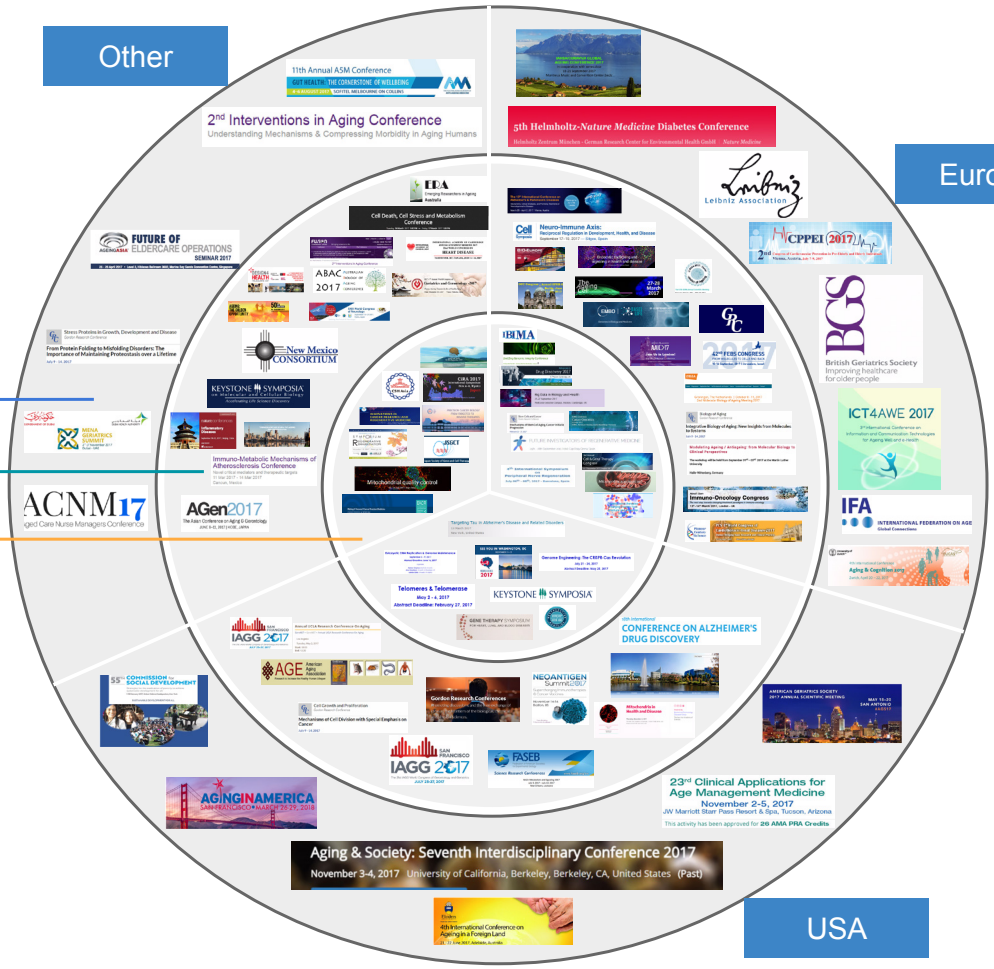
Top Longevity Non-Profits



Top Longevity Journals

Top Longevity Books

Top Longevity Conferences



Top Longevity Databases

Academic Writings & Meetings

Top Scientific Journals in Geroscience

Experimental Gerontology · Ageing Research Reviews · Oncotarget · Innovation in Aging · Aging Cell · Gerontology · Rejuvenation Research · Aging · The Journals of Gerontology Series A · npj Aging and Mechanisms of Disease

Top Longevity Conferences

Basel Life · masterinvestor Research • Analyse • Invest · The Economist · World Economic Forum

Top Academic Books in Geroscience

Top Longevity Books

Top Scientific Meetings & Symposia

The 2017 Harvard / Paul F. Glenn Symposium on Aging · The Ageing Cell · Cold Spring Harbor Laboratory Mechanisms of Aging · 2nd International Conference on Genetics of Aging and Longevity · 2nd International Conference on Aging & Gerontology · Rejuvenation Biotechnology · Disease Drivers of Aging: 2016 Advances in Geroscience Summit · BAAM · 2017 Barshop Symposium on Aging · The Buffill & Buck Aging Meeting

Top Longevity Online Resources

Human Ageing Genomic Resources · GenAge: The Ageing Gene Database · DAA Digital Ageing Atlas · DrugAge · LONGEVITY.INTERNATIONAL · GenDR · AgingPortfolio.org · Fight Aging! · CellAge · LongevityMap

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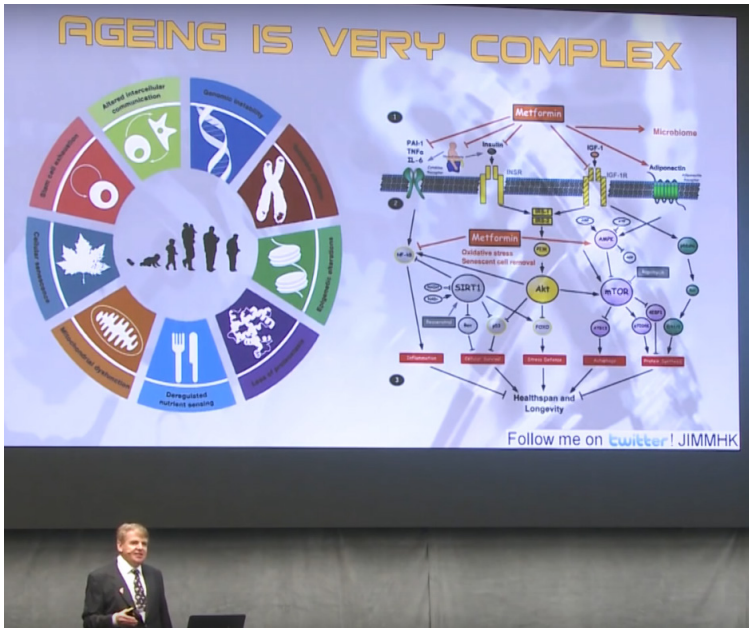
Landmark Longevity Conferences

The Economist: The Business of Longevity and Ageing Societies

Master Investor Conference 2017 Organized by Jim Mellon & Mann Bioinvest in London

masterinvestor RESEARCH • ANALYSE • INVEST

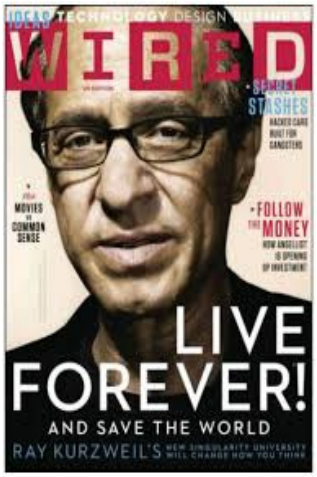


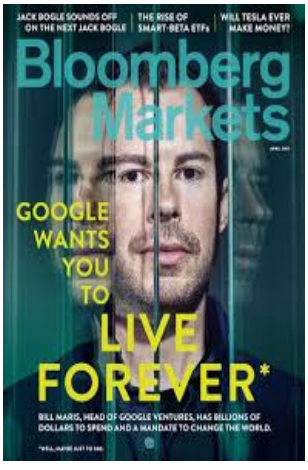
Landmark Longevity Conferences

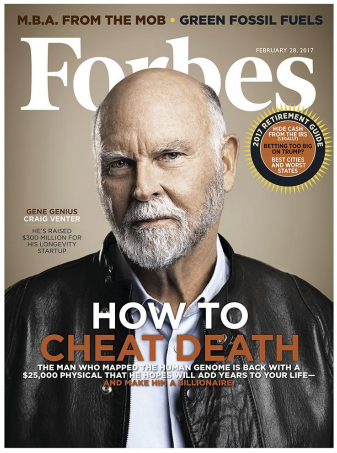
Basel Life Sciences Aging Forum

World Economic Forum

Grand Brands in Support of Longevity







Geroscience Institutes by Region

USA

UK

EU

Other

AGING ANALYTICS AGENCY
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Top 100 Geroscience Foundations

1 Ageing Research Centre
2 Age Institute
3 Aging Institute of UPMC Senior Services and the University of Pittsburgh
4 Aging Research Center (ARC)
5 Alberta Centre on Aging
6 ARC Centre of Excellence in Population Ageing Research (CEPAR)
7 Arizona Center of Aging (ACOA)
8 Aston Research Centre for Healthy Ageing (ARCHA)
9 Australian Institute for Population Ageing Research (AIPAR)
10 Barshop Institute for Longevity and Aging Studies
11 Baycrest Research Centre for Aging and the Brain
12 Biogerontology Research Foundation
13 Brookdale Center for Healthy Aging
14 Brunel Institute for Ageing Studies (BIAS)
15 Buck Institute for Research on Aging
16 Canadian Centre for Activity and Aging (From Research to Action) CCAA
17 Center for Aging & Community (CAC)
18 Center for Aging Research
19 Center for Aging Research (IU-CAR)
20 Center for Healthy Aging
21 Center for Healthy Aging (CEHA)
22 Center for Healthy Aging Research
23 Center for Population Health and Aging (CPHA)
24 Center for Research and Education in Aging (CREA)
25 Center for Research on Aging
26 Center for Translational Research in Aging and Longevity
27 Center on Aging - University of Maine
28 Center on Aging - University of Utah
29 Center on Demography and Economics of Aging (CoA) - NORC and University of Chicago
30 Centre for Ageing and Mental Health (CAMH) - University Staffordshire
31 Centre for Ageing and Supportive Environments (CASE) - Department of Health Sciences,
32 Centre for Ageing Research (C4AR) - Faculty of Health & Medicine, Lancaster University
33 Centre for Ageing Research and Development in Ireland (CARDI)
34 Centre for Cognitive Ageing and Cognitive Epidemiology (CCACE)
35 Centre for Education and Research on Ageing (CERA)
36 Centre for Geriatric Medicine and Gerontology (ZGGF)
37 Centre for Innovative Ageing (CIA)
38 Centre for Integrated Systems Biology of Ageing and Nutrition (CISBAN)
39 Centre for Policy on Ageing (CPA)
40 Centre for Research on Ageing (CRA)
41 Centre for Research on Ageing (CRA)
42 Centre for Social Gerontology
43 Centre Hospitalier Affilié Universitaire de Québec (CHA)
44 Centre on Aging - University of Manitoba
45 Centre on Aging - University of Victoria
46 Clinical Ageing Research Unit (CARU)
47 Cologne Cluster of Excellence on Cellular Stress Responses in Aging-associated Diseases (CECAD Cologne)
48 Comprehensive Center on Brain Aging
49 Danish Aging Research Center (DARC)
50 Danish Centre for Molecular Gerontology (DCMG)
51 Del E. Webb Neuroscience, Aging and Stem Cell Research Center (NASCR)
52 Donald W. Reynolds Institute on Aging and Department of Geriatrics
53 European Centre for Gerontology
54 European Research Institute for the Biology of Ageing (ERIBA)
55 Fischer Center for Alzheimer's Disease Research
56 Flinders Centre for Ageing Studies (FCAS)
57 Geriatrics Center & Institute of Gerontology
58 German Centre of Gerontology (DZA)
59 Gerontology Research Institute at the University of Massachusetts Boston
60 Gerontology Research Center (GRC) - Simon Fraser University
61 Gerontology Research Unit - Massachusetts General Hospital
62 Glenn Center for Aging Research
63 Harvey A. Friedman Center for Aging
64 Huffington Center on Aging (HCOA)
65 Institut für Gerontologische Forschung IGFe.v.
66 Institute for Ageing at Newcastle University
67 Institute for Aging Research (IAR) - Albert Einstein College of Medicine of Yeshiva University
68 Institute for Aging Research (IFAR) - Hebrew SeniorLife
69 Institute for Biomedical Aging Research (IBA)
70 Institute for Biostatistics and Informatics in Medicine and Ageing Research (IBIMA)
71 Institute of Ageing and Chronic Disease Research
72 Institute of Ageing Research - Hangzhou Normal University
73 Institute of Aging (IA) - Canadian Institutes of Health Research
74 Institute of Development, Aging and Cancer (IDAC)
75 Institute of Gerontology (IFG) - Ruprechts Carls University of Heidelberg
76 Institute of Gerontology - College of Public Health, University of Georgia
77 Institute of Gerontology (IOG) - Wayne State University
78 Institute of Healthy Ageing (IHA)
79 Institute on Aging - University of California
80 Institute on Aging - University of Florida
81 Institute on Aging (IOA) - University of North Carolina
82 Institute on Aging - University of Pennsylvania
83 Institute on Aging - University of Virginia
84 Institute on Aging - University of Wisconsin-Madison
85 International Institute on Ageing
86 International Research Centre for Healthy Ageing and Longevity (IRCHAL)
87 Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA)
88 Jena Centre for Systems Biology of Ageing (JenAge)
89 Johns Hopkins Center on Aging and Health (COAH)
90 Landon Center on Aging
91 Leibniz Institute on Aging - Fritz Lipmann Institute (FLI)
92 Lifespan Health Research Center (LHRC)
93 Manchester Institute for Collaborative Research on Ageing (MICRA)
94 Max Planck Institute for Biology of Ageing
95 Michiana Gerontology Institute (MGI)
96 National Institute on Aging (NIA)
97 Princeton Longevity Center (PLC)
98 Stanford / VA / NIA Aging Clinical Research Center (ACRC)
99 USC/UCLA Center of Biodemography & Population Health (CBPH)
100 USC Leonard David School of Gerontology

Biogerontology Research Foundation

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Website: http://bg-rf.org.uk

Contact: info@bg-rf.org.uk

The Biogerontology Research Foundation (BGRF) is the UK's oldest longevity non-profit organization founded by leading geroscientists. **The BGRF** funds and conducts research which aims to develop biotechnological interventions to remediate the molecular and cellular deficits which accumulate with age and which underlie the ill-health of old age. **The BGRF's** Board of Trustees include British billionaire Jim Mellon, prominent longevity investor Dmitry Kaminskiy, renowned geroscientists Dr. Alex Zhavoronkov, João Pedro De Magalhães and Dr. Richard Faragher, as well as Jim Plante and Franco Cortese.

LONGEVITY.INTERNATIONAL

Website: http://longevity.international

Contact: info@longevity.international

Longevity.International is an online interactive database of longevity scientists, companies, and investors. This platform allows different stakeholders in the longevity industry to connect, network, research and analyze.

On the next stage this platform will also employ *cutting-edge data visualization software and a networking section* where various stakeholders within the longevity industry can connect and collaborate, where longevity companies are matched with the right investors, and where scientists can make contributions.

DEEP KNOWLEDGE LIFE SCIENCES

Website: http://deepknowledge.life

Contact: info@deepknowledge.life

Deep Knowledge Life Sciences is a London based investment fund focused on ground- breaking research in life sciences and aging. **DKLS** strategically invests in mission-driven companies and supports founders who will bridge the gap between basic biological research and real-world healthcare products that extend healthy lifespan. **Insilico Medicine**, a company applying the latest advances in deep learning to biomarker development, drug discovery and aging research, is **the DKLS flagship investment.**

AGING ANALYTICS AGENCY

Invest for life

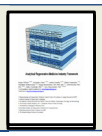
Website: http://aginganalytics.com

Contact: info@aginganalytics.com

Aging Analytics Agency aims to use its knowledge of anti-aging technologies and current research paradigms to create invaluable databases and provide a supporting **Aging Analytics Agency** aims to use its knowledge of anti-aging technologies and current research paradigms to create invaluable databases and provide a supporting framework for financial decision making. The goal of **the Agency** is to promote the growth of biogerontology, enhance international collaboration, and increase interaction and cooperation between companies to benefit the field as a whole.

Our Publications Timeline

AGING ANALYTICS AGENCY
Invest for life
Biogerontology Research Foundation
Prevent. Restore. Preserve.
DEEP KNOWLEDGE LIFE SCIENCES
LONGEVITY.INTERNATIONAL

2013	**2013 Regenerative Medicine Industry Framework** (150 pages)					
2014	**2014 Regenerative Medicine Analysis & Market Outlook** (200 pages)					
2015	**Big Data in Aging & Age-Related Diseases** (200 pages)		**Stem Cell Market Analytical Report 2015** (200 pages)			
2016	**Longevity Industry Landscape Overview 2016** (200 pages)					
2017	**Vol. 1: The Business of Longevity** (400 pages)		**Vol. 2: The Science of Longevity** (900 pages)			
2018	**Vol. 3: Special Case Studies**		**Vol. 4: Novel Financial Instruments**		**Vol. 5: Regional Case Studies**	

Volume III: Special Case Studies

- Biomarkers of Aging
- Geroprotectors and Nutraceuticals
- Gene Therapy
- P3 Medicine Clinic
- Regenerative Medicine
- Stem Cells
- AI & Blochchain
- Novel Regulatory Approaches

- Framework for Optimal Industry Forecasting: Applyign Technology Readiness Levels to Geroscience
- Framework for Industry Optimization: Differentiated Valid Science from Overvaluated, Hyped and Fraudulent Technologies

Volume V: Regional Case Studies

USA

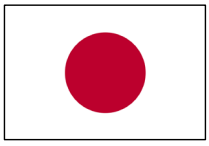
UK

Europe

Asia

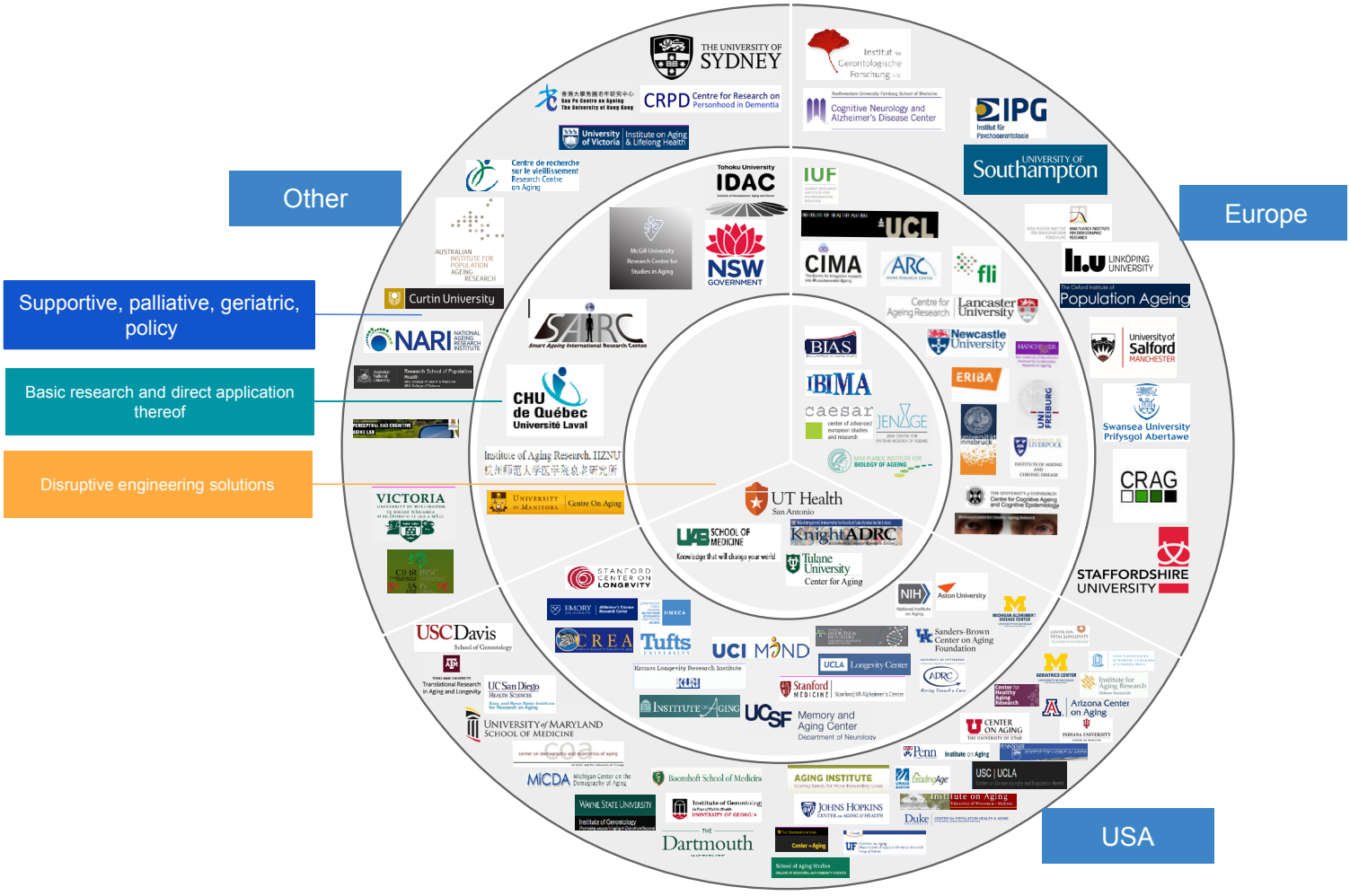
Israel

Japan



Part IV

Top 100 Longevity Research Labs



Analytical Report 2017

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DEEP KNOWLEDGE LIFE SCIENCES

Top 100 Longevity Rerearch Labs

1. Aging Institute of UPMC Senior Services and the University of Pittsburgh
2. Ageing Research Centre, New South Wales Health Department
3. Aging Research Center (ARC), Karolinska Institutet, Stockholm University
4. Alzheimer Disease Research Center (ADRC)
5. Alzheimer‘s Disease Research Center (ADRC), University of Pittsburgh
6. Alzheimer‘s Disease Research Center (ADRC), School of Medicine, Emory University
7. Arizona Center of Aging (ACOA), University of Arizona
8. Aston Research Centre for Healthy Ageing (ARCHA), Aston University
9. Australian Institute for Population Ageing Research
10. Barshop Institute for Longevity and Aging Studies, Health Science Center, University of Texas
11. Brunel Institute for Ageing Studies (BIAS), Brunel
12. Caesar Center of Advanced European Studies and Research
13. Center for Aging Research, The Dartmouth Institute for Health Policy & Clinical Practice
14. Center for Aging Research (IU-CAR), Indiana University
15. Center for Healthy Aging Research, College of Public Health & Human Sciences, Oregon State University
16. Center for Neural Development and Disease, University of Rochester Medical Center
17. Center for Population Health and Aging (CPHA), Duke University
18. Center for Research and Education in Aging (CREA), University of California
19. Center for Research on Aging, School of Medicine, University of Maryland
20. Center for Translational Research in Aging and Longevity, College of Education & Human Development, Texas A&M University
21. Center for Vital Longevity, University of Texas
22. Center on Aging (COA), University of Iowa
23. Center on Aging, University of Utan
24. Center on Demography and Economics of Aging (CoA)
25. Centre for Ageing and Mental Health (CAMH)
26. Centre for Ageing Research (C4AR), Faculty of Health & Medicine, Lancaster University
27. Centre for Cognitive Ageing and Cognitive Epidemiology, University of Edinburgh
28. Centre for Education and Research on Ageing (CERA), Concord Repatriation General Hospital, University of Sydney
29. Centre for Geriatric Medicine and Gerontology (ZGGF), Medical School, University of Freiburg
30. Centre for Innovative Ageing (CIA), Swansea University
31. Centre for Integrated Research into Musculoskeletal Ageing (CIMA), University of Liverpool
32. Centre for Integrated Systems Biology of Ageing and Nutrition (CISBAN), Newcastle University
33. Centre for Research on Ageing (CRA)
34. Centre for Research on Ageing (CRA), Curtin University of Technology
35. Centre for Research on Ageing and Gender (CRAG), University Surrey
36. Centre for Research on Personhood in Dementia (CRPD), University of British Columbia
37. Centre Hospitalier Affilié Universitaire de Québec (CHA)
38. Centre on Aging, University of Manitoba
39. Centre on Aging, University of Victoria
40. Clinical Ageing Research Unit (CARU)
41. Cognitive Neurology and Alzheimer‘s Disease Center (CNADC)
42. European Research Institute for the Biology of Ageing (ERIBA)
43. Geriatrics Center & Institute of Gerontology
44. Gerontology Research Institute at the University of Massachusetts Boston
45. Institut für Gerontologische Forschung IGFe.v.
46. Institute for Aging Research (IFAR)
47. Institute for Biomedical Aging Research (IBA)
48. Institute for Biostatistics and Informatics in Medicine and Ageing Research (IBIMA)
49. Institute for Memory Impairments and Neurological Disorders (UCI MIND)
50. Institute of Ageing and Chronic Disease Research
51. Institute of Ageing Research
52. Institute of Aging (IA)
53. Institute of Development, Aging and Cancer (IDAC)
54. Institute of Gerontology
55. Institute of Gerontology (IOG)
56. Institute of Healthy Ageing (IHA)
57. Institute of Psychogerontology (IPG)
58. Institute on Aging, UC San Diego
59. Institute on Aging, University of Florida
60. Institute on Aging (IOA)
61. Institute on Aging, University of Pennsylvania
62. Institute on Aging, University of Virginia
63. Institute on Aging, University of Wisconsin - Madison
64. Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA)
65. Jena Centre for Systems Biology of Ageing (JenAge)
66. Johns Hopkins Center on Aging and Health
67. KEEPS - The KRONOS Early Estrogen Prevention Study at KRONOS Longevity Research Institute (KLRI)
68. Leibniz Institute on Aging - Fritz Lipmann Institute (FLI)
69. Leibniz Research Institute for Environmental Medicine (IUF)
70. Lifespan Health Research Center (LHRC)
71. Manchester Institute for Collaborative Research on Ageing (MICRA)
72. Max Planck Institute for Biology of Ageing
73. Max Planck Institute for Demographic Research
74. McGill Centre for Studies in Aging (MCSA)
75. Medawar Centre for Healthy Ageing Research
76. Michigan Alzheimer‘s Disease Center (MADC)
77. Michigan Center on the Demography of Aging (MiCDA)
78. National Ageing Research Institute (NARI)
79. National Institute for Mental Health Research
80. National Institute for the Study of Ageing and Later Life (NISAL)
81. National Institute on Aging (NIA)
82. New Zealand Institute for Research on Ageing (NZiRA)
83. Oxford Institute of Population Ageing
84. Perceptual & Cognitive Aging Lab
85. Research Centre on Aging
86. Salford Institute for Dementia
87. Sanders-Brown Center on Aging (SBCoA)
88. Sau Po Centre on Ageing
89. School of Aging Studies
90. Smart Ageing International Research Center (SAIRC)
91. Stanford / VA Alzheimer‘s Research Center
92. Stanford Center on Longevity (SCL)
93. The Center for Healthy Ageing
94. The Charles F. and Joanne Knight Alzheimer‘s Disease Research Center (Knight ADRC)
95. Tulane Center for Aging
96. UAB Center for Aging
97. UCLA Longevity Center
98. UCSF Memory and Aging Center
99. USC Davis School of Gerontology & Ethel Percy Andrus Gerontology Center
100. USC/UCLA Center of Biodemography & Population Health (CBPH)

Aging Institute of UPMC Senior Services and the University of Pittsburgh

About:

Record numbers of older adults today are living well into their 80s, 90s and beyond. But as we age, we face increasingly complex challenges that affect how we feel, how we live our daily lives, and how we interact with the world around us. Helping older adults achieve longer, healthier, and more rewarding lives is the focus of the Aging Institute of UPMC Senior Services and the University of Pittsburgh.

As a world-class academic research center and top-ranked global health care system, the University of Pittsburgh and UPMC have pioneered advancements in aging and geriatric care for more than three decades. The Aging Institute brings together the expertise of these renowned researchers, scholars, and clinicians — along with leading local and national partners — to create and provide better care, better systems, and better resources for older adults and their caregivers.

The Aging Institute of UPMC Senior Services and the University of Pittsburgh will create productive and innovative programs for older adults by partnering a world-class integrated health care delivery and financing system with a leading center for academic scholarship.

Website: http://www.upmc.com/services/aginginstitute/pages/default.aspx

City: Pittsburgh / PA

Country: USA

Mission/Research Topics:

The Aging Institute of UPMC Senior Services and the University of Pittsburgh will provide integrated, comprehensive, and timely access to a full range of services for aged persons and the public. It offers state-of-the-art educational programs for the public and health care professionals, and promotes innovative research on aging to understand its causes and concomitants, both social and biological, as well as how best to intervene in illnesses associated with the aging process.

Ageing Research Centre, New South Wales Health Department

About:

The purpose of the centre is to research, develop and promote clinical and community understanding of the neurodegenerative diseases associated with population ageing, and their impact on the delivery of health care, community services and residential care.

With its ageing population, Australia will see rapidly rising numbers of older people who have disorders of cognition, movement, balance, planning capacity and behaviour, including Alzheimer's Disease, Parkinson's Disease and many less common but important neurodegenerative disorders. How they respond to this phenomenon is of great importance to the health of the population and the design and delivery of health and aged care services, now and into the future.

Currently, the centre conducts research of a clinical nature and we are working to translate these findings to applied population health. This means measuring, projecting and mapping the likely impacts of brain ageing at a community level.

They also participate in community events and present at national and international conferences to promote our findings and their importance in the understanding of brain ageing and its impact on the health and quality of life of older people themselves, their family carers and the wider Australian population.

Website: http://www.seslhd.health.nsw.gov.au/POWH/arc/default.asp

City: Randwick / NSW

Country: Australia

Mission/Research Topics:

- Aboriginal health, ageing, dementia
- Epidemiology
- Community health
- Health services
- Disability
- Carer support
- Social, environmental, and biological factors responsible for systemic ageing and brain ageing
- Neurodegenerative disorders - dementia, movement disorders, multifactorial syndromes of ageing
- Population ageing - geographic information systems analysis

Aging Research Center (ARC), Karolinska Institutet, Stockholm University

About:

ARC was established in 2000 by Karolinska Institutet and Stockholm University. We are a Forte Center—one of several research environments across Sweden funded by the Swedish Research Council for Working Life, Health and Welfare (Forte) as long-term, strategic investments capable of stimulating scientific innovations.

Together with the Stockholm Gerontology Research Center, the Swedish Dementia Center, and the magazine Older People in Focus (Äldre i Centrum), they are located in the House of Aging Research in Stockholm. they conduct research, educate the next generation of aging researchers, and spread information about our results within and outside the scientific world.

Website: https://ki-su-arc.se/

City: Stockholm

Country: Sweden

Mission/Research Topics:

- Risk factors of Alzheimer‘s disease and dementia
- Multimorbidity and physical functioning
- Cognitive functioning
- Brain imaging
- Gender differences in brain and cognition
- Pharmacoepidemiology
- Socio-economic differences in health and ageing
- Health economy

Alzheimer Disease Research Center (ADRC)

About:

The Alzheimer Disease Research Center at USC is supported by the National Institutes of Health to conduct research on memory problems and aging. Their studies include observational studies that follow participants over time while examining changes that may occur with age, and therapy studies such as exercise training, medications and vaccines. Their goals are to understand the biological changes that may precede worsening memory and to assess whether new treatments including drugs may be helpful in preventing memory or improving memory loss.

Funded by the NIH, the USC ADRC focuses on mild cognitive changes related to aging, Alzheimer's disease and cerebrovascular disease (CVD) in multi-ethnic communities. The USC ADRC has three overarching goals:

- To elucidate vascular contributions to Alzheimer's disease;
- To catalyze local research in Alzheimer's disease at USC (especially Phase I/Phase II clinical trials); and
- To contribute expertise in vascular disease and imaging to national collaborative initiatives.

ADRC has a wide variety of opportunities for volunteers to participate in research studies. Their studies are aimed at discovering ways to understand, prevent, and treat Alzheimer disease, related conditions such as vascular brain injury, and other memory problems. They seek diverse volunteers who may or may not have memory problems on an ongoing basis to help them as research participants.

Website: http://adrc.usc.edu/

City: Los Angeles

Country: USA / CA

Mission/Research Topics:

- Conduct research on memory problems and aging.
- Observational studies that follow participants over time while examining changes that may occur with age,
- Therapy studies such as exercise training, medications and vaccines.
- Understand the biological changes that may precede worsening memory
- Assess whether new treatments including drugs may be helpful in preventing memory or improving memory loss.

Alzheimer‘s Disease Research Center (ADRC), University of Pittsburgh

About:

The Alzheimer Disease Research Center (ADRC) at the University of Pittsburgh was established in 1985 by a grant from the National Institute on Aging (NIA), as a mechanism for integrating, coordinating and supporting research in Alzheimer’s disease and aging. The ADRC performs and coordinates AD-related clinical and research activities and is a core source of support (e.g., resources, patients, tissue, expert consultation for research, clinical and training activities) regionally and nationally. Current research foci emphasize neuropsychiatry and neuropsychology, molecular genetics and epidemiology, basic neuroscience, and structural and functional imaging that aid in the diagnosis and treatment of Alzheimer’s disease. The ADRC is one of the nation’s leading research centers specializing in the diagnosis of Alzheimer’s disease and related disorders. Through outpatient evaluations, participants and their families receive state-of-the-art diagnostic assessments and contribute to the scientific study of Alzheimer’s disease.

Specific services at the ADRC include:

- Comprehensive diagnostic evaluation of patients with suspected Alzheimer’s disease and other forms of dementia.
- Evaluation of memory, language, judgment, and other cognitive abilities
- Re-evaluation on an annual basis, or as needed, referrals to physicians, community social service agencies, transportation services, adult day care, support groups, long-term care, and other appropriate programs.
- Education and counseling for patients and families.
- Participation in state-of-the-art research studies.

Website: http://www.adrc.pitt.edu/

City: Pittsburgh / PA

Country: USA

Mission/Research Topics:

- Integrate, coordinate and support research in Alzheimer’s disease and aging.
- Perform and coordinate AD-related clinical and research activities
- Provide support (e.g., resources, patients, tissue, expert consultation for research, clinical and training activities) regionally and nationally.
- Research neuropsychiatry and neuropsychology, molecular genetics and epidemiology, basic neuroscience, and structural and functional imaging that aid in the diagnosis and treatment of Alzheimer’s disease.
- Diagnose patients with suspected Alzheimer’s disease and other forms of dementia.
- Evaluate memory, language, judgment, and other cognitive abilities
- Educate and counsel patients and families.
- Participation in state-of-the-art research studies.

Alzheimer‘s Disease Research Center (ADRC), School of Medicine, Emory University

About:

The Emory Alzheimer’s Disease Research Center (ADRC) is one of 27 active centers in the nation supported by the National Institutes of Health. (For a complete list of all active Alzheimer’s Disease Centers, visit this site). The goal of these centers is to bring scientists together to facilitate their research and help learn more about Alzheimer’s and related diseases. They are also committed to the education of health care professionals, persons with Alzheimer’s disease, their families, and their community to aid in understanding, diagnosis and treatment of these illnesses.

Research is crucial to gain more information about disease, provide better care, and ultimately, prevent the burden of neurological diseases for future generations. One particular area of interest of the Emory ADRC is a better understanding of mild cognitive impairment and early diagnosis and treatment of memory disorders.

Website: http://alzheimers.emory.edu/

City: Atlanta / GA

Country: USA

Mission/Research Topics:

- Bring scientists together to facilitate their research and help learn more about Alzheimer’s and related diseases.
- The education of health care professionals, persons with Alzheimer’s disease, their families, and our community to aid in understanding, diagnosis and treatment of these illnesses.
- Research a better understanding of mild cognitive impairment and early diagnosis and treatment of memory disorders.
- Study of groups underrepresented in research, such as African Americans who are more affected by Alzheimer’s disease.

Arizona Center of Aging (ACOA), University of Arizona

About:

Aging is the quintessential interdisciplinary issue, cutting across basic sciences, clinical/translational and health services research – invigorating and bridging research across the campus, across colleges, across the state. Remarkably, the aging process itself – what actually happens on the biochemical, genetic, cellular, and physiologic levels remains largely unknown. Differentiating "normal" aging changes in these processes from signs of potential disease are fundamental to our understanding of healthy aging and resilience. The center is uniquely positioned and has actively initiated programs to address these critical issues.

ACOA exists in order to improve quality of living and extend the lifespan of older adults. They want to eradicate the diseases and conditions that occur in advanced age, and to unleash the unparalleled wisdom, energy and experience of older adults for the benefit of all the world.

They believe that they can best meet this challenge through the true partnership of scientists, health care providers, educators and community workers. they strive to move fantastic discoveries from the lab to the community, and to bring questions and observations from real people into the lab where they can be solved. they are working to develop new ways of delivering healthcare that promote independence and healthy aging. Finally, they are committed to share these essential discoveries with communities in Tucson, Arizona, the US and the world through both education and outreach.

Website: http://www.adrc.pitt.edu/

City: Tucson / AZ

Country: USA

Mission/Research Topics:

- Develop and sustain competency-based interprofessional (IP) geriatric education for health care learners across the continuum of care.
- Providing older adults with evidence-based high-quality, safe, and culturally competent care towards optimal health outcomes and well-being.
- Improving the quality of life for America's elderly by preparing physicians to provide better care for frail older people.

Aston Research Centre for Healthy Ageing (ARCHA), Aston University

About:

They take a multidisciplinary approach to successful ageing by asking how technological, therapeutic and psychosocial strategies can be employed to understand and arrest age-related decline.

Their mission is to facilitate research that helps understand, predict and prevent age-related degeneration. they have a specific focus on the eye, the mind, the metabolism and medicines and devices in the context of the psychological, social and policy factors affecting ageing lives.

Website: http://www.aston.ac.uk/lhs/research/centres-facilities/archa/

City: Birmingham

Country: UK

Mission/Research Topics:

- Ageing eye. Researchers work within an integrated investigative framework to advance significantly our understanding of the use, preservation and restoration of ocular function in the ageing eye.
- Ageing mind. The aim of this cluster is to understand changes in cognitive function as we age and to use this information to design appropriate interventions that facilitate the maintenance of independent and active engagement. Understanding neural health and cognitive functioning facilitates the development of biological, technological or psychological tools to maintain cognitive performance in older people.
- Ageing metabolism. Using tools from bioscience, psychology, sociology and engineering they seek a better understanding of how changes in metabolism are associated with the ageing process and how we can intervene to promote a healthy later life.
- Medicine and devices in Ageing. This cluster aims to focus on the use of medicines and devices in older people. Medicines and devices have considerable potential to significantly improve outcomes and quality of life in older people. However, conversely, older people are particularly susceptible to the adverse effects of medicine and devices.
- Ageing lives. The ageing process impacts our everyday lives in diverse ways. In this cluster, they examine how different individuals and communities are enabled or deterred from healthy ageing. They consider the delivery and impact of health and care policies, as well as attitudes and beliefs towards issues such as medicines management and keeping active.

Australian Institute for Population Ageing Research (AIPAR)

About:

The Australian Institute for Population Ageing Research (AIPAR) has been developed within UNSW as an umbrella for research initiatives focused on demographic transition. Directed by Professor John Piggott, it aims to be world class in its programs.

It is uniquely global in incorporating research teams covering health, labour, economic, financial and technology related issues by harnessing expertise from the fields of business, social sciences, engineering, medicine and the built environment - the institute is globally unique.

With more than a quarter of Australians estimated to reach over 65 years of age by 2050, the need to manage and resource an ageing population is of national significance. The Australian Institute for Population Ageing Research (AIPAR) recognises that business, government and the not-for-profit sector are key stakeholders in the success of the Institute. AIPAR works closely with industry leaders, including corporate and government partners.

In conjunction with these partners, AIPAR undertakes research and stimulates debate about the challenges raised by global population ageing, develops ideas for new products, formulates policy proposals and encourages partnerships with other research institutions in Australia and overseas.

Established in 2007, the Institute was officially launched in 2009 by the Federal Treasurer, Wayne Swan who said that, along with climate change, population ageing is the most significant social challenge of the 21st century.

City: Sydney

Country: Australia

Mission/Research Topics:

- Study demographic transition.
- Incorporate research teams globally, covering health, labour, economic, financial and technology related issues.
- Harness expertise from the fields of business, social sciences, engineering, medicine and the built environment.

AIPAR's mission is to bring together researchers and research centres from across UNSW focused on the issue of population ageing. It will deliver a highly innovative and creative multidisciplinary research program, mentor a new generation of early career researchers, and deliver broad-based and robust outcomes for the end-user.

Barshop Institute for Longevity and Aging Studies, Health Science Center, University of Texas

About:

Their mission is four-fold: To understand the basic biology of aging; to discover the therapies that will treat and cure the diseases of aging by fostering dynamic, collaborative research; to educate and train their future scientists and clinicians; to promote public awareness of age-related issues.

Researchers at the Barshop Institute sustain their scientific endeavors by successfully competing for funding at the national level. The Barshop Institute supports their research through a wide range of core services and clinical facilities by sponsoring cutting-edge programs that employ advanced technologies such as genomics and proteomics, transgenic animal models, and pathological assessments.

Faculty members of the Barshop Institute are dedicated to the training and mentoring of promising new physician-scientists and basic researchers in aging through a wide-range of educational opportunities.

Faculty and staff members involved in community outreach programs educate health professionals and the public on timely issues regarding healthy aging.

This vision of a world-class center for aging research first came into focus in 1991, when Dr. Edward J. Masoro founded the UT Health Science Center's Aging Research and Education Center through a leadership award granted to him by the National Institutes of Health.
In 2001, the Barshop Institute for Longevity and Aging Studies was born thanks to a generous donation from Mr. and Mrs. Sam Barshop, prominent San Antonio philanthropists. Dr. Musi and the faculty members at the Barshop Institute are extremely grateful to Mr. and Mrs. Barshop for their vision and steadfast support in helping to develop the Barshop Institute into an unparalleled center for studies of aging and age-related diseases.

Website: http://www.barshop.uthscsa.edu/

City: San Antonio / TX

Country: USA

Mission/Research Topics:

- Regenerative medicine and stem cells
- Comparative biology of ageing
- Ageing and cancer
- Ageing-related neurodegeneration

Brunel Institute for Ageing Studies (BIAS), Brunel University London

About:

BIAS was developed as a Collaborative Research Network (CRN) in 2007 as part of a university initiative to encourage cross-disciplinary research activity. BIAS is one of four University CRNs which seek to address a great number of complex challenges of the future.

The networks bring together teams of experts from across the university in order to:

- Foster interdisciplinary research of the highest quality
- Spearhead new responses to major research questions
- Increase the social, cultural and economic impact of research

Actively pursue partnerships and collaborations with universities, businesses and public sector organisations who share their goals.

The Collaborative Research Network in Ageing was formed in response to challenges raised by a growing population, including concern for how current health and social systems will cope with an increase in the number of people over the age of 60. BIAS aims to lead in the development and definition of strategic directions for research in the field of gerontology. It seeks to address the information needs of policy makers and the private sector, and to facilitate the transfer of new knowledge for the benefit of the whole population.

Website: http://www.brunel.ac.uk/research/centres/bias

City: London

Country: UK

Mission/Research Topics:

Caesar Center of Advanced European Studies and Research

About:

Caesar is a neuroscience research institute associated with the Max Planck Society. More on the research program can be found here.

As of 2016, caesar hosts two research departments and many research groups. Like all Max Planck Institutes, the directors of caesar are scientific members of the Max Planck Society.

Caesar is part of a cluster for neurosciences in the Bonn-Cologne region and has multiple ties with the University of Bonn and University of Cologne. In collaboration with the Max Planck Florida Institute for Neuroscience, the University of Bonn and Florida Atlantic University, caesar runs the International Max Planck Research School (IMPRS) for Brain and Behavior. This first transatlantic IMPRS graduate program aims to train students in a large range of cutting-edge techniques which are currently instrumental in the quest for understanding brain circuit function in the whole animal and its role in defining behavior.

The institute is operated by a non-profit foundation under private law. The president of the Max Planck Society chairs the foundation board. Trustors are the Federal Republic of Germany and the Federal State of North Rhine-Westphalia. Caesar is evaluated by a scientific advisory board. The evaluation is effected according to the procedures and criteria of the Max Planck Society.

Website: https://www.caesar.de/

City: Bonn

Country: Germany

Mission/Research Topics:

- Photonic
- Molecular biology
- Microtechnology
- Kinetic, microscopic, and spectroscopic methods to study and control cellular activity
- Formerly known as Chemical Biology of Neurodegenerative Diseases

THE
Dartmouth
INSTITUTE
FOR HEALTH POLICY & CLINICAL PRACTICE

Center for Aging Research, The Dartmouth Institute for Health Policy & Clinical Practice

About:

The Dartmouth Institute is the health services research and education center at Dartmouth College.

They are made up of a diverse group of scholars, researchers, clinicians, students, and administrators with a wide array of interests and aims. But one thing unites us: They care deeply about health and health care. They know that good health is the foundation of a happy, productive life and a thriving community.

Working in partnership with individuals and organizations around the country, and throughout the world, they are striving to improve population health, reduce disparities, and create high-performing, sustainable health systems. Whether you are a potential student, research collaborator, health journalist, supporter, or someone who simply shares our drive to improve health and health care, they invite you to join them.

At The Dartmouth Institute, they conduct evidence-based research that helps us understand how health care is actually being practiced—what's working, what's not and why. The insights they gain help policy makers, systems leaders, and health care providers improve practices. They also partner with health organizations and systems to develop, test, and scale innovative new health interventions and models of health care delivery.

Website: http://tdi.dartmouth.edu/

City: Hanover /NH

Country: USA

Mission/Research Topics:

- Foster important research breakthroughs, particularly in the overlapping areas of biodemography and intergenerational studies, including the transmission of health and longevity.
- Offer first-rate administrative and computing services, including aiding access to the Center's innovative data collections
- Cultivate the next generation of Aging scholars with our cross-discipline postdoctoral and predoctoral Training Program.
- Build a meaningful and permanent joint program of research and training in conjunction with the Carolina Population Center at the University of North Carolina.

Center for Aging Research (IU-CAR), Indiana University

About:

IU School of Medicine is the largest medical school in the US and is annually ranked among the top medical schools in the nation by US News & World Report. The school offers high-quality medical education, access to leading medical research and rich campus life in nine Indiana cities, including rural and urban locations consistently recognized for livability.

IU School of Medicine will lead the transformation of healthcare through quality, innovation and education and make Indiana one of the nation's healthiest states.

IU School of Medicine is committed to maintaining an academic and clinical environment in which faculty, fellows, residents, students and staff can work together to further education and research and provide the highest level of patient care, whether in the classroom, laboratory or clinics. The school's goal is to train men and women to meet the highest standards of professionalism and work in an environment where effective, ethical and compassionate patient care is both expected and provided. To this end, the school recognizes that each member of the medical school community must be accepted as an individual and treated with respect and civility.

Diversity in background, outlook and interest is inherent in the practice of medicine, and appreciation and understanding of such diversity is an important aspect of health care and scientific training. As part of that training, the school strives to inculcate values of professional and collegial attitudes and behaviors in interactions among members of the school community and among school members and patients, their families and community members at-large, that accommodate difference, whether in age, gender, sexual orientation, disabilities, social, cultural, religious or ethnic values.

Website: https://medicine.iu.edu/research/centers-institutes/aging-research/

City: Indianapolis / IN

Country: USA

Mission/Research Topics:

It is the mission of Indiana University School of Medicine to advance health in the state of Indiana and beyond by promoting innovation and excellence in education, research and patient care.

Research topics is:

- Aging brain - research on late life depression, dementia, and delirium
- Gero-informatics - research on the use of information technology
- Health promotion - research on self-care, lifestyle, and prevention

Center for Healthy Aging Research, College of Public Health & Human Sciences, Oregon State University

About:

The Center for Healthy Aging Research (CHAR) is a community of Oregon State University scholars committed to investigate and unleash the potential of older adults. Established in 2005 as one of Oregon State University's strategic investment initiatives, CHAR has planned, coordinated and conducted collaborative, multidisciplinary studies designed to optimize the health and well-being of aging individuals and their families.

The center has attracted many of Oregon State's most innovative scientists. Researchers from multiple academic departments, units and centers collaborate in aging research. CHAR also promotes high-quality professional programs in health care, housing and social support for the aging population with a focus on interdisciplinary efforts.

The center is committed to expanding, translating and disseminating knowledge of the science of aging. There are numerous opportunities for graduate and undergraduate students to learn about aging and receive training in scientific procedures related to their disciplines. From collaborative research to research colloquia, students experience the science of aging in an interdisciplinary context. As a vital part of Oregon's land grant university, CHAR delivers the practical implications of research findings to citizens through Extension specialists and field faculty. The center allows for the sustaining coordination of efforts designed to go beyond individual research agendas and to enhance interdisciplinary research at Oregon State University, enhancing the lives of all Oregonians and worldwide societies.

Website: http://health.oregonstate.edu/healthy-aging

City: Corvallis / OR

Country: USA

Mission/Research Topics:

- Diet, genes, and aging
- Bone health, exercise, and function in aging
- Psychosocial factors and optimal aging
- Social and ethical issues in technologies for healthy aging

Center for Neural Development and Disease, University of Rochester Medical Center

About:

One of the nation's top academic medical centers, the University of Rochester Medical Center forms the centerpiece of the University's health research, teaching, patient care and community outreach missions. Over the last five years, the UR School of Medicine and Dentistry has received almost $1.3 billion in total research funding. The School ranks in the top quartile of U.S. academic medical centers in research funding from the National Institutes of Health, attracting nearly three times the federal funding received by the medical schools in Albany, Syracuse and Buffalo combined.

The University of Rochester Medical Center is an integrated academic health center that comprises The School of Medicine and Dentistry, including its faculty practice (University of Rochester Medical Faculty Group); Strong Memorial Hospital; Highland Hospital; Golisano Children's Hospital; James P. Wilmot Cancer Center; School of Nursing; Eastman Dental Center; Visiting Nurse Service; Highlands at Pittsford; and Highlands at Brighton.

The University's health care delivery network– UR Medicine – is anchored by Strong Memorial Hospital - an 800-bed, University-owned teaching hospital which boasts specialty programs that consistently rank among the best in the nation according to US News & World Report. At URMC, our robust teaching and research programs transform the patient experience with fresh ideas and approaches steeped in disciplined science. Here, care is delivered by healthcare professionals who innovate, take intelligent risks, and care deeply about the lives they touch.

Research faculty have attracted external funding totaling approximately $300 million during the last fiscal year

Website: https://www.urmc.rochester.edu/neurotherapeutics-discovery.aspx

City: Rochester / NY

Country: USA

Mission/Research Topics:

- Neural mechanisms in simple model organisms
- Protection against of neural insults (HIV infection, stroke, neurodegeneration)
- Mechanisms and treatment of neuromuscular and neoplastic disorders
- Recovery after traumatic brain injury

Center for Population Health and Aging (CPHA), Duke University

About:

CPHA is a highly synergistic interdisciplinary environment for developing faculty and students in Aging and fostering important research breakthroughs, particularly in the overlapping areas of biodemography (biological and biomedical demography of aging); and intergenerational studies, including the transmission of health and longevity.

It was established in 2007 to facilitate research and training at Duke in topics related to Population Health and Aging. With support from the NIA P30 program, CPHA offers first-rate administrative and computing services, including aiding access to the Center's innovative data collections, and our members are developing new methods of data collection, matching, and analysis that can increase the quality and lower the cost of information on aging populations.

They are also cultivating the next generation of Aging scholars by integrating our cross-discipline postdoctoral and predoctoral Training Program into our Research programs. To further expand opportunities for scholars at all levels, CPHA is building a meaningful and permanent joint program of research and training in conjunction with the Carolina Population Center at the University of North Carolina.

Because aging is a complex and multifaceted process, CPHA research is organized around three major Research Themes that encompass both traditional demographic approaches and interdisciplinary collaborations in a wide range of fields to explore all aspects of Aging.

These efforts have led to the creation of Data Collections that are used by researchers worldwide, as are the many new mathematical and statistical models and methods developed by members of CPHA's Biodemography of Aging Research Unit for analyzing and integrating biomedical data and population data on health and aging.

To keep CPHA members at the forefront of Aging research, they also offer a Pilot Award Program that takes risks on highly innovative projects. Often these seed grants support primary data collection efforts that frequently lead to NIH funding to pursue a larger project.

Website: https://cpha.duke.edu/

City: Durham / NC

Country: USA

Mission/Research Topics:

Center for Research and Education in Aging (CREA), University of California

About:

The Center for Research and Education on Aging (CREA) is a joint University of California, Berkeley and Lawrence Berkeley National Laboratory institution. Their mission is to investigate the basic processes that cause aging, with the goal of improving and extending human health span. CREA integrates the efforts of cell and molecular biologists, structural and computational biologists, geneticists, physiologists and public health professionals, who are the intellectual assets and resources of the University of California, Berkeley and the Lawrence Berkeley National Laboratory.

By combining the keen minds of University of California scientists with the steady hands and eager intellect of its student body, the new Center for Research and Education in Aging (CREA) will rise to the challenge. CREA is also associated with the Buck Institute for Age Research, a private nonprofit basic biomedical research institute located in Novato, California.

This unique partnership brings to the study of aging an approach that most medical schools cannot marshal because they focus on specific diseases and their treatments. Aging makes us vulnerable to disease and injury, but we do not know why. Research into the process responsible for aging remains seriously neglected. CREA is designed to create a research/education environment that fosters basic aging research and educates the next generations of scientists.

Support for CREA comes from competitive grants and the generosity of private donors. An endowment for CREA has been established by BioTime, Inc., a Berkeley, California-based biotechnology company, to better understand the mechanisms of aging and improve medical procedures focused on older patients.

By integrating the efforts of some of the world's best academic, government, and biotechnology industry laboratories, CREA will be a vital source for driving breakthroughs in improving health and youthfulness.

Website: http://crea.berkeley.edu/

City: Berkeley / CA

Country: USA

Mission/Research Topics:

- Systems biology
- Brain imaging
- Neuroendocrine changes in the hypothalamus
- Creation of bioinformatic systems to study the ageing process
- Hormonal changes and ageing

Center for Research on Aging, School of Medicine, University of Maryland

About:

The Department of Medicine was established in 1807, the same year the University of Maryland School of Medicine was chartered. In two centuries, only 14 men have held the esteemed position of Chair of the Department of Medicine.

The School of Medicine is one of the fastest growing, top-tier biomedical research enterprises in the world -- with 43 academic departments, centers, institutes, and programs; and a faculty of more than 3,000 physicians, scientists, and allied health professionals, including members of the National Academy of Medicine, and a distinguished recipient of the Albert E. Lasker Award in Medical Research.

The School of Medicine faculty, which ranks as the 8th-highest public medical school in research productivity, is an innovator in translational medicine with 600 active patents and 24 start-up companies. The School works locally, nationally, and globally, with research and treatment facilities in 36 countries around the world.

Much of the department's early teaching took place in Davidge Hall, the oldest medical facility in the country continuously used for medical education. The building's secret stairways and hidden exits enabled the students of the early 19th century to escape angry mobs who gathered outside to protest the use of cadavers as teaching tools. Still used for teaching today, the building is much the same as it was then, serving as a constant symbol to our students of the rich history of our department.

The Department of Medicine was the first in the country to offer an in-hospital residency program. From those first two residents in 1823, they have grown into a program that now trains hundreds of residents and fellows in a variety of traditional and emerging specialties. Some of the best doctors in the world also work as professors for the Department of Medicine, training the next generation of healers even as they continue to make historic strides in such fields as infectious diseases, rheumatology and cardiology.

Website: http://www.medschool.umaryland.edu/medicine/Divisions/Division-of-Gerontology--Geriatric-Medicine/

City: Baltimore / MD

Country: USA

Mission/Research Topics:

- Rehabilitation
- Obesity, Diabetes, and Nutrition
- Diseases e.g. cardiovascular disease, cancer, osteoporosis
- Health Services and Quality of Life
- Free Radicals, Oxidative Stress

Center for Translational Research in Aging and Longevity, College of Education & Human Development, Texas A&M University

About:

The Center for Translational Research in Aging and Longevity is engaged in ongoing translational research on nutrition, exercise, and metabolism in relation to aging and the common diseases of our aging population. These diseases include, cancer, heart failure, chronic obstructive pulmonary disease (COPD), obstructive sleep apnea (OSA), mild cognitive impairment/dementia, and autism spectrum disorder. Translation of knowledge from basic and applied sciences to care and clinical practice for older adults is the overall goal of their group.

They have the ability to investigate the role of metabolism in the pursuit of healthy aging and are developing knowledge on how changes in nutrition can affect outcomes in disease and aging. They focus is on investigating the role of certain macronutrients, the small molecules that make up the building blocks of the proteins, fats and sugars in metabolism.

Website: http://ctral.org/

City: College Station / TX

Country: USA

Mission/Research Topics:

- Photonic
- Molecular biology
- Microtechnology
- Kinetic, microscopic, and spectroscopic methods to study and control cellular activity
- Formerly known as Chemical Biology of Neurodegenerative Diseases
- Metabolic Research at Texas A&M University. Metabolic research is performed at the 23,000 sq ft Center for Translational Research in Aging and Longevity (CTRAL, www.ctral.org) in the Department of Health and Kinesiology (HLKN) at Texas A&M in College Station, TX and is a state-of-the-art translational biomedical research facility to conduct exercise, nutrition and metabolism related studies. The CTRAL Clinical Research Unit (CRU) accommodates basic and applied clinical research in humans suitable for single-day, as well as multi-day 24/7 studies. The CTRAL Human Research Support Core houses a metabolic kitchen, a clean room for clinical preparations, a laboratory to facilitate STAT blood/tissue processing, a secured data archive system, a secured/controlled sample storage/biobank and a clinical waste management system.

Center for Vital Longevity, University of Texas

About:

Founded in 2010 by Dr. Denise Park and currently led by Dr. Michael Rugg, the Center brings together an extraordinary group of research scientists who are using advanced brain-imaging technologies and research techniques in cognitive neuroscience to understand, maintain and improve the vitality of the aging mind. Cutting-edge research tools that allow them to see both pathology and compensation for that pathology in living brains afflicted with amyloid or tau deposits.

Center scientists are working to identify a neural signature in middle-aged adults that will help predict who will and will not age well cognitively and who might be at risk of Alzheimer's disease long before symptoms appear. They are elucidating how memories are formed and retrieved and how these processes change with age. And they are investigating the effects of different types of mental stimulation on memory and cognition in young and older adults. The goal of these wide-ranging studies is to develop ways to maintain and even enhance the cognitive health and vitality of current and future generations.

The Center's facilities, located in Dallas, Texas, include 30,000 square feet of research space including cognitive testing rooms and laboratories. In addition, investigators conduct functional and structural neuroimaging studies at facilities in the Advanced Imaging Research Center (AIRC), a collaborative enterprise between UT Dallas, UT Arlington, and UT Southwestern Medical Center, where the AIRC is located.

Scientists at the Center for Vital Longevity are engaged in a variety of research studies aimed at understanding memory, cognitive aging, and Alzheimer's disease. Their studies combine state-of-the-art structural and functional neuroimaging technologies with research techniques in cognitive neuroscience with the aim of elucidating the changes that occur in the brain over a lifetime and how these changes affect specific cognitive abilities and behaviors.

Results from the center's breadth of research will be instrumental in developing ways to slow cognitive aging and prevent or delay the onset of crippling disorders such as Alzheimer's Disease.

Website: http://vitallongevity.utdallas.edu/research/

City: Dallas / TX

Country: USA

Mission/Research Topics:

- Neuronal and cognitive aging across the entire adult lifespan
- Functional Neuroimaging of Memory
- Aging mind health
- Memory Training and Cognition

Center on Aging (COA), University of Iowa

About:

Established in 1990 by Kathleen Buckwalter from the College of Nursing, the University of Iowa Center on Aging (COA) quickly became recognized as a core campus resource facilitating interdisciplinary education, research, and service efforts dedicated to understanding the aging process and improving the health and well being of older people. Then, as part of the state of Iowa Public Health initiative in 1999, the Iowa Board of Regents called on the COA to advance the "health and independence of elderly Iowans.

In July, 2014, the Center underwent a restructuring and reorganization. They rededicated ourselves to that early vision of the Board of Regents; the issues, challenges, and opportunities of the aging population remain their priority.

Research at the University of Iowa has always been a strength, and the research goals of the Center on Aging capitalize on that strength. The Center on Aging works to assist investigators with expertise in aging. Their goal is to help advance the research of these successful investigators by providing resources and support.

The Aging Mind and Brain Initiative (AMBI). The AMBI is a group of investigators that chose to come to the University of Iowa specifically to work on issues related to aging. As faculty members of many different departments and college throughout the University of Iowa, their strength as individual investigators is multiplied by their collaborative efforts.

Website: https://aging.uiowa.edu/

City: Iowa City / IA

Country: USA

Mission/Research Topics:

- Interdisciplinary education and research.
- Service efforts dedicated to understanding the aging process
- Improving the health and wellbeing of older people.

Center on Aging, University of Utan

About:

The Center on Aging has a 40 year history at the University of Utah. Beginning with its origination in 1972, the Center on Aging has provided educational and research programs in gerontology at the University of Utah. It has sponsored undergraduate and graduate gerontology certificate programs as well as a Masters degree program in Gerontology. In addition to its strengths in gerontology education programs, it is recognized for a well-established research program focused on bereavement, coping with loss of a spouse and caregiving. In June 2004 its name was changed from the Gerontology Center to reflect a desire to become more comprehensive and expand the scope of its service and research activities.

A strategic planning process was completed in 2005 resulting in a change in its organizational structure to position the center to have a broad institutional impact and allow it to become more comprehensive and interdisciplinary. As a free standing center it is now optimally situated to serve its interdisciplinary mission and objectives. Dr. Supiano was appointed as its Executive Director upon his move to Utah in October 2005.

Website: https://aging.utah.edu/

City: Salt Lake City

Country: USA

Mission/Research Topics:

- Unite aging-related research, education, and clinical research, education, and clinical programs at the University
- Link its faculty and programs
- Help people lead longer and more fulfilling lives
- Support the development of multidisciplinary clinical and training programs

Center on Demography and Economics of Aging (CoA)

About:

The CoA fosters and supports research on aging through the work of their faculty associates and affiliates and through our training programs. They also work closely with other centers within the Academic Research Centers of NORC at the University of Chicago, such as the Population Research Center (PRC).

The Center on Demography and Economics of Aging (CoA), directed by Linda Waite, is one of eight research centers housed within the National Opinion Research Center (NORC) Academic Research Centers at the University of the Chicago. The CoA was established as an Exploratory Center in 1994 with a P-20 grant from the National Institute on Aging (NIA). Currently, the CoA (Grant P30 AG012857) is one of fourteen NIA funded Centers across the U.S. which investigate aspects of health and health care, the societal impact of population aging, and the economic and social circumstances of the elderly.

The Center supports a highly diverse faculty of 47 research affiliates in sociology, economics/ business, the Pritzker School of Medicine, the School of Social Service Administration, and the Harris School of Public Policy. The research portfolios of faculty members draw upon expertise in medicine, epidemiology, and the biological and social sciences. The Center has nourished an environment for research in the demography and economics of aging by providing research support services, encouraging the development of new research projects and research foci, and facilitating collaborative research and teaching among scientists working in the field of aging research.

Website: https://coa.norc.org

City: Chicago

Country: USA

Mission/Research Topics:

- Social relationships, living arrangements, and family
- The social context of aging
- Health care research
- Biobehavioral pathways

Centre for Ageing and Mental Health (CAMH)

About:

The Centre for Ageing and Mental Health at Staffordshire University was established in 2005 to provide research, consultancy and education, promoting innovation in health and social care services for older people. The Centre brings together researchers, clinicians and other professionals from a variety of fields to facilitate research and education both nationally and internationally.

Website: http://www.staffs.ac.uk/faculties/health/research/camh/

City: Stafford

Country: UK

Mission/Research Topics:

- Darzi Dementia Care Pathway Development
- Core Competencies for Dementia Care
- Workforce Dementia Support Worker
- Older Prisoners and Mental Health
- The reorganisation of Mental Health Services
- The use of “blogs” in end of life care
- Safer Criminal Records Bureau recruitment decision making
- Memory Clinic Services
- Early Intervention in Dementia
- Suicide and Older People

The mission of the centre is to provide research, consultancy and education, promoting innovation in health and social care services for older people.

Centre for Ageing Research (C4AR), Faculty of Health & Medicine, Lancaster University

About:

The Center on Demography and Economics of Aging (CoA), directed by Linda Waite, is one of eight research centers housed within the National Opinion Research Center (NORC) Academic Research Centers at the University of the Chicago. The CoA was established as an Exploratory Center in 1994 with a P-20 grant from the National Institute on Aging (NIA). Currently, the CoA (Grant P30 AG012857) is one of fourteen NIA funded Centers across the U.S. which investigate aspects of health and health care, the societal impact of population aging, and the economic and social circumstances of the elderly.

The CoA aims to: (1) foster an exciting, dynamic intellectual environment for research in the demography and economics of aging; (2) provide research support services; (3) encourage the development of new research projects and research foci in the demography and economics of aging; and (4) support and facilitate the inclusion and analysis of biomeasures of health in new and ongoing projects at the University of Chicago and elsewhere. It provides support for research projects in four key areas: (1) social relationships, living arrangements, and family; (2) the social context of aging; (3) health care research; and (4) biobehavioral pathways.

The Center operates using three cores, which facilitate and support an active program of research and training: (A) the Administration and Research Support Core, directed by Linda Waite, which provides general administrative support to Center associates; (B) the Program Development Core, directed by Kathleen Cagney, consisting of a program of small-scale and pilot projects and support for new faculty development in aging; and (C) the External Innovative Network Core, directed by Stacy Tessler Lindau, with a focus on biomarkers in population-based aging research. The Center supports a highly diverse faculty of 47 research affiliates in sociology, economics/business, the Pritzker School of Medicine, the School of Social Service Administration, and the Harris School of Public Policy. The research portfolios of faculty members draw upon expertise in medicine, epidemiology, and the biological and social sciences. The Center has nourished an environment for research in the demography and economics of aging by providing research support services, encouraging the development of new research projects and research foci, and facilitating collaborative research and teaching among scientists working in the field of aging research.

Website: http://www.lancaster.ac.uk/fhm/research/centre-for-ageing-research/

City: Lancashire

Country: UK

Mission/Research Topics:

- Neuro-generative diseases (Alzheimer's Disease, Parkinson's Disease)
- Molecular changes associated with the ageing process
- Design and development of new technologies to support and enhance the health and wellbeing of older people and their care-givers

THE UNIVERSITY *of* EDINBURGH
Centre for Cognitive Ageing
and Cognitive Epidemiology

Centre for Cognitive Ageing and Cognitive Epidemiology (CCACE), University of Edinburgh

About:

The Centre for Cognitive Ageing and Cognitive Epidemiology at the University of Edinburgh (CCACE) focuses on the reciprocal influences of cognition and health across the human life course. The Centre is funded by the Medical Research Council (MRC) and the Biotechnology and biological Sciences Research Council (BBSRC). The Centre's mission is to elucidate the routes to the vulnerable ageing brain, and thus provide information to prevent or ameliorate cognitive disability and its negative consequences for health and wellbeing; to determine the mechanisms by which lower cognitive ability through the lifecourse renders the body vulnerable to ill health and impaired wellbeing; and to provide an outstanding environment for interdisciplinary research training in cognitive ageing and cognitive epidemiology.

Scientific Objectives:

1. Maintain, develop and exploit the unique long-term human cohort studies assembled in Scotland as new national resources to explore lifecourse influences on cognitive ageing and pathways whereby cognitive ability in early life affects later health—cognitive epidemiology.

2. Advance knowledge by research into biological, neurological, genetic, social, economic, and psychological aspects of cognitive ageing in humans and lifecourse mammalian model systems.

3. Develop and evaluate psychological, genetic, other biological, and brain imaging methods to assess, monitor, and prevent or ameliorate decline in mental functions with a view to providing a rational basis for translating this into potential interventions.

4. Build upon MSc courses unique to our Centre, exploiting the university's resources in innovative methods such as e-learning, to train an essential and novel kind of researcher capable of accessing the best technologies to maximise opportunities for working in multidisciplinary teams in cognitive aging and cognitive epidemiology across clinical and basic science.

Website: http://www.ccace.ed.ac.uk

City: Edinburgh

Country: UK

Mission/Research Topics:

- Cognitive epidemiology
- Cognitive ageing
- Mechanisms of cognitive ageing
- Human and animal brain imaging
- Genetics and statistics of brain ageing

Centre for Education and Research on Ageing (CERA), Concord Repatriation General Hospital, University of Sydney

About:

The Centre for Education and Research on Ageing (CERA) is Australia's premier academic organization for the study of ageing and age-related diseases. Through innovative and multidisciplinary research, CERA aims to expand and share knowledge of human ageing, so that the health and quality of life of older people can be improved.

Their research is achieved through a broad program that incorporates clinical, laboratory, epidemiological and health service evaluation approaches. Allied to this are education programs, at basic and advanced levels of practice, in geriatric medicine and other education programs for aged care workers from a range of professional settings.

CERA is a joint facility of the University of Sydney, Sydney Medical School and Concord Repatriation General Hospital, a teaching hospital within Sydney Local Health Network. CERA is located at Concord Repatriation General Hospital, in the inner west of Sydney, Australia.

Vision:

- To be the national leader in, and internationally recognized for, ageing research
- To undertake and promote multidisciplinary research that will lead to improvement in the quality of life of older people
- To provide quality education in ageing from the undergraduate to professional levels
- To contribute to health services for older people through evidence-based practices and application of research advances
- To promote ageing in the broader community and provide advocacy for the needs of older people.

Website: http://sydney.edu.au/medicine/research/units/cera/index.php

City: Concord

Country: Australia

Mission/Research Topics:

CERA's aim is to expand and share knowledge of human ageing through collaborative, multidisciplinary research and education with the purposes of:

- Promoting healthy ageing
- Minimising the impact of disease and disability on older people
- Improving the quality of life of our older population

Centre for Geriatric Medicine and Gerontology (ZGGF), Medical School, University of Freiburg

About:

The Centre for Geriatric Medicine and Gerontology (ZGGF) comprises consultants from internal medicine, neurology, and psychiatry to provide expert outpatient service for patients with age-associated disorders. The ZGGF is a centre of excellence for the diagnosis and treatment of memory disorders. The Memory Clinic as part of the ZGGF provides diagnostic services for more than 400 new patients per annum from Germany and abroad. The high-level diagnostic facilities include magnetic resonance imaging (MRI), positron emission tomography (PET) with several tracers including amyloid imaging for Alzheimer's disease, cerebrospinal fluid (CSF) analysis, and extensive psychological assessment conducted by neuropsychologists. The centre serves as a clinical core centre of the German Competence Network Dementia (KND) and takes part in the research within the German Competence Network Degenerative Dementias (KNDD). Several investigator-initiated or industry-funded randomized controlled trials have been successfully performed. The Out-patient Geriatric Clinic and Geriatric Rehabilitation center of the ZGGF, provides diagnostic services for more than 300 new patients per year from Freiburg and Südbaden. ZGGF´s staff consists of board-certified physicians who specialize in treating the specific problems related to older adults. The staff also includes:

- A clinical nurse specialist in geriatrics
- A social worker dedicated to helping people cope with the problems that sometimes confront older adults
- A physiotherapy-department, responsible for estimating the risk of falls and treat the ambulatory and balance
- An occupational therapy-department, in authority to assess and treat the decreases in activities of daily living
- A neuropsychology department to account for cognitive testings
- A logopedics-department who investigates impairment in speech or swallowing.

Website: https://www.uniklinik-freiburg.de/zggf.html

City: Freiburg

Country: Germany

Mission/Research Topics:

- Image analysis of the disordered brain
- Molecular analysis of Alzheimer‘s Disease
- Mild cognitive impairment (MCI)
- Posterior cortical atrophy
- Speech processing problems related to Alzheimer‘s Disease
- Stress-induced functional concentration and memory impairment
- Vascular dementias, subcortical arteriosclerotic encephalopathy (SAE, Binswanger‘s disease)
- Evaluation of dementia therapies

Centre for Innovative Ageing (CIA), Swansea University

About:

The Centre for Innovative Ageing (CIA) is a centre of excellence for research and training in the study of ageing and provides the infrastructure, focus, leadership and support for ageing research and scholarship across the University's Academic Colleges. Its underlying philosophy is a positive holistic view of ageing with older people at its core.

The standing and reputation of the Centre's research activity is highly acclaimed. It has achieved international recognition for its work in social and environmental gerontology as a collaborating centre of excellence and a global leader in research by the International Association of Gerontology and Geriatrics (IAGG). Members of the Centre work with other centres in the UK, Europe, Africa, the USA, Canada, South Asia, Australia and New Zealand as collaborators, consultants or advisors for international projects.

The Centre's Director, Professor Vanessa Burholt, represents the UK on the Management Board of EU COST Action Reducing Old-Age Social Exclusion: Collaborations in Research and Policy (ROSEnet). She is also an elected member of the Ministerial Advisory Forum on Ageing, a Senior Research Leader for Health and Care Research Wales, and a Fellow of the Academy of Social Sciences as well as being an invited member of the International Network on Rural Ageing.

The Centre is the only one of its kind in Wales, identifying gaps in ageing research and generating new interdisciplinary knowledge in the field of ageing. The CIA has a philosophy of translating research into practice, achieved through active interaction with policy makers, managers and practitioners. The Centre fosters collaboration between business and academia, with the intention of multiplying the benefits of public and private investment in knowledge. As a result, health and social care policy makers and employers have a robust evidence base to inform care delivery and policy making while Welsh industry and business is well-placed to develop products and services that meet the changing requirements and expectations of the ageing population.

Website: http://www.swansea.ac.uk/humanandhealthsciences/research/centres-and-groups/centre-for-innovative-ageing/

City: Swansea

Country: UKл ииммммлмилбллльльььь

Mission/Research Topics:

- Civic and social engagement and participation of older people (e.g.: intergenerational relationships, social and support networks)
- Environments of ageing (e.g.: natural and built physical space, functional design)
- Care provision for older people (e.g.: social care, health care, residential care)
- Chronic conditions, falls and prevention in old age (e.g.: falls, stroke, cancer, dementia)

Centre for Integrated Research into Musculoskeletal Ageing (CIMA), University of Liverpool

About:

The MRC-Arthritis Research UK Centre for Integrated research into Musculoskeletal Ageing (CIMA), is a collaboration between researchers and clinicians at the Universities of Liverpool, Sheffield and Newcastle. Established in 2012, CIMA aims to understand why our bone, joints and muscles function less well as we age, and why older people develop clinical diseases of these musculoskeletal tissues, such as arthritis or osteoporosis.

The Centre brings together complementary and specialist expertise in skeletal muscle, bone, cartilage and tendon biology, ageing research, nutrition and exercise interventions, and clinical excellence in musculoskeletal disorders. Through an innovative, comprehensive and sustainable research programme, and through training the next generation of researchers, CIMA is developing an integrative approach to:

- Understand the processes and effects of ageing in tissues of the musculoskeletal system
- Understand how ageing contributes to diseases of the musculoskeletal system
- Understand how these processes may be ameliorated or prevented to help preserve the mobility and independence of older people.

Website: http://www.cimauk.org

City: Liverpool

Country: UK

Mission/Research Topics:

- Skeletal muscle, bone, cartilage and tendon biology
- Ageing research
- Nutrition and exercise interventions
- Clinical excellence in musculoskeletal disorders

Centre for Integrated Systems Biology of Ageing and Nutrition (CISBAN), Newcastle University

About:

CISBAN is a multidisciplinary research centre within Newcastle University. It is particularly closely associated with the Institute for Ageing and Health, with which it shares buildings on the Campus for Ageing and Vitality. Its staff members come mainly from the Faculty of Medical Sciences, the School of Computing Science and the School of Mathematics and Statistics.

Their research aims to develop an understanding of the biology of ageing and ageing-related diseases using a systems approach. The way nutrients are used by the body and what nutrients are consumed have been implicated as major influences on longevity.

However, there are multiple causes and mechanisms of ageing. Each mechanism may make only a modest contribution to the whole. By taking a systems-wide approach, CISBAN seeks to capture the whole picture of what drives the ageing process, not simply a limited view of the contributing factors.

In addition to traditional and high throughput laboratory techniques, CISBAN uses a number of modelling and software systems. Very large amounts of data are generated through a range of experimental studies and analysed in silico. This process provides a highly dynamic cycle of interaction between theoretical and experimental activity.

Website: http://www.ncl.ac.uk/cisban/

City: Newcastle upon Tyne

Country: UK

Mission/Research Topics:

- Cell senescence
- Dietary restriction
- Modelling
- Software development (e.g.: Saint, SyMBA)
- Other projects (e.g.: Oxidative stress and telomerase in stem cells)

UNIVERSITY OF Southampton

Centre for Research on Ageing (CRA)

About:

Population ageing brings new challenges for individuals and policymakers alike. Understanding ageing over the life course is at the heart of such challenges.

The Centre for Research on Ageing examines key issues in ageing across the life course. Their members of staff are engaged in high-quality postgraduate teaching in gerontology and cutting-edge research in the field. They offer postgraduate programmes, face-to-face or by distance learning, which equip students with substantive knowledge of policy-relevant issues in gerontology and with quantitative and qualitative research methods training.

Through high quality research, the Centre contributes to a better understanding of the experience of ageing amongst different groups and societies, which will in turn place us in a better strategic position to improve the quality of life of older people.

In addition to research, the Centre contributes to capacity building of future academics and professionals by teaching different postgraduate programmes in Gerontology.

Website: https://www.southampton.ac.uk/ageing/index.page?

City: Southampton

Country: UK

Mission/Research Topics:

- Ageing in developing and transitional societies
- Diversity in later life and the ageing of ethnic minority communities
- Economic and social resources in old age
- Inequalities in later life, particularly with respect to health and access to health and social care services
- Quality of life
- Retirement prospects of future generations of elders
- Social networks and informal support
- Developing a range of tools for policy analysis

Centre for Research on Ageing (CRA), Curtin University of Technology

About:

Curtin University is Western Australia's largest and most culturally diverse university with Australia's third largest international student population.

Since their inception, they have taken an innovative approach towards teaching and research.

Their campuses are vibrant, welcoming spaces that value diversity and difference, emphasise industry connections and practical learning, have a strong commitment to social justice, and foster a forward-thinking culture for our students, staff and the wider community.

In line with developments in Perth, they are beginning to transform our main Bentley Campus into a cultural hub where members of the community can live, study, work and socialise together as part of the Greater Curtin project.

As they move into their 50 years of innovation, our renewed focus will be on delivering excellence and strengthening our position as a leading global university, according to our vision, mission and values.

Website: http://www.curtin.edu.au/

City: Perth

Country: Australia

Mission/Research Topics:

With a breadth of research activity, the Faculty of Health Sciences works across disciplines and beyond the University, connecting the brightest minds to find innovative solutions to the world's greatest health challenges. They offer pioneering taught courses, which draw upon our leading research and strong links to global industry. Research students study with experienced researchers in innovative facilities acquiring the knowledge and skills to help them advance health and wellbeing around the world, focusing on:

- ageing
- chronic disease
- Indigenous health
- mental health
- population health

Centre for Research on Ageing and Gender (CRAG), University Surrey

About:

The Centre for Research on Ageing and Gender (CRAG) brings together social scientific expertise to conduct policy relevant research on gender and ageing and their intersection with other forms of social division, identity and (in)equality.

CRAG focuses specifically on the intersections between gender and ageing, in addition to other aspects of social division, identity and inequality, such sexuality, social class and ethnicity.

The principal aim is to advance understanding of how gender influences the experience of ageing, and how ageing influences gender roles and relationships.

Website: https://www.surrey.ac.uk/sociology/research/researchcentres/crag/

City: Guildford

Country: UK

Mission/Research Topics:

- Undertaking research on gender and ageing. CRAG members have expertise in a range of research methodologies, including qualitative research, evaluation research, and secondary analysis of large national data sets
- Collaborating on interdisciplinary projects with psychologists, nutritionists, economists, bio-medical scientists, and health specialists
- Taking an holistic approach, which emphasises the interconnections between health, income and material resources, and social roles and relationships, and how these vary according to gender difference and diversity
- Adopting a life course approach, which links socio-economic position, roles and relationships in later life to the earlier biographies and intersectionality,which addresses mutliple axes of inequality, power and privilege
- Encouraging scientific exchange through honorary visiting research positions for international scholars. In Spring 2015 CRAG was delighted to host Professor Mark Hughes, Southern Cross University, Australia
- Providing opportunities for doctoral research students in a stimulating research environment
- Collaborating with user groups, activists and advocates concerned with the well-being of all older people
- Organising and participating in conferences, seminars and workshops which disseminate research findings to the academic community, professional groups and wider publics
- Developing a media profile for exchange and dissemination of information and research findings.

Centre for Research on Personhood in Dementia (CRPD), University of British Columbia

About:

The Center for Research on Personhood in Dementia (CRPD) is a BC-based virtual research centre located at UBC (Vancouver campus). Led by co-directors Deborah O'Connor (Social Work) and Alison Phinney (Nursing), the CRPD serves as a hub for research generation, training, and knowledge application around issues of personhood and citizenship in dementia. The CRPD includes researchers located at UBC and other universities in British Columbia.

They conduct theoretical and applied research aimed at understanding and supporting personhood and citizenship in dementia. Their work is situated in three intersecting domains: lived experiences, interactional environments, and socio-cultural contexts.

The CRPD provides an interdisciplinary home for students, post-doctoral researchers, and visiting scholars who are conducting research on topics related to personhood and citizenship in dementia. They are a vibrant scholarly community with connections across BC, Canada, and internationally.

They also work with an active network of community partners to help translate and mobilize new knowledge into real life settings.

Website: http://crpd.ubc.ca

City: Vancouver

Country: Canada

Mission/Research Topics:

- Serve as a virtual research centre located at UBC (Vancouver campus).
- Research generation, training, and knowledge application around issues of personhood and citizenship in dementia.

The mission of the CRPD is to initiate, facilitate, and integrate trans-disciplinary research that increases understanding and implementation of personhood approaches to dementia and dementia care. It aims to increase understanding of personhood in dementia and develop interventions for supporting personhood.

Centre Hospitalier Affilié Universitaire de Québec (CHA)

About:

In a world where health needs are constantly and rapidly increasing, and where scientific and technological innovation has the lion's share of the collective wealth of modern societies, the CHU Research Center (CRCHU) in Quebec City 'is already distinguished by the quality and originality of its different teams of researchers, both in the fundamental sector and translational and clinical. This Strategic Research Development Plan is guided by an already proven philosophy that excellence and performance are the key to success in the scientific community and constitute the benchmark against which researchers are evaluated by their peers.

Inspired by the people who animate its daily life, the CHU of Québec-Université Laval (CHU) strives for excellence and offers humanistic care and services to the public. Engaged and innovative, his teams concentrate their efforts on the benefit of the person. They shape the care of today and tomorrow, train the next generation, contribute to cutting-edge research, and evaluate health technologies and practices. With recognized vision and knowledge, the UHC contributes to numerous projects in the fields of health, science, knowledge sharing and economic and social development.

Affiliated with Laval University, the University Hospital of Quebec-Laval University (CHU) provides general, specialized and highly specialized health care and services, integrating teaching, clinical and basic research and technology evaluation. modes of intervention in health.

The CHU offers a full range of general, specialized and subspecialized care. Their teams are recognized here and elsewhere for the quality of their expertise . They have developed very specific knowledge in several specialties. Moreover, in Quebec, some care is only provided in our hospitals!

They also offer a full range of high quality general and specialized care to the people of eastern Quebec and parts of northeastern New Brunswick, a pool of nearly 2 million people.

Website: https://www.chudequebec.ca/accueil.aspx

City: Quebec

Country: Canada
Mission/Research Topics:

- Endocrinology and nephrology
- Infectious and Immune Diseases
- Regenerative medicine
- Neuroscience
- Oncology
- Reproduction, health of mother and child
- Public health and best practices in health

Centre on Aging, University of Manitoba

About:

The Centre on Aging, University of Manitoba, was established on July 1, 1982, with a mandate to serve as a focal point for the conduct of research on aging. The Centre has developed a national and international reputation for excellence in research.

The experiences of aging individuals and the dynamics of an aging society are investigated using rigorous scientific standards. Community representatives contribute to projects, and the Centre distributes its findings to administrators, policy makers, practitioners, and seniors to assist them in making decisions.

The Centre on Aging believes listening to older adults and those who work with them ensures more appropriate research. Dialogue is encouraged through:

- An annual spring symposium which brings together researchers and community representatives;
- Informal seminars on current research and future directions;
- Public lectures by internationally renowned researchers;
- Newsletter published three times each year.

The Centre with its partners generates, supports, and promotes interdisciplinary research on aging at Manitoba universities to improve the lives of older adults, their family, caregivers, and communities.

Website: http://umanitoba.ca/centres/aging/

City: Winnipeg

Country: Canada

Mission/Research Topics:

- Chronic health problems (dementia, arthritis, depression)
- Consequences of early brain damage to normal aging,
- Changes in memory function with advancing age
- Neuronal plasticity
- Memory encoding/impairments after stroke, trauma, and seizure activity

Centre on Aging, University of Victoria

About:

The Institute on Aging and Lifelong Health at the University of Victoria is a multidisciplinary research centre. The institute takes a leading role in developing and refining research skills and mentoring the next generation of researchers and community-minded citizens.

Much of their work is rooted in a broad orientation to health that includes attention to the social, psychological, environmental, and cultural contexts in which people live, as well as the institutions responsible for the health of aging populations. They recognize that aging is a life-long process that requires attention to developmental changes that occur across the life span.

Their overall goals are to contribute to improving the health and quality of life of an increasingly diverse population of older adults, and to assist their families, heath care providers, and the government in meeting the challenges and potentials of an aging society.

In order to achieve these broad goals, the institute has as its specific objectives:

- To add to the body of knowledge on aging and health by stimulating and conducting rigorous basic and applied research.
- To provide a focus and direction to the University's and region's research activities in the area of aging and health.
- To facilitate communication and collaboration among scholars, practitioners, government officials, and older adults.
- To contribute to the training of skilled research personnel which includes promoting and facilitating post-doctoral, graduate and undergraduate training within the area of aging and health.
- To mobilize knowledge on aging and health with scientists, practitioners, and the public.
- To promote the translation of research findings into interventions, services, products, and policies relevant to older adults.

Website: https://www.uvic.ca/research/centres/aging/

City: Victoria

Country: Canada

Mission/Research Topics:

- Needs assessments
- Social surveys
- Expreimental research
- Program evaluations
- Development of clinical diagnostic tools
- Social policy research

Clinical Ageing Research Unit (CARU)

About:

The Clinical Ageing Research Unit (CARU) is a £5.5 million clinical research facility funded by the Wellcome Trust and Wolfson Foundation.

They opened in September 2008 and are located on the University's Campus for Ageing and Vitality.

Their primary aim is to facilitate the development of early assessment and intervention strategies targeted at age-associated degenerative conditions.

They provide a high quality, patient-friendly environment for phase II-IV clinical studies in the older patient. They employ experienced research nurses with specific training in commonly used, relevant assessment instruments.

Clinical trials are supported by a high quality research infrastructure, embedded within the joint Acute Trust-University research system, with a study coordinator and data manager located on site.

The Newcastle upon Tyne Hospitals NHS Foundation Trust and Newcastle University were jointly awarded the NIHR Newcastle Biomedical Research Centre (BRC) status by the National Institute for Health Research. The NIHR Newcastle Biomedical Research Centre aims to improve the lives of the growing number of older people through translational research into ageing syndromes and long-term conditions. Research themes comprise dementia, liver disease, musculoskeletal Disease, neuromuscular disease, skin and oral disease.

And syndromes common to the older population, such as stroke and cardiovascular ageing, visual failure and diabetes.

CARU has a key role in delivering studies falling within these research themes.

Website: http://www.ncl.ac.uk/caru/

City: Newcastle upon Tyne

Country: UK

Mission/Research Topics:

- Dementia and neurodegenerative diseases
- Stroke and cardiovascular ageing
- Musculoskeletal disease
- Visual failure
- Type 2 Diabetes
- Liver disease
- Mitochondrial disease

Northwestern University Feinberg School of Medicine

Cognitive Neurology and Alzheimer's Disease Center

Cognitive Neurology and Alzheimer's Disease Center (CNADC)

About:

With decades of experience studying dementia and Alzheimer's disease, the CNADC has a wealth of knowledge at its fingertips. The director of the Center, Dr. M.-Marsel Mesulam, is a world-renowned researcher in Alzheimer's disease, behavioral variant frontotemporal dementia (bvFTD), and primary progressive aphasia (PPA), a condition that Dr. Mesulam identified in the 1980's. The Northwestern Alzheimer's Disease Center is one of the prestigious 30 research institutions in the Alzheimer's Disease Centers Program of the National Institute on Aging, one of the National Institutes of Health. Many of the affiliated researchers have national and world-wide recognition.

The Human Cognitive Brain Mapping Program, genetics studies, and experimental treatments are all part of the cutting-edge research conducted at the CNADC. Using powerful imaging technology, researchers are able to visualize areas of the brain that are activated during mental exercises in real time. Researchers study healthy and abnormal human brains to discover how and where neurodegenerative disease affects the brain and why there are different types of symptoms in different people. Research is ongoing at the Center and its affiliated laboratories on the chemistry of memory, the treatment and prevention of Alzheimer's disease, the causes and treatments of PPA and bvFTD, and the nature of cognitive and behavioral changes in Alzheimer's disease.

Breakthroughs are made every day. And researchers use their knowledge to benefit the patients they see in the CNADC.

Website: http://www.brain.northwestern.edu/

City: Guildford

Country: UK

Mission/Research Topics:

- To provide the highest quality clinical care, i.e., diagnostic evaluation and Treatment
- To conduct research on how the brain coordinates mental functions
- To transfer the benefits of research to afflicted patients
- To train researchers and clinicians to work in this field

European Research Institute for the Biology of Ageing (ERIBA)

About:

The mission of the ERIBA is to better understand what causes ageing. The studies are focused on the mechanisms that result in loss of cells with age and the decline in the function of old cells and tissues. ERIBA aims to develop novel strategies to prevent or combat age-related disease and to provide evidence-based recommendations for healthy ageing.

Healthy ageing is a lifelong process that starts even before conception, with parents who pass on their genes and with them the risks and opportunities for a healthy life course, or the occurrence of illness later in life. Lifestyle, food patterns and environmental factors influence the development of health. However, new knowledge is required about the influence of these factors, and how they interact with one another

Research into ageing calls for a multidisciplinary approach. In Groningen Healthy Ageing is seen as a joint research challenge for the UMCG, the University of Groningen, the Hanze University of Applied Sciences, and various regional, national and international partners.

The multidisciplinary research extends from fundamental biological and (pre)clinical research through to applied research into social-societal effects of disease and health. In this way results can be translated rapidly into adequate and/or improved prevention and treatment methods. This in turn leads to new products in the field of medication and medical technology for making diagnoses, and for example for the development of new nutritional products – another aspect in which this research is of vital importance.

Website: https://www.umcg.nl/NL/Zorg/paginas/Default.aspx

City: Groningen

Country: Netherlands

Mission/Research Topics:

- Investigate how extra years of life can be spent in good health.
- Primary prevention (preventing disease).
- Secondary prevention (timely discovery, treatment and slowing down progression).
- Tertiary prevention (preventing recurrence and aggravation, focusing on job retention).
- Work with knowledge institutions at home and abroad, regional governments and companies to develop knowledge and translate that knowledge into concrete products and services for the patient, consumer and healthcare professionals.

Geriatrics Center & Institute of Gerontology

About:

The University of Michigan Geriatrics Center seeks to increase the span of healthy, active life for older adults through interdisciplinary clinical care, education, research and community service.

Created by the Regents of the University of Michigan in 1987, the Geriatrics Center was established to enhance geriatrics-related research, education and patient care by improving interaction and cooperation among faculty representing various Schools and Institutes at the University. Today, nearly 300 affiliated faculty are principal investigators on grants totaling approximately $79 million annually. These faculty represent various units in the University including the Medical School, School of Nursing, School of Social Work, Institute of Gerontology, School of Public Health, Dental School, Institute for Social Research, Mental Health Research Institute, Kresge Hearing Research Institute, College of Engineering, and College of Literature, Science and the Arts. The primary goals of the University of Michigan Geriatrics Center are:

- To strengthen the U-M environment for training of future academic leaders in geriatrics.
- To stimulate multidisciplinary research of important healthcare problems of older patients.
- To enhance the productivity of currently funded research.
- To provide exemplary multidisciplinary patient care for older adults.
- To provide outstanding training opportunities for trainees and healthcare professionals from a variety of disciplines involved in caring for the elderly population.
- To establish and maintain a highly-visible, nationally-recognized facility dedicated to geriatrics.

Website: http://www.med.umich.edu/geriatrics/index.htm

City: Ann Arbor

Country: USA

Mission/Research Topics:

- Biogerontology
- Biomechanics and mobility
- Ageing populations (understand risk factors and outcomes of diseases)
- Clinical and translational research (age-related diseases)

Gerontology Research Institute at the University of Massachusetts Boston

About:

The Gerontology Institute carries out basic and applied social and economic research on aging and engages in public education on aging policy issues, with an emphasis in four areas: income security, health (including long-term care), productive aging (including transportation), and basic social and demographic research on aging. The Institute's work on income security includes active participation in the national debate on Social Security reform. The Institute's research in this area includes minority participation in private pensions, reverse-equity mortgages, and income adequacy for elders. The Institute's Pension Action Center offers counseling for citizens on their pension rights.

Long-Term Care Projects include analysis of options to strengthen long-term care financing, the development of improved measurements of the quality of long-term care, and technical assistance to the Massachusetts Legislature and the Executive Office of Elder Affairs on long-term care policy and program development. The Institute's work on productive aging focuses attention on employment, volunteer and educational opportunities for older adults, and transportation issues for older adults. Work in these areas has included a demonstration concerned with age discrimination in employment, a demonstration to assist councils on aging to develop stronger volunteer programs, and promoting safe mobility and alternatives for elders who have stopped driving.

The Institute's work on social demography includes research on the changing age composition in Massachusetts and in the U.S., educational attainments of Massachusetts elders, characteristics of householders and homeowners ages 65 and older, among other topics.

The Institute provides editorial leadership for the Journal of Aging & Social Policy, a peer-reviewed, quarterly journal published by Taylor-Francis. The Journal is distinguished by its emphasis on policy and its attention to international developments. Support for Educational Programs in Gerontology. The Institute has a close relationship with the University's undergraduate and graduate Gerontology programs. Senior Institute personnel teach in the PhD program in Gerontology. The Institute provides apprenticeship opportunities for graduate students. Gerontology faculty members are active in conducting research in the Institute.

Website: https://www.umb.edu/gerontologyinstitute

City: Boston / MA

Country: USA

Mission/Research Topics:

- Basic and applied social and economic research on aging
- Engaging in public education on aging policy issues: income security, health (including long-term care), productive aging (including transportation), and basic social and demographic research on aging.

- .Analysis of options to strengthen long-term care financing,
- Development of improved measurements of the quality of long-term care
- Technical assistance to the Massachusetts Legislature and the Executive Office of Elder Affairs on long-term care policy and program development.
- Research on the changing age composition in Massachusetts and in the U.S., educational attainments of Massachusetts elders, characteristics of householders and homeowners ages 65 and older, among other topics.
- Editorial leadership for the Journal of Aging & Social Policy, a peer-reviewed, quarterly journal published by Taylor-Francis.
- Support for Educational Programs in Gerontology.

Institut für Gerontologische Forschung IGFe.v.

About:

The Institute for Gerontological Research (IGF) is an independent and interdisciplinary research institute located in Berlin and Munich. For more than 30 years they team has been researching aspects of the “ageing society”. Their aim is to identify and promote approaches, methods and frameworks that enable people to continue to lead independent lives as they grow older.

They believe that the successful development and realisation of sustainable concepts requires a cooperative process involving all relevant stakeholders. The same also applies to tackling the challenges presented by resurgent old-age poverty, ageing migrant communities, the rise in dementia, and soaring demand for qualified carers and nursing staff.

They develop empirically grounded research and concepts using a broad spectrum of sociological methods, and participate in successful research alliances and networks. They findings and recommendations address the full spectrum of opportunities for change, from governance and management through healthcare and social work procedure to design, architecture and planning. In our research projects they also make a point of collaborating with partners working in the field: social services, vocational training, housing associations, senior citizens’ groups, and political figures at the municipal, state and national level.

Website: http://www.brain.northwestern.edu/

City: Munich

Country: Germany

Mission/Research Topics:

- Research aspects of the “ageing society”.
- Identify and promote approaches, methods and frameworks that enable people to continue to lead independent lives as they grow older.
- Develop empirically grounded research and concepts using a broad spectrum of sociological methods, and participate in successful research alliances and networks.

Institute for Aging Research (IFAR)

About:

For more than 50 years, the Institute for Aging Research has initiated hundreds of studies that challenge health-related assumptions commonly associated with aging. Their findings have a direct and positive impact on the standard of care and quality of life for seniors around the world.

IFAR is one of the largest gerontological research facilities in a clinical setting in the U.S. They are a research affiliate of HarvaFor more than 50 years, the Institute for Aging Research has initiated hundreds of studies that challenge health-related assumptions commonly associated with aging. They findings have a direct and positive impact on the standard of care and quality of life for seniors around the world.

Their decades-long relationship with Harvard Medical School has attracted expert teaching staff and top-notch research fellows. Their research portfolio ranks us in the top 15% of institutions funded by the National Institutes of Health, and ranks number one among hospital-based geriatric research facilities.

Because IFAR operates within the Hebrew SeniorLife system, their researchers work in close proximity to more than 3,000 seniors each day, many of whom volunteer to participate in our studies. Their needs, struggles, and challenges drive their work. And their results are used to develop services, programs, and best practices in the treatment of common conditions associated with aging. As a part of Hebrew SeniorLife, their goal is to further their shared mission to redefine the aging experience.

Website: https://www.instituteforagingresearch.org/

City: Boston

Country: USA / MA

Mission/Research Topics:

- Cognitive impairment
- Mental health and ageing
- Musculoskeletal disorders
- Palliative care
- Quality of care and health care standards
- Syncope and falls

Institute for Biomedical Aging Research (IBA)

About:

Worldwide, the segment of the population aged 60 or over is increasing rapidly. In the year 2006, in Austria, more than one-fifth of our population has been over 60 years of age. In 2030 this segment will amount to one third. These senior citizens will place an enormous personal and socioeconomic burden on their families and on our society unless we act quickly to develop better prevention and treatment programs for many of the physical and mental ailments associated with old age. The goal of biomedical research on aging is to help people grow old with dignity and in good health.

The IBA has the following specific research goals:

(a) to study aging processes at the molecular, cellular, and organismic level in order better to understand age-related changes and impairments;

(b) to define measures to postpone/prevent age-related problems to improve the quality of life in old age.

Website: https://www.uibk.ac.at/iba/

City: Innsbruck

Country: Austria

Mission/Research Topics:

- Endocrinology
- Immunology
- Molecular and Cell Biology
- Stem Cell Ageing
- Adipose Tissue and Oncoproteins

Institute for Biostatistics and Informatics in Medicine and Ageing Research (IBIMA)

About:

The core interest of the Bioinformatics department is the investigation of intervention effects using gene expression (next-generation sequencing) data. For example, they predicted which drugs may be repositioned to inhibit fibrosis after glaukoma surgery (BMBF validation research project), and validated the top-ranking compound in vitro. Moreover, they wish to discover the healthspan pathways triggered by interventions proposed to enable healthy ageing (EU Horizon 2020 project). Also, they work with Leukemia, Parkinson, and Alzheimer data, among others. The Bioinformatics department is composed of the following groups: Medical Bioinformatics (Moeller, Fuellen), focussed on intervention effects, Junior Research Group Integrative OMICS Analyses (Hamed), and next-generation sequencing data (Barrantes).

Website: http://139.30.163.40/IBIMA/index.php

City: Rostock

Country: Germany

Mission/Research Topics:

The tasks of the Department of Biostatistics of Institute for Biostatistics and Informatics in Medicine and Ageing Research of the University Clinical Centre Rostock are

1. Applications and developments of statistical methodology for all areas of fundamental and patient-orientated medical research.

2. Findings of medical researcher has worked out with suitable correct methodology. Therefore, Biostatistics contributes by accurate planning, purposeful collection and preparation of required data as well as adequate statistical analysis to a appropriate interpretation of obtained research results.

3. Fundamental for their work is the interdisciplinary. Therefore, they put value to a pronounced competency of our staff members to cooperation with medical research partners, to a fair and friendly conduct of talks and to simple presentation of complex mathematical themes.

4. The Department Biostatistics supports the process of transfer of existing knowledge into medical practice. Thereby, it performs a valuable contribution to the continuous improvement of patient care in the university hospital and beyond.

5. By imparting of knowledge of methodical principles of Biostatistics and Clinical Epidemiology they create an important qualification for a professional activity for the purpose of evidence-based medicine (EbM)

Institute for Memory Impairments and Neurological Disorders (UCI MIND)

About:

The UC Irvine Institute for Memory Impairments and Neurological Disorders (UCI MIND) is internationally recognized for its research accomplishments in age-related brain disorders. UCI MIND is the University's center for aging and dementia research, with our faculty seeking to understand the causes leading to neurological disorders such as Alzheimer's disease, frontotemporal dementia, Lewy body dementia, and Huntington's disease.

For more than 30 years, UCI MIND has been at the forefront of Alzheimer's disease research. It is home to one of 30 Alzheimer's Disease Research Centers (ADRC) funded by the National Institute on Aging (NIA), a branch of the National Institutes of Health (NIH), and one of 10 California Alzheimer's Disease Centers funded by the California Department of Public Health.

Website: https://www.mind.uci.edu/

City: Irvine

Country: USA / CA

Mission/Research Topics:

The mission of UCI MIND is to enhance the quality of life for older adults by researching genetic, clinical, and lifestyle factors that promote successful brain aging. Toward this end, UCI MIND engages in a variety of activities, some of which are listed below:

- Conduct longitudinal research that follows individuals with and without cognitive impairment to evaluate their clinical, neuropsychological, and biological changes over time
- Perform clinical trials of promising investigational medicines, lifestyle interventions, and other treatment modalities
- Share biological resources such as human brain tissue, serum, DNA, and cerebrospinal fluid from well-characterized clinical subjects with researchers worldwide
- Deliver community outreach with the goal of public education and increased participation in research
- Train and educate the next generation of clinicians and scientists in the fields of brain aging and neurodegeneration
- Stimulate research through individual and collaborative grants and philanthropy
- Sponsor seminars and meetings to promote scholarship and information exchange
- Partner with community-based organizations serving individuals with Alzheimer's disease and related dementias to provide scientific and clinical expertise.

INSTITUTE OF AGEING
AND
CHRONIC DISEASE

Institute of Ageing and Chronic Disease Research

About:

The Institute of Ageing and Chronic Disease is using world-class research to improve the quality of life of millions of people on an international scale.

They want to understand the mechanisms of ageing – from the cellular to the muscular skeletal – to find the ways to delay its onset, and to mitigate its effects. Understanding how and why aging happens leads to an understanding of how to intervene.

They are finding new insights into musculoskeletal biology and eye and vision sciences, as well as examining functions like movement, metabolism and sight.

They do that in the laboratory and at the bedside, looking at the impact of lifestyle and patient behaviour, as well bioscience and epidemiology, finding the risk factors which can cause disease, and then finding better prevention measures and methods of care.

They research translates into real benefits for people and animals of all ages - from unique approaches to prevent muscle wasting in intensive care patients, a retina scan to detect cerebral malaria in African children, and exercise and nutritional regimes that can prevent obesity and morbidity. They are also making strides in veterinary medicine, and investigating rare diseases like alkaptonuria, which causes severe early onset osteoarthritis.

And they don't work alone. They have newly-created facilities in the University of Liverpool's William Henry Duncan Building, work closely with other exceptional university teams such as the School of Veterinary Science and its Leahurst animal hospital, and their global partners include the Wellcome Trust, UK Research Councils, NIH (USA), Unilever and GSK.

Website: https://www.liverpool.ac.uk/ageing-and-chronic-disease/

City: Liverpool

Country: UK

Mission/Research Topics:

- Musculoskeletal biology
- Eye and vision sciences
- Obesity and endocrinology

Institute of Aging Research, HZNU
杭州师范大学医学院衰老研究所

Institute of Ageing Research

About:

The Institute of Aging Research (IAR) is a professional scientific research institution established with the strong support of Hangzhou Municipal Government. The institute boasts a team of experienced experts and researchers headed by renowned scholars with international and national fame, and it is equipped with internationally most advanced facilities for medical research, including platforms of animal models, cell sorting, microimaging, molecular pathology, proteomics, molecular engineering and trace metal analysis systems.

The institute aims to conduct omnibearing, systematic and fundamental research on aging mechanism by combining basic investigation with clinical practice, integrating studies of major aging related disease conditions and those of key molecules and their interface and networks, and piecing together the defects at the levels of molecules, cells, tissues, organs and the individuals.

IAR has 4 major research programs, namely Stem cells and tumor cell senescence, Immune senescence and diseases, Brain and cardiovascular aging and Metabolic and endocrine aging.

In 2011, the institute's project of "Telomere Binding Proteins and Diseases" has been listed by China's National Science Foundation as a "Major National Project of Scientific Research" and has therefore been granted exceptionally strong support from the Foundation.

Website: http://ageing.hznu.edu.cn/en/

City: Hangzhou

Country: China

Mission/Research Topics:

- Tumor cells and stem cell ageing
- Immune system ageing and related diseases
- Metabolism and endocrine system of ageing and related diseases
- Heart ageing
- Brain ageing

Institute of Aging (IA)

About:

At the Canadian Institutes of Health Research (CIHR), they know that research has the power to change lives. As Canada's health research investment agency, they collaborate with partners and researchers to support the discoveries and innovations that improve our health and strengthen our health care system.

CIHR established the Institute of Aging (IA) «to support research, to promote healthy aging and to address causes, prevention, screening, diagnosis, treatment, support systems, and palliation for a wide range of conditions associated with aging.» Unlike many other CIHR Institutes, which are focused on particular diseases, the Institute of Aging's mandate is the aging person in an aging society, and the effects of different diseases and conditions on aging. Its goal is to improve the quality of life and health of older Canadians by understanding and addressing or preventing the consequences of a wide range of factors associated with aging.

Website: http://www.cihr-irsc.gc.ca/e/8671.html

City: Vancouver

Country: Canada

Mission/Research Topics:

- Healthy and successful ageing
- Biological mechanisms of ageing
- Cognitive impairment in ageing
- Ageing and maintenance of functional autonomy
- Health services and policy relating to older people

Their mission is to create new scientific knowledge and to enable its translation into improved health, more effective health services and products, and a strengthened Canadian health care system.

Institute of Development, Aging and Cancer (IDAC)

About:

IDAC is Japan's Center for Smart-Aging Research. They are a unique institute that is part of Tohoku University and they are affiliated with other national universities that also promote aging sciences.

It is a well-known fact that Japan's population is aging faster than any other country in the world, and the need for aging research is becoming greater each day. Currently, the elderly make up more than 25% of the population, and in addition to the decline in birthrate, there is also a decline in the working population. In order to maintain a healthy society, it is clear that urgent measures must be taken to support an aging population.

The purpose of their institute is to shed light on the basic mechanisms of aging and to control age-related diseases, such as dementia and intractable cancers. To achieve their goals, they promote research under 3 main groups: (1) molecular mechanisms of aging and the self defense system, (2) molecular mechanism of carcinogenesis and cancer growth, and (3) brain maturation and aging. IDAC is one of the very few research institutes in the world that manages comprehensive multi-hierarchical medical research to focus on the complex mechanism of aging, by methods ranging from studying genes and cells using molecular biology techniques to directly studying people.

Specifically, their ultimate goal is to realize "smart-aging", which refers to the development and maturation of individual abilities as one gets older, where everyone can welcome old age with liveliness and continue to be an active part of society.

To make this possible, their goal is to provide medical support and policies as well as becoming a leading research center by showing the world that they can effectively manage a super-aging society. As time passes, it is critical for individuals and the population as a whole to remain healthy and continue to have the vitality for growth and wisdom.

Website: http://www.idac.tohoku.ac.jp/site/

City: Aoba-ku Sendai

Country: Japan

Mission/Research Topics:

- Molecular mechanisms of ageing and self defense system
- Molecular mechanism of carcinogenesis and cancer growth
- Brain maturation and ageing

Institute of Gerontology
College of Public Health
UNIVERSITY OF GEORGIA

Institute of Gerontology

About:

The Institute of Gerontology leads cutting edge research and education in the classroom and community. They advance their healthy aging mission through collaborative strengths in mental health and cognition, technology innovation, and positive lifestyle promotion.

Institute coordinates and promotes multi- and inter-disciplinary ageing research, training, and outreach services at the University of Georgia. Keystone research project was The Georgia Centenarian Study (1998 to 2007) of longevity and survival of the oldest old.

Website: http://iog.publichealth.uga.edu/

City: Athens

Country: USA / GA

Mission/Research Topics:

- Functional assessment
- Caregiving
- Long term care
- End of life care
- Genetics of ageing
- Normal to pathological memory changes
- Vision
- Nutrition
- Exercise science
- Pharmacy
- Adult education
- Social work
- Marketing and housing

Institute of Gerontology (IOG)

About:

Research is focused on research in social and behavioral sciences and cognitive neuroscience to issues of ageing and urban health.

Established in 1965, the Institute of Gerontology has long been a leader in outreach to both professionals and members of the community. As a nationally recognized authority on aging issues, their mission is to conduct research and translate that knowledge into meaningful programming for seniors, their caregivers and the professional community serving them. Their team of faculty, students, staff, and countless volunteers all share a passion and dedication to the promotion of successful aging.

Their volunteer core, the Elder Advisors to Research joined with the IOG faculty in 1999 to create a conference organized by seniors for seniors. What began as an experiment has evolved into a much-anticipated annual event with a sell-out crowd of 500 seniors. The conference, anchored by a well-respected keynote speaker and featuring several break-out workshops, promotes creative expression, social connection and information on ways to positively embrace all facets of aging.

Website: https://iog.wayne.edu/

City: Detroit

Country: USA / MI

Mission/Research Topics:

- Financial Gerontology. Research looking into financial decision-making; assessing community needs; and the impacts of governmental health programs.
- Lifespan cognitive neuroscience. Explores aging and brain health through a variety of psychological pathways.
- Health disparities and disability. Research focused on understanding and eradicating health disadvantages among minority populations.
- Mental health and physical well-being. Research directed at improving the quality of life for people with physical and cognitive impairments.

Institute of Healthy Ageing (IHA)

About:

The Institute of Healthy Ageing is an interdisciplinary centre of excellence for research on the biology of ageing and ageing-related diseases. The biological process of ageing contributes to increased risk of a wide range of diseases, from neurodegenerative diseases (e.g. Alzheimer's and Parkinson's disease) and cancer to cardiovascular disease (causing heart attack and stroke) and age-related macular degeneration (causing blindness in the elderly).

Their primary purpose is to bring together researchers working on the basic biology of ageing (biogerontology) with those working to understand the causes of ageing-related disease. By merging the two, they aim to develop a new translational biogerontology using the ageing process as a point of intervention to protect against the diseases of old age. Their goal is to improve the health and quality of life for older people.

The work of the Institute of Healthy Ageing is pursuing these ends by:

- Conducting world class research on the biology of ageing and ageing-related disease
- Increasing capacity in research on the biology of ageing by training new researchers and nurturing the work of younger principal investigators
- Teaching about the biology of ageing at undergraduate and postgraduate levels

The problem of ageing is not just an issue of biology, but also of social science, economics and the built environment. A secondary aim of the Institute is to nurture broader collaborations across UCL between researchers working on different aspects of ageing.

They aim, through their combined activities, to transform healthcare technology and the social conditions of the elderly to create a future society in which the lives of older people are healthy, meaningful and happy.

Website: http://www.ucl.ac.uk/iha/

City: London

Country: UK

Mission/Research Topics:

- Genes and mechanisms that determine the rate of ageing
- Insulin/IGF-like signalling pathway, dietary restriction and resistance to stress
- Sex differences in the biology of ageing
- Evolutionary conservation of mechanisms of ageing
- Bioethical implications of ageing research

Institute of Psychogerontology (IPG)

About:

The Institute for Psychogerontology of the Friedrich-Alexander-University Erlangen-Nürnberg is the only university institution of its kind in Bavaria and is one of the few university institutes within the German-speaking world in the field of socio-behavioral science and behavioral science, which also teaches in the context of a master's program (M. .Sc., Univ) and basic scientific research in gerontology.

The Institute of Psychogerontology owes its existence to the founding director Prof. Dr. Oswald, who initiated the institute in 1986 and chaired it for more than 20 years. The importance of the Institute is also defined by the comprehensive focus on the field of medical, behavioral and social gerontology at the University of Erlangen-Nürnberg, which is the only university in Germany housing two independent institutions in Gerontology: the Institute of Biomedicine of Aging (formerly Institute of Gerontology, Chair: Prof. Dr. med. C. Sieber) and the Institute of Psychogerontology (Chair: Prof. Dr. F.R. Lang).

Since its foundation the Institute for Psychogerontology also experienced a positive development of its reseach work which received a great amount of attention in the scientific community and as well as in the media.

One focus during the first two decades of the Institute were mainly longitudinal studies on topics of developing dementia in later life.

Website: http://www.geronto.fau.de/

City: Erlangen

Country: Germany

Mission/Research Topics:

- Age and ageing in society and science
- Dementia
- Intellectual ageing and lifelong learning
- Mobility in old age
- Caregiving, demands and developmental gains
- Social relationships and personality across the lifespan

Institute on Aging, UC San Diego

About:

The Center for Healthy Aging and the Sam and Rose Stein Institute for Research on Aging at the University of California, Health Sciences, is dedicated to the development and application of the latest advances in biomedical and behavioral science knowledge to issues of successful, healthy aging and the prevention and reduction of the burden of disability and disease in late life.

Website: http://ageing.hznu.edu.cn/en/

City: San Francisco

Country: USA / CA

Mission/Research Topics:

- Support research to promote healthy aging and to address causes, prevention, screening, diagnosis, treatment, support systems, and palliation for a wide range of conditions associated with aging.
- Study the effects of different diseases and conditions on aging person in an aging society.
- Improve the quality of life and health of older Canadians by understanding and addressing or preventing the consequences of a wide range of factors associated with aging.

Institute on Aging, University of Florida

About:

The overarching goals of the Institute are:

- To conduct dynamic interdisciplinary research that spans public health, social, health services, behavioral, clinical and basic sciences. Our research focuses on mechanisms, etiology, prevention and rehabilitation of cognitive and physical disability. We strive to accelerate translation, dissemination and implementation of research findings into clinical practice and healthcare policy.
- To educate undergraduate, graduate, professional and post-graduate trainees in an integrated model of care and research.
- To provide state-of-the-art comprehensive patient and community-centered care for older adults that is grounded in respect and understanding and fosters compassion and effective communication with patients, populations and families.

They are committed to the highest level of excellence and integrity in every aspect of our business. Theypromote and support diversity in opinion, gender, race and ethnicity, promote collaboration and teamwork. They are focused on and committed to the healthcare needs of their patients. They show pride, enthusiasm and dedication in research, education and health care, which are aiming to improve the health, independence and quality of life of older adults. They are concerned about the environment and promote the use of recyclable products and renewable energy.

Website: http://aging.ufl.edu/

City: Gainesville

Country: USA / FL

Mission/Research Topics:

The mission of the Institute on Aging is to improve the health, independence and quality of life of older adults by means of interdisciplinary teams in the areas of research, education and health care.

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

Institute on Aging (IOA)

About:

The IOA promotes collaborative applied and basic gerontological research, develops innovative programs of interdisciplinary gerontological education and practice, and provides state-of-the-art information to policy makers, program managers, service providers, clinicians, and the general public.

Website:

City: Chapel Hill

Country: USA

Mission/Research Topics:

Institute on Aging, University of Pennsylvania

About:

The University of Pennsylvania's Institute on Aging was created in 1979 to improve the health of the elderly by increasing clinical and basic research as well as educational programs focusing on normal aging and age-related diseases across the entire Penn campus.

Housed within Penn's Perelman School of Medicine, the Institute on Aging is deeply committed to forging new paths in basic science and clinical care for the benefit of older adults.

Under the directorship of John Q. Trojanowski, MD, PhD, nearly 300 Institute on Aging fellows, representing faculty from 12 schools at Penn and aging experts outside of Penn, are focused on age-related areas of interest, including healthy aging, diseases of aging, public policy, law, nursing and economics.

In 2012, Penn ranked second highest for total research funding received from the National Institute of Health's National Institute on Aging (NIA). Current research projects are wide-ranging, investigating neurodegenerative diseases, frailty, and longevity, among other areas.

The Institute on Aging hosts several events per year on the latest research in aging, many of which are open to the public.

The IOA works collaboratively together with:

- Center for Neurodegenerative Disease Research (CNDR)
- Penn Alzheimer's Disease Center and Penn Memory Center
- Penn Udall Center for Parkinson's Disease Research along with researchers within collaborators in other divisions and departments:
- Parkinson's Disease and Movement Disorders Center
- Frontotemporal Degeneration (FTD) Center
- Division of Geriatric Medicine
- Ralston-Penn Clinic for Osteoporosis and Related Bone Disorders
- The Population Aging Research Center (PARC) in Sociology and Demography

In addition, partners include the NewCourtland Center for Transitions and Health, an interdisciplinary group, located in the School of Nursing, that is working to better understand transitions in health where nurses play a pivotal role in health promotion, prevention of health problems, and the effective care of people of all ages and at all stages of health.

Website: http://www.med.upenn.edu/aging/

City: Philadelphia

Country: USA / PA

Mission/Research Topics:

Institute on Aging, University of Virginia

About:

The Institute on Aging (IoA) is a pan-university initiative sponsored by the Office of the Vice President for Research. It promotes basic and applied research on topics related to aging, serves as an information and education resource about aging issues, and seeks to influence the development and implementation of public policy that addresses the needs of older adults. To that end, the Institute offers seed-money grants to stimulate new research and educational programs, and sponsors lectures and conferences for scholars, service providers, and the community at large.

The primary mission of the University of Virginia Institute on Aging is to understand and enhance the aging process throughout the human lifespan. It acts as a catalyst and coordinator for interdisciplinary research, education, and service programs within the University.

In the area of research, the primary goal is to promote basic and applied research on topics related to aging.

In the area of education, the primary goals are to serve as an information resource about aging issues, and to contribute to providing comprehensive education in gerontology and innovative practice in geriatrics.

In the area of service, the primary goal is to influence the development and implementation of public policy on aging, and assist in the development, implementation, and evaluation of programs and policies addressing the needs of older adults.

Website: http://www.virginia.edu/aginginstitute/

City: Charlottesville

Country: USA / VA

Mission/Research Topics:

- Cognitive ageing, memory loss, dementia
- Diabetes and ageing
- Brain imaging
- Life-span development
- Cell biological basis of Alzheimer‘s disease
- Neurodegenerative diseases
- Elderly care and caregivers
- Eldercare robotics
- Elder abuse

Institute on Aging, University of Wisconsin - Madison

About:

The University of Wisconsin Institute on Aging was founded in 1973 as the Faye McBeath Institute on Aging and Adult Life. Between 1973 and 1980, the Institute developed programs in community service as well as graduate training and research under the leadership of Professor Martin Loeb of the School of Social Work. Administratively, the Institute was located within the Graduate School of the Madison campus.

Professor David Featherman of the Department of Sociology was named Director in 1980. Under his leadership there was steady growth in the research mission of the Institute. Four multidisciplinary research clusters were conceived: biology of aging, clinical geriatrics, life-span development, and social gerontology. The first two represented basic and applied research in the biomedical sciences, while the latter two reflected social behavioral perspectives on basic and applied research.

Dr. Carol Ryff, Professor of Psychology, served as Interim Director of the Institute from 1995 to 1998, and in 1998, was named Director. One Associate Director, representing the biomedical sciences, was also appointed, a position first held by Dr. Joanne Robbins and then Dr. Neil Binkley, both from Department of Medicine. Fluorescing microscope in a Biomolecular Chemistry labUnder their leadership, the Institute on Aging continues to pursue its research, educational, and outreach objectives. Particularly prominent on the research side is the MIDUS (Midlife in the U.S.) national study of Americans, funded by a grant from the National Institute on Aging and directed by Dr. Ryff. MIDUS constitutes the leading edge of multidisciplinary aging research and involves many scientists from around the U.S., including many investigators from different departments on the UW-Madison campus. Its major objective is to understand the interplay of biological, psychological, and social factors as people age from early adulthood through later life. Also prominent is the Biology of Aging Training Grant (funded by the National Institute on Aging), first headed by Dr. Richard Weindruch and subsequently by Dr. Sanjay Asthana (Head of the Geriatrics Section in the Department of Medicine and Director of the Geriatrics Research, Education, and Clinical Center). This initiative has been a key mechanism for bringing talented new investigators to the field of aging.

Website: http://aging.wisc.edu/

City: Madison

Country: USA / WI

Mission/Research Topics:

- Biology of aging
- Clinical geriatrics
- Life-span development
- Social gerontology

Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA)

About:

The Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA) at Tufts University, located in Boston, MA, is one of six human nutrition research centers supported by the United States Department of Agriculture (USDA). They are a bench to bedside research center that generates translational scientific results. They are run by a cooperative agreement between the USDA and Tufts University and their center is one of the largest research centers in the world studying nutrition and its relationship to healthy aging and physical activity.

The HNRCA is the Tufts University resource for training graduate students and postdoctoral fellows in human nutrition and aging research. Many HNRCA scientists are faculty at the Friedman School of Nutrition Science and Policy, School of Medicine, and/or Sackler School of Graduate Biomedical Sciences at Tufts University and/or have appointments at Tufts Medical Center. HNRCA scientists have ongoing collaborations across the four Tufts University campuses and serve on university leadership positions.

Website: http://hnrca.tufts.edu/

City: Boston

Country: USA / MA

Mission/Research Topics:

- Antioxidants
- Body composition
- Bone metabolism
- Carotenoids and health
- Cardiovascular nutrition
- Dietary assessment
- Energy metabolism
- Epidemiology
- Lipid metabolism
- Nutrition
- Neuroscience
- Obesity metabolism
- Vitamin metabolism

Jena Centre for Systems Biology of Ageing (JenAge)

About:

The JenAge Centre is a multidisciplinary research centre located in Jena / Germany. It was launched in October 2009 as a result of the successful grant application of 10 Jena-based research groups to the German Federal Ministry's of Education and Research call 'Systems Biology for Health in Old Age - Gerontosys'.

The JenAge Centre aims to identify conserved transcriptional and metabolic networks activated by mild stress and to investigate their role in preserving functional integrity in old age. The generally favorable biological response of an organism to low dose exposure of stressors, called hormesis, has been repeatedly suggested to be the biological mechanism of life-extending treatments.

In addition to the use of human cell cultures JenAge adopts a multi-species approach including worms (C. elegans), fishes (N. furzeri, D. rerio) and mice (M. musculus) to characterise network modulations by environmental, pharmacological and life-style perturbations. In an iterative process, experimental data are communicated to the analysis and modelling groups to generate testable hypotheses which will in turn be validated by genetic and other manipulations in model organisms. This systems biology strategy is supplemented by automatic text mining and database development.

The general JenAge objective is to gain new insights into the complex interplay of maintenance and repair networks that govern the lifelong accumulation of damage and finally lead to age-related diseases and death. Overall, the knowledge acquired within this initiative will contribute to sustained health in an ageing society.

Website: http://www.jenage.de/

City: Jena

Country: Germany

Mission/Research Topics:

- Identify conserved transcriptional and metabolic networks activated by mild stress and to investigate their role in preserving functional integrity in old age.
- Adopt a multi-species approach including worms (C. elegans), fishes (N. furzeri, D. rerio) and mice (M. musculus) to characterise network modulations by environmental, pharmacological and life-style perturbations.
- Gain new insights into the complex interplay of maintenance and repair networks that govern the lifelong accumulation of damage and finally lead to age-related diseases and death.

Johns Hopkins Center on Aging and Health

About:

The Center on Aging and Health (COAH) was established in 1998 as a center of excellence for aging research at the Johns Hopkins Medical Institutions. It is sponsored by the Johns Hopkins Schools of Medicine and Public Health. Other core partners include the School of Nursing and the departments of Medicine, Epidemiology, Biostatistics, Health Policy and Management, and Mental Health.

COAH is home to an interdisciplinary group of research faculty from all three schools, as well as the Claude D. Pepper Older Americans Independence Center (Pepper Center) , Edward R. Roybal Center for Translational Research, and other key research programs. COAH also houses training programs in the Epidemiology and Biostatistics of Aging, and in Clinical and Population-based Research on Aging, as well as the Bloomberg School of Public Health's Certificate in Gerontology program.COAH is a focal point for interdisciplinary aging research and training at the Johns Hopkins Medical Institutions. COAH aims to establish a critical mass of cutting-edge, multidisciplinary science designed to optimize health in aging and to provide the necessary expertise and infrastructure for the sustainable conduct of such research and its translation into improving the health of older adults. COAH also serves as a training ground for the next generation of researchers on aging.

The goal of COAH is to promote the intellectual interactions that are essential to creative approaches to solving the important health and health care problems for an aging population. The core research in COAH involves population-based and clinical research on the causes and consequences of diseases, frailty and disability in older adults, characterizing groups at risk of adverse health outcomes, identifying causes and developing methods for screening and prevention. Research at COAH covers the full spectrum of aging research, from the biology of aging to health policy, facilitating the translation of research discoveries into applications that will directly improve the health of older adults. COAH provides key infrastructure, such as the Biostatistics Core, that supports clinical- and population-based research and education, with expertise in research with older adults.

COAH's core research facility is located on the Johns Hopkins East Baltimore campus at 2024 East Monument Street, Suite 2-700, focusing on older adults' health from a population-based perspective. The clinical care and geriatric health services research-focused site is located on the Johns Hopkins Bayview Medical Campus on the 7th floor of the Mason F. Lord building.

Website: http://coah.jhu.edu/

City: Baltimore

Country: USA / MD

Mission/Research Topics:

- Training programs in the Epidemiology and Biostatistics of Aging, and in Clinical and Population-based Research on Aging

- Interdisciplinary aging research and training at the Johns Hopkins Medical Institutions.
- Establish a critical mass of cutting-edge, multidisciplinary science designed to optimize health in aging
- Provide the necessary expertise and infrastructure for the sustainable conduct of such research and its translation into improving the health of older adults.
- Promote the intellectual interactions that are essential to creative approaches to solving the important health and health care problems for an aging population.
- Population-based and clinical research on the causes and consequences of diseases, frailty and disability in older adults, characterizing groups at risk of adverse health outcomes, identifying causes and developing methods for screening and prevention.
- From the biology of aging to health policy, facilitate the translation of research discoveries into applications that will directly improve the health of older adults.

Kronos Longevity Research Institute

KEEPS - The KRONOS Early Estrogen Prevention Study at KRONOS Longevity Research Institute (KLRI)

About:

The Kronos Longevity Research Institute (KLRI), founded in Jan., 2000, is a Phoenix-based not-for-profit institution conducting clinical translational research aimed at early detection and prevention of age-related diseases and slowing or reversing the aging process.

KLRI also provides education in biomedical gerontology for regional and national professional and lay communities. KLRI is privately funded, mainly by the Aurora Foundation. S. Mitchell Harman, M.D., Ph.D., founding Director and President is board-certified in internal medicine and endocrinology and a former section chief and acting clinical director of the National Institute on Aging, NIH, with an international reputation as a leader in the field of hormones and aging. Other professional staff are: a Clinical Director, Director of Exercise Sciences, Senior Scientist, and Clinical Study Coordinator. KLRI's facility includes a clinical study center (CSC), an exercise study center (ESC), and a molecular laboratory.

Current research focuses on relationships among aging, endocrine function, oxidative stress, and sarcopenia. All research projects are pre-reviewed by KLRI's Scientific Advisory Board, a distinguished group of biomedical investigators. KLRI sponsors a series of bimonthly seminars in Phoenix and an annual two-day national symposium, with talks on biomedical gerontology presented by world-renowned experts. The institute has plans to double faculty, staff, and research activities by 2006, which will require new sources of funding. The aging demography of the first half of the century will make KLRI's research increasingly relevant to the population of the U.S. and the world.

Website:

City: Phoenix

Country: USA / AZ

Mission/Research Topics:

- Conduct clinical translational research aimed at early detection and prevention of age-related diseases and slowing or reversing the aging process.
- Provide education in biomedical gerontology for regional and national professional and lay communities.
- Research relationships among aging, endocrine function, oxidative stress, and sarcopenia

Leibniz Institute on Aging - Fritz Lipmann Institute (FLI)

About:

The Leibniz Institute on Aging – Fritz Lipmann Institute (FLI) is the first national research institute in Germany focusing on biomedical research on human aging, a multifactorial process controlled by environmental and genetic factors.

The legal status of the FLI is that of a registered association (e.V.), registered in 1992 as Institute for Molecular Biology (IMB). In accordance to the new research orientation, the institute was renamed to Leibniz Institute for Age Research – Fritz Lipmann Institute (FLI) in 2005.

The FLI is a member of the Leibniz Association (Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz e.V.). Due to the importance of Leibniz Institutes for the country as a whole, they are funded jointly by the Federation and the Länder.

Demographic Change is one of the great challenges of our time but also offers great opportunities. If a better understanding of the aging process contributes to the extension of healthy lifespan, the burdens on society and the individual can be minimized and our society's future development enriched by the wealth of knowledge and experience that is the gift of the older generation.

The mission of the Leibniz Institute on Aging (FLI) is to identify the basic mechanisms that lead to dysfunctions and disease during aging.

The society's increasingly older population is one of the major social challenges of the present. Their mission is to expand the healthy lifespan – i.e. to increase the time we can age healthier and enjoy an active lifestyle. As a member of the Leibniz Association, they are committed to inform the public about new insights in aging - because we all are aging.

Their Research aims to provide a knowledge basis for the development of future therapies which extend the health span during aging.

Website: http://www.leibniz-fli.de/

City: Jena

Country: Germany

Mission/Research Topics:

- Secure better understanding of the aging process contributes to the extension of healthy lifespan
- Identify the basic mechanisms that lead to dysfunctions and disease during aging.
- Provide a knowledge basis for the development of future therapies which extend the health span during aging.

Leibniz Research Institute for Environmental Medicine (IUF)

About:

The IUF was founded in 2001. Its legal form is that of a non-profit, limited liability company. Sole shareholder is the "Gesellschaft zur Förderung umweltmedizinischer Forschung e.V." (GFUF, Society for the Promotion of Environmental-Medical Research) – a non-profit association of seven highly prestigious medical associations. In January 2011, the IUF became a member of the Leibniz Association and was renamed IUF – Leibniz Research Institute for Environmental Medicine.

The IUF's major task is to carry out molecular preventive medical research of environmentally-induced disorders. The main objective is to improve health care with regard to environmental pollution and to develop preventive strategies. The IUF carries out research projects addressing the biological effects that pollutants (in particular particles, non-ionizing radiation and chemicals) have on humans. Environmentally-induced aging processes of the cardiovascular system and the skin as well as environmentally-induced disturbances of the immune system and damages to the brain are in focus. Based on the scientific competence in the institute these investigations are carried out interdisciplinarily. The IUF bundles scientific expertise in the fields of toxicology, immunology, molecular aging research and epidemiology. This interdisciplinary research approach needs experimental models of one or more barrier organs (boundary surface medicine). The impact of environmental factors is mainly investigated in the organ systems skin, lung, cardiovascular system, and brain. Besides in vitro examinations on cultured cells and (partly genuinely at the IUF developed) human 3 dimensional organic model systems, in vivo examinations are conducted in animal models as well as in humans using a specially established research unit for this purpose. Additionally, epidemiological studies are conducted.

The IUF has about 130 employees at the moment. Approximately half of them are being financed through external project-bound grants provided by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG), the European Union, the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF) and other research-funding institutions.

Website: http://www.iuf-duesseldorf.de/home.html

City: Düsseldorf

Country: Germany

Mission/Research Topics:

- Environmental-induced ageing processes
- Environmental-induced impairment of the immune system (immunotoxicology)
- Molecular mechanisms of premature ageing
- Degenerative diseases

Lifespan Health Research Center (LHRC)

About:

IDAC is Japan's Center for Smart-Aging 'Research. They are a unique institute that is part of Tohoku University and they are affiliated with other national universities that also promote aging sciences.

It is a well-known fact that Japan's population is aging faster than any other country in the world, and the need for aging research is becoming greater each day. Currently, the elderly make up more than 25% of the population, and in addition to the decline in birthrate, there is also a decline in the working population. In order to maintain a healthy society, it is clear that urgent measures must be taken to support an aging population.

The purpose of their institute is to shed light on the basic mechanisms of aging and to control age-related diseases, such as dementia and intractable cancers. To achieve their goals, they promote research under 3 main groups: (1) molecular mechanisms of aging and the self defense system, (2) molecular mechanism of carcinogenesis and cancer growth, and (3) brain maturation and aging. IDAC is one of the very few research institutes in the world that manages comprehensive multi-hierarchical medical research to focus on the complex mechanism of aging, by methods ranging from studying genes and cells using molecular biology techniques to directly studying people.

Specifically, their ultimate goal is to realize "smart-aging", which refers to the development and maturation of individual abilities as one gets older, where everyone can welcome old age with liveliness and continue to be an active part of society. To make this possible, their goal is to provide medical support and policies as well as becoming a leading research center by showing the world that they can effectively manage a super-aging society. As time passes, it is critical for individuals and the population as a whole to remain healthy and continue to have the vitality for growth and wisdom.

We call this approach "SMART-AGING".

Website: http://www.idac.tohoku.ac.jp/site/

City: Dayton

Country: USA / OH

Mission/Research Topics:

- Growth, maturation and aging
- Body composition
- Risk factors for cardiovascular disease
- Genetic epidemiology of complex traits

Manchester Institute for Collaborative Research on Ageing (MICRA)

About:

MICRA supports a community of over 100 active academics, bringing together international experts and leading researchers working across the field of ageing. Over 60 research projects and programmes span the Faculties of Humanities; Biology, Medicine and Health; and Science and Engineering. Ageing research is a strategic priority for The University of Manchester, as part of its commitment to social, economic and cultural impact. Founded in 2010, MICRA is recognised as a leading international centre for research on ageing.

Its researchers address fundamental research questions about ageing and society through collaborative research, with funders for ageing research including the European Union, UK Research Councils, Government, the Big Lottery, industry, NGOs and the charity sector.
Influencing policy, practice and debate

MICRA is situated in the heart of Manchester, the UK's first city to achieve World Health Organization age-friendly status. We engage critically with stakeholders and policy makers at global, national, regional, local and community levels to deliver research with demonstrable policy impact.

It aim to embed contributions from older people and stakeholders into all stages of research, ensuring that our work has meaning and direct societal relevance. MICRA is part of the Greater Manchester Ageing Hub, tasked with bringing together plans to support local older people. A range of key policy actors from across Manchester and the UK participate as hub partners.

Website: http://www.micra.manchester.ac.uk/connect/events//

City: Manchester

Country: UK

Mission/Research Topics:

- Biology of ageing and lifespan
- Engineering, environment and technology
- Frailty, cognition and dementia
- Inequalities, health and well-being
- Later life work, retirement and pensions
- Physical decline and tissue regeneration
- Public policy and care provision
- Social and cultural change and later life

Max Planck Institute for Biology of Ageing

About:

Research at the Max Planck Institute for Biology of Ageing is dedicated to deciphering the mystery of growing old: Why do organisms age at all? How can we influence our ageing and lifespan? And how can we ensure that with increasing age, our bodies remain vital and healthy?

As one of more than 80 independent non-profit research institutions under the umbrella of the Max Planck Society, the overall goal of our institute is thus to understand the natural ageing process and to discover how to intervene in it to ameliorate age-related diseases.

Max Planck Institute strive to uncover the underlying molecular, physiological and evolutionary mechanisms by using laboratory model organisms such as fish, mice, flies and worms. (For more information on our animal studies, please look here.) Since its long-term goal is to pave the way towards increasing health during ageing in humans, a key line of research is to investigate interventions that can ameliorate the ageing process.

In this respect, a ground-breaking discovery of recent years is that mutations in single genes in the simple, single-celled yeast, in multi-cellular animals such as worms and flies as well as in mice, can extend lifespan and produce a broad-spectrum improvement in health during ageing. The mechanisms involved seem to be similar in these very different organisms, and the same kinds of genes are turning out to be associated with survival to later ages in humans.

Hence, there is an unprecedented opportunity to use simpler organisms to make discoveries of relevance to the amelioration of human ageing. At the forefront of basic biomedical science and in close cooperation with its scientific partner organisations, they contribute to meeting the challenges of global changes associated with the health challenges of increasing human lifespan.

In particular, its research focuses on the roles of signaling through insulin/insulin-like growth factor and steroidal hormones, cellular components involved in growth control and nutrient sensing, factors regulating metabolism and function of mitochondria and mechanisms of neurodegeneration and other ageing-related diseases.

Website: https://www.age.mpg.de/

City: Cologne

Country: Germany

Mission/Research Topics:

- Mitochondrial biology
- Biological mechanisms of ageing
- Molecular genetics of ageing
- Skin homeostasis and ageing

Max Planck Institute for Demographic Research

About:

The Max Planck Institute for Demographic Research (MPIDR) in Rostock is one of the leading demographic research centers in the world. At the MPIDR, researchers from all over the world investigate demographic change, aging, fertility, biological demography and other issues at the forefront of population research. The Institute is headed by its directors Mikko Myrskylä and James W. Vaupel.

The Max Planck Institute for Demographic Research (MPIDR) in Rostock (directions and map) investigates the structure and dynamics of populations. The Institute's researchers explore issues of political relevance, such as demographic change, aging, fertility, and the redistribution of work over the life course, as well as aspects of evolutionary biology and medicine. The MPIDR is one of the largest demographic research bodies in Europe, and is a worldwide leader in the study of populations. The Institute is part of the Max Planck Society, the internationally renowned German research organization.

Research projects form the core of the scientific work at the Max Planck Institute for Demographic Research (MPIDR), bringing together researchers to work on individual research questions, and producing project-specific publications. Currently there are over 150 projects covering various research topics, ranging from formal demography to the social and political implications of demographic change.

Website: http://www.demogr.mpg.de/en/default.htm

City: Rostock

Country: Germany

Mission/Research Topics:

- Evolutionary biodemography - genetic, medical, and biological aspects of ageing
- Economic and social demography - transformation of the human life-cycle
- Population and policy - coherence between policy and demographic change
- Historical demography - European focus on the persistence of family patterns over the centuries and mortality decline around 1800
- Survival and longevity - ageing of human populations
- Lifecourse dynamics and demographic change - impact of micro and macro conditions at critical stages of life on individual and population-level outcomes later in life, focusing on health, mortality, and fertility
- Generations- and Gender Programme - demographic consequences of institutional, political, and economic change in Europe
- Evolution of ageing

McGill University Research Centre for Studies in Aging

McGill Centre for Studies in Aging (MCSA)

About:

The McGill University Research Centre for Studies in Aging (MCSA) has developed a strong expertise in the field of brain aging. It is recognized as one of the world's leading research centres in the fields of memory, cognition and forms of dementias such as Alzheimer's disease and other age-related disorders.

In addition to the individual research activities of the scientists of the centre, they launched a common research activity of the Centre in 2010: The Program for the Prevention Of Neurodegenerative Disease in Everybody at Risk (PONDER; http://ponder.mcgill.ca/). This cognitive testing and training initiative recruits adult subjects (40 to 90 years of age) from the local community and assesses their cognitive abilities over time in areas that have been identified as showing the earliest changes in neurodegenerative disease (e.g., digit-span, trail-making, word-list). At the same time, it allows participants to engage in cognitive training in areas that have been shown to be sensitive for enhancement through training, i.e. memory, processing speed, and attention. The Program was launched in April, 2010, for a beta-testing phase, and has without active recruitment and advertisement already attracted more than 100 participants

Website: http://aging.mcgill.ca/rt.htm

City: Verdun

Country: Canada

Mission/Research Topics:

The clinical research programme of the MCSA was established to examine and determine the clinical characteristics of normal and abnormal aging in human subjects.

- The HEALTHY AGING research programme that focuses on the characterization of psychological and biological markers associated with normal healthy aging.
- The UNHEALTHY AGING research program that focuses on diseases of the elderly that affects primarily the brain and the nervous system.
- The HEALTHY AGING research programme based at the Douglas Hospital was put in place several years ago under the leadership of Dr. N.P.V. Nair who, in collaboration with the World Health Organization, established a monitoring research programme that invited healthy elderly volunteers to visit the clinic twice yearly for a complete physical, neuropsychological and biochemical check-up. More than 400 volunteers were enrolled in this long term study of healthy aging and several discoveries were made on the physiological consequences of age-related deterioration of the endocrine system. In addition to Dr. N.P.V. Nair, Drs. S. Lupien, M. Meaney, D. Dastoor and M. D. Schwartz have all played crucial roles in the development of this research programme.

Medawar Centre for Healthy Ageing Research

About:

The University has a longstanding interest in ageing that began when Peter Medawar was the Mason Professor of Zoology in the late 1940s. Medawar is probably best known for his work on immune tolerance, for which he received a Nobel prize, but he also developed one of the key theories relating to the evolution of ageing – the Mutation Accumulation Theory of Ageing.

In the last decade ageing has become a growing research interest at the University. To reflect the importance of ageing research at Birmingham, the University has set up the Centre for Healthy Ageing Research and is making significant new appointments in 2011 at senior level in Stem Cells and Ageing research to support the work of the centre.

We are an ageing population, with current demographic trends indicating that 1 in 5 adults in the UK will be aged over 65 by the year 2020.

Whilst this is a cause for celebration, there is also evidence that healthspan (the time spent in good health) is not keeping pace with the increases in average lifespan, with significant consequences for quality of life in old age and for health and social services provision. Thus medical advances have ensured that a greater proportion of the population make it through to the third age of man, but they have made less impact upon the quality of life in old age.

Age is the most important risk factor for many disabling human diseases and on average men will still be unwell for the last 6 years of their lives and women for the last 11 years.

Website: https://www.birmingham.ac.uk/research/activity/mds/centres/healthy-ageing/index.aspx

City: Birmingham

Country: UK

Mission/Research Topics:

- Aging and the cardiovascular system
- Aging and the immune system
- Aging in nematodes
- Ensuring good health in old age
- Aging brain

Michigan Alzheimer‘s Disease Center (MADC)

About:

Established at the University of Michigan Health System and based in the Department of Neurology, the Michigan Alzheimer’s Disease Center aims to.

Conduct and support research on Alzheimer’s disease and related disorders;

Promote state-of-the-art care and wellness for individuals and families affected by memory loss;

Increase dementia awareness through collaborative education and outreach efforts.

The center’s goals include:

- Support recruitment for memory and aging research.
- Connect interested volunteers to research opportunities.
- Provide programs focusing on whole-body health and well-being through our Wellness Initiative.
- Collaborate with three local chapters of the Alzheimer’s Association to enhance our community outreach through education programs.

Website: http://alzheimers.med.umich.edu/

City: Ann Arbor

Country: USA / MI

Mission/Research Topics:

- Biomarkers used for early detection
- Disease modifying treatments
- Basic disease mechanisms
- Effective strategies to help individuals with memory loss

Michigan Center on the Demography of Aging (MiCDA)

About:

The Michigan P30 Center on the Demography of Aging is a joint program of the Population Studies Center and Survey Research Center, Institute for Social Research, University of Michigan. Funding is provided by the Behavioral and Social Research (BSR) Program of the U.S. National Institute on Aging (P30 AG012846). The goal is to spur new research on the economics and demography of aging and encourage use of major datasets in the field.

The Michigan Center on the Demography of Aging promotes new research on the demography and economics of aging across four signature themes: chronic disease and disability; life course determinants of late-life health and well-being; aging, genetics, and social science; and economics of savings and retirement. The Center also promotes the wide use of Michigan's key aging-related data collections, notably the Health and Retirement Study and the Panel Study of Income Dynamics. In addition, the Center fosters national and international collaboration through coordination of several research networks, funds pilot projects, distributes research findings by affiliates, and supports a secure statistical enclave for access to restricted aging-related data. The Center provides coordinating support to all NIA Centers and collaborates with the Population Reference Bureau to widely disseminate all Centers' research findings.

The National Institute on Aging of the National Institutes of Health supports research centers on the demography and economics of aging based at the University of California at Berkeley; Duke University; Harvard University; the University of Michigan; the National Bureau of Economic Research; the University of Pennsylvania; the RAND Corporation; Stanford University; the University of Southern California and the University of California at Los Angeles; the University of Washington; and the University of Wisconsin.

Website: https://micda.psc.isr.umich.edu/

City: Ann Arbor

Country: USA / MI

Mission/Research Topics:

- Surveys/Data collection
- Economics of saving and retirement in the U.S.
- Disparities by race, ethnicity, and socioeconomic status
- Chronic diseases
- Cognition, mental health
- Historical demography

National Ageing Research Institute (NARI)

About:

The National Ageing Research Institute (NARI) has for the past four decades been bringing research to life to improve health outcomes and aged care practice as well as to guide policy to invest in solutions for positive ageing for Australia's older people.

NARI is a national leader in ageing research, producing work of international significance to apply to real lives, particularly in falls and balance, pain, dementia, physical activity, healthy ageing, psychosocial and mental health, and health systems evaluation.

NARI is recognised as a leading research institute in ageing including falls and balance, pain, dementia, physical activity, healthy ageing, public and preventive health, and health systems evaluation. NARI also conducts a broad range of other clinical and psychosocial research including research into cognitive decline and music therapy, and older women's health.

The Institute concentrates its research in several key divisions. These divisions cover ageing research from a variety of perspectives including both a public and preventive health, perspective, service development, biomedical and from a and clinical perspective. NARI currently employs over fifty staff and at any one time manages over fifty research projects.

These range from large, competitive NHMRC projects to commissioned and self-initiated research. NARI's funding is mainly derived from competitive government and other grants and it also receives a small amount of infrastructure funding from the state Department of Health (Victoria).

Website: http://www.nari.net.au

City: Parkville

Country: Australia

Mission/Research Topics:

- Vascular system
- Stroke
- Dementia
- Clinical research
- Pain - dementia and memory loss, age differences, management and assessment, pain experience
- Drug trials
- Falls prevention
- Service evaluation - community care, health care and rehabilitation, residential care
- Health promotion
- Population studies

National Institute for Mental Health Research

About:

Australian Primary Health Care Research Institute (APHCRI) was established at The Australian National University in 2003 as part of the Primary Health Care Research Evaluation and Development (PHCRED) Strategy of the Australian Government Department of Health and Ageing. APHCRI sat within the PHCRED strategy sharing the common overall aim of embedding a research culture in Australian primary health care.

The Australian National University's contract with the Department of Health for APHCRI ceased on 31 December 2015. Ongoing externally conducted research is being managed by the Research School of Population Health to ensure contract compliance and associated payments. Most projects will end in 2016; but some Centres of Research Excellence will continue into 2017 and 2019.

The vision of the Centre for Mental Health Research (CMHR) is to be recognised as a leader in excellent, innovative, population-based mental health research that is relevant to policy and practice.

Their goals include:

- Excellence in research
- Dissemination of high-quality research through translation into policy and practice
- Training future leaders through research supervision and teaching
- A focus on research that is designed to be highly relevant to the mental health sector and to the broader population.
- Incorporating the crucial lived experience perspective that consumers and carers bring, contributing to research directions, informing research design and in conducting research.
- Collaboration with the mental health sector to reach common goals, including collaboration with academics from across disciplines, policymakers, service providers, consumers and carers.
- Building capacity and sustainability in population mental health research.

Website: http://rsph.anu.edu.au/research/centres-departments/australian-primary-health-care-research-institute

City: Canberra

Country: Australia

Mission/Research Topics:

- Depression
- Anxiety disorders
- Substance abuse
- Bipolar disorders

National Institute for the Study of Ageing and Later Life (NISAL)

About:

The university carries out world-leading, cross-border research in close collaboration with business and society, including materials, IT and hearing. In the same spirit, Linköping University, LiU, offers a large number of innovative programs, not least many professions for, for example, doctors, teachers, civil economists and civil engineers.

The university has 27,000 students and 4,000 employees at four campuses who together seek answers to complex issues of the day. The students are among the most sought after in the labor market and according to international rankings, LiU is among the foremost in the world.

Linköping University has always worked with innovation in education and research. In 1980 the newly formed Department of Thematic Studies adopted an approach that was new in Sweden. Research was organised in interdisciplinary themes, such as Technology and Social Change or Water and Environmental Studies. Scientists worked across boundaries to solve complex problems. LiU was also first in Sweden to introduce graduate research schools for the different themes. The model later spread to other parts of the university and became a national success.

The new Faculty of Health Sciences (Hälsouniversitetet), formed in 1986, combined governmentally and regionally funded education. It introduced a radically changed methodology, being the first in Sweden to use problem-based learning, PBL. Furthermore, LiU became the first university in the world to allow students at educational departments to treat actual patients.

Website: https://old.liu.se/personal/isv/nisal?l=en

City: Linköping

Country: Sweden

Mission/Research Topics:

- Socio-cultural, political and historical context
- Care and welfare
- Ageing in time and space: home, housing, and technological landscape

National Institute on Aging (NIA)

About:

NIA, one of the 27 Institutes and Centers of NIH, leads the federal government in conducting and supporting research on aging and the health and well-being of older people. The Institute seeks to understand the nature of aging and the aging process, and diseases and conditions associated with growing older, in order to extend the healthy, active years of life.

In 1974, Congress granted authority to form NIA to provide leadership in aging research, training, health information dissemination, and other programs relevant to aging and older people. Subsequent amendments to this legislation designated NIA as the primary Federal agency on Alzheimer's disease research.

The Institute's mission is to:

- Support and conduct genetic, biological, clinical, behavioral, social, and economic research on aging.
- Foster the development of research and clinician scientists in aging.
- Provide research resources.
- Disseminate information about aging and advances in research to the public, health care - professionals, and the scientific community, among a variety of audiences.
- NIA pursues this mission by funding extramural research at universities and medical centers across the United States and around the world; maintaining an active communications and outreach program; and conducting a vibrant intramural research program at NIA laboratories in Baltimore and Bethesda, Maryland.

Aging Well in the 21st Century: Strategic Directions for Research on Aging, most recently updated in 2016, is NIA's «road map» for progress in aging research and outlines our goals and vision. It provides a point of reference for setting priorities and a framework for systematically analyzing the Institute's scientific portfolio and assessing progress.

Website: https://www.nia.nih.gov

City: Bethesda

Country: USA / MD

Mission/Research Topics:

- Mechanisms of ageing
- Processes of ageing
- Ageing in relation to health and disease
- Age-related changes in physiology and the ability to adapt to environmental stress
- Pathophysiology of age-related diseases

New Zealand Institute for Research on Ageing (NZIRA)

About:

The IGPS is a public policy think tank, working to lift environmental, social and economic outcomes for New Zealand via research and engagement.

The aim of the Institute for Governance and Policy Studies is to deliver independent, high quality and high-impact research that informs the policy-making process and influences policy development and implementation across a number of significant areas. While such research will focus in particular on issues of direct relevance to New Zealand and its citizens, it will also (where appropriate) have an international and comparative dimension. Whatever the precise nature of the research, it will relate to one or more of the Research Objectives of the Institute and act as the critic and conscience of society.

Website: http://igps.victoria.ac.nz/Ageing/Index.html

City: Wellington

Country: New Zealand

Mission/Research Topics:

- To enhance the quality of public body decision-making.
- To contribute to the improvement of public management and governance in New Zealand and Internationally.
- To carry out independent public policy research in order to achieve better social, environmental and economic outcomes for the benefit of all New Zealanders.
- To seek through the Institute's various programmes and activities to help solve (or at least ameliorate) some of the big policy problems facing contemporary governments).
- To deliver independent, high quality and high-impact research that informs and influences the policy-making process.
- To influence policy development, management and implementation in order to achieve better outcomes for New Zealanders and New Zealand.
- To widely disseminate the findings from research projects to better inform elected representatives, officials, policy-makers and the general public.
- To engage with the community through regular news releases and media commentary, workshops and public seminars.
- To have Institute staff and associates contribute to public debate in areas where they have relevant expertise, including preparing submissions on government bills and discussion papers.
- To raise the profile and public standing of the University and of the School of Government.

Oxford Institute of Population Ageing

About:

The Oxford Institute of Population Ageing was established in 1998. Based on the US Population Center, it was funded by a grant from the National Institute of Health (National Institute on Aging - NIA) to establish the UK's first population centre on the demography and economics of ageing populations. It achieved Institute status in 2001.

Their aim is to undertake research into the implications of population change. They are a multi-disciplinary group with demography as our main disciplinary focus, and links into all four University Divisions. Their researchers work in Africa, Latin America, Asia and Europe, and they run the Population Networks AFRAN (Africa) LARNA (Latin America) EAST (Central and Eastern Europe).

«Changes in the demographic age structure of populations has become one of the major challenges for the 21st century. Driven predominantly by falling fertility rates across the globe as the Total Fertility Rates of two thirds of the globes countries now reach around or below replacement level, this age compositional shift has huge implications for all aspects of society and economy. Falling mortality rates, especially among the older population has enhanced this age shift, especially in advanced economies.

Key questions addressed by the Institute concern the ageing of populations, the potential of the growing labour pool in Emerging Economies, and the progress of the fertility transition in Least Developed Economies. This demographic change affects all regions of the world, from demographic deficits in Europe, demographic dividends in Asia and youth bulges on the Middle East.» - Professor Sarah Harper, Director, Oxford Institute of Population Ageing

Website: http://www.ageing.ox.ac.uk

City: Oxford

Country: UK

Mission/Research Topics:

- Understanding demographic change
- Demography and economy
- Demography and society
- Bio-Demography and health
- Demography, science and innovation
- Demography and environment

Perceptual & Cognitive Aging Lab

About:

Many older adults are excellent drivers, yet they are more likely to be involved in a collision and to be injured or killed as a result. The increased risk of collisions is a result of many factors, including physical and cognitive declines that can accompany the aging process. Families, doctors, governments and the general public have become quite interested in assessing driving skills in older adults and in providing training to correct poor driving habits. If you want to improve your golf game, you go to the expert. Why not take the same approach to driving?

The Perceptual and Cognitive Aging lab will soon offer driving assessments to let you know if there are any issues that could potentially impact your ability to drive safely. They don't take away licenses; they educate. Who gets your test results is completely up to you.

Don't just think you're safe. Know you are.

The Perceptual and Cognitive Aging Lab has the tools that can alert you of potential issues that could impact your ability to drive safely. One completely free visit can give you or your loved ones peace of mind and can point you towards resources that can help you become a safer driver.

Website: http://psych.ucalgary.ca/PACE/PCA-Lab/

City: Calgary

Country: Canada

Mission/Research Topics:

- Early detection of declines in driving ability
- Driving safety

Centre de recherche
sur le vieillissement
Research Centre
on Aging

Research Centre on Aging

About:

The Research Centre on Aging (CDRV) is home to approximately fifty researchers who work in a variety of scientific disciplines. The Centre also has around twenty associate researchers and over one hundred people who are committed to research in one form or another. The CDRV is one of the most important centres on aging in Canada.

Work conducted at the CDRV can help us all - young and seniors alike – lead more active life and to adopt healthier lifestyles with a view to successful aging. The CDRV supports social initiatives at large to offer the best response to the needs of seniors and to offer them better services.

Their ultimate goal is to improve the quality of life of seniors and to help us make the right decisions throughout our lives so that we can age well in a healthy, autonomous manner.

Since its foundation in 1988, the Research Centre on Aging has been pursuing its mission first under the Health and Social Services Centre – University Institute of Geriatrics of Sherbrooke (CSSS-IUGS), then under the CIUSSS de l'Estrie - CHUS.

The proximity of the CIUSSS de l'Estrie - CHUS allows students to come into contact with both the research and clinical spheres of their professions such as short and long-term care, geriatric rehabilitation, the Day Hospital, gerontopsychology, outpatient clinics (memory, incontinence), and so on.

Website: http://cdrv.csss-iugs.ca/home

City: Sherbrouke / Quebec

Country: Canada

Mission/Research Topics:

- Nutrition and senior autonomy;
- Cardiovascular and neurodegenerative diseases (i.e. Alzheimer's), cancer, endocrine dysfunctions (i.e. diabetes);
- Processes and effects of sarcopenia (loss of muscle mass)
- Home support in the context of an aging population;
- Fall prevention;
- Social and psychological vulnerability among seniors;
- Telehealth, telerehabilitation and telemonitoring;
- Driving and road safety;
- Study of the biological mechanisms of aging and associated pathologies;

Salford Institute for Dementia

About:

They approach is putting the humanity and personhood of the person with dementia at the heart of what they do. The institute is engaged in research, innovation and education in supportive design and care for people living with dementia. The focus of this work is the maintenance of independence and the promotion of integrated support in the communities where people live.

At the University of Salford they have made the decision to utilise our resources to benefit those in our society whose lives have been changed by dementia today. In November 2013, they established the Salford Institute for Dementia, building on over three years of successful collaboration across a unique network of academics at the University. The Institute has at its' heart a spotlight on the humanity and personhood of those living with dementia. Its driving philosophy is to enable people to live positive, fulfilled lives and instil in everyone a confidence that they can make a difference to an individual's experience of dementia.

At Salford they are offering a multi-disciplinary lens on this urgent global challenge. As part of their work to become a "dementia friendly" university, over 50 colleagues from across the institution including the School of the Built Environment, the College of Health and Social Sciences and the School of Arts and Media, have created new collaborations to focus our work in this area. This has been supported by their key partners at a local, national and international level, including Alzheimer's UK, Four Seasons Healthcare and the Dementia Action Alliance through the establishment of their own local organisation, the Salford Dementia Action Alliance. Through these relationships and our wider discussions they have discovered that demand for knowledge, networks, expertise and investment in this area is urgently needed and significant.

Website:http://www.salford.ac.uk/salford-institute-for-dementia

City: Salford

Country: UK

Mission/Research Topics:

- Personhood and humanity
- Purposeful activity for people with dementia
- Design of private and public spaces
- Experience of black and ethnic minorities
- Experience of people living with dementia in hard to reach communities and individuals

Sanders-Brown Center on Aging (SBCoA)

About:

Established in 1979, the SBCoA conducts research, education and outreach, and clinical programs on healthy brain aging and neurodegenerative disorders.

Highly productive and collaborative basic and clinical scientists work together, producing synergistic and high impact research that is changing the field of aging and age-related neurodegenerative disorders.

Center scientists are focused on understanding the mechanisms involved in development and progression of age-related neurodegenerative diseases, such as Alzheimer's disease and related dementias and stroke, and are seeking new knowledge breakthroughs to combat these diseases of the elderly.

The ultimate goal of the SBCoA is to catalyze innovative and outstanding research while ensuring a more rapid rate of progress toward new therapies to delay or prevent age-related brain disorders, so that our human volunteers, patients and caregivers become the beneficiaries of our advances in knowledge

In 1985, the SBCoA was named as an Alzheimer's Disease Center, one of the original ten centers funded by the National Institute on Aging. The University of Kentucky Alzheimer's Disease Center (UK-ADC) supports and facilitates research aimed at elucidating the pathogenic mechanisms underlying the transitions from normal cognitive aging to the development of cognitive impairment, with a long-term goal of enabling more effective translation of this mechanistic knowledge to intervention strategies. The UK-ADC also promotes education and outreach, provides clinical and neuropathological diagnoses and care of patients with cognitive impairment, and runs an active clinical trials program to test potential new therapies. These activities are critical because, with the aging of the population worldwide, age-related cognitive disorders such as Alzheimer's disease are reaching epidemic proportions requiring a desperate need to identify strategies for effective therapeutic intervention.

Website: http://www.uky.edu/coa/

City: Lexington / KY

Country: USA

Mission/Research Topics:

- Alzheimer's disease and neurodegenerative diseases
- Stroke

香港大學秀圃老年研究中心
Sau Po Centre on Ageing
The University of Hong Kong

Sau Po Centre on Ageing

About:

Hong Kong has been an aging society since 1990s. It is estimated that in 2041, 30% of its population will be aged 65 or above. At the same time, the elderly dependency ratio is projected to rise to 497, which will represent a 1.94 times increase as compared with that in 2011. They believe that this demographic change will bring challenges as well as opportunities.

In picturing ourselves in a society in the year of 2041, they are more passionate than ever in contributing new and effective solutions that are highly sensitive to the needs of older adults, their families, and the communities at large so that all will benefit from the advances in knowledge. They are also taking a leading role in educating and mentoring the next generation of social gerontologists and health professionals through our Master of Social Sciences (Gerontology) and research postgraduate programs.

The Centre focuses on enhancing the quality of life of elderly through gerontology research. They have a strong research team which comprises experts in different areas of gerontology. The team investigates into various ageing-related issues through multi-disciplinary and multi-cultural studies in conjunction with local and overseas experts.

Other than the research themes, Their researchers also look into issues faced by different populations. For example, the team has devoted a lot of effort in dementia studies such as non-pharmacological interventions (e.g. cognitive stimulation therapy) and caregiver support for dementia patients. They have developed family-based intervention programme for caregivers of stroke patients. They also investigates into the difference in ageing process between people with Down syndrome and the general public, and examine how physical fitness and functioning of adults with Down syndrome changes when they age. Many of Their projects involve community engagement of both frail and healthy older people. This effectively promotes elderly volunteerism as empowerment which enforces productive aging and a thriving society.

Website: http://ageing.hku.hk

City: Hong Kong

Country: China

Mission/Research Topics:

- Health Ageing
- Geriatric and long-term care
- Financial security and housing
- Cross-cultural psychosocial gerontology

School of Aging Studies
COLLEGE OF BEHAVIORAL AND COMMUNITY SCIENCES

School of Aging Studies

About:

Welcome to the School of Aging Studies in the College of Behavioral and Community Sciences at the University of South Florida.

The University of South Florida School of Aging Studies, formerly Department of Gerontology, was established in 1967. It is one of the nation's oldest and largest degree-awarding programs in Gerontology. Its graduate and undergraduate degree programs are multidisciplinary. Its faculty members have degrees in diverse areas including Aging Studies, Anthropology, Economics, Education, Gerontology, Law, Medicine, Neurosciences, Nursing, Pharmacology, Political Science, Psychology, Public Administration, Public Health, Social Work, and Sociology. Faculty bring their expertise in these scholarly and professional areas, and their specialized experience in gerontology, to bear on the many complex issues faced in understanding the biological, psychological, social, and public policy aspects of aging.

Its faculty are engaged in extensive research activities concentrated in three areas; Aging and Health; Cognitive Aging and Alzheimer's Disease; and Public Policy and Long-Term Care. They have a particular emphasis on applied research that is aimed at improving clinical practice, public policy, and the well-being of older adults and their families.

They offer programs that can be completed by full-time or part-time students and most of our degree programs allow students a great deal of freedom in choosing electives that suit their interests. At the undergraduate level, the School of Aging Studies offers courses of study leading to a minor in Gerontology, Bachelor of Arts in Gerontology, and Bachelor of Science in Long-Term Care Administration.

At the graduate level, they offer a Master of Arts in Gerontology. The Department also hosts the University-wide interdisciplinary Ph.D. in Aging Studies program. They also offer several graduate certificate programs which can be completed without having to take the GRE or be formally admitted to the graduate program. These include the Graduate Certificate in Gerontology, the Advanced Graduate Certificate in Gerontology, and the Advanced Graduate Certificate in Geriatric Social Work/ Clinical Gerontology.

Website: http://www.usf.edu/cbcs/aging-studies/

City: Tampa / FL

Country: USA

Mission/Research Topics:

- Ageing and health
- Cognitive ageing and Alzheimer's disease
- Public policy and long-term care

Smart Ageing International Research Center (SAIRC)

About:

The Smart Ageing International Research Center (SAIRC) was founded on October 1st 2009. This center proposes the creation of a new field of science to produce well-rounded personnel who have gained "totally comprehensive intelligence" from their experiences, in order to aid society in coping with the various problems associated with a diverse and complex super-aging society. To this end, the Center will promote interdisciplinary cooperative research, international collaborative research projects, and research collaborations with industry, as well as disseminate and facilitate exchange of information by holding international conferences and symposia.

The percentage of elderly people in Japan age 65 years or over (aging ratio) was 22.0% in 2008, an unprecedented ratio making Japan the world's first super-aging society. In the 2020s, it is estimated that the aging population percentage will exceed 30%, urgently necessitating the formulation of specific countermeasures against a super-aging society. It is obvious that without intelligent personnel willing and capable of concentrating their ability dealing with aging-related problems, a prescription for accommodating growth in the super-aging society cannot be developed. At present industry, government and academia around the world are not prepared to cultivate human resources that can address the needs of the unprecedented super-aging population. Their center is a step toward addressing and more importantly meeting those needs. With the shared objective of creating a "smart aging" research field that will help individuals and society age and mature intellectually, the center will gather researchers who have been conducting state-of-the-art aging-related research in the fields of natural science, humanities, and sociology to establish an interdisciplinary and integrated educational research system, and cultivate human resources capable of comprehensively coping with the problems super-aging societies face.

Website: http://www2.idac.tohoku.ac.jp/dep/sairc/index.html

City: Sendai

Country: Japan

Mission/Research Topics:

- Functions of the prefrontal cortex (PFC) in humans
- Intervention methods for maintaining and improving cognitive functions
- Entertainment and smart ageing
- Development of high precision imaging and sensor technologies
- Biomedical engineering evaluation of skin conditions
- Evaluation of Atherosclerosis

Stanford / VA Alzheimer‘s Research Center

About:

The Stanford Alzheimer’s Disease Research Center (ADRC) is part of a nationwide network of Alzheimer’s Disease Centers supported by the National Institutes of Health. The centers work together to translate research advances into improved diagnosis and care for people with Alzheimer’s disease and related brain disorders. The ultimate goals are to cure Alzheimer’s disease and, even more important, to prevent it from developing.

The clinical and research focus of the Stanford ADRC includes both Alzheimer’s disease and Parkinson’s disease. They are the most common and the second most common neurodegenerative disorders.

The Stanford ADRC has particular strengths in neuroimmunity, synapse biology, brain imaging, clinical assessment and clinical research, biostatistics and bioinformatics, epidemiology, and caregiver outreach. Our outreach activities include Latino and American Indian communities in the Bay Area. Its ADRC partners include Stanford Medicine, the VA Palo Alto Health Care System, the Palo Alto Medical Foundation Research Institute, and the Northern California and Northern Nevada chapter of the Alzheimer’s Association. The ADRC have strong ties to the Pacific Udall Center, the Stanford Neurosciences Institute and other Stanford centers.

Website: http://med.stanford.edu/svalz.html

City: Palo Alto / CA

Country: USA

Mission/Research Topics:

- Mild cognitive impairment (MCI)
- Medication reassessment in Alzheimer‘s disease patients
- Sleep disorders in Alzheimer‘s patients
- Psychosocial factors in Alzheimer‘s disease progression
- Sexuality in Alzheimer‘s disease

Stanford Center on Longevity (SCL)

About:

Longer lives are, at once, among the most remarkable achievements in all of human history and the greatest challenges of the 21st century. Whereas most discussions about aging societies are premised on the assumption that older people are frail and infirm, our premise is that problems of older people demand solutions so that the substantial increase in life expectancy can ultimately benefit individuals and societies. The mission of the Stanford Center on Longevity is to accelerate and implement scientific discoveries, technological advances, behavioral practices, and social norms so that century long lives are healthy and rewarding.

It is a center on longevity, not old age, because building a world where the majority of people thrive in old age requires attention to the entire life span. Research shows clearly that education, exercise, nutritional habits, financial decisions, and social choices early in life have substantial implications for quality of life at advanced ages. Increased longevity demands that they reconsider traditional models of the life course which will necessitate new norms and practices for education, work and families that span multiple generations.

To inspire change on a grand scale, the Center works with more than 150 Stanford faculty, their students and research staffs, as well as leaders from industries that are poised to distribute innovative products and services to the public, thought leaders who help to shape the ideas that influence cultural change, and policy makers who target important challenges and opportunities for long lived societies. By fostering dialogue and collaborations among these typically disconnected worlds, the Center aims to develop workable solutions for urgent issues confronting the world as the population ages. With these partners, they aim to redesign how we live our lives so that the great potential of longer life is fully realized.

Website: http://longevity3.stanford.edu

City: Stanford / CA

Country: USA

Mission/Research Topics:

- Mind - early detection of decline, behavioral and biological interventions, and decision aids
- Mobility - promote lifelong mobility by preventing or reducing barriers to physical movement
- Financial security - products, technologies, fraud and financial education that will help people better plan, save for their futures and guard against financial fraud
- Demographics - economic and political implications of population ageing around the world as people live longer and have fewer children

The Center for Healthy Ageing

About:

Our society is rapidly aging and more people are living longer than ever before. This increase in longevity presents both exciting opportunities and urgent challenges to society. Some of these challenges include managing an increasingly older workforce, controlling health care costs and informing policies that support an older and more active population. Promoting healthy aging in the 21st century requires a better understanding of how social, psychological and biological processes interact to confer either risk or resilience for the aging individual.

The mission of the Center for Healthy Aging is to facilitate research that promotes emotional, physical, and cognitive health in adulthood. A major strength of our center is its interdisciplinary and developmental approach to research on health and well-being in adulthood. Investigators in our center study the ways in which our everyday experiences behaviors influence our health and quality of life. To achieve its mission, the Center's efforts are concentrated on:

1. Stimulating the interdisciplinary study of aging within and across the biological, behavioral and social sciences and conducting cutting-edge research that tackles prominent questions of aging and old age;

2. Coordinating new interdisciplinary partnerships to develop innovative programs of research and education that capture the complexities and inter-connections of aging issues;

3. Translating research advancements into practical understandings and interventions and promoting sound policy to enhance the quality of life and promote the health and welfare of our citizens;

4. Offering post-graduate, graduate and undergraduate students excellent training in contemporary issues of aging and old age and instruction in state-of-the-art methodological tools suited to the study of aging.

Website: http://healthyaging.psu.edu

City: University Park / PA

Country: USA

Mission/Research Topics:

- Developmental methodology
- Daily experiences
- Health behaviors
- Work-family health
- Interventions for healthy ageing

The Charles F. and Joanne Knight Alzheimer‘s Disease Research Center (Knight ADRC)

About:

The Charles F. and Joanne Knight Alzheimer’s Disease Research Center (Knight ADRC) is part of the Department of Neurology, at Washington University School of Medicine in St. Louis, Missouri, USA. The Washington University Knight ADRC is one of 29 centers funded by the National Institute on Aging with the collective aim of facilitating advanced research on clinical, genetic, neuropathological, neuroanatomical, biomedical, psychosocial, and neuropsychological aspects of Alzheimer’s disease and related brain disorders.

The Center and its clinical research arm - the Memory and Aging Project (MAP) along with the Memory and Aging Project Satellite (MAPS) - are at the forefront of a worldwide effort to uncover key causal factors in the development of Alzheimer’s disease, with a goal of developing more effective treatments and an eventual cure. Since 2000, the Center is guided by an African American Advisory Board (AAAB) on matters of cultural sensitivity and research inclusion.

Website: http://alzheimers.med.umich.edu/

City: St. Louis / MO

Country: USA

Mission/Research Topics:

- Biomedical aspects
- Clinical aspects
- Genetic aspects
- Neuroanatomical aspects
- Neuropathological aspects
- Neuropsychological aspects
- Psychosocial aspects

Tulane Center for Aging

About:

One of the nation's most recognized centers for medical education, Tulane University School of Medicine is a vibrant center for education, research and public service. Tulane University School of Medicine is the second-oldest medical school in the Deep South and the 15th oldest medical school in the United States. Tulane School of Medicine is fully accredited by the Liaison Committee on Medical Education.

The demographic reality today and in the foreseeable future is a graying population, both in terms of an increase in life expectancy and in the number of people over the age of 65. The retirement of the baby boomers, 77 million strong, will place a strain on Social Security and Medicare in the next decades. Only a compression of morbidity, coupled to changes in health systems management and healthcare delivery, can relieve this pressure. This will require significant research effort, in biological sciences, clinical medicine, behavioral and social sciences, as well as demography, economics, and policy planning. The research will engage basic, clinical, and translational scientists in multidisciplinary teams. The issues surrounding the expansion of the elder population transcend medicine and public health. The design and implementation of elder-friendly communities is emerging rapidly with abundant economic impact on this state and country. Furthermore, the increase in elder health that is an essential social and economic imperative will require planning for second and even third careers. The concept of 'active retirement' is taking on new meaning under current economic conditions. This in turn engages universities in forms of continuing education that have yet to be thoroughly explored, and it also has important implications for the model of the workplace.

Website: http://medicine.tulane.edu

City: New Orleans / LA

Country: USA

Mission/Research Topics:

- Cardiovascular ageing
- Endocrine function, obesity, and musculoskeletal aging
- Genetics and epigenetics
- Health systems
- Immunosenescence
- Neurocognitive ageing, neurodegeneration, and dementia
- Proliferative Homeostasis, cancer, and ageing
- Regenerative medicine and translation
- Systems biology of ageing
-

The Tulane Center for Aging is dedicated to the enhancement of the quality of life of an aging population through research, education, and innovative approaches to healthcare and community planning and design.

Knowledge that will change your world

UAB Center for Aging

About:

The Center's mission and goals are met through a wide variety of programs under the overall supervision of the director, Cynthia J. Brown, MD, MSPH. Dr. Brown reports to the Vice President for Research and ten sponsoring school and college deans. The director, associate and assistant directors serve as the Executive Committee and provide leadership and oversight for all aspects of the Center's programs.

The Steering Committee includes all the members of the Executive Committee and additional faculty members appointed by the director and sponsoring deans to assist with providing guidance for the development, on-going evaluation, and administration of the Center's programs.

External Advisory Committee of nationally recognized experts in aging meets every two to three years to provide recommendations about the Center's programs to the Director and the Steering Committee. In addition, Deans, Department Chairs, and other Center Directors provide ongoing guidance on how the Center can most effectively carry out its mission. A Community Advisory Committee of community leaders with interests in the problems of older adults meets regularly with the Center Director to provide recommendations that will help the Center be more responsive to the needs of older adults in the community. A Board of Advocacy provides guidance and leadership for community outreach and development activities.

Website: http://www.uab.edu/medicine/aging/

City: Birmingham / AL

Country: USA

Mission/Research Topics:

- Clinical - mobility, muscle loss (sarcopenia), exercise, genito-urinary disorders such as incontinence, end-of-life and advanced illness care, Alzheimer's disease and other memory disorders, stroke, vision, osteoporosis, osteoarthritis, age-related cancers, nutrition, and heart failure
- Social and behavioral - interventions to prevent and treat age-related disorders and caregiver stress
- Basic biomedical - molecular genetics and cellular biology of ageing and age-related diseases, such as atherosclerosis, Alzheimer's disease, and osteoporosis
- Public policy - health services delivery, economics of ageing, health care quality, long-term care, and transportation
- Neuroscience - ageing and memory

UCLA Longevity Center

About:

Since 1991, the UCLA Longevity Center has focused on helping people live better, longer. It achieves this mission through cutting-edge research, innovative education, comprehensive patient care, and effective community service. By translating scientific discoveries into practical applications, the Center has distinguished itself as a pioneering leader in the field of longevity and aging well.

The Center's commitment to improving quality of life focuses on early detection and prevention of age-related maladies, including memory loss and cognitive decline. Research shows that age is the single greatest risk factor for developing memory loss. With Baby Boomers now beginning to turn 65, they are reaching the age when risk for Alzheimer's disease climbs to 10 percent. According to the United States Census Bureau, by 2050, people 65 and over will comprise more than 20 percent of the U.S. population. Today, five-million-plus Americans suffer from Alzheimer's disease—a number projected to triple in the next few decades. UCLA scientists and others will continue to pursue a cure. In the meantime, they have made great strides in our understanding of both genetic and non-genetic factors that impact Alzheimer's risk, and current treatments are helping patients live productive lives much longer than ever before.

Website: http://www.semel.ucla.edu/longevity

City: Los Angeles / CA

Country: USA

Mission/Research Topics:

- Comparison of Levomilnacipran to Placebo in Older Adults with Depression
- Health Education and Wellness for Older Adults
- Late-Life Depression and Memory Research Study
- Optimize Your Treatment for Depressio

UCSF Memory and Aging Center

About:

The mission of the UCSF Memory and Aging Center is to provide the highest quality of care for individuals with cognitive problems, conduct research on the causes and cures for degenerative brain diseases, and educate health professionals, patients, and their families.

From heart disease and immunology to specialty services for women and children, UCSF brings together the world's leading experts in nearly every area of health. They are home to five Nobel laureates who have advanced the understanding of cancer, neurodegenerative diseases, HIV/AIDS, aging and stem cell research. UCSF Medical Center, UCSF Benioff Children's Hospitals, all four of their professional schools — dentistry, medicine, nursing and pharmacy— and many UCSF graduate programs consistently rank among the best in the country.

UCSF is a collection of dedicated scientists, clinicians, students and staff who share a common drive to make the world a better place by advancing health and the human condition. Care and compassion are as critical as science and discovery in fulfilling our mission to drive change, and make a difference for individual patients and whole populations.

In a field where lives often hang in a delicate balance, UCSF recognizes that time is of the essence – for patients in the hospital and for populations facing an epidemic. They harness the efficiency of multidisciplinary teams to accelerate learning and scientific progress and speed the development of new therapies and cures. They are constantly pushing forward the policies and partnerships that ensure that people in need are getting access to the most cutting-edge care and treatment.

UCSF is also San Francisco's second-largest employer — attracting talented faculty and staff who mirror the energy and entrepreneurial spirit of the Bay Area. Their ability to recruit top talent leads to a constant influx of new ideas and approaches across each of our missions: research, patient care and education.

Website: http://memory.ucsf.edu

City: San Fransisco / CA

Country: USA

Mission/Research Topics:

- Alzheimer's disease
- Corticobasal degeneration
- Creutzfeldt-Jakob disease
- Frontotemporal dementia
- Mild cognitive impairment (MCI)
- Progressive supranuclear palsy
- Vascular dementia
- Healthy ageing

USC Davis School of Gerontology & Ethel Percy Andrus Gerontology Center

About:

Founded in 1975, the USC Leonard Davis School of Gerontology is the oldest and largest school of its type in the world. They offer the most comprehensive selection of gerontology degree programs found anywhere, a variety of outstanding research opportunities and a challenging yet supportive academic environment.

As a small school rooted in a world-class research university located in the heart of one of the most important cities on earth, the USC Leonard Davis School of Gerontology—and its research and services arm, the Ethel Percy Andrus Gerontology Center—are home to today's leaders in the field, as well as to tomorrow's.

Their program studies the human lifespan by exploring the biological, psychological, sociological, political, medical and business dimensions of adult life. The curriculum is aimed at equipping future professionals in the field of aging with the specific skills and knowledge necessary to respond effectively to the needs of an aging population.

With a distinguished faculty representing various disciplines, the School is able to offer students a wide range of scientific and professional gerontology courses.

Website: http://gero.usc.edu

City: Los Angeles / CA

Country: USA

Mission/Research Topics:

- Demography
- Molecular biology
- Neuroscience
- Psychology
- Public policy
- Sociology

USC/UCLA Center of Biodemography & Population Health (CBPH)

About:

The USC/UCLA Center on Biodemography and Population Health (CBPH) is a multisite center located at the Andrus Gerontology Center of the University of Southern California and the Program in Geriatric Medicine in the School of Medicine of the University of California at Los Angeles. It is one of 14 centers in the Demography and Economics of Aging Centers Program sponsored by the National Institute on Aging (NIA).

The primary purpose of the CBPH is to provide a synergistic research environment for the integration and translation of research findings from a variety of disciplines to understand population health. The Center takes a multidisciplinary approach by linking demographers, biologists, economists, psychologists, epidemiologists, health policy specialists, medical researchers and clinical geriatricians. This integration of biological, epidemiologic and medical risk information which characterizes Center research is fundamental to understanding and projecting demographic trends and differences in population health.

Website: http://gero.usc.edu/CBPH/

City: Los Angeles / CA

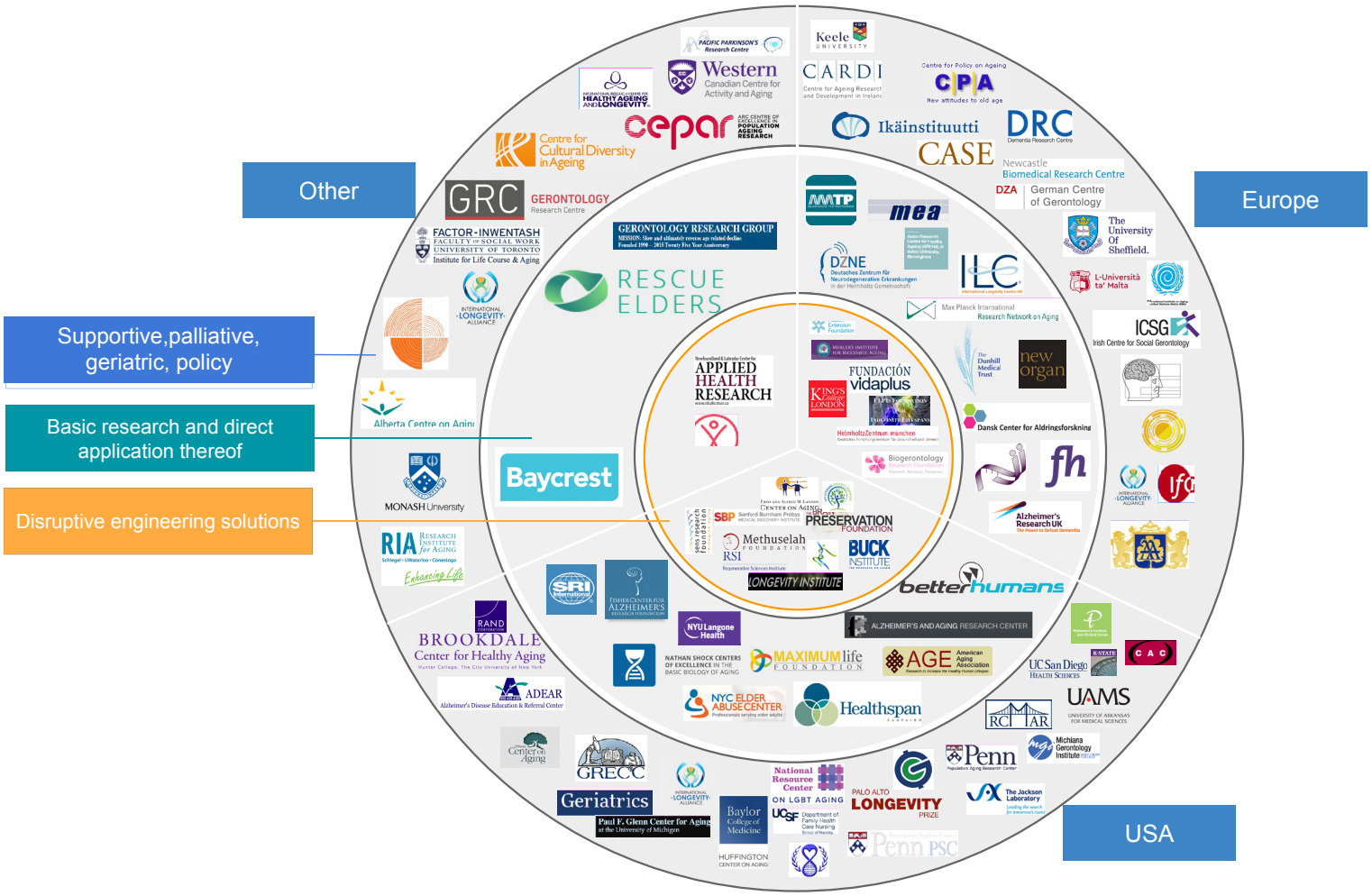
Country: USA

Mission/Research Topics:

- Provide a synergistic research environment for the integration and translation of research findings from a variety of disciplines to understand population health.
- Link demographers, biologists, economists, psychologists, epidemiologists, health policy specialists, medical researchers and clinical geriatricians. U
- Understanding and projecting demographic trends and differences in population health.

Part V

Top 100 Longevity Non-Profits



Analytical Report 2017

AGING ANALYTICS AGENCY
Invest for life

Biogerontology Research Foundation
Prevent. Restore. Preserve.

DEEP KNOWLEDGE LIFE SCIENCES

Top 100 Longevity Non-Profits

1. Age Institute
2. Alberta Centre on Aging
3. Alzheimer's and Aging Research Center
4. Alzheimer's Disease Education and Referral (ADEAR) Center
5. Alzheimer's Research UK
6. American Aging Association
7. ARC Centre of Excellence in Population Ageing Research (CEPAR)
8. Baycrest Research Centre for Aging and the Brain
9. Betterhumans
10. Biogerontology Research Foundation
11. Brain Preservation Foundation
12. Brookdale Center for Healthy Aging
13. Buck Institute for Research on Aging
14. Canadian Centre for Activity and Aging (From Research to Action) CCAA
15. Centre for Active Management of Lifelong Ageing (CAMLA)
16. Centre for Ageing and Pastoral Studies (CAPS)
17. Centre for Ageing and Supportive Environments (CASE)
18. Centre for Ageing Research and Development in Ireland (CARDI)
19. Centre for Cultural Diversity in Ageing
20. Centre for Policy on Ageing (CPA)
21. Centre for Social Gerontology
22. Centre on Aging
23. Center for Aging & Community (CAC), University of Indianapolis
24. Center on Aging
25. Comprehensive Center on Brain Aging - An NYULMC Center of Excellence
26. Danish Aging Research Center (DARC)
27. Danish Centre for Molecular Gerontology (DCMG)
28. Del E. Webb Neuroscience, Aging and Stem Cell Research Center (NASCR)
29. Dementia Collaborative Research Centres (DCRC)
30. Dementia Research Centre (DRC)
31. Donald W. Reynolds Institute on Aging and Department of Geriatrics
32. ELPIs Foundation for Indefinite Lifespans
33. European Centre for Gerontology
34. Fischer Center for Alzheimer's Disease Research
35. Flinders Centre for Ageing Studies (FCAS)
36. Forever Healthy Foundation
37. Fundación Vidaplus
38. Geriatric Research Education and Clinical Centers (GRECC)
39. Geriatrics (Yale University)
40. German Centre for Neurodegenerative Diseases (DZNE)
41. German Centre of Gerontology (DZA)
42. Gerontology Research Center (GRC)
43. Gerontology Research Group (GRG)
44. Gerontology Research Unit
45. Glenn Center for Aging Research
46. Global Healthspan Policy Institute
47. Harvey A. Friedman Center for Aging
48. Heales
49. Health Extension
50. Healthspan Campaign
51. Huffington Center on Aging (HCOA)
52. Institute for Life Course and Aging
53. Institute of Gerontology (IFG)
54. International Institute on Ageing
55. International Longevity Alliance
56. International Longevity Centre - UK
57. International Research Centre for Healthy Ageing and Longevity (IRCHAL)
58. Irish Centre for Social Gerontology (ICSG)
59. K-State Center on Aging
60. Landon Center on Aging
61. Life Extension Advocacy Foundation
62. Lifespan.io
63. LongeCity
64. Longevity Institute
65. Major Mouse Testing Program
66. Maximum Life Foundation
67. Max Planck International Research Network on Aging (MaxNetAging)
68. Max Planck UCL Centre for Computational Psychiatry and Ageing Research
69. Mercer's Institute for Research on Ageing (MIRA)
70. Methuselah Foundation
71. Michiana Gerontology Institute (MGI)
72. Monash Research for an Ageing Society (MonRAS)
73. Munich Center for the Economics of Aging (MEA)
74. Nathan Shock Center of Excellence in the Basic Biology of Aging
75. Nathan Shock Center of Excellence in the Basic Biology of Aging - The Jackson Laboratory
76. National Institute of Gerontology and Geriatrics «Ana Aslan»
77. National Resource Center on LGBT Aging (LGBT - lesbian, gay, bisexual and transgender)
78. Newfoundland & Labrador Centre for Applied Health Research (NLCAHR)
79. New Organ Prize
80. NIHR Newcastle Biomedical Research Centre
81. NYC Elder Abuse Center (NYCEAC)
82. Pacific Parkinson's Research Centre (PPRC)
83. Palo Alto Longevity Prize
84. Population Aging Research Center (PARC)
85. Population Studies Center (PSC)
86. RAND Center for the Study of Aging
87. Regenerative Sciences Institute
88. Resource Centers for Minority Aging Research (RCMAR)
89. Schlegel-UW Research Institute for Aging (RIA)
90. Science for life extension foundation
91. SENS Research Foundation
92. Sheffield Institute for Studies on Ageing (SISA)
93. Society for the Rescue of our Elders
94. SRI International Center for Health Sciences
95. The Dunhill Medical Trust
96. The Parkinson's Institute and Clinical Center (The PI)
97. UCSD Sam and Rose Stein Institute for Research on Aging (SIRA)
98. UCSF Institute for Health & Aging (IHA)
99. Virtual Institute of Neurodegeneration & Ageing
100. Wolfson Centre for Age-Related Diseases (Wolfson CARD)

Age Institute

About:

The Age Institute studies the everyday lives of older adults, develops services for older people, produces new innovations for older adults and their families, disseminates information about the results of new studies, offers training to professionals, and participates in current discussion on age related issues, values and attitudes.

The Age Institute:

- Produces and assists in applying research-based knowledge of ageing, older persons' daily lives and services for older persons
- Produces good practices for older persons, their relatives and professionals
- Supports the implementation of new knowledge, informs and influences through training and use of media.

Website: http://www.ikainstituutti.fi/in+english/

City: Helsinki

Country: Finland

Mission/Research Topics:

- Physical exercise, functional capacity, and health
- Encounter, inclusion, and mental well-being

The mission is to produce and disseminate knowledge that can be used to promote good ageing and good old age.

Alberta Centre on Aging

About:

It is an interdisciplinary research and network centre dedicated to the promotion and dissemination of research into ageing. The mission is to promote cutting-edge research, education, and service in ageing, through interdisciplinary collaboration and through partnerships with stakeholders. The Centre‘s focus is on the promotion of best outcomes for older people, to engage the community and to link researchers.

The study of aging and it’s consequences is inherently interdisciplinary. Many faculty members and students from a variety of disciplines across the campus have an interest in aging. Each discipline has a unique perspective and makes improtant contributions that enhance our understanding of this important field. The study of aging, age related disease, and the social impacts of aging occur across many areas of the university. Their researchers are a diverse collection of individuals: the ACA exists to bring these people together and promote collaborative work to further their aims.

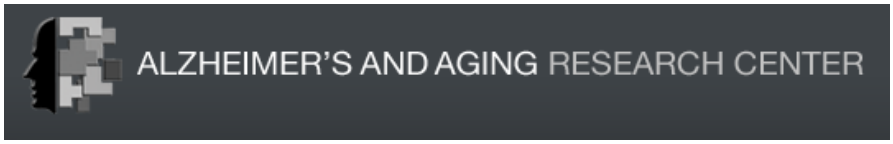
Website: http://www.aging.ualberta.ca/

City: Edmonton

Country: Canada

Mission/Research Topics:

- Foster, promote and monitor research excellence through facilitation, networking and research mentoring.
- Maintain connections between aging researchers and professionals across disciplines and organizations.
- Disseminate knowledge to stakeholders and the community regarding the
- latest research on aging and aging-related topics.
- Provide leadership in public education, communication and promotion of
- research within the lay community.



Alzheimer‘s and Aging Research Center

About:

The Alzheimer's and Aging Research Center supports research of Alzheimer's disease and other aging-related diseases. They fund research which is focused on finding treatments for these diseases, and they provide information to the scientific community and to the general public worldwide, via scientific publications and presentations, brochures, a website, and other reports. They also support research training for high school, undergraduate and graduate students, and to visiting research scholars from countries worldwide.

Affecting an estimated 4 million people in the United States, Alzheimer's disease is the most common cause of brain disruption in older people.

The research centre supports biomedical research directed towards further increasing our understanding of the ageing process, allowing seniors to live ever fuller and more enjoyable lives. The research focuses on Alzheimer´s disease and other ageing-related diseases, especially on finding treatments for these diseases. The Center provides information to the scientific community and the public and supports education and training.

Since 1995, the scientists they support have been conducting research on Alzheimer's disease and other aging-related diseases, presenting the results to the public, and training students. They make it a priority to ensure that the research results are shared with the public throughout the world, and they also work to foster international scientific collaborations between our scientists and others who specialize in this field.

The effect of Alzheimer's weighs heavily on the shoulders of society. Many spouses, relatives, and friends take care of people with Alzheimer's. As they watch their loved ones become more forgetful and frustrated, they too, experience the mental, physical, and financial burden. The estimated annual costs for Alzheimer's patients are close to $50 billion. Their intent is to increase the understanding of the aging process and make discoveries to allow seniors to have fuller, more enjoyable lives.

Website: http://www.aging-research.org/index.html

City: Port St. Lucie / FL

Country: USA

Mission/Research Topics:

- Alzheimer‘s disease
- Cardiovascular diseases
- Diabetes
- Osteoarthritis
- Osteoporosis

Alzheimer‘s Disease Education and Referral (ADEAR) Center

About:

The ADEAR Center is a service of the National Institute on Aging (NIA), one of the Federal Government’s National Institutes of Health and part of the U.S. Department of Health and Human Services. The NIA conducts and supports research about health issues for older people, and is the primary Federal agency for Alzheimer’s disease research.

The ADEAR Center distributes information about Alzheimer‘s disease to health professionals, patients and their families, and the public. They provide articles and video which in popular form explain how this disease progress and what can help.

Website: https://www.nia.nih.gov/alzheimers

City: Silver Spring / MD

Country: USA

Mission/Research Topics:

- Support and conduct genetic, biological, clinical, behavioral, social, and economic research on aging.
- Foster the development of research and clinician scientists in aging.
- Disseminate information about aging and advances in research to the public, health care professionals, and the scientific community, among a variety of audiences.
- Fund extramural research at universities and medical centers across the United States and around the world.

Alzheimer's Research UK

About:

Alzheimer's Research UK is a company limited by guarantee and a registered charity. They are governed by a Board of Trustees, the Charity's board of directors.

The Board's role is to set the Charity's strategic direction. The Board monitors the delivery of the Charity's objectives, upholds its values and governance, and advises and supports the Chief Executive, who leads the Executive Management Team towards achieving the Charity's vision and purpose.

Alzheimer's Research UK is working tirelessly to defeat dementia, but it takes more than a single organisation to tackle a challenge this big. That's why they work to ensure dementia is at the top of the political agenda, bringing together policymakers and other influential organisations who make a vital contribution to the fight against the condition.

Without effective treatments, one in three children born today will die with dementia. Today, there are no dementia survivors but research can change this.

Alzheimer's Research UK is the world's leading dementia research charity dedicated to causes, diagnosis, prevention, treatment and cure. Backed by their passionate scientists and supporters, they're challenging the way people think about dementia, uniting the big thinkers in the field and funding the innovative science that will deliver a cure.

Website: https://www.alzheimersresearchuk.org/

City: Great Abington

Country: UK

Mission/Research Topics:

- Understand the diseases that cause dementia.
- Diagnose people earlier and more accurately.
- Reduce risk, backed by the latest evidence.
- Treat dementia effectively.

Their mission is to bring about the first life-changing dementia treatment by 2025.

American Aging Association

About:

The American Aging Association was launched at a special luncheon meeting at the Waldorf-Astoria in New York City, October 19, 1970. Organized by a group of distinguished medical doctors and scientists who wanted a specific organization dedicated to aging research.

The members of the American Aging Association are an elite group of scientific experts in the field of biogerontology and geroscience, dedicated to understanding the basic mechanisms of aging in order to enable humankind to preserve and restore functions typically lost to age-related degeneration, and to extend the healthy human lifespan. The American Aging Association Trainee Chapter offers numerous benefits to learners at all levels. These include the opportunity to win presentation and travel awards, career development, and networking with other trainees and some of the world's top geroscientists and biogerontologists.

Each year, the Association provides an annual conference to share aging research and to recognize and award young investigators with disciplines in aging research. In the early years, the meeting rotated between New York City, Washington, D.C. and San Francisco. Currently, the conference locations are selected throughout the United States and are held in the first week of June.

Website: https://www.americanagingassociation.org/

City: Grandville, MI

Country: USA

Mission/Research Topics:

- To promote biomedical aging studies directed towards increasing the functional life span of humans with one goal being to slow the aging process
- To keep the public informed of the progress of aging research and of practical means of achieving a long and healthy life
- To increase knowledge of biogerontology among physicians and others in the health fields

ARC Centre of Excellence in Population Ageing Research (CEPAR)

About:

Based at the University of New South Wales (UNSW) with nodes at the Australian National University (ANU), The University of Melbourne, The University of Sydney and The University of Western Australia (UWA), the ARC Centre of Excellence in Population Ageing Research (CEPAR) is producing world-class research on population ageing. The Centre is a unique collaboration bringing together academia, government and industry to address one of the major social challenges of the twenty first century. CEPAR's mission is to produce research of the highest quality to transform thinking about population ageing, inform product and service development and provision (private practice) and public policy, and improve people's wellbeing throughout their lives.

Their innovative research is providing global solutions to the economic and social challenges of population ageing and building a new generation of researchers to global standard with an appreciation of the multidisciplinary nature of population ageing.

Website: http://www.cepar.edu.au/

City: Sydney

Country: NSW Australia

Mission/Research Topics:

- Causes & Consequences of Demographic Change
- Cognition & Decision Making
- Macro-Demographic Dynamics & Population Ageing Policy
- Decision Making, Expectations and Cognitive Ageing
- Organisations and the Mature Workforce
- Sustainable Wellbeing in Later Life

Baycrest Research Centre for Aging and the Brain

About:

Baycrest Health Sciences is a global leader in geriatric residential living, healthcare, research, innovation and education, with a special focus on brain health and aging.

As an academic health sciences centre fully affiliated with the University of Toronto, Baycrest provides an exemplary care experience for aging clients combined with an extensive clinical training program for students and one of the world's top research institutes in cognitive neuroscience. Through its commercial and consulting arms, Baycrest is marketing its sought-after expertise and innovation to other healthcare organizations and long-term care homes, both in Canada and internationally.

Founded in 1918 as the Jewish Home for the Aged, Baycrest continues to embrace the long-standing tradition of all great Jewish healthcare institutions to improve the well-being of people in their local communities and around the globe.

Baycrest is a leader in cognitive neuroscience and memory research, with the goal of transforming the journey of ageing. The Rotman Research Institute (RRI) and the Kunin-Lunenfeld Applied and Evaluative Research Unit (KLAERU) are parts of Baycrest. The primary research focus of the RRI is on memory and the executive (frontal lobe) functions of the brain, both in normal aging and in the presence of diseases and conditions which affect the brain, such as stroke, traumatic brain injury, Alzheimer's disease and other dementias. KLAERU provides resources and expertise to support clinical, evaluative, and translational research at Baycrest. At KLAERU, the development and implementation of innovative wellness, prevention, education and care projects is supported across Baycrest.

Baycrest has a bold vision for the future, and a solid five-year strategy that takes into account the changing healthcare environment in Ontario.

Website: http://www.baycrest.org/research/

City: Toronto

Country: Canada

Mission/Research Topics:

- Memory and ageing
- Neuroscience of cognition and ageing

Betterhumans

About:

Betterhumans Inc. is the latest iteration of this concept. Operating as a Florida non-profit corporation, the short-term goals of Betterhumans are extending healthy maximum human lifespan and greatly reducing the risk of disease.

Its goal, as a non-profit, is to develop therapies that can be offered at the lowest cost possible. Stem cell transplants and gene therapy upgrades (such as improved health and lifespan) should not cost you the equivalent of buying a car, it should be as affordable as a new cell phone or laptop. They hope to pioneer storefront clinics that can provide these upgrades so that anyone over the age of 65 can afford them, and can participate in the wave of Exponential Technology in the bio-medical field that will propel us into an unlimited future of lasting health and youth. All discoveries will be offered under a Creative Commons Public Patent License format, or the equivalent.

Betterhumans has a long history in the field of transhumanism. It was started as an educational website (www.betterhumans.com) in mid-2001 and evolved to become a popular website presenting ideas and news about Exponential Technologies. It ceased operating as a website around late 2008, when h+ Magazine took over its functions. Betterhumans, which then included James Clement and Dan Stoicescu, produced five bi-monthly issues of the transhumanist-tech magazine h+ with RU Sirius as Editor.

This new iteration of Betterhumans is the most aggressive yet. They will shortly be putting out new information about how ordinary people can modify their diet and lifestyle to take advantage of some of the latest findings in scientific research. Their research team is focused on bringing cutting-edge scientific discoveries from the lab to the clinic, so that humanity can take advantage of these breakthroughs in a safe and inexpensive manner, as quickly as possible.

Website: http://www.betterhumans.com/

City: LaFayette / LA

Country: USA

Mission/Research Topics:

- Improve human cognition and wellbeing
- Upgrade those biological features that are important to us
- Seek to develop therapies that can be offered at the lowest cost possible.

Biogerontology
Research Foundation
Prevent. Restore. Preserve.

Biogerontology Research Foundation

About:

The BGRF has been constituted as a charity in the UK to support the application of our knowledge of the mechanisms of ageing to the relief of disability, suffering and disease in old age. The objective of research conducted or funded by the Biogerontology Research Foundation (the BGRF) is to produce effective cures or treatments for the diseases and frailty commonly associated with ageing in the human population.

The Foundation aims to create biomedical interventions to address the deleterious alterations which occur in the bio-molecules and cells of the body as a side effect of normal metabolism (often referred to as "ageing damage"), and which accumulate over the course of life, eventually causing the diseases of ageing.

Website: http://www.bg-rf.org.uk/

City: London

Country: UK

Mission/Research Topics:

- Fill this gap within the research community whereby the current scientific understanding of the ageing process is not yet being sufficiently exploited to produce effective medical interventions.
- Fund research which, building on the body of knowledge about how ageing happens, will develop biotechnological interventions to prevent or remediate
- the molecular and cellular deficits which accumulate with age and which underlie the ill-health of old age.
- The BGRF will seek appropriate Intellectual Property protection to encourage industry to apply the results of their projects quickly. Their long-term goal is to provide medical practitioners with the tools they need to enable effective and lasting remedies for the illnesses and disabilities of old age.

Brain Preservation Foundation

About:

The central objective of the Brain Preservation Foundation is to promote scientific research and services development in the field of whole brain preservation for long-term static storage. Through outreach to appropriate scientific communities, online activities, presentations and articles, directed research grants, challenge prizes, and other methods, we seek to explore the scientific hypothesis of whether a reliable surgical procedure exists that is capable of preserving the neural circuitry of the human brain at nanometer scale.

Website: http://www.brainpreservation.org/

City: Ashburn / VA

Country: USA

Mission/Research Topics:

- To promote scientific research and services development in the field of whole brain preservation for long-term static storage.
- Through outreach to appropriate scientific communities, online activities, presentations and articles, directed research grants, challenge prizes, and other
- methods.
- Explore the scientific hypothesis of whether a reliable surgical procedure exists
- capable of preserving the neural circuitry of the human brain at nanometer scale.
- Seek to advance public understanding of the self, of our brains as physical, chemical, and biological carriers of our “internal self”, of our social relationships
- and environment as aspects of our “external self”.
- Should any brain preservation technology be proven to work, we will make every effort to help that technology become as affordable and legally available
- as possible, for use in hospitals, hospices, and homes around the world.
- BPF’s social mission is to help individuals preserve, use, and improve their brains
- to the greatest degree possible, both now and in the future.

BROOKDALE
Center for Healthy Aging
Hunter College, The City University of New York

Brookdale Center for Healthy Aging

About:

The Brookdale Center for Healthy Aging improves the lives of older adults through research, policy, and professional development.

Brookdale faculty and staff engage in research, policy analysis, and policy development. They are a leading provider of education and professional development services, including curriculum development and training on issues related to aging, elder law, and elder justice.

Website: https://brookdale.org/

City: New York / NY

Country: USA

Mission/Research Topics:

Brookdale improves the lives of older adults through research, advocacy, policy, and professional development. We work in partnership with a wide range of agencies and non-governmental organizations to:

- Promote ethical treatment of older adults and other vulnerable populations in social service and healthcare systems
- Explore the social, political, legal, and economic climate affecting health and quality of life of older adults
- Identify inequities in the access to and experience of care
- Design programs that build the capacity of older adults and other vulnerable populations to live independently and with dignity in the community
- Develop educational curricula and training for professionals who work with older adults so as to facilitate equity, ethics, and effectiveness in the delivery of services and care
- Incorporate the voices and choices of older adults in order to promote just and effective social and health policy and practice

Buck Institute for Research on Aging

About:

The Buck Institute is the nation's first independent research facility focused solely on understanding the connection between aging and chronic disease in pursuit of the Mission to increase the healthy years of life.

At the Buck Institute, world-class scientists work in a uniquely collaborative environment to understand how normal aging contributes to the development of conditions specifically associated with getting older such as Alzheimer's and Parkinson's diseases, cancer, stroke, osteoporosis, heart disease, diabetes, macular degeneration and glaucoma. Their interdisciplinary approach brings scientists from disparate fields together to develop diagnostic tests and treatments to prevent or delay these maladies.

The stakes have never been higher. While it's true that people are living longer, those "extra" years are often marked by disability and pain. In addition to personal hardship, there is also a cost to society. The financial burden of treating the chronic diseases of aging is expected to rise steadily as Baby Boomers get older. There is an urgency to our mission.

Unlike traditional universities, which have departmental boundaries and large bureaucracies, the Buck Institute is designed for the free flow of information. Discoveries quickly result in new studies. Scientists studying breast cancer are collaborating with researchers examining aging and nutrition. Parkinson's disease is being studied in three different model organisms. A unique inquiry into stem cells and aging is underway. It's an exciting place for science that has the potential to change the way we live.

Website: http://www.buckinstitute.org/

City: Novato / CA

Country: USA

Mission/Research Topics:

- the aging process
- the development of age-related diseases
- the potential use of stem cells to treat neurodegenerative diseases and arthritis

Canadian Centre for Activity and Aging (From Research to Action) CCAA

About:

The CCAA specializes in carrying out research on physical activity and aging, and based on the evidence, designing and implementing exercise programs that are safe and age-appropriate. Research conducted through the CCAA uses both basic and applied research approaches to broaden the knowledge base of information related to older adults and physical activity. In-house exercise programs are offered Monday to Friday to over 500 community-dwelling older adults. The average age of these participants is 75, some are as young as 50 and several are in their 90s. CCAA exercise programs include combined fitness classes, personal training, strength training, dynamic balance training, lifestyle coaching and the Get Fit for Active Living (exercise and education for beginner senior exercisers).

Website: http://www.uwo.ca/ccaa/

City: London

Country: Canada

Mission/Research Topics:

- To become a high-quality national centre supporting physical activity for the aging population.
- To become the national coordinating and accreditation institute for CCAA's community-based programs and services for the elderly.
- To support, encourage and disseminate nationally research into an active lifestyle for older adults, and to act as a resource for Health Canada and other national organizations.
- To establish international alliances and promote an open exchange of scientific knowledge, health and community programs to benefit active older adults.
- To educate provincial governments, industry and social agencies on the benefits of an active aging population.
- To be the national data centre for information on activity and aging.

Centre for Active Management of Lifelong Ageing (CAMLA)

About:

CAMLA supports and fosters research within the ageing research community locally, nationally and internationally. The centre provides advice and support to researchers with an interest in Lifelong Ageing. Currently a group of researchers interested in developing electronic aids to independent living has come together to explore ideas from both an engineering and clinical perspective; out of this meeting of minds has evolved the CAMLA - Connected Health Implementation Pilot (CHIP) which is a collaborative project being jointly led by medical and engineering researchers.

Also, CAMLA provide educations for the future health professionals. The graduate entry medical programme at the University of Limerick will produce doctors who are competent, confident and caring; who understand the scientific basis of medicine; who recognise the social and environmental context in which health and illness exist and in which medicine is practised; and who have skills for and commitment to service, teamwork, scientific enquiry, self-fulfilment and life-long learning.

Website: http://www.foragenetwork.eu/database/item/305-ireland-centre-for-active-management-of-lifelong-ageing-camla/

City: Limerick

Country: Ireland

Mission/Research Topics:

- Support and foster research within the ageing research community locally, nationally and internationally.
- Provides advice and support to researchers with an interest in Lifelong Ageing.
- Bring together researchers interested in developing electronic aids to independent living to explore ideas from both an engineering and clinical perspective.

Centre for Ageing and Pastoral Studies (CAPS)

About:

The centre provides scholarships for ageing and pastoral studies. Quality of life issues for older people, including living with dementia, are subjects for research and education.

Website:

City: Barton

Country: Australia

Mission/Research Topics:

- Bring together practitioners, researchers and older people around key developments and issues in ageing and spirituality.
- Research aged-related life-changing events and baby boomer spirituality.
- Research ways to minimise the impact of depression and dementia on elders.

Centre for Ageing and Supportive Environments (CASE)

About:

Older people, the ageing population, and supportive environments for mobility, activity, and health are the focus of their work. CASE produces research of high relevance to society at large by supporting the development of supportive environments for healthy ageing. Older people and their organizations are engaged in the work through a Board of Users with the goal to ensure that the results will have direct impact on older people's everyday lives at individual, group and community levels. Furthermore, CASE provides an excellent environment where tomorrow's researchers on ageing get the training required to develop and implement research-based, practical strategies for supportive environments in various sectors.

The centre is focused on person-environment relations influencing functional capacity, activity, participation, mobility, safety, and health in the ageing person and population.

CASE consists of teams from the Faculty of Medicine, Faculty of Engineering and Faculty of Social Sciences at Lund University. Activities have focused on older people at the individual, group, and population levels and on environments that support health, activity, and participation.

The research is explicitly interdisciplinary in nature with extensive international cooperation. A Graduate School is integrated with the centre.

The target groups for research at CASE are older people and the ageing population. The environments that the research focuses on are housing including the immediate surroundings and the traffic environment in the local community (i.e. the venues where older people do their daily activities), but CASE also considers the social and cultural aspects of the environments. The results are intended to be useful for many groups, mostly older people but also those in charge of community planning that supports the healthy aging process, such as local authorities, housing associations and operators of public transportation. Research on and implementation of research results into practice is an important part of the work at the Centre with well-developed collaborations with research groups at other universities, both in Sweden and abroad.

Website: https://www.med.lu.se/english/case

City: Lund

Country: Sweden

Mission/Research Topics:

- Research focused on older people in relation to their environments.
- Research into population levels on environments.

Centre for Ageing Research and Development in Ireland (CARDI)

About:

CARDI will advance the ageing research agenda by identifying, coordinating, stimulating, and communicating strategic research on ageing and older people as a means to improve the lives of older people in Ireland. It funds, publishes, and disseminates research on topics relating to ageing and older people.

They are a not for profit organisation developed by leaders from the ageing field across Ireland (North and South) including researchers, academics, statutory, voluntary and community sector representatives with support from The Atlantic Philanthropies.

The Centre for Ageing Research and Development in Ireland (CARDI) became part of Institute of Public Health in September 2015.

Website: http://www.cardi.ie

City: Belfast

Country: Ireland

Mission/Research Topics:

- Bring together age focused researchers, academics, statutory, voluntary and community sector representatives.
- Funds, publishes and disseminates research on topics relating to ageing and older people.
- It also hosts events on a variety of research and policy topics.

Centre for Cultural Diversity in Ageing

About:

The Centre for Cultural Diversity in Ageing is a Victorian based organisation that primarily supports the aged care sector address the needs of elderly people from culturally and linguistically diverse backgrounds. The Centre provides training, consultancy and resources to the aged care sector and also support culturally and linguistically diverse communities to better understand the aged care services available in Australia.

The Centre for Cultural Diversity in Ageing provides expertise in culturally inclusive policy and practices for the aged services sector. They have over 20 years of experience in supporting aged care providers to address the needs of older people from culturally and linguistically diverse backgrounds.

Their services include specialist training, expert consultancy and resource development. They also undertake project work to enhance quality aged care services.

The Centre for Cultural Diversity in Ageing is a trading name of Anglican Aged Care Services Group and currently receives project funding from the Australian Department of Health to administer the Partners in Culturally Appropriate Care (PICAC) program in Victoria. This program aims to ensure that the aged care needs of older people from culturally and linguistically diverse backgrounds are identified and addressed.

Website: http://www.culturaldiversity.com.au

City: Melbourne

Country: Australia

Mission/Research Topics:

- Expertise in culturally inclusive policy and practices for the aged services sector.
- Specialist training, expert consultancy and resource development. We also undertake project work to enhance quality aged care services.
- Ensuring that the aged care needs of older people from culturally and linguistically diverse backgrounds are identified and addressed.

Centre for Policy on Ageing (CPA)

About:

The Centre for Policy on Ageing, established in 1947 by the Nuffield Foundation, has a long and distinguished record as an independent charity promoting the interests of older people through research, policy analysis and the dissemination of information.

The centre aims to raise awareness of issues around all aspects of ageing and to support good practice. CPA sustains a network of learning around ageing.

An important and unique aspect of the Centre's work is to act as a hub to encourage the creative exchange of thinking and information on ageing issues. A key element of this work is making knowledge on ageing issues widely accessible to share learning and underpin policy initiatives to support older people. CPA collaborates with national and local government, practitioners, the academic community, Voluntary groups and older people to sustain a network of learning around ageing.

The Centre works in partnership to influence policy and encourage debate on issues affecting older people. It is engaged with many statutory and voluntary groups concerned with older people and contributes to advisory groups, expert working parties and forums on a diverse array of issues.

CPA brings together people from different backgrounds to discuss topical issues in small and informal settings -the involvement of older people in influencing policy development is one of the Centre's primary objectives.

Website: http://www.cpa.org.uk/index.html

City: London

Country: UK

Mission/Research Topics:

- Health and social services
- Residential and community care
- Religious belief
- Living arrangements
- Transport
- Citizenship and leisure activities

Centre for Social Gerontology

About:

The centre works on the social analysis of ageing.

As critical gerontologists, they view ageing as a life-long process shaped by a wide range of social factors. Their mission is to conduct research that is at the forefront of ageing studies, and to translate our findings into policies and practices that improve the lives of older people. In doing so, they seek to challenge traditional notions of ageing as problematic and burdensome, and to further understanding of the psycho-social and cultural dimensions of ageing.

Members of the Centre for Social Gerontology are drawn from a range of disciplines, Schools and Research Institutes across the University. The Centre's work is also supported by external colleagues with backgrounds in academia, practice and policy.

Website: https://www.keele.ac.uk/csg/

City: Keele

Country: UK

Mission/Research Topics:

- Family and kinship
- Inter-generational relationships
- Women and ageing
- Social exclusion and inclusion
- The social policy of later life
- Making Sense of History, Biography, and Health
- Ageing, drama and creativity
- Cultural value
- Late Life Creativity and the 'new old age'
- Theatre as a Pathway to Healthy Ageing
- Ageing without Children
- Longitudinal study of Ageing in a Retirement Community (LARC)

Centre on Aging

About:

The Centre on Aging, University of Manitoba, was established on July 1, 1982, with a mandate to serve as a focal point for the conduct of research on aging. The Centre has developed a national and international reputation for excellence in research.

The experiences of aging individuals and the dynamics of an aging society are investigated using rigorous scientific standards. Community representatives contribute to projects, and the Centre distributes its findings to administrators, policy makers, practitioners, and seniors to assist them in making decisions.

The Centre on Aging believes listening to older adults and those who work with them ensures more appropriate research. Dialogue is encouraged through:

- An annual spring symposium which brings together researchers and community representatives;
- Informal seminars on current research and future directions;
- Public lectures by internationally renowned researchers; and
- A newsletter published three times each year.

The centre conducts, stimulates, and promotes research on ageing, provides an interdisciplinary focus for the research activities in ageing at the university in Manitoba, and supports the teaching. The centre distributes its findings to administration, policy makers, practitioners, and seniors to assist them in making decisions.

To be a local, national, and international leader in research on aging, its application, and training, to promote the well-being of older adults.

Website: http://umanitoba.ca/centres/aging/

City: Winnipeg

Country: Canada

Mission/Research Topics:

- Chronic health problems (dementia, arthritis, depression)
- Consequences of early brain damage to normal aging,
- Changes in memory function with advancing age
- Neuronal plasticity
- Memory encoding/impairments after stroke, trauma, and seizure activity

Center for Aging & Community (CAC), University of Indianapolis

About:

The University of Indianapolis Center for Aging & Community (CAC) is one of Indiana's leading centers for Aging Studies, using an interdisciplinary approach to developing partnerships between higher education, business organizations and the community. They offering online education to prepare undergraduate and graduate students for successful careers working with, for, and on behalf of older adults. In addition, they provide research and consultation services to civic, philanthropic, business, and community organizations who are working to serve older adults. By working with organizations and individuals who work with the aging population, CAC seeks to improve the quality of life for older adults across Indiana and beyond.

The Center prides itself on being a champion for advancing the new reality of older adults as corporate, community, and family assets.

The University of Indianapolis Center for Aging & Community is guided by the belief that it must move beyond the medical model in its approach to aging issues, viewing older adults holistically and acknowledging that they are community assets. CAC's programs, policies, and partnerships must therefore promote positive aging and an age-friendly society in practical ways.

The Center holds that the keys to optimal aging are maintaining health; preventing disease, injury, and disability; maximizing independence; and maintaining active participation with the community. Recognizing the value of interdisciplinary collaboration in developing approaches that are centered on the needs of clients, families, and caregivers, the Center balances theory and practice to create effective partnerships with community members and agencies. Because it is committed to being a resource for students and community agencies in the field of aging studies, CAC's efforts are devoted to solving real-world problems in a responsible and responsive manner.

Website: http://www.uindy.edu/cac

City: Indianapolis / IN

Country: USA

Mission/Research Topics:

- Develop partnerships between higher education, business organizations, and the community.
- Offer outstanding online education in aging studies.
- Provide research and consultation services to civic, philanthropic, business, and community organizations who are working to serve older adults.
- Collaborate, educate, and conduct research to enhance the quality of life for all people as they age.
- Catalyst for change that leads to a world in which all people age with dignity and optimal health.

Center on Aging

About:

The mission of the center is to promote and facilitate activities on ageing in the areas of education, research and evaluation, and community service to maximize the quality of life of older citizens and their families

Website: https://mainecenteronaging.umaine.edu

City: Bangor

Country: USA

Mission/Research Topics:

- Promote and facilitate activities on aging in the areas of education, research and evaluation.
- Community service to maximize the quality of life of older citizens and their families in Maine and beyond.
- Provide opportunities for older citizens to engage in productive activities that enhance the quality of their own lives and provide meaningful benefits to the communities in which they live.
- Make available to the state's public, voluntary and proprietary organizations research and evaluation expertise on aging-related issues.
- Promote aging-related education and training programs for Maine's citizenry at the undergraduate, graduate, and continuing education levels.
- Serve as a direct link between the University and the citizens of Maine in order to expand the range of learning opportunities and practical experiences for UMaine students preparing for careers working with Maine's older adults.
- Promote collaboration and partnerships between UMaine and public and private service providers with aging-related interests throughout the state, including other University of Maine System institutions, the region, and in Canada.
- Serve as a consultative resource and clearinghouse for aging information and training needed by the business, health, and human service communities throughout the state and the region.
- Help the state build an expanding cadre of educators, scientists, and other specialists in the field of aging who will, in turn, apply their expertise to preparing the state for an aging populace.
- Support the work of existing University of Maine System-sponsored and affiliated housing, community, and service projects for older adults.
- Enhance UMaine faculty and researcher expertise in service to the older adult community and the organizations that serve them within their respective fields and encourage faculty to develop new expertise in gerontology and geriatrics for future service to an aging Maine.

Comprehensive Center on Brain Aging - An NYULMC Center of Excellence

About:

NYU Langone Health is a world-class, patient-centered, integrated academic medical center, known for its excellence in clinical care, research, and education. Included in the 200+ locations throughout the New York area are five inpatient locations: Tisch Hospital, its flagship acute-care facility; Rusk Rehabilitation, ranked as one of the top 10 rehabilitation programs in the country; NYU Langone Orthopedic Hospital, a dedicated inpatient orthopedic hospital with all musculoskeletal specialties ranked top 10 in the country; Hassenfeld Children's Hospital at NYU Langone, a comprehensive pediatric hospital supporting a full array of children's health services; and NYU Langone Hospital—Brooklyn, a full-service teaching hospital and level 1 trauma center located in Sunset Park, Brooklyn.

The centre is devoted to research and clinical advances toward the treatment and cure of neurodegenerative diseases affecting cognition, the focus is on healthy brain ageing, Alzheimer's disease and memory disorders, Parkinson's disease and movement disorders, atypical dementias, and geriatric psychiatry.

Website:

City: New York / NY

Country: USA

Mission/Research Topics:

- Cell survival and rescue
- Synapse physiology
- Biology of tau and amyloid proteins
- Biomarkers, genomics, and proteomics
- Electrophysiologic imaging
- Drug discovery and development
- Early detection and differential diagnosis
- Psychosocial interventions

Danish Aging Research Center (DARC)

About:

The center is a co-operation between three research groups from: The Section of Social Medicine, Department of Public Health and Research Center for Prevention and Health (University of Copenhagen/Glostrup University Hospital), the Danish Centre for Molecular Gerontology (University of Aarhus) and the Aging Research Center (University of Southern Denmark). The DARC conducts research in human aging processes from a range of different angels, combining ageing research from the molecular level, to the individual and finally to the entire population.

Through studies of twins and the oldest-old, researchers in Odense study both genetic and environmental factors influencing human aging processes and longevity.

The Copenhagen group has access to unique cohorts with more than 50 years of follow-up time, including both clinical, biological, and social data, which provide a strong basis for carrying out aging studies with a life-course-perspective.

The Aarhus group is performing aging research at the molecular level, including extensive research in the area of telomere biology and its possible relation to aging, particularly for persons, who age early.

Website: https://www.sdu.dk/en/om_sdu/institutter_centre/darc.aspx

City: Odense

Country: Denmark

Mission/Research Topics:

- Genetic and environmental factors influencing human aging processes and longevity (studies of twins and the oldest-old)
- Gender and ageing
- Social and environmental stress and ageing
- Telomere biology and its possible relation to aging, particularly for persons, who age early

Danish Centre for Molecular Gerontology (DCMG)

About:

The Danish Centre for Molecular Gerontology (DCMG) was established in 1996. At the end of 2001 a grant from the Danish Government for continuation of part of the Centre has enabled further scientific research to be undertaken within the network aiming at obtaining results in the field of molecular biology and genetics. The centre is now embedded at the Faculty of Science at Aarhus University, Denmark.

The overall goal of DCMG is to understand the basic molecular biological mechanisms that result in a progressive impairment of functional ability, which leads to the occurrence of several age-related diseases. Since the incidence of various disorders, including cancer, cardiovascular disease, diabetes and osteoporosis increases dramatically with age, it is crucial to understand why and how old individuals become prone to these diseases, and what effective means of intervention and prevention can be developed.

Age-associated diseases are very costly to the society, both in terms of finances and in terms of the loss of quality of life.

The aims of the DCMG are to identify molecular and cellular mechanisms involved in the ageing process and in the origin of age-related diseases, to search for effective means of reducing age-related loss in cellular functions, to search for methods for recovery of lost biological activity during ageing, and to employ the knowledge obtained to prevent some of the age-related diseases.

Website: http://www.dcmg.dk/index.html

City: Aarhus

Country: Denmark

Mission/Research Topics:

- DNA damage
- Premature ageing syndromes
- Alzheimer‘s and Parkinson‘s disease
- Telomeric-regulation of cellular ageing
- Gene expression and function with ageing
- Hormesis

Del E. Webb Neuroscience, Aging and Stem Cell Research Center (NASCR)

About:

Advance the understanding and treatment of degenerative diseases, as well as the normal aging process. They want to protect cells in the brain from a avriety of neurodegenerative diseases and to regenerate neurons and associated cells.

In the laboratories of NASCR,they study the molecular basics of how the organisms age. They use functional, electrophysiological, biochemical and immunohistochemical techniques that allow us to examine the roles of genes and gene products in cardiac channelopathies and stress-related cardiomyopathies. Also, they research cellular autophagy, and the molecular mechanisms underlying organ formation and how cells and tissue types assume their correct fates during embryogenesis, how patterns are generated.

Website: http://labs.sbpdiscovery.org/centerandlabs/neuroagingstem/Pages/Home.aspx

City: La Jolla / CA

Country: USA

Mission/Research Topics:

- Neurodegenerative diseases
- Stem cells and regenerative biology
- Development and ageing
- Molecular biology researches

Dementia Collaborative Research Centres (DCRC)

About:

The Dementia Collaborative Research Centres (DCRC) were established in 2006 under the Government's Dementia Initiative, funded by the Department of Health and Ageing after a competitive tender process. The three centres ('hubs') based at UNSW, ANU and QUT had many collaborative partners around Australia. In 2011, administration of the DCRCs was transferred to the NHMRC and in 2016 responsibility shifted to the newly established NHMRC National Institute for Dementia Research (NNIDR).

Under the NNIDR the 3 DCRC centres have been unified and renamed the Dementia Centre for Research Collaboration (DCRC) while retaining the 3 'hubs'. Alzheimer's Australia is the auspicing body for the NNIDR and NHMRC has responsibility for outputs.

This new framework will serve to grow partnerships and strengthen ties with consumers and service providers, Dementia Training Australia and Dementia Support Australia in order to progress prevention, assessment, care and translation of knowledge into everyday practice, as well as building the next generation of dementia researchers.

Website: http://www.dementiaresearch.org.au/

City: Sydney, Brisbane, Canberra

Country: Australia

Mission/Research Topics:

- Prevention of Alzheimer's disease and other dementias
- Diagnose Alzheimer's disease
- Enhancing the awareness of dementia
- Home care

DEMENTIA RESEARCH CENTRE

Dementia Research Centre (DRC)

About:

The UCL Dementia Research Centre is a hub for clinical research into various forms of dementia. Their work focuses on identifying and understanding the disease processes that cause dementia, the factors that influence these disease processes, and how best to support people with dementia and their families. In addition to the research, they also provide a cognitive disorders clinic within the National Hospital for Neurology and Neurosurgery.

Their non-drug studies involve several different kinds of assessment. These often include questionnaires; detailed psychology tests looking at memory, but also often language and other cognitive functions; MRI scanning of the brain; and sometimes other tests such as measurement of eye movements, pupil reactions and muscle activity, or donation of blood, urine or spinal fluid. In addition to memory we are particularly trying to understand other kinds of complex brain functions that can be affected in dementia; these include aspects of perception, feeling, spatial navigation, emotion and social awareness. The studies have been designed to help us address these aspects.

Website: http://www.ucl.ac.uk/drc/

City: London

Country: UK

Mission/Research Topics:

- Familial Alzheimer‘s disease
- Frontotemporal dementia
- Posterior cortical atrophy
- Auditory information processing in dementia
- Chemosensory processing in dementia

UAMS

Donald W. Reynolds Institute on Aging

Donald W. Reynolds Institute on Aging and Department of Geriatrics

About:

Established through a $28.8 million gift from the Donald W. Reynolds Foundation, the Reynolds Institute on Aging recognizes that the focus of health care must shift from merely keeping people alive to making those later years healthier and more productive. In other words, the focus is not adding years to life; rather, it's adding life to years.

The institute's mission is to promote functional independence in older people through world class clinical care, cutting-edge research, and innovative educational programs. The Institute recognizes that the focus of health care must shift from merely keeping people alive to making those later years healthier and more productive. In other words, the focus is not adding years to life; rather, it's adding life to years.

Website: http://aging.uams.edu/

City: Little Rock / AR

Country: USA

Mission/Research Topics:

- Cellular and Molecular Biology of Aging
- Cancer
- Cardiovascular System
- Frailty Prevention
- Nutrition, Metabolism and Exercise
- Long-Term Care
- Cognitive Disorders

ELPIs Foundation for Indefinite Lifespans

About:

The ELPIs Foundation for Indefinite Lifespans (a non-profit research organisation) is a multidisciplinary endeavour aiming to formally study the real and perhaps imminent possibility of the abolition of human ageing, i.e. the achievement of an indefinite lifespan.

The Foundation is located in Larnaca, Cyprus and London, UK but has a global presence. Our objectives are inherently based on our long-term vision of a world where age-related degeneration, and subsequent involuntary death due to ageing has been eradicated.

Website: http://elpisfil.org/

City: Larnaca / London

Country: Cyprus / UK

Mission/Research Topics:

- Formally research, discuss and describe strategies that may lead to the abolition of age-related degeneration and involuntary death due to ageing
- Research the possible relationship between evolutionary complexity theories, neurobiology and technological acceleration with regards to our aim
- Discuss how the process of elimination of ageing may manifest itself and examine any early signs that this is currently happening
- Disseminate ideas and information relevant to our aim, as well as practical aspects of these strategies to the public

Their mission is to formally research, discuss and describe strategies that may lead to the abolition of age-related degeneration and involuntary death due to ageing.

European Centre for Gerontology

About:

The Department of Gerontology, formerly known as the European Centre for Gerontology, is considered to be one of the leading international centres for the study of gerontology and geriatrics. Its teaching and research have made an invaluable contribution to our understanding of older persons, later life and ageing. The Department brings together academic experts from a wide range of disciplines. Students reading for the Master of Gerontology and Geriatrics and Doctor of Philosophy include graduates of a variety of professions that include medicine, psychiatry, nursing, allied health professions, law, psychology, commerce, social policy, social work, and sociology. As from February 2016 the Department is also offering a Master of Arts in Ageing and Dementia Studies. Graduates of the Department pursue a range of careers. Many work in consultant and specialist positions in geriatric medicine, and others progressed to hold policy and social science appointments, around the world. The Department is highly active in engaging in public debates on issues that concern older people through the organisation of conferences and forums.

The mission of the centre is to conduct research within the area of ageing and later life, to deliver postgraduate courses, to co-ordinate training programmes, to liase with government departments and voluntary agencies, to research issues, and to engage in public debates. The Centre of Gerontology puts emphasis on didactic teaching on ageing welfare policy, social and biological theories of ageing, quality of life in old age, and researching ageing and later life.

Website: https://www.um.edu.mt/socialwellbeing/gerontology

City: Msida

Country: Malta

Mission/Research Topics:

- Didactic teaching on ageing welfare policy.
- Biological theories of ageing, quality of life in old age.
- Expounding the benefits of using an interdisciplinary team approach.

Fischer Center for Alzheimer‘s Disease Research

About:

Philanthropists Zachary Fisher and David Rockefeller joined forces to establish the Fisher Center with the singular mission of finding a cure for Alzheimer’s disease through scientific discovery. The Center opened shortly after Zachary Fisher’s wife was diagnosed with Alzheimer’s. His dream was to help discover the cure so others would not have to suffer through the ravages of this disease that he and his wife had to.

The Fisher Center is one of the largest and most modern scientific facilities in the world dedicated to solving the puzzle of Alzheimer’s disease. Their founding director is Nobel Laureate and neuroscientist Paul Greengard. He and his world-renowned team at the Fisher Center are leading the way to finding a cure for Alzheimer’s disease.

The majority of their funding goes to the Fisher Center under the direction of Nobel Laureate Dr. Paul Greengard. They also support other researchers around the globe that are working towards finding a cure.

Website: http://www.alzinfo.org/

City: New York / NY

Country: USA

Mission/Research Topics:

- Beating back beta amyloid
- Improving the quality of life for Alzheimer’s patients
- Reversing nerve cell damage
- Recruiting stress proteins to clean up tangles in the brain
- Curing early-onset Alzheimer‘s
- The science of caregiving

Their Mission: to attack the scourge of Alzheimer’s disease through a 3-pronged assault focused on understanding the causes of Alzheimer’s disease; improving the care of people living with Alzheimer’s to enhance their quality of life; and finding a cure for this devastating disease.

Flinders Centre for Ageing Studies (FCAS)

About:

The Flinders Centre for Ageing Studies (FCAS) has a multidisciplinary focus on research, education and professional gerontological activities locally, nationally and internationally. It is widely recognised for its excellence in the field of ageing and known for its capacities in research design, data base creation, analysis and reporting, as well as day-to-day management of a range of projects. The FCAS has received funding from the Australian Research Council, Canadian Institute of Health Research, South Australian Department for Families and Communities: Disability, Ageing and Carers, Department of Further Education, Employment, Science and Technology (DFEEST), Department of Premier and Cabinet, and Flinders University (Faculty of Medicine, Nursing and Health Sciences and Faculty of Social and Behavioural Sciences).

Members of the Centre are engaged in supervision of post-graduate research students, post-doctoral fellows, and development and delivery of post-graduate programs in Applied Gerontology and Palliative Care in Aged Care.

FCAS is located in the Faculty of Social and Behavioural Sciences, and has strong links with the Faculty of Medicine, Nursing and Health Sciences, and Science and Engineering, Flinders University.

Website: http://www.flinders.edu.au/sabs/fcas/

City: Adelaide

Country: Australia

Mission/Research Topics:

- ADuLTS (ALSA Daily Life Time-Sampling Study). This research examines daily-life processes in a group of oldest-old adults (aged 85 years or more), as they unfold over the course of one week.
- South Australian Active Ageing Research Cluster - SAAARC. In June 2010 the FCAS was awarded a grant from theDepartment of Further Education, Employment, Science and Technology (DFEEST) for the establishment of an Active Ageing Cluster. The South Australian Active Ageing Research Cluster (SAAARC) consists of researchers on ageing from the three SA universities, COTA SA and the SA Government Office for Ageing with Professor Mary Luszcz appointed as the convenor. The primary emphasis is on research and developing networks of researchers in ageing across SA.
- Older couples project. The project aimed to explore: (1) dynamics of how having a partner adds to, or detracts from, ageing well; (2) how attitudes to where older couples currently live change according to changes in health status and/or economic and socio-environmental factors; and (3) factors that contribute to the longevity of marriages.
- Fading memories can learn new tricks. It's said that old habits die hard and for sufferers of Alzheimer's disease, the resilience may provide a pathway to learn new things.

Forever Healthy Foundation

About:

The non-profit Forever Healthy Foundation connect the community of people sharing the same vision, all collaborating, contributing and supporting each other. Therefore they share their knowledge, give talks and actively reach out to invite everyone interested to join and participate.

There is vast and often unused medical knowledge available today to immediately improve our well-being and extend our healthy lifespan.

The first human age reversal and rejuvenation therapies are already under development and might become available in the near future.

And in what might sound like science fiction to someone new the field, to those close to the actual science getting aging under full medical control and ridding ourselves of all age-related diseases is not a matter of 'if' anymore but rather 'when' and whether it will be 'soon enough' for us.

So, their aim is to share the knowledge and possibilities to access these new technologies to as many people as possible

Website: https://forever-healthy.org/en/

City: Karlsruhe

Country: Germany

Mission/Research Topics:

- Connect the like-minded people
- Directly funding research aimed at the molecular and cellular repair of damage caused by our aging process and supporting the creation of startups turning that research into therapies for human use
- Creating the most effective personal longevity strategy that can be implemented at present, apply it to ourselves and constantly improve it
- Find the best way to use available and upcoming medical knowledge to make mankind as healthy as possible
- To provide a platform and the resources for the pursuit of universal healthy longevity
- To overcome aging entirely.

Fundación Vidaplus

About:

The Foundation aims to promote a culture of knowledge related to regenerative medicine, a specialty that applies the principles of engineering and life sciences in the manufacture of biological substitutes to maintain and improve the function of organs and tissues the human body. The promotion of economic activities in all sectors of production initiatives that favor an interdisciplinary social debate regarding the care of people or groups at risk of social exclusion for reasons of physical, social, economic, cultural, and racial nature or gender; this service is offered due to the universal defense based on the principle of economic equality. The defense of the state of welfare in relation to the right to life and the promotion of civic values and democratic principles of solidarity character. The promotion of scientific initiatives whose objective is to find solutions to the health problems that still remain without a cure. The evolution of tissue engineering is an expanding process in the industry and we are aware that regenerative medicine is going to transform the healthcare industry in the 21st century. The fight against aging is one of our goals. Everyone should enjoy a free and productive life, not only in its early years, but also at age 90 and on. Through regenerative medicine we can imagine new alternative ways of life different from those we already know.

Website: http://fundacionvidaplus.org/en/

City: Madrid

Country: Spain

Mission/Research Topics:

- Promote a culture of knowledge of regenerative medicine.
- Promote economic activities in all sectors of production initiatives that favor an interdisciplinary social debate regarding the care of people or groups at risk of social exclusion for reasons of physical, social, economic, cultural, and racial nature or gender;
- The defense of the state of welfare in relation to the right to life and the promotion of civic values and democratic principles of solidarity character.
- The promotion of scientific initiatives whose objective is to find solutions to the health problems that still remain without a cure.

Geriatric Research Education and Clinical Centers (GRECC)

About:

Each GRECC contains a research component, a education component, and a clinical component. Currently there are 19 GRECCs conducting basic laboratory research on the origins of aging and the diseases commonly associated with it as well as research how care is delivered to elders and the effects of rehabilitation.

The GRECCs carry out a wide variety of research projects about aging. Some examine how cells and tissues change during aging. Others look at the effects of specific diseases like Alzheimer's disease or traumatic brain injuries.

Website: https://www.va.gov/grecc/

City: Washington DC

Country: USA

Mission/Research Topics:

- Carry anti-aging researches
- Serve the health needs of older Veterans through numerous clinical programs
- Education programs for care service
- Improve the health and health care of older veterans.
- Build new knowledge through research
- Improve health care through the development of new clinical programs
- Ensure that «VA» staff are educated about aging-related issues. The GRECCs are located at 20 medical centers across the country, and each is connected with a major research university.

Geriatrics (Yale University)

About:

Yale Geriatrics is devoted to the health and health care of older adults. They strive to ensure that all older adults, regardless of where they reside, receive care that is informed by cutting-edge discoveries in aging and provided by professionals who are expert in geriatric principles.

They are home to one of the largest and most productive aging research programs in the world, and are committed to training leaders in education, health care improvement, and clinical investigation. A key principle underscores all their work. Older adults differ widely in their health conditions, life contexts, and priorities. They believe that embracing and understanding this heterogeneity is essential to ensuring that our patients receive high-quality care.

The aim of the centre is to improve the quality of life and independence of older persons through a combination of research, interventions to improve function, clinical initiatives, and teaching activities. The research is focused on the Yale Program on Aging, an inter-departmental, multidisciplinary program whose objectives are to investigate clinical, translational, and epidemiologic topics related to the multi-factorial issues of ageing.

Website: http://medicine.yale.edu/intmed/geriatrics/index.aspx

City: New Haven

Country: USA

Mission/Research Topics:

- The health and health care of older adults.
- Ensuring that all older adults, regardless of where they reside, receive care that is informed by cutting-edge discoveries in aging.
- Training leaders in education, health care improvement, and clinical investigation.

German Centre for Neurodegenerative Diseases (DZNE)

About:

The DZNE is a joint effort of several research institutes, universities and hospitals throughout Germany (Bonn, Cologne, Dresden, Göttingen, Greifswald, Jülich, Magdeburg, Munich, Rostock, Tübingen, Witten).

Researchers at DZNE are engaged in understanding commonalities and differences between various brain diseases with the aim of developing new preventive and therapeutic approaches. At DZNE, fundamental research is tightly interconnected with clinical, epidemiological and health sciences with the aim of finding new diagnostic markers and enabling rapid development of new cures.

The DZNE CRFS provides state-of-the-art services to scientists at the DZNE and other research organizations. Services are provided by expert staff on a fee-for-service basis.

The aim of the CRFS is to offer to their scientists a broad range of diverse technologies that are required by a state-of-the-art research. Their well-trained and dedicated staff will support scientists in the use of cutting edge technologies to extract the maximum potential from the technology. Additionally the CRFS allows to achieve cost savings, economy of resources, centralization of research functionality.

Website: http://www.dzne.de/en/home.html

City: Bonn

Country: Germany

Mission/Research Topics:

- Develop new preventive and therapeutic approaches.
- Identify new diagnostic markers and rapidly develop possible new therapies.
- Bring together excellent scientific expertise all over Germany and follows an interdisciplinary research approach.

DZA | German Centre of Gerontology

German Centre of Gerontology (DZA)

About:

The German Centre of Gerontology is an institute for scientific research and documentation in the fields of social and behavioral ageing research. The bye-laws of the institute declare its purpose to „increase, collect, evaluate, process and disseminate knowledge about the living arrangements of ageing and old people in order to use this knowledge for scientifically independent consultation in respect to the challenges of an ageing population for society and social policy."

The DZA focuses on scientific research and documentation in the fields of social and behavioral ageing research. The purpose is to increase, collect, evaluate, process, and disseminate knowledge about the living arrangements of ageing and old people in order to use this knowledge for scientifically independent consultation in respect to the challenges of an ageing population for society and social policy.

Using the methods of social and behavioural ageing research the living conditions of the ageing and old are analysed. Research projects are conducted regarding the topics work and retirement, economy of old age, health and social care, family and social relations, and societal participation. Based on this research, the DZA conducts social reporting and independent policy consulting. The DZA offers information services for the public. The Research Data Centre (FDZ-DZA) provides access to the micro-data of the German Ageing Survey (DEAS) and the German Survey on Volunteering (FWS) to scholars for non-commercial purposes and advise potential users of how to best deploy the DEAS or FWS data for their research goals. GeroStat is an electronic information system for gerontological and demographic issues in social research, social reporting and social policy. It provides a significant collection of statistical data, additional contextual information and statistical reports relevant to social gerontology.

Website: https://www.dza.de/en/homepage.html

City: Berlin-Tempelhof

Country: Germany

Mission/Research Topics:

- Employment and retirement
- Economy of old age
- Health and social care
- Family and social relations
- Societal participation

Gerontology Research Center (GRC)

About:

The Gerontology Research Centre (GRC) serves as a focal point for research, education and information on individual and population aging and maintain an active publications program to promote utilization of existing knowledge in the following areas: Aging and the Built Environment, Changing Demography and Lifestyle, Health Promotion/Population Health and Aging, Prevention of Victimization, Exploitation of Older Persons and Technology and Aging.

They support and expand several significant research networks, collaborative research grants, conferences and lecture series nested in the GRC, fund raising, and post-doctoral training fellowships, all of which lay a strong foundation for the GRC in its next phase of development. The GRC is committed to enhancing the well-established community engagement activities that have defined the GRC since its inception.

The GRC has a strong team of individuals with interdisciplinary knowledge, training and skills devoted to improving the lives of older adults. They look forward to continuing our collaborations and seeing you at our knowledge-sharing events.

Website: http://www.sfu.ca/grc.html

City: Burnaby

Country: Canada

Mission/Research Topics:

- Ageing and the built environment
- Changing demography and lifestyles
- Health promotion/population health and ageing
- Prevention of victimization and exploitation of older persons
- Technology and ageing

Gerontology Research Group (GRG)

About:

Founded in 1990, they are dedicated to slowing and ultimately reversing human aging and increasing healthy years of life.

They perform the auto-updating list of world's supercentenarians - people which became older than 110.

Website: http://www.grg.org/

City: Burnaby

Country: Canada

Mission/Research Topics:

- Autouptated GRG World Supercentenarian Rankings List
- Publications of the review in the science of longevity field

Gerontology Research Unit

About:

The Gerontology Research Unit offers a multidisciplinary and individualized approach to the diagnosis of memory disorders.

Website:

City: London

Country: UK

Mission/Research Topics:

- Memory and ageing
- Neuroimaging methods to track cognitive assessment
- Genetics of Alzheimer‘s disease
- Predict the course of Alzheimer‘s disease
- Risk factors in the development of Alzheimer‘s disease
- treatment for cognitive and behavioral problems in Alzheimer‘s disease
- Early detection methods for Alzheimer‘s disease

Glenn Center for Aging Research

About:

Founded by Paul F. Glenn in 1965, the mission of the Glenn Foundation For Medical Research is to extend the healthy years of life through research on mechanisms of biology that govern normal human aging and its related physiological decline, with the objective of translating research into interventions that will extend healthspan with lifespan.

The Glenn Center uses genetic analysis, stem cell biology, and metabolism research to address the overarching goal of defining a healthy lifespan, or healthspan. Researchers will find an answer to the question: Is there a defined biological process of aging that is universal to all organisms?

The Glenn Center supports postdoctoral associates and graduate students (Glenn Fellows) working in the laboratories of the Glenn Investigators, focusing on innovative questions that address the biology of aging. Furthermore, the Glenn Center funds state-of-the-art equipment, core support and scientific exchange for the participating laboratories.

The Glenn Foundation supports many programs through the American Federation for Aging Research.

Website: http://glennfoundation.org/

City: La Jolla / CA

Country: USA

Mission/Research Topics:

- Support of education program
- Support of the researches in anti-aging biology

GLOBAL HEALTHSPAN
POLICY INSTITUTE

Global Healthspan Policy Institute

About:

They are leading the charge in bold new policy initiatives on Capitol Hill and around the world, ensuring that policy makers have the tools and resources they need to make the right decision for the people they represent.

Website: https://healthspanpolicy.org/

City: Washington, DC

Country: USA

Mission/Research Topics:

- Connecting our Fellows to the new $1.8 billion annual NIH fund for Cures currently under congressional approval through the 21st Century Act, ensuring that these funds can be used to address the systemic and underlying causes of aging-related disease.
- Uniting a diverse community of public policy, private industry, and consumer group stakeholders behind the goals of the TAME/Metformin study.
- Promoting relevant attempts by key pharmaceutical industry players to follow in the footsteps of the TAME/Metformin study by initiating similar FDA-approved clinical trials
- Helping identify bottlenecks and the strategies for engaging them to promote the research, development and application of quality healthspan therapies, via consulting experts in the relevant fields, in all the stages, from research and translation to clinical application and distribution.
- Identifying possible facilitating mechanisms, processes, and legislations for the development of quality healthspan therapies and searching for ways to join, contribute to, and improve upon these mechanisms.
- Mapping agencies from which new funding can be used to support healthspan research and the possible procedural means to achieve these allocations (e.g. through specific types of legislation, parliamentary and governmental procedures, managerial decision, informal consensus, specific agencies, etc.)
- Suggesting criteria or even specific measures and markers for the efficacy and safety of quality healthspan substances and therapies, to derive from the current criteria and categories for therapies, biomarkers, and frailty indexes and devising new and improved criteria and methodologies.
- Suggesting regulatory statuses that can be utilized to advance quality healthspan treatments and cures.
- Listing desirable incentives and benefits that should be suggested, and the procedures for obtaining them for specific categories of all public and private stakeholders.

Harvey A. Friedman Center for Aging

About:

In 1998, the Center for Aging at Washington University in St. Louis was established under the direction of Chancellor Mark S. Wrighton, with assistance from Deans William Peck and Shanti Khinduka of the Washington University School of Medicine in St. Louis and the Brown School at Washington University. Dr. Leonard Berg provided the initial leadership for these efforts.

The Harvey A. Friedman Center for Aging works toward a global society where all older adults have maximum opportunity for health, security, and engagement. The centre provides academic and administrative leadership to foster the development and implementation of activities that enhance productive ageing. It promotes research, education, policy, and service initiatives that enhance the quality of life for older adults.

Website: https://publichealth.wustl.edu/centers/aging/

City: St. Louis / MO

Country: USA

Mission/Research Topics:

- Conduct innovative research and ensure its translation into practice
- Expand education on issues relevant to individual and population aging
- Support aging initiatives throughout St. Louis and around the world
- Works toward a global society where all older adults have maximum opportunity for health, security, and engagement.

Heales

About:

Heales organizes lectures (for both the general audience as for scientists), info sessions and gatherings. Heales spreads information by newspapers, internet (websites, news and information e-mails), magazines, flyers, posters and all other media to achieve its goal in Belgium, the Netherlands, France, Germany and other countries.

Heales invites guest speakers and disperses information about scientific, social, economical, ecological and ethic backgrounds of life extension.

Heales organizes musical festivals, diners, lotteries and other events with the goal of collecting financial resources to realize its goals.

Heales supports events organized by others as well as research and all the other activities conducted by others that can help the organization to achieve its goals.

Website: http://heales.org/

City: Brussels

Country: Belgium

Mission/Research Topics:

- Raise awareness of new developments in the area of biogerontolgy (the science of aging).
- Promote and support anti-aging research.
- Every month Heales collects the most important new research on Longevity.

Health Extension

About:

Health Extension Foundation is a 501(c)3 tax exempt organization operating with the mission to promote hard science / deep biology in the aging space, especially where such science can lead to biotechnology startups. The organization was founded in 2012 and is completely volunteer-run.

The Health Extension community is committed to collaborative action to extend healthy and happy human lifespans. Its members are scientists, entrepreneurs, and social influencers dedicated to fixing the degenerative cellular processes that cause deadly human diseases.

Website: http://healthextension.co/

City:

Country: USA

Mission/Research Topics:

In 5 short years, HEF's impact has been astounding – with:

- 4 ventures founded directly out of HEF events (Vium, Bioage, Oisin, 21c medicine clinical trial) and one more pending
- 23 Health Extension Salons Hosted (these are events keynoted by world-class PIs from Stanford, UCSF, Berkeley and Buck Institute. They include talks, dinner, Q&A and networking with ~ 100 people in attendance on average)
- 6 Bay Area Aging Meetings sponsored
- 2 internships supported
- 1 paper published in a high-impact, peer-reviewed journal

Healthspan Campaign

About:

Scientists have made impressive progress in the understanding of human aging. They now generally agree that aging is malleable and capable of being slowed – that it is possible to make life at 80 feel more like life at 60. This has opened the door for breakthroughs in fighting the single risk factor common to nearly every disease—aging itself.

By better understanding this "common denominator" of aging, scientists could usher in a new era of preventative medicine. But there is a significant gap between this promising basic research and its clinical application.

The Alliance for Aging Research's Healthspan Campaign is helping close this gap and advocate for research into the basic biology of aging.

Website: http://www.healthspancampaign.org/

City: Washington, DC

Country: USA

Mission/Research Topics:

- Consensus Building: securing explicit endorsements from scores of prominent scientific and medical experts, including Nobel laureates, in the US and other countries, in support of this pursuit of advances in health derived from aging research.
- Communications Outreach: deploying traditional and new media strategies, developing media materials, organizing press briefings and panel discussions, placing op-eds by thought-leaders, and engaging through social media.
- Political Strategy: promoting a coordinated initiative to accelerate the pace of research into the mechanisms of aging across the National Institutes of Health, establishing a scientific advisory council to communicate with policymakers and the media, and organizing an annual aging research day in Washington.

Baylor College of Medicine

HUFFINGTON CENTER ON AGING

Huffington Center on Aging (HCOA)

About:

One of the premier centers on aging in the world, the Huffington Center on Aging was formed in 1988.

It was created by the generosity of the late Roy M. and Phyllis Gough Huffington, Houston philanthropists who foresaw the need for an academic entity devoted to studying aging, providing care for older people, and teaching future health professionals and researchers about geriatrics and gerontology.

The mission of The Roy M. and Phyllis Gough Huffington Center on Aging is to improve the quality of lives of people as they age through programs of research, education and patient care in Baylor College of Medicine departments, institutes, divisions, and centers, and selected institutions in the Texas Medical Center along with organizations elsewhere around the world working on age-related issues; to disseminate the knowledge gained by research and to apply it to the care of people as they age; and to increase the knowledge of the general public on health and social practices that can assist them to have a long life, well-lived.

Website: https://www.bcm.edu/centers/huffington-center-on-aging/

City: Houston

Country: USA / TX

Mission/Research Topics:

- Cell and molecular biology of ageing
- Adrenal cell biology
- DHEA
- Ageing of the skin
- The ageing cardiovascular system
- Healthcare outcomes research
- Ethical issues in acute and long-term care settings

Institute for Life Course and Aging

About:

The institute carries out research into aging from a life course perspective, including population aging, and the aged, in the social, psychological and health sciences.

The Institute is a research centre under the auspices of the Factor-Inwentash Faculty of Social Work at the University of Toronto.

The first aim of the Institute is to conduct applied interdisciplinary research on aging from a life course perspective which sets the Institute apart from most existing centres and institutes on ageing. Using a bio-psycho-social approach, the Institute focuses on the processes of aging and population aging. All of the research is competitive and funded by national bodies in Canada: CIHR, SSHRC, NCE, HRSDC.

A second aim is to provide graduate education in aging and the life course through two interrelated collaborative program options, one in aging and one in palliative care. The program is open to students in all faculties who graduate in their own departments with a specialty in aging. Post-doctoral training of students from around the world and national and international visiting professors complete this program.

The third aim of the Institute is knowledge transfer which is achieved through research seminars that are open to the public, through online mini-series on aging for local and national professional communities in Canada and through the National Initiative for the Care of the Elderly, a national centre of excellence and knowledge transfer network with over 2000 Canadian members and 10 member countries.

The Institute is administratively housed in the Factor-Inwentash Faculty of Social Work at the University of Toronto and operates through an executive committee, advisory committee, awards committee, research/management committee, program committee, and a general assembly of faculty including 18 degree programs and 13 faculties, 27 departments and 60 cross-appointed, emeritus, and associate faculty members. The faculties represent a wide range from all of the health faculties through to music, law, education, social work and divinity. The Institute has educational and research partnerships with many universities in Canada and abroad, federal, provincial and municipal governments, a host of health and social care agencies, national agencies devoted to aging and business firms.

Website: http://aging.utoronto.ca/

City: Toronto

Country: Canada

Mission/Research Topics:

Institute of Gerontology (IFG)

About:

The Institute of Gerontology (IfG) of Heidelberg University, established by Prof. Dr. Dr. h.c. Ursula Lehr - a former Federal Minister of the FRG - in 1986, is now directed by Prof. Dr. Dr. h.c. Andreas Kruse.

The IFG is focused on social and behavioural science. They offer studying programs in Heidelberg University.

Website: http://www.gero.uni-heidelberg.de/index_en.html

City: Heidelberg

Country: Germany

Mission/Research Topics:

- Potentials and resources of old age for societal and cultural development, generation solidarity, and generation equity
- Interindividual variability, intraindividual variability, and plasticity in dimensions of competence
- Theoretical integration and empirical analysis of the interactions between biological-physiological, psychological, and social ageing
- Quality of life of people suffering from physical and mental diseases

International Institute on Ageing

About:

Malta was first to raise the question of Ageing as a matter of international concern at the United Nations in 1968. As a result, in 1982, the General Assembly held the World Assembly on Ageing. In its Resolution 37/51 it recommended inter-alia the promotion of training and research, as well as the exchange of information and knowledge in order to provide an international basis for social policies and action. It unanimously, and without reservation, adopted the Vienna International Plan of Action on Ageing which remains the cornerstone of worldwide policy on Ageing.In this respect, the Plan recommended that practical training institutes should be promoted and encouraged so that they act as a practical bridge between and among high-income and low-income countries.

The UN Economic and Social Council, by its Resolution 1987/41 recommended to the UN Secretary-General, the establishment of the International Institute on Ageing. On the 9th October 1987, the United Nations signed an official agreement with the Government of Malta to establish the International Institute on Ageing as an autonomous body under the auspices of the United Nations. The Institute was inaugurated on 15th April, 1988 by the then United Nations Secretary-General, H.E. Mr. Javier Perez de Cuellar.

The Institute operates under the guidance of an International Board consisting of nine members. The Chairperson of the Board and six members are appointed by the Secretary-General of the United Nations, with due regard to the principle of equitable geographical distribution, and two members are appointed by the Government of Malta. The term of office of the Board is that of three years.

Website: https://www.inia.org.mt/

City: Valletta

Country: Malta

Mission/Research Topics:

- Empower low-income countries to cope with the challenges of the consequences of mass longevity in the next decades
- Establishment of regional training centres,
- Training key personnel in different aspects of ageing.
- Provide international training programmes in Malta as well as through ‘in-situ’ training programmes.
- Providing continuing support and continuity to sustain both the individual personnel and the Centres through modern information technology.
- Promotes interactive networks and partnerships to sustain these initiatives in low-income developing countries, and to make available in an appropriate mode, expertise from the high-income countries.

International Longevity Alliance

About:

The International Longevity Alliance promotes the social struggle against the deteriorative aging process and for healthy and productive longevity for all, through scientific research, technological development, medical treatment, public health and education measures, and social activism.

They believe that this goal can be achieved through broad public cooperation and support, from all nations and all walks of life. Hence, the International Longevity Alliance promotes the creation and international cooperation of social activist and advocacy groups from across the world.

Advocacy Groups within the International Longevity Alliance have been initiated in more than 60 countries (see the current list here). The International Longevity Alliance (formerly named Longevity Party) acts as a party-unaffiliated public advocacy group.

Their goal is to create the world where every person can obtain healthy longevity and ageing control through innovative technologies.

Website: http://longevityalliance.org/

City: International

Country: International

Mission/Research Topics:

- Promote the social struggle against the deteriorative aging process.
- Promote healthy and productive longevity for all, through scientific research, technological development, medical treatment.
- Education measures, and social activism.

International Longevity Centre - UK

About:

The International Longevity Centre – UK (ILC-UK) is a futures organisation focussed on some of the biggest challenges facing Government and society in the context of demographic change.

They ask difficult questions and present new solutions to the challenges and opportunities of ageing. They undertake research and policy analysis and create a forum for debate and action.

Much of their work is directed at the highest levels of Government and the civil service, both in London and Brussels. They have a reputation as a respected think tank which works, often with key partners, to inform important decision-making processes.

Their policy remit is broad, and covers everything from pensions and financial planning, to health and social care, housing design, and age discrimination. They work primarily with central government, but also actively build relationships with local government, the private sector and relevant professional and academic associations.

Website: http://www.ilcuk.org.uk

City: London

Country: UK

Mission/Research Topics:

- Promote the social struggle against the deteriorative aging process.
- Promote healthy and productive longevity for all, through scientific research, technological development, medical treatment.
- Education measures, and social activism.

International Research Centre for Healthy Ageing and Longevity (IRCHAL)

About:

Over the last 15 years The International Research Centre for Healthy Ageing and Longevity (IRCHAL) has financed and facilitated several global conferences with a focus on scientific and academic expertise and global knowledge to turn targeted problems into actionable solutions for the ageing population, this process has been co-sponsored by the World Health Organization (WHO), with endorsement by the United Nations Program on Ageing as well as the Australian Federal Government. Over 200 top global experts from 26 countries and their affiliated research institutes, universities and peak bodies are actively connected to IRCHAL.

IRCHAL's mission is to promote healthy ageing & longevity through interdisciplinary collaboration amongst world's leading experts on the science of health, ageing, and longevity, and to disseminate evidence-based knowledge throughout the nations.

Website: https://www.irchal.org/

City: Byron Bay

Country: Australia

Mission/Research Topics:

- Biological Mechanisms of healthy ageing and longevity
- Healthy ageing and longevity determinants
- Interventions in ageing and age-associated disease
- Care & support
- Policies & strategies

Irish Centre for Social Gerontology (ICSG)

About:

The ICSG is a multidisciplinary research centre on ageing at NUI Galway. ICSG focuses on research, education and training in the field of social gerontology in Ireland and internationally.

The mission of ICSG is to develop and promote the social and economic aspects of ageing in Ireland for the purpose of supporting a balanced and holistic view of ageing; and to act as a resource for all involved in ageing in Ireland.

Website: http://www.icsg.ie/

City: Galway

Country: Ireland

Mission/Research Topics:

Research undertaken at ICSG explores many of the key issues associated with ageing and later life. Underpinning our research is recognition of the diversity of ageing populations and the increasing need to adopt interdisciplinary perspectives and novel methodological approaches to address the questions raised by population ageing. Their research focuses is:

- Broaden the scope and depth of social gerontological research in Ireland.
- Academic programmes: ICSG seeks to develop social gerontology as an academic field.
- Skill development and information support: By providing training in research and policy analysis, and through the timely dissemination of information, ICSG aims to enhance the capabilities and knowledge base of people working in the ageing sector in Ireland.
- Policy analysis: ICSG aims to become an internationally recognised authority on ageing in Ireland.

K-State Center on Aging

About:

The centre coordinates and develops educational and training programs in aging, stimulates aging research, coordinates outreach activities, and serves as a referral center for information on aging resources in Kansas. The Center on Aging strives to promote and conduct applied research on issues of aging with particular emphasis on the social, economic, psychological and environmental factors that may improve the quality of life for older adults.

Website: http://www.he.k-state.edu/aging/

City: Manhattan / KS

Country: USA

Mission/Research Topics:

Their mision is:

- Provide a focus on aging issues through teaching, research, outreach and service that orients the talents of the faculty and the resources of the university toward identifying and addressing the challenges and opportunities of an aging society.
- Coordinate and develops educational and training programs in aging.
- Stimulate aging research.
- Coordinate outreach activities.

The following are specific research emphases of the faculty and staff in the Center on Aging:

- Sexuality and Aging: We focus on the biopsychosocial aspects of sexuality in later life.
- Long-term Care and the PEAK 2.0 project: A longstanding strength at the Center on Aging is our focus on quality care and quality of life for residents in long-term care settings.

Landon Center on Aging

About:

Kansas, like many other Midwestern states, has a growing aging population, with 493,000 persons over the age of 65 expected in 2020 and 42,000 over the age 85. As Baby Boomers continue to come into retirement, those numbers will continue to swell. In 1986, almost 25 years ahead of the curve, Kansas was thinking about the health and well-being of older adults and those who care for them when the Kansas Legislature approved a new appropriation to start an interdisciplinary Center on Aging at the University of Kansas Medical Center campus in Kansas City, Kansas.

In 1998, the Center on Aging convinced the legislature to invest in a new building to provide state-of-the-art educational, clinical and research facilities for faculty and the older adult patients they serve. That capital investment, along with a new line item in the state base, paved the way for the building that stands at 36th Avenue and Rainbow on the medical center campus. With the help of then-U.S. Sen. Nancy Kassebaum, the Center on Aging also received a $4 million federal grant to construct the building.

This state-funded interdisciplinary center conducts, sponsors, and supports the development of educational, clinical, and research programs related to ageing. Since 2003, the Landon Center on Aging has housed the outpatient clinics of the Department of Neurology, located on the first floor. Their physicians treat many of the diseases affecting older adults, such as Parkinson's Disease, Alzheimer's Disease, and dementia, among other neurological conditions.

Website: http://www.kumc.edu/landon-center-on-aging.html

City: Kansas City

Country: USA / KS

Mission/Research Topics:

- Provide both primary care and consultative services
- Study important aging-related issues such as prevention and treatment of disability, patterns of healthcare delivery and cognitive function
- Allow participants to engage in a variety of outreach programs from fitness and exercise to elder law clinics and brownbag presentations.
- Increase knowledge of issues affecting the current older adult population and provide services to improve the quality of life for those individuals and those yet to come to that chapter of their lives.

Life Extension Advocacy Foundation

About:

While we live in an era of universal access to information, there is a lack of information available to the public about the processes of aging and the progress in preventing and postponing age-related diseases through emerging medical technologies.

The LEAF team organizes educational events, takes part in different publicand scientific conferences, and actively engages with the public on social media in order to help disseminate this crucial information.

They initiate public dialogue aimed at regulatory improvement in the fields related to rejuvenation biotechnology.

Website: https://www.leafscience.org/

City: New York / NY

Country: USA

Mission/Research Topics:

- Promote the advancement of biomedical technologies which will increase healthy human lifespan.
- Sponsor and democratize research efforts through crowdfunding and engaging the public in thoughtful dialog.
- Support the creation and implementation of new biotechnologies aimed at bringing the aging processes under medical control.
- Support four research projects aimed at investigating different processes of aging and developing therapies to treat age-related diseases.
- Organize educational events, takes part in different public and scientific conferences, and actively engages with the public on social media.
- Initiate public dialogue aimed at regulatory improvement in the fields related to rejuvenation biotechnology.
- Make decision makers aware of the need for increased funding allocation for fundamental and translational gerontology.

Lifespan.io

About:

Conquering the negative effects of aging is one of the oldest dreams of humanity, and now through the steady progress of science, we are poised to fulfill that dream.

Whether this occurs in 20 years or 200 is largely a question of funding. The best way to accelerate this process is by mobilizing those who desire the option of a longer and healthier life into a cohesive social force - crowdfunding relevant research and advocating for its benefits to society.

On lifespan.io researchers post projects related to longevity or age related disease, and receive funds from contributors to fulfill their goals. Contributors, in turn, are able to exercise agency in the development of potentially life changing research, as well as receiving rewards specified by the project creators.

Website: https://www.lifespan.io/

City: New York / NY

Country: USA

Mission/Research Topics:

Lifespan.io is a crowdfunding platform dedicated solely to longevity research projects. For example, the projects which was publiched here are:
OncoSENS Control ALT Delete Cancer
The Major Mouse Testing Program
MitoSENS Mitochondrial Repair Project
CellAge: Targeting Senescent Cells With Synthetic Biology
AgeMeter: Physiological Biomarkers to Determine Functional Age
MouseAge: Visual Biomarker for Mouse Aging
Join Us: Become a Lifespan Hero! - they themselves use crowdfounding for the platform developing

LongeCity

About:

The LongeCity (Longecity.org/ImmInst.org) is an international, not-for-profit, membership-based organization («501-3-c status» in the United States).

LongeCity is a membership-based organization governed by a 'constitution'. Members elect and deselect a Board of Directors from amongst their number. The Board appoints key officers who in turn co-ordinate volunteer activities.

The book, *«The Scientific Conquest Of Death»* is a life extension anthology commissioned, compiled, edited by the Immortality Institute (LongeCity)

LongeCity is supported by donations and by sponsored advertising.

Website: http://www.longecity.org/forum/page/index.html

City: International

Country: International

Mission/Research Topics:

Their mission is «to conquer the blight of involuntary death».

To advance this mission, they aim to provide:

- A repository of high-quality information;
- An open public forum for the free exchange of information and views;
- An infrastructure to support community projects and initiatives;
- The facilities for supporting an international community of those with an interest in life extension.

Longevity Institute

About:

This non-profit research corporation provides information linking nutrition and good health and information about the health benefits of nutritional supplements.

The Longevity Institute is an unincorporated nonprofit association registered April 20, 1998 under the Laws of the State of California (Reg. No. 6800).

The Longevity Institute is funded by the Company Youngevity. However, the content of the website is wholly independent of the sponsor and other third party. Moreover the website does not host any form of advertisement.

The Longevity Institute provides information linking nutrition and good health and information about the health benefits of nutritional supplements.

Website: http://www.longevinst.org/

City: San Francisco / CA

Country: USA

Mission/Research Topics:

- The Longevity Institute is an unincorporated nonprofit association registered April 20, 1998 under the Laws of the State of California (Reg. No. 6800).
- The Longevity Institute is funded by the Company Youngevity.
- However, the content of the website is wholly independent of the sponsor and other third party.
- Moreover the website does not host any form of advertisement.
- The Longevity Institute provides information linking nutrition and good health and information about the health benefits of nutritional supplements.

Major Mouse Testing Program

About:

Currently, the progress in regenerative medicine is too slow, and a big reason for this are the lack of quality lifespan studies being conducted with promising interventions. Another reason for the painfully slow progress in the field is the lack of funding from traditional channels such as grants from the government. They decided to address this problem by creating the Major Mouse Testing Program (MMTP), with the intention of putting the power of change into the hands of the people.

They believe that the general public would engage more with the exciting possibilities science has to offer, and the key to that engagement is providing opportunities for people to get actively involved and to support the science that excites them the most.

This is why we believe the MMTP is the ideal project to speed up progress in aging research and make a significant contribution towards interventions that can positively affect our health and longevity. This could be the key to unlocking the fantastic potential of regenerative medicine for the benefit of all mankind!

Website: http://www.majormouse.org/

City: International

Country: International

Mission/Research Topics:

- Creating the Major Mouse Testing Program (MMTP), with the intention of putting the power of change into the hands of the people.
- Engaging the public with the exciting possibilities science has to offer.
- Providing opportunities for people to get actively involved and to support the science that excites them the most.

Maximum Life Foundation

About:

"Maximum Life Foundation" is a 501(c)(3) corporation dedicated to curing aging related diseases. The founder networked throughout the anti-aging segment of the biotech industry and developed a business model to put life sciences aging research on the fast track.

Maximum Life Foundation will show you how to add up to 20 healthy aging years to your life now... will help control aging and aging diseases for most individuals, and may position you for an indefinite youthful lifespan by 2033. Senescence, the destructive process that is responsible for human aging, is a primary cause behind heart disease, cancer, stroke, type II diabetes, Parkinson's, Alzheimer's disease and more. The Foundation has created a network of scientists, physicians, and biotechnology industry professionals to use their talents and resources to develop a strategic plan to understand and neutralize the causes of these disease processes.

By identifying and supporting emerging medical technologies, Maximum Life Foundation will help reverse the human aging process by 2033 – leading to your open-ended youthful lifespan. Using 7 simple steps, they also show you how to stay alive and healthy until we reach our goal. The world mourns 100,000 "premature" deaths every day to aging. They also lose their wisdom, knowledge and skills. MaxLife plans to save thousands of those precious lives… every day.

Website: http://www.maxlife.org/

City: Newport Beach / CA

Country: USA

Mission/Research Topics:

Current projects:

- Alzheimer's Disease Cure
- Telomerase Activation
- The Methuselah Foundation project - Raising Awareness for Aging Intervention
- The «Manhattan Beach Project», the focused and targeted all-out assault on the human aging process

Max Planck International
Research Network on Aging

Max Planck International Research Network on Aging (MaxNetAging)

About:

MaxNetAging is a virtual institute for the advancement of research on the causes, patterns, processes, and consequences of aging. it provides a platform for an international collaboration endeavor between the Max Planck Institutes and outstanding scholars from other institutions.

Under the auspices of the Max Planck Society, MaxNetAging provides a platform for an international collaboration endeavor between 21 Max Planck Institutes, 1 Emmy Noether research group and outstanding scholars from other institutions. The network's interdisciplinary focus includes political science, law, sociology, anthropology, economics, history, art history, history of science, demography, mathematics, biology, medicine, cognitive and brain sciences, psychology, and human development.

MaxNetAging consists of a doctoral and postdoctoral funding program (MaxNetAging Research School), fellowships, research workshops, and annual conferences.

MaxNetAging was founded in 2004 by Paul B. Baltes (1939-2006), Max Planck Institute for Human Development in Berlin.

Since 2007 James W. Vaupel, Director at the Max Planck Institute for Demographic Research, has been the Director of MaxNetAging.

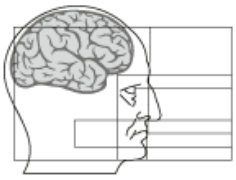
Website: http://www.maxnetaging.mpg.de/

City: Rostock

Country: Germany

Mission/Research Topics:

- Political science
- Law
- Sociology
- Anthropology
- Economics
- History, art history, history of science
- Demography
- Mathematics
- Biology
- Medicine
- Cognitive and brain sciences
- Psychology
- Human development



Max Planck UCL Centre for Computational Psychiatry and Ageing Research

About:

The Max Planck UCL Centre for Computational Psychiatry and Ageing Research is dedicated to studying the causes of psychiatric disorders as well as the causes of individual differences in cognitive development, with an emphasis on adulthood and old age.

Website: https://www.mps-ucl-centre.mpg.de/en

City: London, Berlin

Country: UK, Germany

Mission/Research Topics:

- Activities directed at fostering research interactions, including an annual joint retreat and a visiting fellowship program for scientists at all levels;
- Funding for two interrelated lines of research within the collaborative research program, one focusing on decision-making in psychopathology and the other on individual differences in cognitive aging
- Joint graduate training that consists of an exchange program, and a summer school.
- Studying the causes of psychiatric disorders.
- Studying the causes of individual differences in cognitive development, with an emphasis on adulthood and old age.
- Computational models of differences and changes in brain-behavior relations are the Centre's major theoretical tool.
- Provide information on how cognitive functioning can be maintained into old age and on how psychiatric disorders can be better recognized and treated more efficiently.

Mercer's Institute for Research on Ageing (MIRA)

About:

Mercer's Institute for Research on Ageing (MIRA) represents the research function of the Medicine for the Elderly Directorate, St. James's Hospital. Founded in 1987 MIRA grew out of the need for an established MISAof excellence for the research, care and rehabilitation of the older person. Sponsored by the Mercer's Hospital Board, MIRA has gained a national and international reputation as a ground breaking research institute whose primary goal is to enhance the health and care of the older person in both home and care settings, as well as research and determine innovative responses to the ageing process.

A secondary, but also very important objective of MIRA is to both provide and support training and educational services around ageing and associated issues, with a particular emphasis on the concept of 'successful ageing'. Through the sponsorship of seminars, conferences, study days and other meetings, Mercer's Institute for Research on Ageing has gained a strong reputation as an advocate for the understanding of ageing, both clinical and societal, and it's issues and implications. There is also a strong awareness of the need to communicate research findings as a means of improving public awareness, practice and policy around ageing and the older person.

M.I.R.A. also provides clinical research services in bone health, falls and blackout, cognition and stroke providing expert diagnosis, intervention and support for the patient.

The goal of MIRA is to enhance the health and care of the older person in both home and care settings, as well as research and determine innovative responses to the ageing process. In addition, the institute provides and supports training and educational services around ageing and associated issues, with a particular emphasis on the concept of successful ageing.

Website: http://www.tcd.ie/medicine/medical-gerontology/overview/mercer.php

City: Dublin

Country: Ireland

Mission/Research Topics:

- Age related illness
- Improved diagnosis for chronic physical and mental disorders
- New technologies for independent living
- Increased knowledge and understanding of age related disorders such as stroke, cognitive impairment and dementia, syncope, falls, bone health, frailty, technologies
- New intervention treatment for these age related conditions
- Its aim is to provide leadership in healthcare and we will continue to work to expand relations with strategic public and private partners.

Methuselah Foundation

About:

Methuselah Foundation was co-founded by Dave Gobel and Aubrey de Grey in 2003 to shed light on the processes of aging and finds ways to extend healthy life. Since then, they have given over $4 million in funding for regenerative medicine R&D. From tissue engineering to stem cell science, they have seen explosive progress in the industry, and they are more convinced than ever that regenerative medicine will transform health care in the 21st century.

For them, tackling ageing is really about changing assumptions regarding what is and isn't possible for human life, health, and happiness. They believe that aging as we currently know it is not inevitable. They think everyone should enjoy a vibrant and productive life, not just in their early years, but into their 70s, 80s, and 90s. Through regenerative medicine, They can envision cures for many of today's most debilitating conditions, from heart disease and diabetes to renal failure and neurodegenerative disorders. By 2030, 90 year olds can be as healthy as 50 year olds are today.

Website: https://www.mfoundation.org/

City: Springfield / VA

Country: USA

Mission/Research Topics:

- Shed light on the processes of aging and finds ways to extend healthy life. Since then, we've given over $4 million in funding for regenerative medicine R&D.
- Change assumptions regarding what is and isn't possible for human life, health, and happiness.
- Seek regenerative medicine cures, from tissue engineering to stem cell science, for many of today's most debilitating conditions, from heart disease and diabetes to renal failure and neurodegenerative disorders so that by 2030, 90 year olds can be as healthy as 50 year olds are today.

Michiana Gerontology Institute (MGI)

About:

Michiana Gerontology Institute is a 501(c)6 non-profit organization. 54515 State Rd. 933 N, Notre Dame, IN 46556 It provides intergenerational outreach and education to improve the lives of elderly through service and awareness.

The Michiana Gerontology Institute of Holy Cross College is an ongoing endeavor that partners with multiple community agencies which provide geriatric services in the northern Indiana and southern Michigan (Michiana) region. Before the founding of the MGI at HCC, MGI was the Gerontology Consortium of Michiana (GCOM). The GCOM was comprised of numerous gerontology-related member organizations and working professionals that formed an organization to advocate for "individuals who serve older adults through education, intergenerational outreach, and service." GCOM members and member agencies participated in the organization and evolution of the group on a volunteer basis and have managed to provide important services to Michiana community. GCOM provides working professionals with important networking opportunities from various planned events plus further benefits their involvement by organizing (since 2008) an annual conference in gerontology at Holy Cross College.

Website: http://www.mgi-hcc.org/

City: Notre Dame / IN

Country: USA

Mission/Research Topics:

- Increase collaboration among member organizations and individuals who serve the aging, and to provide education to further improve the lives of those served
- Provide intergenerational outreach and education to improve the lives of elderly through service and awareness.
- Facilitate the involvement, integration and coordination of organizations and individuals to service older adults in Northern Indiana and Southern Michigan.

Monash Research for an Ageing Society (MonRAS)

About:

MonRAS is facilitating a cross-faculty multidisciplinary approach to the study of ageing to consolidate the focus of research activities and resources of the entire university to the development of service, technologies, therapies, policies, and programs that address significant issues and improve quality of life of older people.

The Faculty of Medicine, Nursing and Health Sciences is the University's largest research faculty and has established a reputation for the quality and impact of its research in health care and the biosciences. Beyond basic science they have a very clear focus on translational research: taking their frontier scientific discoveries and converting these into measurable human health benefits.

The Faculty is dedicated to the pursuit of excellence and innovation in research and teaching. It aspires to leadership in all areas of research activity, and advocacy for policy – locally, nationally and internationally – to improve health and social outcomes and health inequalities.

The Faculty is committed to maintaining Monash University as a leading international medical research university, recognised for the breadth and depth of its research, for its opportunities and commitment to postgraduate training, and as a thriving biotechnology hub.

The Faculty is committed to the translation of our biomedical and public health research to health outcomes in partnership with our affiliated health care facilities and Medical Research Institutes.

The Faculty is also committed to the internationalisation of research and teaching scholarship, and to knowledge generation, management and dissemination, producing graduates that embody the values of the Faculty and the University.

The Faculty supports a management style that promotes autonomy and accountability.

Website: http://www.monash.edu/medicine

City: Victoria

Country: Australia

Mission/Research Topics:

- Planning, policies, and infrastructure for an ageing society
- Health and support - services for an ageing society
- Biomedical aspects of ageing - ageing process and age-related diseases

Munich Center for the Economics of Aging (MEA)

About:

The mission of MEA, the Munich Center for the Economics of Aging, is to evaluate, anticipate and accompany the micro- and macroeconomic aspects of demographic change. Empirical models and their resulting projections enable MEA to deliver sound scientific advice for economic and social policy. These models base on German, European and global data. In addition to predicting future developments, these models shall be also used to analyze policy measures that affect these developments.

MEA is one department of the Max Planck Institute for Social Law and Social Policy and mainly funded by the Max Planck Society. Third party funds are received by MEA from many international institutions for the promotion of science and research (i.a. DFG, VW-Stiftung, EU, NIA/NIH).

MEA combines scientific research with scientific consulting. It is a member of various interdiciplinary and international research networks in order to contribute to the transfer of knowledge. Due to its international and in particular its European orientation, MEA has the resources to analyze demographic changes, their economic implications and their interactions with policy measures in comparative country studies. An important task of MEA is to understand more about these changes from different countries' experiences. Particularly with regard to the effects of social law on economic behavior patterns in Germany and abroad, MEA is working closely with the department of International and Foreign Social Law.

By integrating several international research networks MEA thus combines academic research in a high international level with strictly scientific policy consultancy. The work of MEA shall also provide information of public interest.

Website: http://www.mea.mpisoc.mpg.de/

City: Munich

Country: Germany

Mission/Research Topics:

- Old-age provision and savings behavior
- Economics of health and life expectancy
- Macroeconomic implications of an ageing society
- Survey on health, ageing and retirement in Europe (SHARE)

NATHAN SHOCK CENTERS OF EXCELLENCE IN THE BASIC BIOLOGY OF AGING

Nathan Shock Center of Excellence in the Basic Biology of Aging

About:

The Division of Aging Biology (DAB) of the NIA funds Nathan Shock Centers of Excellence in the Basic Biology of Aging across the U.S. There are currently 5 funded Centers, in Maine (The Jackson Laboratory), Michigan (University of Michigan), Texas (University of Texas Health Sciences Center in San Antonio), Washington (University of Washington) and New York (Albert Einstein College of Medicine).

The Centers provide leadership in the pursuit of basic research into the biology of aging. They do so through a Research Development Core which administers small start-up funds locally, and organizes national annual meetings to highlight specific areas of research.

In addition, each Nathan Shock Center has several specialized cores that provide services to Shock Center members, as well as for-fee services to the community at large. The cores are different in each Center, depending on the strengths of each Institution.

Website: https://www.nia.nih.gov/research/dab/nathan-shock-centers-excellence

City: Washington, DC

Country: USA

Mission/Research Topics:

- Provide leadership in the pursuit of research into the biology of aging.
- Provide resources to support the community investigators studying aspects of the basic biology of aging.
- Administer small start-up funds locally
- Organize national annual meetings to highlight specific areas of research.

Nathan Shock Center of Excellence in the Basic Biology of Aging - The Jackson Laboratory

About:

Jackson Laboratory research focused on problems of aging to improving resources for the aging research community and to understand the molecular mechanisms at work in lifespan and healthspan.

Since its inception, The Jackson Laboratory has led the discovery of causes, treatments and cures for some of humankind's most devastating genetic diseases. Today, they are speeding the path of discovery from the laboratory bench to clinical care. they are combining the skills and knowledge of their scientists with our institutional strengths in disease modeling and bioinformatics, connecting genetics to genomics, and using their unparalleled knowledge of mouse models of disease to understand the human condition.

JAX research programs are leading efforts to improve human health worldwide.

Website: https://www.jax.org/

City: Bar Harbor

Country: USA / ME

Mission/Research Topics:

- Median lifespans and IGF1 levels
- Kidney disease
- Immune system function
- Cardiac conduction activity
- IGF1 levels
- Salt regulation
- Histopathology of diseases associated with ageing
- DNA damage

National Institute of Gerontology and Geriatrics «Ana Aslan»

About:

The main activities of the institute are medical geriatric assistance and social gerontology research.

Website: http://ana-aslan.ro/contact_en.htm

City: Bucharest

Country: Romania

Mission/Research Topics:

- Geriatric care
- Geriatric research
- Social gerontology .

National Resource Center on LGBT Aging (LGBT - lesbian, gay, bisexual and transgender)

About:

The National Resource Center on LGBT Aging is a technical assistance resource center aimed at improving the quality of services and supports offered to lesbian, gay, bisexual and transgender older adults. It provides training, technical assistance and educational resources to aging providers, LGBT organizations and LGBT older adults.

In February 2010, the US Department of Health and Human Services announced that SAGE—in partnership with 10 leading organizations nationwide—had received a historic grant to seed the creation of National Resource Center on LGBT Aging. In October 2010, the center officially launched, providing critical resources for years to come

The NRC's host organization SAGE (Services & Advocacy for GLBT Elders), the nation's oldest and largest organization dedicated to supporting LGBT older adults, offers a training program called SAGECare. SAGECare provides training and consulting on LGBT aging issues to service providers, and offers the added benefit that qualifying agencies may receive a national credential to highlight the percentage of staff trained.

SAGECare trainings cover topics such as:

The basics about what LGBT means
Stories of real LGBT older adults—and how their lives have intersected with changes in how society thinks about and treats LGBT people
Skills to work with LGBT older adults
Suggested improvements across multiple departments including: programming, policy and procedures, marketing, facilities, and staff and board recruitment.
And many more specialized topics.

Website: https://www.lgbtagingcenter.org/about/index.cfm

City: New York

Country: USA / NY

Mission/Research Topics:

- Improving the quality of services and supports offered to lesbian, gay, bisexual and/or transgender older adults.
- Provides training, technical assistance and educational resources to aging providers, LGBT organizations and LGBT older adults.

Newfoundland & Labrador Centre for
APPLIED
HEALTH
RESEARCH
www.nlcahr.mun.ca

Newfoundland & Labrador Centre for Applied Health Research (NLCAHR)

About:

The Newfoundland and Labrador Centre for Applied Health Research was established in 1999 with initial core funding from the Department of Health and Community Services of Newfoundland and Labrador, Memorial University, and Eastern Health. NLCAHR is constituted as a research centre within Memorial University under the auspices of the Board of Regents and is led by a Director and a Board. The Centre is funded primarily through an annual grant from the Department of Health and Community Services of the Government of Newfoundland and Labrador. NLCAHR also receives project funding from various granting agencies and essential financial support and administrative services from the Faculty of Medicine at Memorial University.

NLCAHR's mission is to contribute to the effectiveness of the health and community services system of Newfoundland and Labrador and to the physical, social, and psychological health and wellbeing of the province's population by supporting the development and the use of applied health research in this province. One part of the centres work is the administration of the Newfoundland and Labrador Healthy Aging Research Program (NL-HARP) sponsored by the Department of Health and Community Services (DHCS).

Website: http://www.nlcahr.mun.ca/index.php

City: Newfoundland

Country: Canada

Mission/Research Topics:

- Health and community services and policies
- Health systems organization
- Population health
- Public health
- Community health
- Epidemiology
- Health technology assessment
- Knowledge translation
- Clinical practices

New Organ Prize

About:

New Organ is an initiative of the Methuselah Foundation, a public charity dedicated to advancing and celebrating regenerative technologies to reduce unnecessary suffering and extend healthy life.

The New Organ Liver Prize will award $1,000,000 to the first team that creates a regenerative or bioengineered solution that keeps a large animal alive for 90 days without native liver function. Future challenge prizes will cover additional whole organs.

The Vascular Tissue Challenge is a $500,000 prize purse to be divided among the first three teams who can successfully create thick, human vascularized organ tissue in an in-vitro environment while maintaining metabolic functionality similar to their in vivo native cells throughout a 30-day survival period. NASA's Centennial Challenges Program is sponsoring this prize to help advance research on human physiology, fundamental space biology, and medicine taking place both on the Earth and the ISS National Laboratory. Specifically, innovations may enable the growth of de novo tissues and organs on orbit which may address the risks related to traumatic bodily injury, improve general crew health, and enhance crew performance on future, long-duration missions.

One team will be provided the opportunity to launch an experiment to the ISS National Laboratory that furthers their research on thick-tissue vascularization. CASIS will provide the team with up to $200,000 in flight hardware costs, along with transportation to the ISS-NL, support on station, and return of experimental samples to earth. Results from research conducted in microgravity have the potential to advance the field of regenerative medicine and bring us closer to the goal of bioengineering full organs and advanced tissue constructs that may help to end the organ shortage. This award is a first step in supporting this exciting area of engineering innovation.

Website: https://www.neworgan.org/

City: Washington, DC

Country: USA

Mission/Research Topics:

- Initiative of the Methuselah Foundation
- Advancing and celebrating regenerative technologies to reduce unnecessary suffering and extend healthy life.

NIHR Newcastle Biomedical Research Centre

About:

The NIHR Newcastle Biomedical Research Centre (BRC) is a partnership between the Newcastle upon Tyne Hospitals NHS Foundation Trust and the Faculty of Medical Sciences at Newcastle University. The aim of the centre is to comprehensively address the complex health care needs of the older people, based on an advanced understanding of the ageing process and age-related disease.

It is one of 20 BRCs across England awarded major funding from the National Institute for Health Research (NIHR) to carry out world-class translational research and experimental medicine that benefits patients.

The BRCs are formed through partnerships between leading NHS organisations and universities throughout England and they share the NIHR remit of translating scientific breakthroughs into improving the health and wealth of the nation.

Their vision is improving lives through world-class research in ageing and long-term conditions.

Their purpose is to build on and harness experimental medicine expertise in individual long-term conditions, to advance the diagnosis, treatment and prevention of ageing syndromes such as sarcopenia, frailty and multimorbidity. Ageing syndromes are conditions that adversely affect the health of large numbers of older people, yet they are not always recognised in clinical practice and therefore approaches to diagnosis, treatment and prevention are not well developed. Their BRC will be able to address this important area of unmet health need.

Website: http://www.newcastlebrc.nihr.ac.uk

City: Newcastle upon Tyne

Country: UK

Mission/Research Topics:

- The ageing brain (dementia, stroke)
- The ageing body (chronic liver disease, diabetes, cardiovascular disease)
- The ageing limbs (musculoskeletal disease)

NYC Elder Abuse Center (NYCEAC)

About:

The NYC Elder Abuse Center (NYCEAC) was launched in 2009 to improve the way professionals, organizations and systems respond to elder abuse, neglect and financial exploitation. It accomplishes this through an unprecedented level of collaboration and coordination in partnership with NYC's government and non-profit agencies. Now, through NYCEAC, these organizations provide a streamlined and rapid response to elder abuse cases in New York City.

NYCEAC works with its partners to develop and implement innovative, collaborative approaches to the issue of elder abuse in New York City.

The core service components that NYCEAC provides to the city's elder abuse services network, protective service workers, aging services and health care providers, financial institutions and prosecutors are critical to the protection and care of older New Yorkers.

NYCEAC's Core Services:

- Provide a streamlined and rapid response to elder abuse cases.
- Respond to community needs and publicly promote an ageist-free approach to programs.
- Collaborate with government and non-profit organizations to assist with the development of effective policies impacting elder abuse victims and their families.
- Educate professionals, students, key decision-makers, and elected officials about elder abuse.
- Serve as a resource by offering case consultations, education, speakers and research.
- Employ technology including a blog and other social media vehicles, virtual conferences, automated tracking, and research tools.

Website: http://nyceac.com/

City: New York / NY

Country: USA

Mission/Research Topics:

The NYC Elder Abuse Center mission is preventing abuse and assisting people 60 and over who are abused or at risk of abuse – as well as their family members, friends, neighbors, caregivers and witnesses. They do this by helping to improve how professionals, organizations and systems respond to their needs – and by developing direct services to meet unmet needs.

Pacific Parkinson's Research Centre (PPRC)

About:

The Pacific Parkinson's Research Centre is a multidisciplinary program located at the Djavad Mowafaghian Centre for Brain Health, UBC Hospital. The Centre is dedicated to the diagnosis and management of Parkinson's and other related disorders, such as tremor and dystonia, and has been designated as a Centre of Excellence by the Parkinson's Foundation in the US.

In addition to treatment of patients, they conduct a strong research program that spans preclinical, clinical and population studies. Under the direction of Dr. McKeown, an internationally recognized expert on Parkinson's disease, the centre has the largest peer-reviewed research program in Canada on Parkinson's disease.

The staff at the Centre includes six academic movement disorder neurologists; two nurse coordinators; four research coordinators; and social worker. With this team in place, it is possible for patients and family members to see one or more members of the team when they come for their clinic visit. The Centre thus serves as the major referral Centre for Parkinson's within the province of British Columbia.

They offer input from a variety of disciplines – neurology, nursing, physiotherapy and social work.

There is also ample opportunity to participate in research – PET and MRI, clinical trials of medications and genetic studies.

Website: http://parkinsons.ubc.ca/wp/

City: Vancouver

Country: Canada

Mission/Research Topics:

- The diagnosis and management of Parkinson and other related disorders, such as tremor and dystonia, and has been designated as a Center of Excellence by the Parkinson's Foundation in the US.
- Conduct a strong research program that spans preclinical, clinical and population studies.
- Act as a Centre of Excellence for the diagnosis and management of Parkinson's Disease (PD) and other related disorders .

Palo Alto Longevity Prize

About:

The Palo Alto Longevity Prize (the "Prize") is a $1 million life science competition dedicated to ending aging. It is one of a growing number of initiatives around the world pursuing this goal—the more shots on goal the better. Through an incentive prize, their specific aim is to nurture innovations that end aging by restoring the body's homeostatic capacity and promoting the extension of a sustained and healthy lifespan.

There are two prizes available and teams may compete for one or both prizes:
• A $500,000 Homeostatic Capacity Prize will be awarded to the first team to demonstrate that it can restore homeostatic capacity (using heart rate variability as the surrogate measure) of an aging reference mammal to that of a young adult.
• A $500,000 Longevity Demonstration Prize will be awarded to the first Team that meets all the requirements of the Prize Requirements as determined by the Judging Panel in its sole discretion, including extending the mean lifespan of a wild-type mammalian intervention cohort by 50% relative to acceptable published natural history of untreated norms in a statistically significant ($p<.05$) manner, using a Statistical Model (as defined and approved in the official "Competition Agreement"). The intervention and control cohorts should be age and gender matched and should include an equal number of males and females.

Each team participating in the Prize is responsible for funding 100% of its participation in the Prize including all research and development costs and publishing its work and/or the reproduction of results. To enable a rapid commercial path forward for the innovations, the sponsor of the Prize will be contributing an existing pool of relevant intellectual property to the Prize effort.

Website: http://paloaltoprize.com/

City: Palo Alto / CA

Country: USA

Mission/Research Topics:

- Encourage collaboration, foster innovation, and build a community to address the underlying causes of aging.
- Administer $1 million of cash prizes,
- Work with a number of angel investors, venture capital firms, corporate venture arms, institutions and private foundations to provide access to additional capital to the teams during the competition.

Population Aging Research Center (PARC)

About:

The Population Aging Research Center (PARC) at the University of Pennsylvania was established in 1994 with a P30 grant from the National Institute on Aging, which fosters research on the demography and economics of health and aging. PARC research associates come from four schools, 16 academic departments, and three centers/institutes across the university, including Sociology, Economics, Anthropology, Business, Nursing, Medicine, etc. PARC also sponsors an annual pilot proposal competition and a weekly seminar series in conjunction with the Population Studies Center.

Global Aging responds to an increasing intellectual and public policy demand for understanding variation and commonalities in the aging process within and across populations. PARC's research focus has always been remarkably international and this newly formulated signature theme aims at achieving a synthetic understanding of the social, economic, and environmental circumstances impacting the well-being of older individuals around the world. The representation of PARC Associates' international research projects is impressive: Behrman in Guatemala, Chile and other Latin American countries, Cuhna in Brazil, Elo in Ghana, Flippen and Parrado in Mexico, Guillot, Elo and Smith in France, the Kohlers and Watkins in Malawi, and Valeggia and Fernandez-Duque in Argentina and Guatemala. The main overarching questions of this theme are: How does it look like to "grow old" in different countries? Do aging trajectories reflect local environmental (social/cultural/economic/epidemiological) pressures? Can we identify a common "human aging pattern" underlying the observed variation? Here, variation in demographic parameters associated with aging is not seen as mere noise, but becomes the center of research attention per se. H-P. Kohler's recent work on disability transitions and health expectancies among older Malawians is an excellent example of this approach. In this competing renewal application, H-P. Kohler and I. Kohler present a pilot proposal to evaluate work effort and health in mature adults in Malawi that will link this theme with the fourth one (see Core B.). Elo's recent PARC pilot award also links those themes by looking at the health and well-being of African migrants and their families, in the US and in their country of origin. In addition, and following the spirit of this theme, three of the innovative research networks (LANA, NASSA, and NeMA) build on the global aging concept.

Website: http://parc.pop.upenn.edu

City: Philadelphia / PA

Country: USA

Mission/Research Topics:

- Health, disease, and mortality risks at older ages
- Domestic/International perspectives on well being at older stages
- Networks as mechanisms of diffusion, vectors of disease risk, systems of resource distribution
- Social, economic, environmental, and behavioral aspects of HIV and chronic diseases
- Innovative analytic methodologies for collecting and analyzing biomarkers and genetic materials

Population Studies Center (PSC)

About:

The Population Studies Center (PSC) of the University of Pennsylvania (Penn) has fostered research and training in population since its founding in 1962, with support from the NICHD P30 program 1978-2003 and the R24 program since 2003. The PSC is characterized by remarkable continuity in the production of high-quality research even as the composition of its Research Associates has changed and their research interests have evolved. Although the PSC still maintains a strong core commitment to demography (the study of the growth and structure of populations) – including the Graduate Group in Demography (GGD), a world-leader in the training of demography Ph.D.s

The PSC and its Research Associates have long benefited from support from a number of federal and private research funding mechanisms and from dedicated support from Penn's School of Arts and Sciences (the administrative home of the PSC).

The scale of research at the Population Studies Center ranges from macro economics and macro demography to human genetics and focus on understanding the dynamics of human populations. These investigations fall under the following seven (often overlapping) research themes.

Website: http://www.pop.upenn.edu

City: Philadelphia / PA

Country: USA

Mission/Research Topics:

- Health and well-being of populations
- Human resources and endowments
- Policy evaluation
- Growth and structure of populations
- Networks in populations
- Method development

RAND Center for the Study of Aging

About:

The RAND Center for the Study of Aging conducts objective, independent, behavioral research on elderly populations worldwide.

The Center's interdisciplinary research staff aims to help improve public policy through both primary data collection and secondary data analysis. Its research agenda focuses on the interrelationships among health, economic status, socioeconomic factors, and public policy.

The RAND Center for the Study of Aging was founded in 1989 and is one of 15 Centers on the Demography of Aging established by the National Institute on Aging (NIA).

The Center supports the research of approximately two dozen researchers with an interest in the social and economic functioning of the elderly. Their backgrounds include economics, sociology, demography, medical sciences, psychology, statistics, and survey research.

Current research is funded by the National Institute on Aging, the Social Security Administration (SSA), the Department of Labor (DOL), the Centers for Medicare & Medicaid Services (CMS), the Agency for Health Care Policy and Reseach (AHCPR), the American Association of Retired Persons (AARP), the National Institute on Child Health and Human Development (NICHD), and several other organizations.

Website: https://www.rand.org/labor/aging.html

City: Santa Monica / CA

Country: USA

Mission/Research Topics:

RSI

Regenerative Sciences Institute

Regenerative Sciences Institute

About:

Regenerative Sciences Institute (RSI) is 501(c)(3) non-profit organization that seeks to regenerate aging people, education, science, technology and humanity itself, through focused initiatives. Through its AMRITA Initiative, RSI is developing the regenerative and synthetic bio-technologies necessary to alleviate the infirmities and diseases of aging. How? By creating the tools to program living systems as we program computers. RSI makes strong use of AI technology to facilitate these goals. By transforming research into inventions, and then entrepreneurial ventures.

Regenerative Sciences Institute is helping to define the emerging discipline of Regenerative Biology by fostering scientific cooperation and creating a unique environment where innovative minds can do original research with the goal of ameliorating aging associated diseases, which encompasses most chronic diseases, by enhancing regenerative processes. Advances in Regenerative Biology and Medicine will revolutionize medicine: eventually we will be able to regenerate organs as complex as the heart or central nervous system and circumvent dysfunction associated with aging.

Website: http://www.regensci.org/

City: Sunnyvale / CA

Country: USA

Mission/Research Topics:

- Regenerate aging people, education, science, technology and humanity itself, through focused initiatives.
- Develop the regenerative and synthetic bio-technologies necessary to alleviate the infirmities and diseases of aging.
- Create the tools to program living systems as we program computers. RSI makes strong use of AI technology to facilitate these goals.
- Transform research into inventions, and then entrepreneurial ventures.
- helping to define the emerging discipline of Regenerative Biology by fostering scientific cooperation.
- We hope to catalyze advances by promoting the integrated use of the latest technologies from Synthetic Biology and Systems Biology.

Resource Centers for Minority Aging Research (RCMAR)

About:

The mission of RCMAR is to decrease health disparities by focusing on research on the health of minority elders.

Health disparities are associated with a broad, complex, and interrelated array of factors. Risk factors, diagnosis, progression, response to treatment, caregiving, and overall quality of life may be affected by race, ethnicity, gender, socioeconomic status, age, and other factors. Disparities in health status and medical care are most acutely experienced by the older population since they are at the highest risk for most diseases and disability. To eliminate health disparities, a widely established national priority, requires research that includes a special focus on the distribution of disease and disability between racial and ethnic groups in society.

The RCMAR central coordinating center provides logistical support to the RCMAR centers, and oversees dissemination activities designed to reach the larger research and health professional communities, public policy makers, and consumers. The coordinating center is also the national clearinghouse for measurement tools, instruments, publications, community activity, pilot research, and other resources developed by RCMAR investigators.

Website: https://www.nia.nih.gov/research/dbsr/resource-centers-minority-aging-research-rcmar

City: San Francisco, Los Angeles, Sacramento / CA, Birmingham / AL, Ann Arbor, Detroit / MI, Aurora / CO

Country: USA

Mission/Research Topics:

The Resource Centers for Minority Aging Research (RCMAR) mission is to decrease health disparities by:

- Increasing the number of researchers who focus on the health of minority elders;
- Enhancing the diversity in the professional workforce by mentoring minority academic researchers for careers in minority elders health research;
- Improving recruitment and retention methods used to enlist minority elders in research studies;
- Creating culturally sensitive health measures that assess the health status of minority elders with greater precision; and,
- Increasing the effectiveness of interventions designed to improve their health and well-being.

Schlegel-UW Research Institute for Aging (RIA)

About:

The RIA is a product of the philanthropic spirit and vision of Dr. Ron Schlegel, whose family has been providing long-term care to Ontario residents since the 1950's. The RIA promotes research, training, and practice to enhance care and quality of life for seniors.

In addition to Schlegel Villages, RIA has core partnerships with the University of Waterloo and Conestoga College, but collaborates with a number of other universities, colleges, research institutes and networks. Learn more about our partners.

Through these collaborations, RIA supports practice-relevant research and knowledge mobilization. Research evidence is used to inform programs, be integrated into education and training, and influence practice and policy. What is learned is then shared to benefit older adults everywhere.

Their vision is to be one of the top 5 innovation institutes for aging in the world.

Website: http://www.the-ria.ca

City: Kitchener

Country: Canada

Mission/Research Topics:

- Agri-food healthy ageing
- Fitness & plasticity of ageing
- Active living
- Alzheimer's disease
- Optimizing medications for seniors
- Spiritual care for seniors
- Vascular ageing and brain health
- Senior-friendly physical environments
- Geriatric medicine

Science for life extension foundation

About:

The main goal of the Foundation is to make radical life extension a global initiative.

Foundation integrate efforts in order to increase funding for research in regenerative medicine, gerontology, genetics, neuroscience, systems biology, and related sciences aimed at studying the mechanisms of aging and searching for methods to increase human longevity.

They work on social changes, creating a demand for a cure against aging.

One of the tasks of the foundation is raising awareness. In those eight years they have written several books, produced programs and brochures for our conferences and even published newspapers and magazines.

Website: http://scienceagainstaging.com/

City: Moscow

Country: Russia

Mission/Research Topics:

- Make radical life extension a global initiative.
- Integrate efforts in order to increase funding for research in regenerative medicine, gerontology, genetics, neuroscience, systems biology, and related sciences aimed at studying the mechanisms of aging and searching for methods to increase human longevity.

SENS Research Foundation

About:

Their research emphasizes the application of regenerative medicine to age-related disease, with the intent of repairing underlying damage to the body's tissues, cells, and molecules. Their goal is to help build the industry that will cure the diseases of aging.

SRF is, at its core, a research-focused outreach organization. Their outreach efforts include the SENS conferences at Cambridge, the annual Rejuvenation Biotechnology Conference series, summits, speaking engagements, and general advocacy. They strive to inform policymakers and the public at large about the promise of the damage-repair approach to treating age-related disease.

Finally, SRF engages in educational work through our student program, SRF Education. SRF Education operates a summer internship program that places students at the SRF Research Center and outside institutions; provides students with guidance, mentorship, and materials grants for SENS-related research projects; and is developing online coursework.

SENS Research Foundation is a 501(c)(3) public charity that is transforming the way the world researches and treats age-related disease.

The research it fund at universities around the world and at its own Research Center uses regenerative medicine to repair the damage underlying the diseases of aging. Its goal is to help build the industry that will cure these diseases.

Website: http://www.sens.org/

City: San Francisco / CA

Country: USA

Mission/Research Topics:

- Research the application of regenerative medicine to age-related disease, with the intent of repairing underlying damage to the body's tissues, cells, and molecules. Their goal is to help build the industry that will cure the diseases of aging.
- Outreach via the SENS conferences at Cambridge, the annual Rejuvenation Biotechnology Conference series, summits, speaking engagements, and general advocacy. They strive to inform policymakers and the public at large about the promise of the damage-repair approach to treating age-related disease.
- Educational work through their student program, SRF Education.

The University Of Sheffield.

Sheffield Institute for Studies on Ageing (SISA)

About:

The Sheffield Institute for Studies on Ageing (SISA) is engaged in and develops a wide range of multi-disciplinary research both across the university and within the core academic group itself.

The core academic group has published widely on many different aspects of gerontology and to date has attracted a substantial amount of research funding.

SISA has developed postgraduate teaching and training programmes in gerontology and delivers undergraduate teaching in geriatric medicine.

SISA staff offers administrative support in the development and management of large-scale research projects and programmes including those funded by the European Union. They also support visiting academics and researchers and postgraduate research activity.

In addition, the cross-University executive group organises diverse research-orientated workshops and seminars and an annual public lecture programme including the Marjorie Coote Memorial Lecture.

The Institute also draws together a faculty of 50 researchers from over 20 departments with interests in ageing.

Website: https://www.sheffield.ac.uk/sisa

City: Sheffield

Country: UK

Mission/Research Topics:

- End of life care
- Geriatric assessment
- Gerontological nurse education
- Health services and intermediate care
- Homeless people and homeless services
- Technologies for old age
- Nutritional studies
- Population studies and environmental factors affecting quality of life
- Frailty and well-being
- Sexual health of older people

Society for the Rescue of our Elders

About:

The Society for the Rescue of Our Elders consists of about 1,700 individuals who have demonstrated their desire to donate, invest, and/or actively participate in advancing human age-reversal studies.

This private association consists of physicians, scientists, activists, investors, donors, and participants in previous age-reversal initiatives. These individuals share a common desire to rejuvenate aged people.

Partnerships may form within or outside the group in any manner the individual members so choose. Information will be shared at the discretion of the individual members.

There are some individuals in this group who are bound by confidentiality/nondisclosure contracts. Their input and any meaningful scientific data they are permitted to disseminate are nonetheless appreciated.

Website: https://www.rescueelders.org/

City:

Country*:* USA

Mission/Research Topics:

- Unite people in ways that will accelerate the availability of rejuvenation technologies to benefit all of humanity, including members of the group. They do not accept donations or investments.
- Bring together physicians, scientists, activists, investors, donors, and participants in previous age-reversal initiatives. These individuals share a common desire to rejuvenate aged people.
- Demonstrate statistically significant human age reversal so that an eruption of charitable and market forces will compete to induce even longer, healthier lifespans.

SRI International Center for Health Sciences

About:

SRI Biosciences' Center for Health Sciences carries out multidisciplinary research with government agencies, commercial clients and foundations. Their staff includes experts in medicine, neuroanatomy, neurophysiology, neurochemistry, neuropsychiatry, clinical psychology, magnetic resonance physics and neuroimaging, computer science, human sleep, psychophysiology, behavioral pharmacology, molecular genetics, genetic epidemiology, biostatistics and public health. Together with the research teams in the Center for Neuroscience, SRI Biosciences offers a full range of translational research opportunities.

Neurodegenerative Diseases Program (Parkinson's, Alzheimer's, and Gaucher disease) are in the focus of research at the SRI's Center for Health Sciences and SRI Biosciences. The aim is to determine the causes of such neurodegenerative diseases. Ageing research at the SRI is focused on blood pressure and cognition in the elderly, sleep apnea in elderly twins and more.

Website: https://www.sri.com/about/organization/biosciences/health-sciences

City: Menlo Park / CA

Country: USA

Mission/Research Topics:

- tobacco use across the lifetime, with particular emphasis on the multidimensionality of the nicotine dependence phenotype and identification of genetically informative dimensions of nicotine dependence
- understanding the genetic and environmental causes of variation in neuropsychological task performance, and decline in performance with normal aging and covariation with brain morphology and midlife risk factors

The Dunhill Medical Trust

About:

For over thirty years, the Dunhill Medical Trust has been been enabling the very best of the UK's academic and clinical researchers to understanding the mechanisms of ageing and treating age-related diseases and frailty. They also support community-based organisations which are working to enhance the lives of those who need extra support in later life.

They particularly like to invest in supporting the careers of researchers working in areas that can support our objectives. In doing so, they aim to build a sustainable and accessible network of knowledge for all who believe that improving older people's lives is one of the most important challenges we face as a society.

They're a member of the Association of Medical Research Charities AMRC, a National Institute for Health Research (NIHR) recognised non-commercial partner and a member of a consortium of UK biomedical and health research funders that contribute to the funding of Europe PubMed Central (Europe PMC), a web based information resource that provides open access to information sources for biomedical and health researchers.

They promote the highest ethical practices in scientific and medical research. They do not receive or seek funds from any external body and comply fully with the Joint Protocol of Cancer Research and Universities UK on Tobacco Industry Funding to Universities (2004).

Website: http://dunhillmedical.org.uk/

City: London

Country: UK

Mission/Research Topics:

The Parkinson's Institute and Clinical Center (The PI)

About:

In 1982, J. William Langston, MD, responded to an outbreak of suddenly "frozen" young patients admitted to San Francisco Bay Area emergency rooms. Dr. Langston observed that the patients were exhibiting severe Parkinson's-like symptoms. Further investigation determined that all the patients had used the same bad batch of synthetic heroin. Working with local law enforcement, Dr. Langston tracked down the heroin's source, analyzed its chemical makeup, and identified the neurotoxin called "MPTP." In a controlled laboratory environment, MPTP was used to induce Parkinson's-like conditions in animals, and immediately became the best model for PD research. This breakthrough has accelerated research on mechanisms of nerve cell degeneration in PD, ways to prevent it, and the search for other factors that trigger the disease. Dr. Langston chronicled his discoveries in the widely read book The Case of the Frozen Addicts. The PI was founded in 1988, because of the research opportunities afforded by the discovery of MPTP.

The PI is now America's only independent non-profit organization that provides basic and clinical research, clinical trials and patient care for Parkinson's disease and related neurological movement disorders, all under one roof. The mission is to find the causes of PD, provide first class patient care and discover a cure. Their unique freestanding organization is designed to more directly connect research to patient care – from the «bench to bedside.»

Website: http://www.thepi.org

City: Sunnyvale / CA

Country: USA

Mission/Research Topics:

- Provide comprehensive patient care, while discovering new treatment options to improve the quality of life for all Parkinson's disease (PD) patients.
- Change the landscape of movement disorder treatment and research.
- Help PD patients better manage their disease,
- Developed new treatments for PD
- Published groundbreaking research aimed to close the gap between science and practical care by focusing on all three avenues of PD - cause, care and cure.

UCSD Sam and Rose Stein Institute for Research on Aging (SIRA)

About:

UC San Diego Health Sciences encompasses the School of Medicine, the Skaggs School of Pharmacy and Pharmaceutical Sciences, and UC San Diego Health, including UC San Diego Medical Center, in Hillcrest; and in La Jolla, Jacobs Medical Center, Moores Cancer Center, Sulpizio Cardiovascular Center; and other centers, primary and specialty practices of the UC San Diego Medical Group faculty physicians. As a top-tier academic medical center, its role is to provide leadership in improving health through research, education and patient care.

UC San Diego Health Sciences has long been at the forefront of “bench-to-bedside” research, transforming patient care through discovery and innovation leading to new drugs and technologies. It is carried out every day in the hundreds of clinical trials of promising new therapies offered through UC San Diego Health, and in the drive of our researchers and clinician-scientists who are committed to having a significant impact on patient care. At UC San Diego Health Sciences, there are many discoveries on our horizon. Their commitment is to continue our quest to cure disease, seek better treatments and train the next generation of physicians and scientists.

Website: https://healthsciences.ucsd.edu/research/aging/pages/default.aspx

City: San Diego / CA

Country: USA

Mission/Research Topics:

- Successful cognitive ageing
- Succesful emotional ageing

UCSF Department of Family Health Care Nursing
School of Nursing

UCSF Institute for Health & Aging (IHA)

About:

As a vital part of a world-renowned health sciences campus, the UC San Francisco School of Nursing fosters excellence, diversity, and innovation in everything.

The Institute for Health & Aging (IHA) is the University of California's first campus-wide organized research unit (ORU) devoted to the study of health and aging and is the only ORU in the School of Nursing (SON) at UCSF. Dr. Wendy Max has served as Director of IHA since June 2013. Since being established in 1985, IHA has been successful in obtaining $326 million extramural funding and establishing partnerships and collaborations within the university as well as with external groups, particularly with the State of California Department of Public Health (CDPH). Their research has had an impact in the broad areas of aging and health and in the health policy arena.

Website: http://nursing.ucsf.edu/iha

City: San Fransisco / CA

Country: USA

Mission/Research Topics:

- Study of health and aging and is the only ORU in the School of Nursing (SON) at UCSF.
- Obtain extramural funding and establishing partnerships and collaborations within the university as well as with external groups, particularly with the State of California Department of Public Health (CDPH).
- Optimize the health and ageing of individuals, communities, and society through research, education, and public service in the social and behavioral sciences.

Virtual Institute of Neurodegeneration & Ageing

About:

Helmholtz Zentrum München is the German Research Center for Environmental Health. It investigates important common diseases which develop from the interaction of lifestyle, environmental factors and personal genetic background, focusing particularly on diabetes mellitus, allergies and chronic lung diseases.

Helmholtz Zentrum München is a research institution of the Federal Republic of Germany and the Free State of Bavaria. It is a member of the Helmholtz Association of German Research Centers.

The Virtual Institute is an interactive platform for research and education in the field of neurosciences and is achieved to a better understanding of the pathogenic principles of neurodegenerative diseases via exploring their interaction with mechanisms of ageing in the central nervous system (CNS) in general.

Website: http://www.neuro-ageing.de/virtual-institute.php

City: Munich-Neuherberg

Country: Germany

Mission/Research Topics:

- Ca2+ Homeostasis
- Stem cell maintenance
- Damaged molecules
- Mitochondrial dysfunction
- Neuronal circuitry

Wolfson Centre for Age-Related Diseases (Wolfson CARD)

About:

The Wolfson Centre for Age-Related Diseases (the «CARD») was opened in 2004 under the leadership of Professor Pat Doherty. They are a department within the Neuroscience Division of the world renowned Institute of Psychiatry, Psychology and Neuroscience (IoPPN) at King's College London.

Their overarching mission is to keep the brain healthy as we age, and to repair the damage that follows injury. Unfortunately as they get older we are at high risk of developing problems with sensory function that can result in conditions that include pain or hearing loss, and they are more likely to suffer damage to our nervous system as a consequence of a stroke or a spinal injury or a dementia.

Their research is geared towards understanding the molecular mechanisms that drive these conditions and to use that knowledge to develop new therapies to restore normal sensory function or to repair injury. They are privileged to have around 20 interactive research group working in these areas, and they are fully equipped for all aspects of cell and molecular biology and have wide expertise in a range of animal models to help us understand disease processes and test new treatments. They also have a number of «drug discovery» programs supported by a core histopathology lab and an innovative bioinformatics capability.

Website: http://www.kcl.ac.uk/ioppn/depts/wolfson/index.aspx

City: London

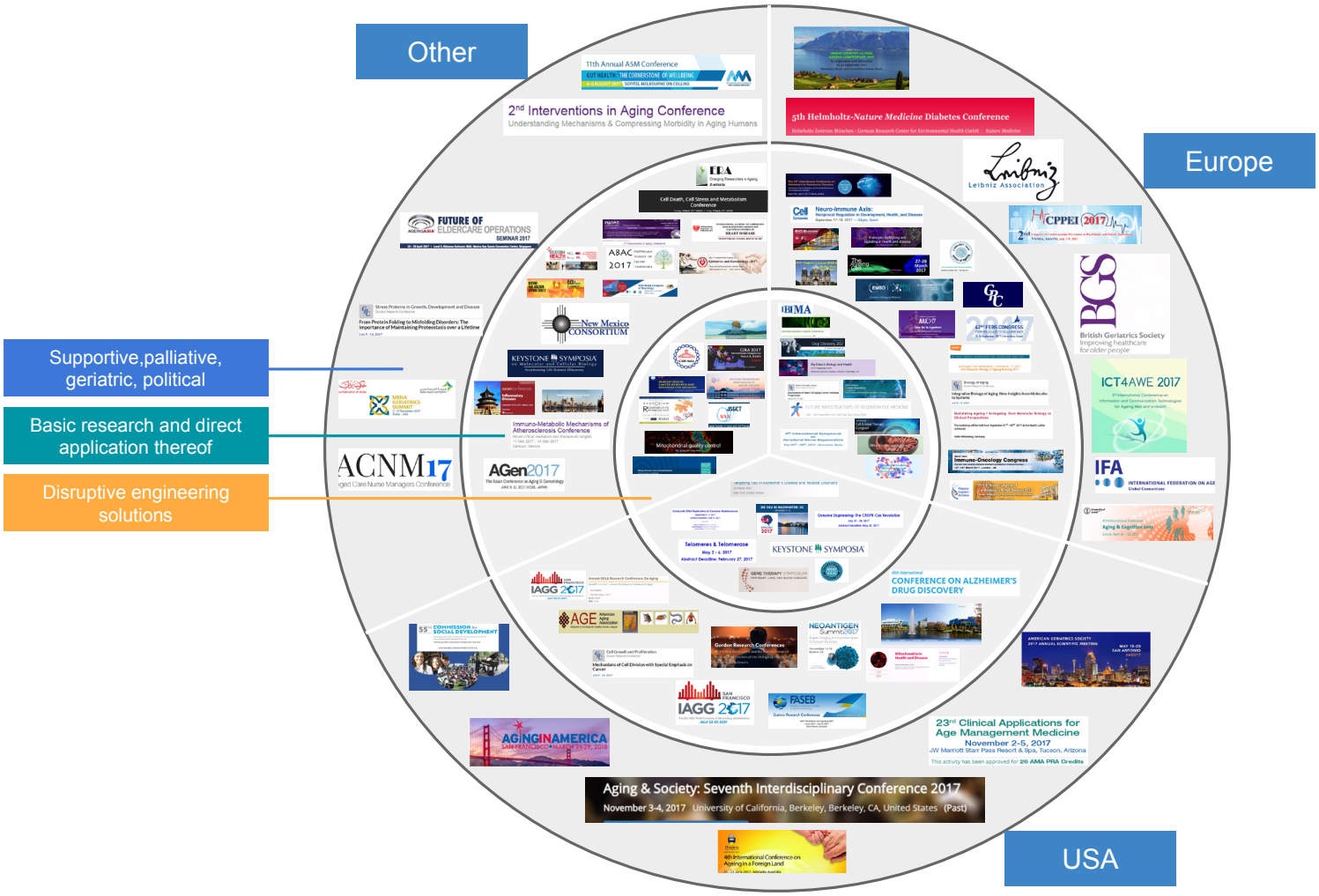
Country: UK

Mission/Research Topics:

- Neurodegeneration
- Regeneration
- Neurogenesis
- Receptors, channels, and signalling
- Pain
- Genetics of Deafness

Part VI

Top 100 Longevity Conferences



Analytical Report 2017

AGING ANALYTICS AGENCY
Invest for life

Biogerontology Research Foundation
Prevent. Restore. Preserve.

DEEP KNOWLEDGE LIFE SCIENCES

Top 100 Longevity Conferences

1. XXIII World Congress of Neurology
2. 11th Annual A5M Healthy Ageing & Aesthetic Medicine Conference
3. 14th International Symposium on Neural Transplantation and Repair
4. 16th Annual Gene Therapy Symposium for Heart, Lung, and Blood
5. 16th National Conference of Emerging Researchers in Ageing
6. 2017 American Aging Association 46th Annual Meeting
7. 2017 Gordon Research Conference (GRC) on the Biology of Aging
8. 2017 IAHSA/CURAVIVA Global Ageing Conference
9. 21st IAGG World Congress of Gerontology and Geriatrics
10. 21st Hilton Head Regenerative Medicine Workshop
11. 22nd World Congress on Heart Disease
12. 23rd Annual Meeting of the Japan Society of Gene and Cell Therapy
13. 23rd Clinical Applications for Age Management Medicine
14. 2nd Annual Advances in Immuno-Oncology Congress
15. 2nd Cardiovascular Prevention in Pre-Elderly and Elderly Individuals
16. 2nd Interventions in Aging Conference
17. 2nd International Symposium Healthy Ageing
18. 2nd Molecular Biology of Ageing Meeting 2017
19. 2nd Zing Genomic Integrity Conference
20. 3rd International Conference on Information and Communication Technologies for Ageing Well and e-Health (ICT4AWE)
21. 3rd International Conference on Innovations in Cancer Research and Regenerative Medicine
22. 44th European Calcified Tissue Society Congress
23. 4th International Conference on Ageing in a Foreign Land
24. 4th International Symposium on Peripheral Nerve Regeneration
25. 50th Australian Association of Gerontology Conference, 8-10 November 2017
26. 55th Session of the Commission for Social Development
27. 6th Annual International Symposium on Regenerative Rehabilitation
28. Aged Care Nurse Managers Conference
29. Ageing Asia Future of Eldercare Operations Seminar
30. Aging & Society: Seventh Interdisciplinary Conference
31. Alzheimer's Association International Conference
32. American Geriatrics Society Annual Scientific Meeting 2017
33. American Society on Aging (ASA) 2018 Aging in America Conference
34. Annual International Symposium on Diabetes
35. Annual UCLA Research Conference on Aging
36. Australian Biology of Ageing Conference
37. Big Data in Biology and Health
38. BIO-Europe 2017
39. Bioinformatics in Ageing Research - Satellite Workshop
40. BIT's 5th World Annual Congress of Geriatrics and Gerontology-2017
41. British Geriatrics Society Autumn Meeting 2017
42. British Geriatrics Society Spring Meeting 2017
43. British Society for Research on Aging 67th Annual Scientific Meeting
44. Cell Death. Cell Stress and Metabolism Conference
45. Cell Symposium: Neuro-Immune Axis: Reciprocal Regulation in Development, Health and Disease
46. CiRA International Symposium: A Decade of Human iPSCs: from Bench to Bedside
47. CSH Asia: Precision Cancer Biology: From Targeted to Immune
48. CSH Asia: Stem Cells, Aging & Rejuvenation
49. CSHL: Genome Engineering: The CRISPR-Cas Revolution
50. Design 4 Health
51. EMBL Conference: Cancer Genomics
52. EMBO/Basel Life Innovation Forums
53. EMBO Conference: Fndocytic Trafficking and Signalling in Health and
54. EMBO:Towards Novel Therapies: Emerging Insights from Structural and Molecular Biology
55. EMBO Workshop: Mitochondrial Quality Control
56. European Cognitive Aging Society, Aging and Cognition Conference
57. FASEB Science Research Conference for Autoimmunity
58. Eukaryotic DNA Replication & Genome Maintenance
59. Federation of European Biochemical Societies 42nd Congress: From Molecules to Cells and Back
60. FMBO Workshop: Mitochondria, Apoptosis and Cancer
61. Future Investigators of Regenerative Medicine`
62. Gordon Research Conference: Biology of Aging
63. Gordon Research Conference: Cell Growth & Proliferation
64. Gordon Research Conference: Glial Biology
65. Gordon Research Conference on Stem Cells & Cancer 2017
66. Gordon Research Conference: Oxidative Stress & Disease
67. Gordon Research Conference: Stress Proteins in Growth, Development & Disease
68. IFA Global Think Tank on Ageing
69. Immuno-Metabolic Mechanisms of Atherosclerosis
70. 18th International Conference on Alzheimer's Drug Discovery
71. Keystone Symposia: Aging and Mechanisms of Aging-Related Disease (E2)
72. Keystone symposia: Cancer Immunotherapy
73. Keystone Symposium: Engineered Cells and Tissues as Platforms for Discovery and Therapy
74. Keystone Symposium: Tumor Metabolism: Mechanisms and Targets
75. Making it Personal: Cancer Precision Medicine
76. MENA Geriatrics Summit
77. Mitochondria in Health and Disease
78. Mitochondria, Metabolism and Heart
79. Modulating Ageing/Antiageing: from Molecular Biology to Clinical Perspectives
80. NAD+ Metabolism and Signalling 2017
81. Natureconferences: 5th Helmholtz-Nature Medicine Diabetes Conference
82. NatureConferences: Nature Conference on Inflammatory Diseases
83. Neoantigen Summit
84. Neuroscience 2017
85. Next Gen Immuno-Oncology Congress
86. Oxford Global 3rd Annual Cell/ Gene Therapy Congress
87. Oxygen Club of California World Congress
88. PCS 4th World Congress of Cardiotlioracic-Renal Diseases
89. Synthetic Immunity Symposium 2017
90. Stem Cells in Drug Discovery
91. Targeting Tau in Alzheimer's Disease and Related Disorders
92. Telomeres & Telomerase
93. The 13th International Conference on Alzheimer's & Parkinson's Diseases - AD/PD 2017
94. The 2018 Undoing Aging Conference
95. The Ageing Cell
96. The Asian Conference on Aging and Gerontology
97. The Biology of Aging: Advances in Therapeutic Approaches to Extend Healthspan
98. The IFA 14th Global Conference on Ageing
99. The International Growth and Development Conference (IGDC)
100. The ISSCR International Symposia

XXIII World Congress of Neurology

Date(s): September 16-21. 2017

Location: Kyoto, Japan

Website: http://www.2017.wcn-neurology.com/

Description:

WCN will bring together leading scientists, public health experts, policy-makers to translate recent momentous scientific advances into action that will address means to end the epidemic, within the current context of significant global economic challenges.

WCN will have a positive impact on the topics of the congress response globally with the following objectives;

• To bring together the worlds scientific experts to catalyze and advance scientific knowledge about Neurology, present the most recent research findings, and promote and enhance scientific collaborations around the world.

• To bring together community leaders, scientists, and policy leaders to promote and enhance programmatic collaborations to more effectively address regional, national and local responses to Neurology around the world and overcome barriers that limit access to prevention, care and services.

• To engage key, new and non-traditional stakeholders throughout the world in the development of and participation throughout the congress program.

11th Annual A5M Healthy Ageing & Aesthetic Medicine Conference

Date(s): 4-6 August 2017

Location(s): Melbourne, Australia

Organizer: https://www.a5m.net/events/event/11th-annual-a5m-healthy-ageing-aesthetic-medicine-conference-2017

Website: http://www.aacds.com.au/11th-annual-a5m-conference/

Description:

General practitioners, physicians, medical professionals, pharmacists, naturopaths, nurses, aesthetic practitioners and other allied health professionals are invited to attend A5M's 11th Annual Conference, with the key theme being the role the gut microbiota plays in health, disease and our physical appearance.

The two day event will explore the gut as a major influence on the body, mind, work, family and the ageing process. The links between healthy lifestyle and healthy ageing, across internal and external health, are well established and increasingly researched in the medical world. Delegates will gain cutting- edge industry information in the latest medical technologies and research, as well as a great opportunity to network with industry peers.

14th International Symposium on Neural Transplantation and Repair

Date(s): September 13-16, 2017

Location: Port Douglas. Australia

Website: www.intr2017.com

Description:

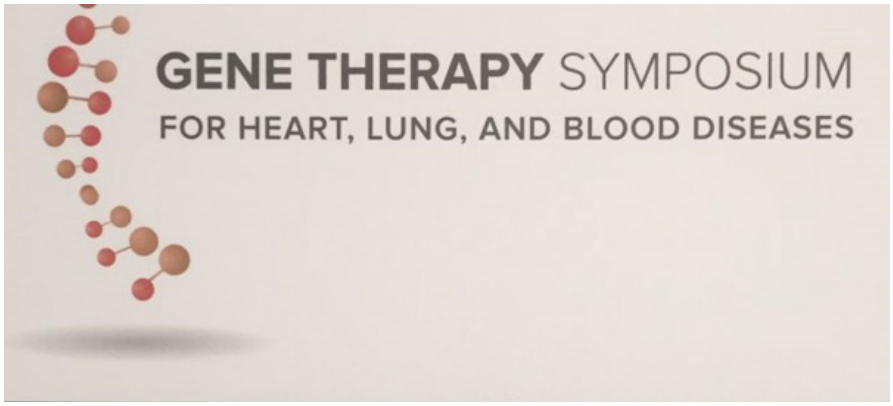
The INTR meetings have been held every 2-3 years bring together an international community of basic scientists and clinicians sharing a common interest in central nervous system development and repair.

The objective of the meeting is to provide an overview of current research in the field and offer the opportunity for interaction between delegates in a relaxed environment. We also place a strong emphasis on attendance and participation of students and early career scientists.

This is the first time the meeting will be held in Australia and we hope you can join us in what we anticipate will be an exciting and successful meeting.

This meeting will cover topics such as neurogenesis and endogenous repair; updates on clinical trials; alternative mechanisms for cell-based therapies; disease in a dish; gene therapy and so much more.

16th Annual Gene Therapy Symposium for Heart, Lung, and Blood Diseases



Date(s): November 15-17. 2017

Location: Sonoma, California

Website: http://www.gts.ucdavis.edu/2017/2017.htm

Description:

The intent of these annual interdisciplinary scientific symposia is to provide a novel and informal scientific setting for the dissemination and exchange of ideas and research findings by bringing together students, fellows, and junior/senior investigators who do not typically interact at other meetings. The opportunity for investigators in divergent, yet relevant, fields to interact has significantly declined because of the sheer size and objectives of most meetings. Therefore, our goal is for these annual fall symposia is to provide the opportunity for interactions that are not possible at larger meetings. We hope to encourage synergy, facilitate new research directions and collaborations, and enhance current approaches to gene transfer/gene therapy for the treatment of human disease. Presentations focus on unpublished works-in-progress, cutting edge technologies, and key thematic issues. Each year a focus topic is selected.

16th National Conference of Emerging Researchers in Ageing

Date(s): 6-7 November 2017

Location(s): Perth, Australia

Website: http://www.era.edu.au/ERA+2017

Description:

The idea of the Emerging Researchers in Ageing initiative in Australia grew out of a little group of PhD students and their supervisors who were associated with the Australasian Centre on Ageing at the University of Queensland. That group included some names you might recognize – Jeni Warburton, Andrea Petrijwsky, Joanne Everingham, Tim Henwood, Maree Petersen, Nancye Peel, Mair Underwood – to name a few – and of course, Helen Bartlett.

Over the course of regular meetings and discussions about doing a PhD in ageing research in Australia, it became clear that there was a general lack of a sense of research identity and connectedness to a community of researchers in the field. To begin to address this need, this intrepid bunch of PhD students undertook to organize the first conference for Emerging Researchers in Ageing in Australia. The conference was held at the University of Queensland in 2002, and it was a resounding success, attracting far more interest and support than expected.

This event is being held immediately prior to the Australian Association of Gerontology (AAG) conference in Perth to give participants the opportunity to attend both if they wish.

2017 American Aging Association 46th Annual Meeting

Date(s): June 09-12

Location(s): New York City, NY, USA

Website: https://www.americanagingassociation.org/Org

Description:

In 2017, the AGE meeting Targeting Aging: Molecules to Main Street was held in New York City from the evening of June 9th to mid-day June 12th and will include leading aging researchers from the UK, Australia, Canada and the US. This meeting will cover exciting new topics in aging research.

Mission

- To promote biomedical aging studies directed towards increasing the functional life span of humans with one goal being to slow the aging process.
- To keep the public informed of the progress of aging research and of practical means of achieving a long and healthy life.
- To increase knowledge of biogerontology among physicians and others in the health fields

2017 Gordon Research Conference (GRC) on the Biology of Aging

Date(s): July 9-14 2017

Location(s): Les Diablerets, Switzerland

Website: https://www.grc.org/biology-of-aging-conference/2017/

Description:

The 2017 Gordon Research Conference (GRC) on the Biology of Aging was held at the Les Diablerets Conference Center (Les Diablerets, Switzerland) on July 9-14, 2017, and the Gordon Research Seminar (GRS), which will be held at the same location on July 8-9, immediately prior to the GRC. The program has been developed around the theme of «Integrative Biology of Aging: New Insights from Molecules to Systems». Recent studies from diverse model organisms, such as worms, flies, and mice, have demonstrated that systemic interplay between multiple tissues and organs regulates aging and longevity. Additionally, subcellular systems such as organelles and stress pathways can often communicate intra- and intercellularly. To dissect such complex systemic regulation of aging and longevity, significant progress has been made in identifying control networks and basic architectures, but how communication is achieved at different levels of organization and assembled into larger architectures is only beginning to be explored. The dysfunction of critical components in these control networks contributes to the induction of the cellular and molecular hallmarks of aging, including mitochondrial dysfunction, epigenetic alterations, chronic inflammation, circadian rhythm dysfunction, genomic instability, loss of proteostasis, and others, and underlies diminished healthspan and lifespan.

In the 2017 GRC, our major objective is to capture this new wave of the «integrative biology of aging», and further stimulate our thoughts and efforts to translate our knowledge into the development of effective interventions to achieve «productive aging», making the later years of our lives as healthy and productive as possible. The major objective of the GRS is to explore these themes in a supportive setting that particularly focuses on the needs of graduate students and postdoctoral trainees, and prepare them for a full and productive participation in the GRC to follow.

2017 IAHSA/CURAVIVA Global Ageing Conference

Date(s): 18-21 September 2017

Location(s): Montreux, Switzerland

Website: http://globalageing.org/event/2017-global-ageing-conference/

Description:

Switzerland tops HelpAge International's Global Ageing Index as the best place in the world to grow old. It is the perfect setting for our global ageing community to progress efforts in improving the lives of elders worldwide.

This year's Global Ageing Conference in Montreux, Switzerland (18-21 September 2017) connected over a thousand aged care professionals representing more than 20 countries and 6 continents! Conference highlights ranged from an immersive 2-day leadership development program to a robust educational offering with topics ranging from innovative care models and dementia care to strategic leadership and wellness.

Emerging leaders and seasoned professionals of aged care organizations come together to learn together from other experienced leaders in the field. Participants come away with skills, insights, ideas and confidence in providing leadership in times of change and innovation. They gain a global peer network that is sustained well beyond the retreat experience.

The retreat includes facilitator-led conversations with visionary leaders, team exercises, readings, tools, films and participatory discussions enriched by participants' diverse perspectives.

21st IAGG World Congress of Gerontology and Geriatrics

Date(s): July 23 – 27, 2017

Location(s): San Francisco, California

Website: https://www.iagg2017.org

Description:

In 2017, the theme "Global Aging and Health: Bridging Science, Policy, and Practice" brought representatives from medicine, nursing, social science, psychological science, finance, policy fields, and other disciplines to address the latest approaches to improving the quality of life of the world's older adults. This is the premier meeting for professionals in gerontology and geriatrics.

The Gerontological Society of America was proud to host the 21st International Association of Gerontology and Geriatrics (IAGG) World Congress in San Francisco, July 23-27, 2017. This prestigious event brought together some of the top researchers, clinicians, and industry experts who have dedicated their careers to improving the lives of older adults.

With approximately 2,500 different organizations represented from more than 75 countries, this conference reminds us that there is nothing more powerful than when our community comes together in an open dialogue to reflect on our progress and further initiatives to advance healthy aging.

There were many diverse and dynamic speakers, who provided in-depth insight, actionable steps and practical tools for increasing innovation, investment, education and outreach in our field. We are pleased to share many of the PowerPoint presentations from the conference, program abstracts, and the Bridge Blogs written by some of the top names in the field of aging. To view some of the moments from #IAGG2017, visit the event Facebook album. A final report highlights the major elements of the Congress.

Save the date for the 22nd International Association of Gerontology and Geriatrics (IAGG) World Congress in Buenos Aires, Argentina, June 20-24, 2021

21st Hilton Head Regenerative Medicine Workshop

Date(s): March 21-24. 2018

Location: Hilton Head Island, South Carolina

Website: www.regenerativemedicineworkshop.com

Description:

This year's workshop will focus on "Synergizing Science, Engineering, and Clinical Translation," and is co-organized by the Regenerative Engineering and Medicine Center (a research consortium between Georgia Tech, Emory, and the University of Georgia), the University of Pittsburgh, the University of Wisconsin Madison, and the Mayo Clinic.

This annual workshop sells out each year at approximately 200 participants, and has a variety of sponsorship and exhibit opportunities with customized packages available. The intimate environment allows for a high level of access to all presenters and ample discussion time with attending faculty, trainees, industry participants and exhibitors. The program, which spans four days, has approximately 40 podium presentations and includes a poster session, debate/panel discussion and conference dinner event.

Regenerative Medicine Workshop providing cutting edge scientific content delivered by a powerhouse line-up of speakers and valuable presentations in the field of regenerative medicine. The program, which spans four days, has approximately 40 podium presentations and includes a poster session, debate/panel discussion, and a conference dinner.

22nd World Congress on Heart Disease

INTERNATIONAL ACADEMY OF CARDIOLOGY
ANNUAL SCIENTIFIC SESSIONS 2017
22nd WORLD CONGRESS ON
HEART DISEASE

VANCOUVER, BC, CANADA, JULY 14 - 16, 2017

Date(s): July 14-16, 2017

Location: Vancouver. Canada

Website: http://www.cardiologyonline.com/wchd2017/

Description:

The Congress will provide the opportunity for a comprehensive overview of the latest research developments in cardiovascular medicine, primarily in the areas of Molecular and Cellular Cardiology, Genetics of Heart Disease, Cardiac Imaging, Coronary Artery Disease, Peripheral Arterial Disease, Interventional Cardiology, Lipoprotein Disorders, Hypertension, Diabetes Mellitus, Heart Failure, Valvular Heart Disease, Diseases of the Aorta, Cardiac Arrhythmias and Electrophysiology, Antiarrhythmic Devices, Sudden Cardiac Death, Pediatric Cardiology, Congenital Heart Disease, Cardiac Surgery, Heart Transplantation, Mechanical Circulatory Support and Measurement of Outcome and Quality of Cardiovascular Care.

Program areas will range from clinical pathophysiology to evaluation and stratification techniques and molecular and cellular biology, including neurohumoral, immunological and genetic studies. We will discuss new and innovative diagnostic methods, prevention and treatment of heart disease, and prognostic algorithms. Integrated into the program will be an update on the latest major clinical trials. We hope that you will participate in this Congress and submit for presentation your most recent scientific work in the rapidly evolving field of cardiovascular disease.

Your interaction with your colleagues from many different countries will stimulate a creative exchange of ideas and will be personally rewarding.

23rd Annual Meeting of the Japan Society of Gene and Cell Therapy

Date(s): July 20-22. 2017

Location: Okayama. Japan

Website: www.mcd-gakkai.org/jsgct23/cng

Description:

Since 1990 when the first gene therapy clinical trial was conducted for adenosine deaminase deficiency, gene and cell therapy has made steady progress with repeated ups and downs and proven to be effective in ex vivo stem cell gene therapy for primary immunodeficiencies and metabolic disorders, in vivo gene therapy using adeno-associated virus for hemophilia and inherited retinitis, CAR-T therapy for B cell leukemia and malignant lymphoma, and oncolytic virus therapy for solid tumors. With this, the international momentum for the practical realization of gene therapy as an innovative medical drug has increased rapidly and facilitated more companies to conduct gene therapy clinical trials worldwide for various intractable diseases. In addition, a new approach using genome editing techniques for diseases has also been applicable in clinical trials and in the near future the definition of gene therapy may change from “therapy with a gene” to “therapy for a gene”.

On the other hand, such a new technology to be put into practice, sometimes carry unimaginable risks which urges us to have further discussion on ethical issues, with other fields. The experience of tragic setbacks and overcoming times of difficulties has strengthened gene and cell therapy to establish itself as a safe and effective therapy and I am certain to say that our society will play a critical role in the contribution to the progress of gene and cell therapy in Japan.

23rd Clinical Applications for Age Management Medicine

November 2-5, 2017

JW Marriott Starr Pass Resort & Spa, Tucson, Arizona

Date(s): November 2-5, 2017

Location: Tucson, Arizona

Website: http://bit.ly/2tTRes0

Description:

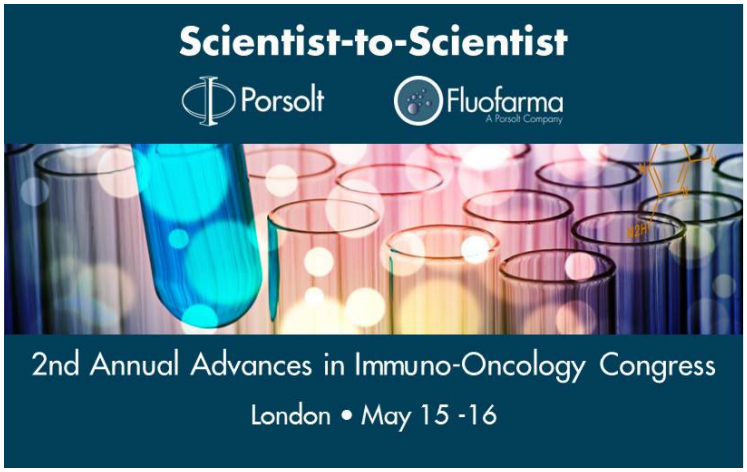
The Age Management Medicine Group (AMMG) would like to encourage qualified speakers who wish to become members of our faculty to submit for consideration.

The Conference Planning Committee will review all submissions. Preference will be given to credentialed faculty at the medical professional level who have an expertise in their field and have the ability to provide comprehensive learning materials for the course syllabus. Topics that reflect non-commercial, new or cutting edge evidence based information for Age Management Medicine clinicians and include the theme of this event are preferred. All faculty and presentations must adhere to ACCME standards.

The General Conference Curriculum will Include These Topics:

- Are their Guidelines for the Use of Testosterone in Women?
- Women's Sexual Health
- Testosterone and Breast Cancer
- Basic Clinical Evaluation for Women
- Dysfunctional Bleeding
- Alzheimer's Prevention
- Brain Health
- What to Look for and Screen in Dementia
- Loss of the Macrobiome and the Extracellular Matrix as an Etiology for Accelerated Neurologic Aging and the Modern Disease Epidemics
- Translational Enteroimmunology
- Microbial Age
- Molds and Mycotoxins: How they affect our brain, and how to treat patients affected by them
- Progressive Peptide Therapy
- How to Pick a Good Supplement: Proper Dosage, Packaging, Ingredients
- Impact of Hommones. Toxins and the Microbiota on Mood

2nd Annual Advances in Immuno-Oncology Congress



Date(s): May 15-16, 2017

Location: London. United Kingdom

Website: https://www.immunooncology-congress.com/

Description:

Oxford Global are proud to present the 2nd Annual Advances in Immuno-Oncology Congress, taking place 15-16 May 2017 in London UK. The event features 200 delegates from world renowned academic institutions, hospitals, global pharmaceutical organisations and leading biotechnology companies. 36 presentations and case studies will focus on the key developments in Immuno-Oncology with specific reference to the discovery of therapeutic areas, pre-clinical and clinical studies, screening, assays and modelling.

On the congress, there were over 300 delegates from world renowned academic institutions, hospitals, global pharmaceutical organisations and leading biotechnology companies.

Over 50 presentations and case studies focusing on the key developments in Immuno-Oncology with specific reference to the discovery of therapeutic areas, pre-clinical and clinical studies was shown.

There were 6 interactive streams:

- Discovery of Immuno-Oncology Therapies
- Translational Immuno-Oncology
- Genomics in Cancer Immunotherapy and Precision Medicine
- Preclinical Development: Screening, Assays and Modelling in Immuno-Oncology
- Immuno-Oncology Therapeutics Approaches: Clinical Research and Clinical Trials
- Microbiome in Immuno-Oncology

2nd Cardiovascular Prevention in Pre-Elderly and Elderly Individuals

Date(s): July 7-9. 2017

Location: Vienna. Austria

Website: http://www.cardioelderly.org/

Description:

The Congress has been designed to provide an innovative and comprehensive overview of the latest research developments in cardiovascular medicine, as well as responses to the most debatable issues primarily in the areas of the prevention of hypertension, diabetes, metabolic syndrome, coronary artery disease, heart failure, cardiac arrhythmias, stroke and acute coronary syndromes in Pre-Elderly and Elderly Individuals.

Many distinguished cardiologists and scientists have joined the faculty and will take part in this Congress. Papers will be presented in the form of plenary sessions, symposia, workshops, oral presentations and posters and will include superb scientific material that will be carefully selected by the Scientific Abstract Review Committee

The conference have more than 15 presentations on different anti-ageing themes.

2nd Interventions in Aging Conference

Understanding Mechanisms & Compressing Morbidity in Aging Humans

Date(s): March 2-5. 2017

Location: Cancun, Mexico

Website: https://www.fusion-conferences.com/conference48.php

Description:

A plethora of genetic, dietary and pharmacological interventions can extend healthy lifespan in laboratory animals, and can delay or ameliorate diverse aging-related diseases. Many of the signalling pathways involved are evolutionarily conserved, and are starting to be implicated in human aging. This raises the intriguing possibility of performing preventative medicine against the chronic diseases of our time by targeting the main risk factor for all of them, namely aging. Two important current challenges in the field are (1) to understand the downstream pathways by which longevity interventions combat age-related loss of function and pathology, and (2) to translate the findings into the extension of human healthspan.

The conference organisers have $1,000 grants available for students and post-docs to help offset the cost of registration. Applications must contain a full name, brief description of current research, a short explanation as to why they would benefit from attending and lastly an abstract must be attached for consideration for either a talk or poster presentation.

Key Sessions:

- Epigenetics
- Stem Cells
- Cell Signalling
- Translating Research to Benefit Aging Humans

2nd International Symposium Healthy Ageing

Date(s): February 27-28

Location(s): Magdeburg, Germany

Website: http://www.leibniz-gesundes-altern.de/symposium/2nd-international-symposium-healthy-ageing/

Description:

Healthy Ageing – living free of diseases, functional decline, and disabilities as long as possible while keeping up high levels of well-being – should be an achievable goal for most older people in modern industrialized societies. In order to achieve this goal interdisciplinary research is required to obtain knowledge and environmental factors promoting the preservation of health, which can be used to develop novel strategies for intervention.

To address these challenges, the Leibniz Research Alliance Healthy Ageing (LRA Healthy Ageing) was formed in 2013. It consists of 21 institutes of the Leibniz Association and combines expertise in life sciences, psychology, education science, sociology, and economics covering a very broad and comprehensive scientific spectrum in a unique manner.

To stimulate, facilitate and intensify scientific collaborations within the LRA across the various disciplines, the LRA Healthy Ageing will meet at the 2nd International Symposium Healthy Ageing.

The program will cover plenary sessions with international keynote speakers, who are highly respected in ageing research. It will also leave enough time for the scientist to come into contact by open poster sessions, meetings in focus groups and developing new research projects within the groups.

2nd Molecular Biology of Ageing Meeting 2017

Date(s): October 08-11

Location(s): Groningen, The Netherlands

Website: http://www.bioageing.nl

Description:

Let's become a part of a leading Meeting on the Molecular Biology of Ageing.

On the Meetings, world-leading scientists working in the diverse research areas that are relevant for understanding the biology of ageing, come together. The Meeting will begin on October 8th with an Opening Lecture by Professor Andrew Dillin, Thomas and Stacey Siebel (Distinguished Chair in Stem Cell Research at the Department of Molecular and Cell Biology at Berkeley).

The Program of the Meeting is organized into ten sessions covering a wide range of topics related with the process of ageing. For each session two leading scientists will introduce the topic and present their latest work. One to two additional speakers for each session have been selected from submitted abstracts. Abstracts will also be presented as posters in two sessions. We hope to stimulate new ideas and approaches and foster collaborations that will facilitate community-building in the field of ageing research.

Session topics:

- Telomeres
- DNA repair and genome instability
- Mitochondria and apoptosis
- Nutrient Sensing
- Autophagy and Immunity
- (Epi)genetics and ageing
- Protein homeostasis
- Stem cells
- Cellular senescence

2nd Zing Genomic Integrity Conference

Biological | Chemical Biology & Medicinal | Human Health

2nd Zing Genomic Integrity Conference

9 July 2017 16:00 - 13 July 2017 12:30, Dublin, Ireland

Date(s): July 9-13. 2017

Location: Dublin. Ireland

Website: http://www.rsc.org/events/detail/25203/2nd-zing-genomic-integrity-conference

Description:

This 4 day meeting will focus on the molecular pathways that protect living organisms from deleterious genetic changes. It will include sessions covering both established areas in the field, including excision repair pathways, DNA damage signalling, translesion synthesis and recombination as well as more emergent topics such as DNA damage in mitosis and the role of RNA in the DNA damage response. There will also be sessions covering human disorders and therapeutic targeting of genome stability.

The program will include time for vibrant group discussions, poster sessions and ample time for individual interactions. The key goal of this international meeting is to allow the community of scientists working in this highly interconnected set of sub-fields to come together in a single location, so as to share their exciting results and to discuss their thoughts for future research directions and collaborations.

3rd International Conference on Information and Communication Technologies for Ageing Well and e-Health (ICT4AWE)

Date(s): 28-29 April, 2017

Location(s): Porto, Portugal

Website: http://www.ict4ageingwell.org/

Description:

The International Conference on Information and Communication Technologies for Ageing Well and e-Health aims to be a meeting point for those that study and apply information and communication technologies for improving the quality of life of the elderly and for helping people stay healthy, independent and active at work or in their community along their whole life. ICT4AWE facilitates the exchange of information and dissemination of best practices, innovation and technical improvements in the fields of age-related health care, education, social coordination and ambient assisted living. From e-Health to intelligent systems, and ICT devices, this will be a point of interest for all those that work in research and development and in companies involved in promoting the well-being of aged people, by providing room for industrial presentations, demos and project descriptions.

Conference Areas:

- Ambient Assisted Living
- Telemedicine and e-Health
- Monitoring, Accessibility and HCI
- Independent Living

3rd International Conference on Innovations in Cancer Research and Regenerative Medicine

Date(s): September 10-13. 2017

Location: Ho Chi Minh City. Vietnam

Website: http://www.crrmconference.com/

Description:

CRRM is the conference about Cancer Research and Regenerative Medicine co-organized by University of Science, VNU-HCM, Viet Nam, University of California, Los Angeles (UCLA), US. CRRM is an international forum for all scientists, researchers, doctors, students about cancer research and regenerative medicine.

From the success of the first and second conference, the third CRRM is widely interested by scientific community. There were presented 200+ speakers, 500+ attendees from 20+ countries.

All registered abstracts of the 3rd Innovations in Cancer Research and Regenerative Medicine are published in a Supplement of the Biomedical Research and Therapy journal published by Biomedpress. Biomedical Research and Therapy is indexed by ESCI, Web of Science, EMBASE, DOAJ, EBSCO, IndexCorpernicus and other databases. Publishing is free of charge.

44th European Calcified Tissue Society Congress

Date(s): May 13-16. 2017

Location: Salzburg. Austria

Website: http://ects2017.org/category/about-the-congress/

Description:

ECTS serves as a forum for researchers and clinicians working in the musculoskeletal field to join forces, discover and discuss the latest advances and controversies in research and in the daily care of patients.One of the great successes of the ECTS scientific programme over time has been due to the principle of bridging the gaps between translational research and clinical application. The Scientific Programme Committee has continued to develop the programme based on this successful format and has created a stimulating and varied agenda.

The 2017 ECTS Programme offers:

- An exciting programme of invited speaker lectures featuring some of the world's leading experts in the field
- Meet the Professor sessions
- Dedicated New Investigator sessions
- Joint ECTS-ASBMR debate and lecture
- A high proportion of submitted abstracts selected for the oral programme
- Well-attended poster sessions with dedicated poster viewing time
- A busy poster and exhibition area with lunch included in the delegate fee
- Company-supported satellite symposia highlighting some of the latest developments in therapy and research

One of the great successes of the ECTS scientific programme over time has been due to the principle of bridging the gaps between translational research and clinical application. The Scientific Programme Committee has continued to develop the programme based on this successful format and has created a stimulating and varied agenda..

4th International Conference on Ageing in a Foreign Land

Date(s): 21-22 June 2017

Location(s): Adelaide, Australia

Website: http://www.flinders.edu.au/ehl/conferences/ageing/

Description:

Building on an international theme, the title of the conference - 'Ageing in a Foreign Land' - highlights the important issue of ageing from a culturally and linguistically diverse (CALD) perspective.

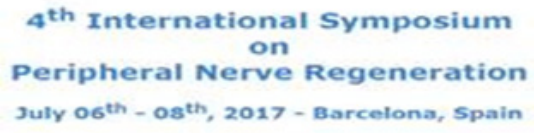
This unique conference with a multicultural perspective journeys into the deep cultural, spiritual, and linguistic areas of ageing amongst CALD communities. It represents a stimulating and colourful cross disciplinary and cross generational insight into our noiseless, but not silent, ethnic communities and neighborhoods.

The theme for 2017 is: Hope, Strength and Meaning

We welcome attendance and participation from academics, researchers, practitioners, policy makers, service providers, aged care workers, and the community. An exciting program will include the following topics:

- Spirituality
- Culture
- Demography

4th International Symposium on Peripheral Nerve Regeneration



Date(s): July 6-8. 2017

Location: Barcelona, Spain

Website: https://sites.google.com/site/0ispnr0/

Description:

The study of peripheral nerve repair and regeneration has gained considerable interest in regenerative medicine.

Despite the scientific advancements however, application to the patients is still limited. It appears that in order to optimize the strategy for tissue engineering of the peripheral nerve in the clinical perspective, more basic research is needed. Neuroscientists need to strive for a new level of innovation which brings together (in a multi-translational approach) the main pillars of regenerative medicine, namely 1) Reconstructive microsurgery, 2) Transplantation (of tissues, cells and genes), 3) Material science and bioengineering, 4) Physical therapy and biostimulation, 5) Bioelectronics and bioengineering.

In line with this growing interest, and following the success of the preceding symposia in 2009, 2014 and 2015, the ISPNR aims at bringing together an international and interdisciplinary panel of scientists who critically address some of the most important issues in this emerging biomedical field.

50th Australian Association of Gerontology Conference, 8-10 November 2017

Date(s): 8-10 November 2017

Location(s): Perth, Australia

Website: https://www.aag.asn.au

Description:

The AAG 2017 Conference will provide a forum to reflect on and re-imagine the incredible potential of our ageing society, now and into the future. It will seek to describe and imagine ways in which we can best support and enhance health and well-being, and to encourage debate on the nature of our society and the importance of ageing within it. It will seek to demonstrate how ground-breaking research and evidence-based policy can harness the great value of our diverse and ageing population for the benefit of all. It will offer attendees an opportunity to explore the variety of experiences of ageing, and reimagine what ageing means to us all as a society.

Hear from leading experts in the field of ageing. This year's program included presentations and discussions led by respected researchers, academics, policy makers and practitioners. Discover the latest developments in the field, hear new research and learn about best-practice in the industry.

Presenting at an AAG Conference is a powerful way to gain recognition for your expertise among fellow gerontology leaders, practitioners, professionals, students and emerging stars of the field. It is the platform for discussion and sharing of ideas with your peers and colleagues.

55th Session of the Commission for Social Development

Date(s): February 01-10

Location(s): New York City / NY, USA

Website: https://www.un.org/development/desa/dspd/united-nations-commission-for-social-development-csocd-social-policy-and-development-division/csocd55.html

Description:

The fifty-fifth session of the Commission for Social Development (CSocD55) took place in conference room 4, at the United Nations Headquarters in New York from 1 to 10 February 2017. The priority theme for the 2017-2018 review and policy cycle is "Strategies for eradicating poverty to achieve sustainable development for all".

The CSocD55 stressed that the international community must bolster current commitments to eradicate poverty in all its forms and must fully implement the 2030 Agenda in its entirety to ensure that no one was left behind. It noted that the 2030 Agenda was inextricably linked to the rights of women, young people, older persons, indigenous people, persons with disabilities and other vulnerable groups. Those groups continued to disproportionately face major obstacles to their development, while people living in extreme poverty lacked the political power and equal opportunities to take charge of their destiny. Hence, human dignity must be at the centre of any sustainable development process

Themes:

- Strategies for eradicating poverty to achieve sustainable development for all
- Review of relevant United Nations plans and programmes of action pertaining to the situation of social groups:
  - (i) World Programme of Action concerning Disabled Persons
  - (ii) Standard Rules on Equalization of Opportunities for Persons with Disabilities
  - (iii) World Programme of Action for Youth
  - (iv) Madrid International Plan of Action on Ageing, 2002
  - (v) Family issues, policies and programmes
- Promoting Integrated Policies for Poverty Eradication: Youth Development in the 2030 Agenda

6th Annual International Symposium on Regenerative Rehabilitation

Date(s): 1-3 November 2017

Location: Pittsburgh. Pennsylvania

Website: www.ar3t.pitt.cdu/cducation/symposium.html

Description:

The Symposium on Regenerative Rehabilitation, featuring renowned researchers and clinicians from around the world, focuses on the emerging field of Regenerative Rehabilitation. This new and innovative approach combines discoveries in tissue engineering and cellular therapies with rehabilitative treatments, resulting in improved functional outcomes for patients. This Symposium encourages the participation of scientists, clinicians and physical therapists who are in the fields of regeneration, physical medicine and rehabilitation. The Symposium agenda has been designed to create a platform for bridging these areas of expertise in a setting that fosters discussion, interaction, cross-discipline pollination and networking.

As we approach a new era of technological advancements, regenerative medicine scientists must work closely with rehabilitation specialists in the development of clinical protocols to optimize functional recovery. To date, there have been few opportunities for regenerative biologists to be exposed to protocols and methodologies commonly employed in the clinic by rehabilitation professionals, protocols which serve as potent stimuli to drive functional tissue restoration. Nor are most rehabilitation scientists and clinicians exposed to the many advances in the field of regenerative medicine. There is, therefore, a great need to increase the interaction of individuals across the fields of rehabilitative and regenerative medicine such that, as technologies are developed and as understanding of regenerative biology progresses, advances may be smoothly and efficiently translated to the clinic.

A better understanding of the synergistic effect of rehabilitation approaches and regenerative medicine technologies has the potential to propel the translation of regenerative technologies into functionally relevant treatment interventions for a host of pathologies which will, in turn, transform the future of rehabilitative healthcare.

Aged Care Nurse Managers Conference

ACNM17
Aged Care Nurse Managers Conference

Date(s): May 10-11 2017

Location(s): Melbourne, Australia

Website: http://www.totalagedservices.com.au/acnm-conference.html

Description:

The Aged Care Nurse Managers Conference (ACNM) is an annual event that attracts over 200 delegates. Aimed at DONs, DDONs, NUMs, Coordinators, Team Leaders, ACNs, Education Coordinators and Quality Managers, this 2 day event is sure to impress.

The conference aims to:
Present contemporary, clear & concise information with practical application & provides delegates with a professional opportunity to reflect, review & recharge.

Feature an extensive Trade Expo, terrific 'stories from the field' sessions and a great opportunity to network & share information/ideas.

ACNM is run by Total Aged Services - a quality provider of a range of events/services for the Australian Health, Aged & Disability sectors including: Conferences, workshops, exhibitions
and other education/consulting services. The founder & principal
of Total Aged Services is Wayne Woff. He has over 30 years experience in the Australian Health & Aged Care sectors - as nurse, clinician, manager, educator, consultant, event organiser & publisher.

Ageing Asia Future of Eldercare Operations Seminar

Date(s): 25-26 April, 2017

Location(s): Singapore

Organizer: https://www.ageingasia.com/

Website: http://ageingasia.com/index.php/industry-trainings/singapore/aa-future-of-eldercare-operations-seminar

Description:

The annual Ageing Asia Future of Eldercare Operations Seminar looks to bringing together healthcare and eldercare managers and care teams from the Government, Business and Not-for-Profits to gain access to global programmes, innovations and strategies that help to increase productivity, improve capabilities and quality of life.

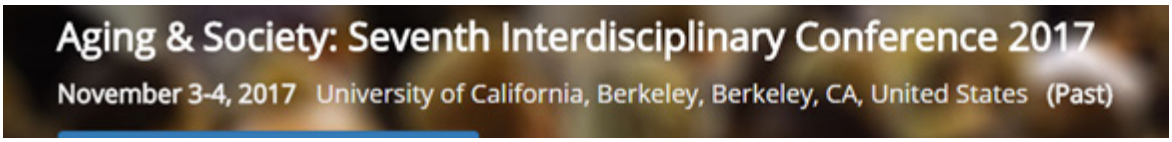
Launched in 2016, the inaugural Ageing Asia Future of Eldercare Operations Seminar welcomed over 30 speakers sharing their perspectives and exhcnage knowledge with international and local representatives from the sector.

As part of Ageing Asia's social enterprise mission, Ageing Asia is sponsoring all Singapore Intermediate and Long Term Care (ILTC) service providers with complimentary passes to attend the seminar.

Key Learning Objectives:

- Exchange knowledge of global best practices in care for older adults
- Increase operational care knowledge
- Encourage culture change to improve quality of care delivery
- Foster camaraderie and partnerships in care industry
- Identify new approaches towards care delivery

Aging & Society: Seventh Interdisciplinary Conference



Date(s): November 3-4. 2017

Location: Berkeley, California

Website: http://agingandsociety.com/2017-conference

Description:

Founded in 2011, the Aging & Society Research Network is a forum for discussion of challenges and opportunities for a rapidly growing segment of the population worldwide. The process of aging is a concern for individuals, families, communities, and nations. The social context of aging provides a rich background for community dialogue on this, one of the critical questions of our time.

Aging & Society: An Interdisciplinary Conference attendees include leaders in the field, as well as emerging scholars, who travel to the conference from all corners of the globe and represent a broad range of disciplines and perspectives. A variety of presentation options and session types offer opportunities for attendees to share their work, discuss key issues in the field, and build relationships with attendees.

Aging & Society: Seventh Interdisciplinary Conference features research addressing the following annual themes:

Theme 1: Economic and Demographic Perspectives on Aging
Theme 2: Public Policy and Public Perspectives on Aging
Theme 3: Medical Perspectives on Aging, Health, Wellness
Theme 4: Social and Cultural Perspectives on Aging.

Alzheimer's Association International Conference

Date(s): July 16-20. 2017

Location: London, United Kingdom

Website: https://alz.org/aaic/releases_2016/mon_930_ET.asp

Description:

This event showcases like foster an atmosphere to encourage research opportunities of care management for persons engaged with Alzheimer etc. in the Medical & Pharmaceutical industry.

For the 2016 year, for example, Canadian researchers presented at AAIC the next observations:

- Discoveries identifying biomarkers of memory resilience in people with Alzheimer's disease and preserved motor function in people with Parkinson's disease, which may offer new targets for treatment.
- Creative and evidence-based methods of delivering culturally appropriate dementia care to several First Nation (Indigenous) communities in the province of Ontario.
- An Ontario-based physical and social recreation program provides significant improvements in physical function, activity and agility for people with dementia.

Also, according to researchers, the prevalence of Alzheimer's disease and other dementias has increased more than 18 percent in Ontario, Canada, over the past eight years. Although prevalence rates have remained higher among women (97.3 per 1,000 in 2012/13) than men (68.2 per 1,000), the increase over the study period was greater among men.

American Geriatrics Society Annual Scientific Meeting 2017

Date(s): May 18-20

Location(s): San Antonio / TX, USA

Website: https://www.americangeriatrics.org/about-us

Description:

The American Geriatrics Society (AGS) is a nationwide, not-for-profit society of geriatrics healthcare professionals dedicated to improving the health, independence, and quality of life of older people. Our nearly 6,000 members include geriatricians, geriatric nurses, social workers, family practitioners, physician assistants, pharmacists, and internists.

The Society provides leadership to healthcare professionals, policymakers, and the public by implementing and advocating for programs in patient care, research, professional and public education, and public policy.

Healthcare providers from an array of professions and specialties consider the AGS meeting the premier professional forum for information on geriatrics research, clinical practice, and professional education. The AGS Annual Meeting Exhibit & Support Program gives companies and non-profit organizations an excellent place to spotlight new products and services, reaching the most influential leaders and decision-makers in geriatrics.

American Society on Aging (ASA) 2018 Aging in America Conference

Aging in America

THE ANNUAL CONFERENCE OF THE AMERICAN SOCIETY ON AGING

MARCH 20-24, 2017 IN CHICAGO

Date(s): March 20-24, 2017

Location(s): Chicago / IL, USA

Website: http://www.asaging.org/asas-annual-aging-america-conference

Description:

ASA offers professional education, outstanding publications and online information and training resources that are nationally recognized.

ASA's Aging in America Conference is the nation's largest and most dynamic multidisciplinary event known for its comprehensive view of the issues, challenges and opportunities in aging. It is the place to connect with peers, refresh your knowledge and gain new perspectives. We invite you to join our conference community of nearly 3,000 multidisciplinary professionals who, like you, are working to improve the lives of older adults.

All conference activities will take place at the Hilton San Francisco Union Square.

Central themes from the conferences:

- Older Adults and HIV/AIDS
- Older Adults and Sexual Health
- LGBT Aging
- How the Arts Can Affect How We Think About Aging

3rd Annual International Symposium on Diabetes

1 May 2017 09:00 - 4 May 2017, Athens, Greece

Date(s): May 1-4. 2017

Location: Athens. Greece

Website: http://www.atiner.gr/diabetes

Description:

The Medicine Research Unit of ATINER organizes its 3rd Annual International Symposium on Diabetes, 1-4 May 2017, Athens, Greece as part of the 5th Annual International Conference on Health & Medical Sciences sponsored by the Athens Journal of Health.

The aim of the conference is to bring together academics and researchers from all areas of diabetes and related disciplines.

Special arrangements will be made with a local hotel for a limited number of rooms at a special conference rate. In addition, a number of social events will be organized: A Greek night of entertainment with dinner, a special one-day cruise to selected Greek islands, an archaeological tour of Athens and a one-day visit to Delphi. Details of the social program are available here.

Annual UCLA Research Conference on Aging

Date(s): May 2. 2017

Location: Los Angeles. California

Website: http://www.geronet.ucla.edu/rcoa

Description:

The conference will highlight UCLA's diverse research efforts to enhance and extend productive and healthy lifestyles for older adults. The event serves as a networking opportunity to connect with others interested in aging research and will feature presentations ranging from basic biology to public policy.

The event provides opportunities for researchers and community members to network, be apprised of the latest research across a broad range of topics including aging biology, epidemiology, clinical research in older adults, public health, and health policy, and to spark new and innovative collaborations. The program includes one keynote lecture, two poster sessions, and plenary talks.

Conference Sponsors:

1. UCLA Multicampus Program in Geriatric Medicine and Gerontology
2. The UCLA Longevity Center
3. The UCLA Mary S. Easton Center for Alzheimer's Research
4. UCLA Clinical and Translational Science Institute

Australian Biology of Ageing Conference

Date(s): 27-28 April 2017

Location(s): Sydney, Australia

Website: http://www.ageingbiologyaustralia.org/

Description:

The overwhelming burden of non-communicable disease is borne by the older population, with conditions treated or researched in isolation. With ageing now viewed as a programmed, biological phenomenon, there is the possibility that interventions in this process could be used to treat a broad range of diseases, and drastically reduce health spending.

The conference aims to encourage the study of ageing as an underlying program involved in disease processes. More than 130 experts will discuss the latest research into prolonging life, maintaining health and slowing the ageing process. This meeting will foster new cross-disciplinary collaborations in the local community, by bringing together researchers from diverse fields including metabolism, epigenetics, cell biology, systems biology, neurobiology, proteomics, cancer, pharmacology, physiology, geriatric medicine, nutrition, genomics, evolutionary biology and ecology.

Big Data in Biology and Health

Big Data in Biology and Health

25-27 September 2017

Wellcome Genome Campus, Hinxton, Cambridge, UK

Date(s): September 25-27. 2017

Location: Hinxton, United Kingdom

Website: https://coursesandconferences.wellcomegenomecampus.org/events/item.aspx?e=664

Description:

The second big data in biology and health meeting will explore the opportunities and challenges of big data in biology, health and disease and provide a forum for scientists and clinicians from academia and industry to drive the future development of research in this area.

Individualised medicine based on patient genomes will have an enormous impact on healthcare. With breakthroughs in DNA sequencing technology, the number of sequenced genomes could reach >1 million within 5–10 years. The simultaneous generation and integration of this associated molecular and clinical data will provide an unprecedentedly rich set of 'big data' for basic research and translation. Integration of these data will provide new research opportunities, for example, through the identification of novel biomarkers or by enabling the identification of causal relationships in molecular biology through analysing complex datasets, but will also come with significant technical and bioethical challenges.

This year's meeting will focus on the theoretical foundations for the use of large datasets in healthcare. It will address the opportunities and challenges of 'big data' analytics and data mining, there will be sessions on infrastructure, pipelines and data sharing. We will also explore the applications of big data in basic research and genomics, and the translational opportunities in the clinical setting.

The meeting will bring together a wide group of researchers including computational biologists, computer scientists, epidemiologists and clinicians from academia and industry. Overall this interdisciplinary meeting aims to enable the research community to participate in and help drive the future development of "big data" research, as well as raise further awareness for this new and relevant research direction in the life sciences.

BIO-Europe 2017

Date(s): November 6-8. 2017

Location: Berlin, Germany

Website: https://ebdgroup.knect365.com/bioeurope/

Description:

BIO-Europe is the preeminent partnering conference for the life sciences, bringing together international decision makers from the biotechnology, pharmaceutical and financial sectors, offering networking opportunities, workshop and panel participation, a high profile exhibition, and private, prescheduled one-to-one meetings.

Delegates from all parts of the biotechnology value chain come to BIO-Europe to quickly identify, engage and enter into strategic relationships that drive their businesses successfully forward. Investment and collaboration opportunities developed in prior BIO-Europe conferences have produced many highly successful business partnerships.

BIO-Europe attracts a wide range of business leaders, including senior executives of leading biotech companies, business development teams from large and midsize pharmaceutical companies, investors and other industry experts

Bioinformatics in Ageing Research - Satellite Workshop

Date(s): September 01, 2017

Location(s): Halle, Germany

Website: https://sites.google.com/site/ageingbioinfo/ageingbioinfo2
http://www.medizin.uni-halle.de/index.php?id=3709

Description:

Population aging in the 19th to 21st centuries is unprecedented in human history. Although average life expectancy is still increasing, we will have to confront the same degenerative diseases as in the last century. Within the world wide health systems, the major goal will change from just treating isolated single diseases to an increase in healthspan. Ageing is the most important common risk factor and the basis for most of the age-related chronic diseases. In model systems, we have learned a great deal about the mechanisms of ageing and are able to modify health as well as lifespan by genetic, pharmacological or lifestyle interventions. It will be the goal in the future to translate such results into humans.

The purpose of this meeting is (1) to discuss aging as a modifiable risk factor of diseases, (2) to promote greater communication among the world-wide community of individuals engaged in ageing research and (3) to invite young students to join this field of research.

The congress will be the 8th international meeting on ageing in Halle (Saale) and will accompany the development of a focus on ageing research in Central-Germany. It will comprise invited talks and poster sessions. There will be no concurrent sessions.

BIT's 5th World Annual Congress of Geriatrics and Gerontology-2017

Date(s): December 04-06. 2017

Location(s): Fukuoka, Japan

Website: http://www.bitcongress.com/WCGG2017/default.asp

Description:

WCGG-2017 is an international event focusing on the core knowledge and major advances in the ever-expanding field of Geriatrics and Gerontology by attracting experts on a global scale and we will supply the most cutting-edge technology information to you. With the participation of outstanding international experts, we hope productive discussions would stimulate new creative ideas to translate new discoveries into better practice and application. We hope your participation would contribute to your professional development and relationships.

Highlights of the WCGG-2017:

- 100+ Oral Presentations Covering the Hot Topics and Cutting-Edge Technology in the Field of Geriatrics and Gerontology
- 30+ Posters Demonstrating
- Cutting-Edge Keynote Addresses by Prominent Leaders from All Over the World
- Creating a Harmonious Environment for Project Matchmaking and Promotion
- Opportunities to Visit Japan Natural and Humanistic Landscapes

British Geriatrics Society Autumn Meeting 2017

Date(s): November 22-24. 2017

Location(s): London, UK

Website: https://eu.eventscloud.com/ehome/200170574

Description:

The BGS Autumn meeting will cover the latest scientific research and the best clinical practice in care of older people. Our ageing population is stimulating extensive NHS service redesign to deal with the challenge of caring for larger numbers of older people both in and out of hospitals. This conference will cover core areas of interest to all specialists responsible for the health care of older people in the United Kingdom.

Plenary sessions on:

- Community geriatrics
- Commissioning Care Homes services
- Care Home Research
- Designing care homes
- Pain in Older People
- Movement Disorders - Parkinson's & Non Parkinson's
- Cardiac Disease & TAVI
- Research clinic
- Gastro Intestinal Disorders in Older People
- Biology of Ageing
- Depression
- Drugs and Prescribing
- Respiratory Issues in Older People
- Foot Disorders

British Geriatrics Society
Improving healthcare for older people

Date(s): April 26-28. 2017

Location(s): SAGE Gateshead / Newcastle, UK

Website: https://eu.eventscloud.com/ehome/200170575

Description:

The BGS Spring meeting will cover the latest scientific research and the best clinical practice in care of older people. Our ageing population is stimulating extensive NHS service redesign to deal with the challenge of caring for larger numbers of older people both in and out of hospitals.

Full day sessions on:

- Ethics and Law
- Dementia

Sessions on:

- Falls and Syncope
- Embedding CGA in other Specialties
- Digital Technology and Telehealth for older patients
- Causes of age-related illness
- Healthy Life Simulation
- Oral Hygiene in older people
- Improving Continence
- Hematology in the Older Person

Workshops on:

- Coroner's court
- Eyes and Ears workshop

British Society for Research on Aging 67th Annual Scientific Meeting

The 67th BSRA Annual Scientific Meeting

University of Exeter, 10th – 12th July 2017

Date(s): July 10-12. 2017

Location: Exeter. United Kingdom

Website: http://bsra.org.uk/bsra-2017-university-exeter/

Description:

The aim of this meeting is to show how the -omics technologies allow detailed dissection of ageing processes and age-related disease.

Topics include:

- Epigenetics: Epigenomic trajectories to health and disease, Epigenetic biomarkers of aging and applications, Epigenetic control of gene expression patterns in ageing yeast.
- Transcriptomics: Transcriptomics and ageing: from humans to lab models and back again
- Proteomics: Understanding age-related changes in redox signalling using proteomics
- Ageing mechanisms: Building haystacks and finding needles in the genomics of ageing, 'Senescence: from young to old and back again?
- Immune Ageing: How aging impacts the response to influenza
- Chromosomes and chromatin: Chromosome behavioural changes in old cells

Other events:

- Early career researcher (ECR) event on grant writing
- Public lecture by Prof Judith Campisi, The Buck Institute for Aging Research, USA
- Conferene dinner at Reed Hall, a stunning grade II listed building nestled in 300 acres of enchanting landscaped gardens.

Date(s): March 14-17. 2017

Location: Cancun. Mexico

Website: https://www.fusion-conferences.com/conference65.php

Description:

The interplay between cell death, cell stress and metabolism plays a crucial role in shaping normal turnover of tissues, in sensing of danger posed by pathogens or other damage and the immunological response that is mounted to response to them. At this conference we will discuss the basic biological principles that govern cell death, cell stress and metabolism. We will also cover how cellular stress and alterations in metabolism influence the cellular death programs such as apoptosis, necroptosis, ferroptosis and others.

Importantly, this conference aims to become the go-to forum at which the most current and up-to-date therapeutic avenues in the fields of cell death, cell stress and metabolism will be presented and discussed. We anticipate representation from researchers interested in cell death, cell stress and metabolism in both academia and the biotech/pharma industries who want to be on top of these interconnected fields and participate in an international meeting serving as platform for presentation and discussion of the most up-to-date preclinical and clinical work emerging from them.

Learning Objectives:

- To be on top of the field with the diversity of new mechanisms of cell death induction, in addition to apoptosis, which recently entered this field of research
- To understand the interplay between cell death, cell stress and metabolism
- To develop an understanding for where the treatment options are currently seen in these fields
- To learn what is presently being developed preclinically and what is already in clinical trials
- To develop a good sense for where the opportunities for the future lie, both with respect of mechanistic insight and treatment options for the various diseases affected by dysregulated cell death, cell stress and metabolism

Cell Symposium: Neuro-Immune Axis: Reciprocal Regulation in Development, Health and Disease

Date(s): September 17-19. 2017

Location: Sitges. Spain

Website: http://cell-symposia.com/neuroimmunology-2017/

Description:

The goal of this symposium is to explore the interface between the nervous and immune systems during development, homeostasis, and disease. The meeting will examine the mediators, mechanisms, and implications of neuro-immune crosstalk in the central and peripheral nervous systems. It will also cover emerging areas such as the neuronal regulation of peripheral immune function and the influence of the microbiota on the brain. We will bring together researchers from across the fields of neuroscience and immunology to facilitate discussion of exciting new concepts and developments in both fields.

Topics include:

- Neuroimmune mediators in development and homeostasis
- The Gut-Brain axis
- Blood brain barrier function and dysfunction
- Peripheral immunity, inflammation, and infection in regulation of the brain
- Neural control of peripheral immunity and inflammation

CiRA International Symposium: A Decade of Human iPSCs: from Bench to Bedside

Date(s): November 6-8. 2017

Location: Kyoto. Japan

Website: http://www.cira.kyoto-u.ac.jp/e/pressrelease/seminar/170614-100000.html

Description:

CiRA organizes an international symposium to promote the worldwide dissemination of its research results and to advance iPS cell research. We will hold the CiRA International Symposium on November 6-8, 2017, celebrating the 10th anniversary of the discovery of human iPS cells. The topics of the symposium range from basic research on pluripotency and cutting-edge technologies to novel applications of stem cells.

Session Topics:
- Understanding pluripotency
- Emerging Technologies
- Regenerative Medicine
- Disease Modelling and Drug Development
- Stem Cell Bank for Applications

CSH Asia: Precision Cancer Biology: From Targeted to Immune Therapies

Date(s): September 18-22. 2017

Location: Suzhou. China

Website: https://www.csh-asia.org/2017meetings/Flyer/flyer_cancer.pdf

Description:

The conference will include eight oral sessions and one poster session covering the latest findings across many topics in cancer biology. Many talks will be selected from the openly submitted abstracts on the basis of scientific merit and relevance. Social events throughout the conference provide ample opportunity for informal interactions.

Major topics:

- Tumor immunology and immunotherapy
- Cancer genomics and targeted therapy
- Cancer stem ceels
- Cancer pathways
- Tumor metastasis
- New technologies and large-scale cancer biology

CSH Asia: Stem Cells, Aging & Rejuvenation

Date(s): November 6-10, 2017

Location: Suzhou, China

Website: http://www.csh-asia.org/2017meetings/AGING.html

Description:

The conference will include eight oral sessions and one poster session covering the latest findings across many topics in aging relevant basic biomedical researches. Many talks will be selected from the openly submitted abstracts on the basis of scientific merit and relevance. Social events throughout the conference provide ample opportunity for informal interactions.

Major Topics:

- Geroscience
- Stem cells & aging
- Microbiota & aging
- Immune aging
- Brain aging
- Aging as causes to diseases
- Rejuvenation to prevent or cure diseases

Genome Engineering: The CRISPR-Cas Revolution

July 21 - 24, 2017

Abstract Deadline: May 25, 2017

Organizers:

Jennifer Doudna, University of California, Berkeley/HHMI
Maria Jasin, Memorial Sloan Kettering Cancer Center
Stanley Lei Qi, Stanford University
Jonathan Weissman, UCSF/HHMI

Date(s): July 21-24, 2017

Location: Cold Spring Harbor. New York

Website: https://meetings.cshl.edu/meetings.aspx?meet=CRISPR&year=17

Description:

The specific goal for this meeting is to foster fruitful and creative interactions between researchers interested in applying these systems to genome engineering and related advances in a wide variety of organisms, together with scientists studying the basic biology of CRISPR-Cas and related bacterial defense systems. This meeting will consist of six oral sessions plus one poster session; speakers will be invited as well as selected from submitted abstracts.

Topics:

- CRISPR
- CRISPR Medicine
- Screens and Technology
- Cancer and Stem Cells
- Repairing DNA Breaks
- Gene Drive and Model Organisms

Design 4 Health

Date(s): 4-7 December 2017

Location(s): MCG Melbourne, Australia

Website: https://www.swinburne.edu.au/events/departments/health-arts-design/2017/12/design-4-health-2017.php

Description:

Design4Health is a biennial conference that brings together designers, health professionals and creative practitioners with researchers, clinicians, policy makers and users from across the world to discuss, disseminate and test their approaches and methods in the ever-changing nexus between design and health.

This year's theme and sub themes are:

- Technology and health
- Environment and health
- Future self and ageing
- Innovations in practice, processes and systems

Also welcomed are the papers focused on methods or education and training that cross-link into one or more of the themes listed above.

EMBL Conference: Cancer Genomics

Date(s): November 5-8. 2017

Location: Heidelberg, Germany

Website: https://www.embl.de/training/events/2017/CAN17-01/

Description:

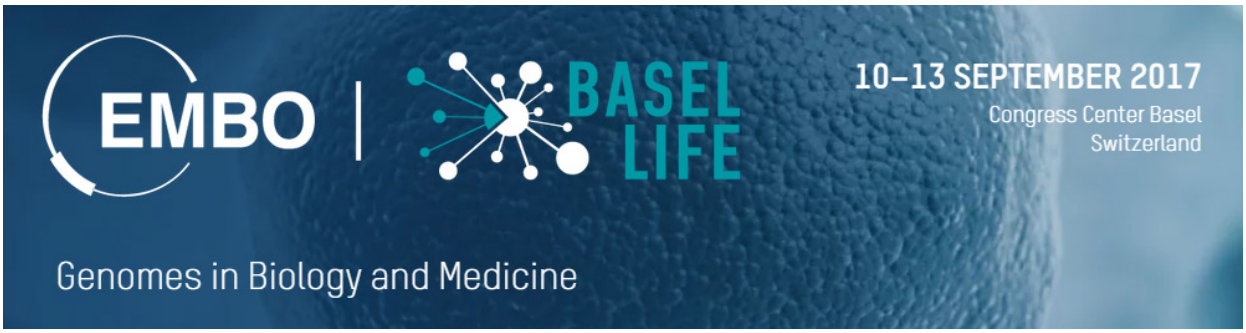
This conference will provide an opportunity to learn about and keep up to date with the rapidly progressing area of cancer genomics. It will cover presentations from cancer genome projects, the areas of cancer functional genomics, systems biology, cancer immunogenomics and epigenomics, cancer mouse models and the translation and clinical impact of scientific results obtained. The meeting will bring together leading scientists from across these areas for a unique opportunity to interact and stimulate further integration of these efforts.

European Cancer Genomics research is particularly strong in the Heidelberg area, with three International Cancer Genome Consortium (www.icgc.org) projects being currently pursued with significant participation from Heidelberg institutions, including EMBL. As in the 2015 meeting, a large number of renowned speakers will be invited, with a strong representation of overseas speakers. The atmosphere at the conference will make this an exceptional event with cutting edge science, extensive scientific discussions and ample possibilities for meetings between and after sessions to facilitate in-depth discussions and new collaborations.

Topics

- Structural genomics and cancer
- Systems biology and drivers of cancer
- Cancer immunogenomics
- Cancer genome and epigenome
- Cancer genome medicine

EMBO/Basel Life Innovation Forums



Date(s): September 10-13. 2017

Location: Basel. Switzerland

Website: https://www.basellife.org/embo

Description:

The conference will bring the best in fundamental research to a wide audience, ranging from leading experts in their fields to young researchers at the beginning of their careers, and to students. It aims to foster a fruitful exchange between researchers from academia, clinics, pharmaceutical and biotech industry, and it will promote excellence in the life sciences to a wide audience.

EMBO Conference: Fndocytic Trafficking and Signalling in Health and Disease

Date(s): September 10-15, 2017

Location: Serock, Poland

Website: http://meetings.embo.org/event/17-endocytic

Description:

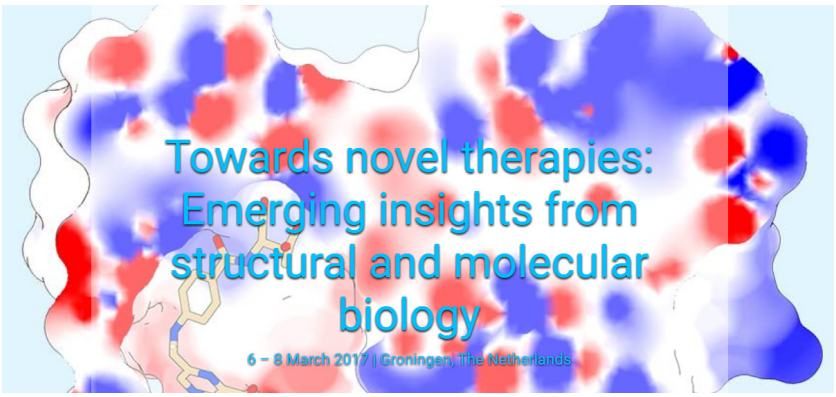
The field of endocytosis gathers researchers investigating endocytic membrane trafficking at multiple levels, from single molecules to organisms. Endocytosis research now extends beyond cell biology and becomes integrated into physiology, developmental biology or molecular medicine but also into physics of biological processes and systems biology. Therefore, the main objective of this EMBO Conference is to present the current diversity of endocytosis research, embracing new conceptual and technological developments. The particular emphasis will be placed on studies integrating endocytic mechanism into the physiology of cells, tissues or organisms, and into disease processes. At the same time, physical and structural approaches to study molecular basis of endocytic trafficking will be represented.

For the conference participation, a limited number of travel grants, in part funded by EMBO, will be available for PhD students and post-docs,. To be eligible for travel grants, you have to be formally registered and accepted for the meeting, i.e. travel grant applications must be filed after the payment deadline of June 20, 2017. To apply for travel grants, please send an mail to embo.endocytosis@iimcb.gov.pl, stating the reasons for applying and including a CV.

The travel grants will be allocated on the basis of the quality of the abstract submitted, with priority given to scientists of any nationality working in laboratories in: Croatia, Czech Republic, Estonia, Greece, Hungary, Malta, Lithuania, Poland, Portugal, Slovakia, Slovenia, Spain and Turkey. A maximum of €500 per travel grant can be awarded but depending on the number of applicants, the amount of the travel grant may be lowered to include more participants.

In addition, there will be at least two travel grants exclusively for participants of any nationality working in laboratories in India, Singapore and Taiwan. A maximum of €1,000 per travel grant can be awarded but depending on the number of applicants, the amount of the travel grant may be lowered to include more participants.

EMBO:Towards Novel Therapies: Emerging Insights from Structural and Molecular Biology



Date(s): March 6-8. 2017

Location: Groningen. The Netherlands

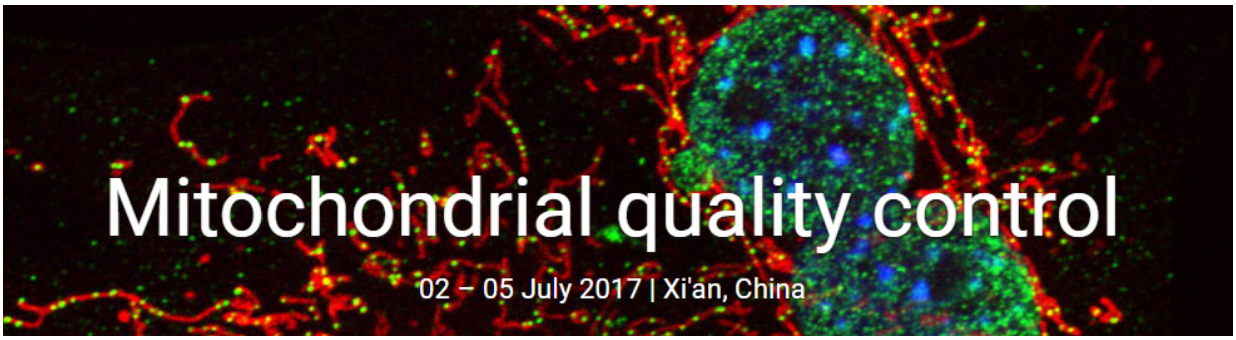
Website: http://events.embo.org/17-structural-biol/

Description:

Molecular and structural biology are currently witnessing revolutionary developments, which are providing unprecedented insight in the mechanisms of processes catalyzed by biomacromolecules. The fundamental progress is tremendously exciting, and at the same time offers an ever more sophisticated platform to combat human diseases. This Conference will focus on three areas where progress has been spectacular, each intimately related to human disease: structural neurobiology, bacterial machines and infectious diseases, and regulation and cancer. The conference will provide examples of the use of structural knowledge to develop compounds of great therapeutic promise, and highlight how compounds designed for potential therapeutic use have tremendous value as handles to study fundamental mechanisms of action. By bringing together scientists from different backgrounds (from Academia and industry) who share a profound interest in structural and molecular biology we aim to create a setting in which the links between different disciplines will be emphasized. In addition, students and postdocs will see the similarities, differences and interactions between industry and academia, which may help in their future career choices.

A limited number of travel grants are available for eligible participants. Applicants do not need to apply separately for travel grants for this event. Selection of awardees is handled directly by the organizer who will notify all eligible participants. More information is available at EMBO Travel Grants' page.

EMBO Workshop: Mitochondrial Quality Control



Date(s): July 2-5. 2017

Location: Xi'an. China

Website: http://meetings.embo.org/event/17-mito-quality

Description:

The upcoming EMBO Workshop thus covers the following exciting topics:

- Mitophagy;
- Ubiquitin and mitochondrial quality control;
- Mitochondrial proteases and stress responses;
- Mitochondrial biogenesis;
- Mitochondrial dynamics, quality control and disease.

Mitochondria are essential organelles for many fundamental cellular processes, including energy production, fatty acid â-oxidation, metabolite synthesis, iron and calcium homeostasis, and programmed cell death. Mitochondrial activities decline with the progression of aging and a dysfunction of mitochondria is associated with many prevalent diseases, such as metabolic disorders, cancer and neurodegenerative disorders. It is therefore of pivotal importance for the maintenance of cell function, tissue homeostasis and organismal survival to monitor the functional status of mitochondria and ensure removal of damaged mitochondria.

Mitochondrial quality control and the surveillance of the functionality of mitochondria occur at the level of individual proteins, at a sub-organellar or organellar level and at a cellular level. These processes are intimately linked to the dynamic behavior of mitochondria, which undergo cycles of fusion and fission and communicate in multiple ways with their cellular environment. How these processes are orchestrated and how mitochondrial events are integrated with other cellular activities and cell fate determinations became a major focus of mitochondrial and biomedical research.

European Cognitive Aging Society, Aging and Cognition Conference

Date(s): 20-22 April 2017

Location(s): Zurich, Switzerland

Website: http://eucas.org/conference/a-c-2017/

Description:

The 4th International Conference Aging & Cognition and the 2nd Conference of the European Cognitive Ageing Society (EUCAS) is organized by the University Research Priority Program Dynamics of Healthy Aging and will take place in Zurich from 20th-22nd April 2017.

The conference series „Aging & Cognition" aims to stimulate research in the domain of cognitive aging and related research fields in Europe by bringing together European and non-European scientists. Cognition is defined in the broadest sense, including sensory, cognitive, motor and emotional aspects, as well as human and animal studies. Whereas cognition and cognitive neuroscience for healthy aging are the main focus of the conference series, an additional focus targets interventions aimed at influencing age-related cognitive deficits.

The program for the Aging & Cognition 2017 conference consist of both plenary sessions involving 4-5 talks and poster sessions. There are no parallel sessions.

Eukaryotic DNA Replication & Genome Maintenance

September 5 - 9, 2017

Abstract Deadline: June 16, 2017

Organizers:

Karlene Cimprich, Stanford University
Anne Donaldson, University of Aberdeen, UK
Anindya Dutta, University of Virginia

Date(s): September 5-9. 2017

Location: Cold Spring Harbor. New York

Website: https://meetings.cshl.edu/meetings.aspx?meet=DNAREP&year=17

Description:

It is a broad-based meeting, and abstracts are welcomed on all aspects of replication of DNA and genomic instability in eukaryotes. The format of the meeting will include morning and afternoon/ evening sessions consisting of short talks, principally on unpublished work. In addition, there will be at least two poster sessions.

The organizers are eager to have as many young people as possible attend since they are likely to benefit most from this meeting. They have applied for funds from government and industry to partially support graduate students and postdocs. Preference will be given to those who submit abstracts.

Topics:

- Genome Instability and Mutagenesis
- Replication of Telomeres and Links to Human Disease
- Chromatin & Replication Timing
- Replication Initiation at Origins
- Coordinating the Cell Cycle & DNA Replication; Other Initiation Systems
- Replisomes and Fork Progression
- Fork Stalling and Replication Stress
- Response of Replication to Transcription and DNA Damage

FASEB Science Research Conference for Autoimmunity

Date(s): July 9-14. 2017

Location: Saxtons River, Vermont

Website: http://www.faseb.org/src/micro/Site/Auto/home.aspx

Description:

The FASEB Science Research Conference for Autoimmunity has an uninterrupted tradition of over 20 years and offers a broad overview of recent advances in the field of autoimmunity in a highly interactive environment.

Understanding immune tolerance and its breakdown is necessary to treat autoimmune diseases such as lupus, multiple sclerosis, uveitis, type 1 diabetes, arthritis, inflammatory bowel disease, and many others. We bring together basic scientists with clinicians and industry experts to present and discuss new insights into the triggers, pathogenesis and therapy of chronic inflammatory and autoimmune disease.

Eight major sessions will cover a broad range of topics in development, pathogenesis and therapy of autoimmune disease, starting with the effects of genetics and environment, through the role of innate and adaptive immune elements as well as the tissue itself, the role of commensal microbiome and metabolism, and finally translational research and clinical approaches. Each thematic session will feature 4 invited speakers and two talks selected from submitted abstracts.

Participants have ample opportunity for interaction and discussion. Spontaneous mingling of junior and established scientists will be strengthened by meet-the-speaker sessions that allow discussions of both career issues and science. The intimate atmosphere, strong emphasis on communication and discussion, and a really close interaction between senior and junior scientists makes this conference unique and memorable to participants.

Federation of European Biochemical Societies 42nd Congress: From Molecules to Cells and Back

Date(s): September 10-14. 2017

Location: Jerusalem. Israel

Website: https://2017.febscongress.org/

Description:

The FEBS Congress is one of the most visible activities of FEBS. As one of the largest bio-congresses in Europe, featuring up to approx. 2500 attendees, the Congress provides a platform for international scientific exchange and showcases the newest developments in biochemistry, molecular biology and related areas. The Congress comprises plenary lectures presented by outstanding scientists including Nobel Laureates, a range of subject-specific symposia to provide the latest updates in different areas of bioscience research, extensive poster communications, and a variety of interesting workshops and other activities on related topics. The Congress is held annually in countries that have a Constituent Society of FEBS, moving to a different location each year.

The 2017 FEBS Congress, entitled «From molecules to cells and back», will cover the entire spectrum of molecular life sciences with symposia that include:

- Cancer biology
- Chromatin structure and epigenetic modifications
- Molecular neuroscience
- Mechanisms for protein homeostasis
- Medicinal chemistry
- Metabolomics and signaling
- Molecular machines in action
- Protein degradation
- Signaling across membranes: receptors, channels and transporters
- Systems biology
- Structural computational biology

FMBO Workshop: Mitochondria, Apoptosis and Cancer

Date(s): September 16-18. 2017

Location: Bled. Slovenia

Website: http://meetings.embo.org/event/17-mito-cancer

Description:

Mitochondria are cells' energy centers and a central point where a number of signaling pathways leading to cell death converge, leading to activation of apoptotic machinery and impairment of cells' bioenergetic functions. Moreover, cellular homeostasis is regulated through mitophagy, the specific elimination of mitochondria through autophagy. Since both cellular metabolism and apoptotic pathways are compromised in many cancers, mitochondria-targeting drugs are considered as viable alternatives to eradicate chemotherapy-resistant cancer cells, since they directly initiate mitochondrial perturbations independently of upstream signaling events. This will provide novel insights into the control of mitochondrial functions and their deregulation in human cancers that has a major potential for development of innovative cancer therapeutics.

The overall aim of this EMBO Workshop is to bring together world leaders in several areas of biology and medicine, focusing on mitochondria and cancer from the point of view of cell death, the most efficient way to combat cancer.

A limited number of travel grants are available for eligible participants. Applicants do not need to apply separately for travel grants for this event but should indicate on the registration form if they wish to be considered for a travel grant. Selection of awardees is handled directly by the organizer who will notify all eligible participants.

Future Investigators of Regenerative Medicine`

FUTURE INVESTIGATORS OF REGENERATIVE MEDICINE

25th - 28th September 2017, Hotel Cap Roig, Girona, Spain

Date(s): September 25-28. 2017

Location: Girona. Spain

Website: https://www.firmsymposium.com/

Description:

The Future Investigators of Regenerative Medicine (FIRM) is a society established by Alex Lomas, Hareklea Markides, Jim Rose and David Smith of the EPSRC Doctoral Training Centre (DTC) in Regenerative Medicine based between Loughborough, Keele and Nottingham University. Recognising the ever growing regenerative medicine community, they have decided to bring young researchers from European institutions and further afield together. With this, they established FIRM PhD Symposium.

This is a symposium organised by young researchers for young researchers. One of the main aims of the symposium is to encourage young researchers such as ourselves get to know each other on a friendly and informal level in this way establishing an international network from very early on in our careers. The FIRM Symposium will showcase the latest advances in regenerative medicine research undertaken Worldwide and create a platform on which to build collaboration.

FIRM 2017 will cover all aspects of the diverse field of Regenerative Medicine. Topics include applied research in basic biology, cell and gene therapies, tissue engineering, biomaterials, enabling technologies and commercialisation. Having a mixture of UK-based and international delegates from across the world, FIRM aims to bring early career researchers together from a range of scientific disciplines to discuss their scientific projects in a relaxed and friendly atmosphere. Our keynote presentations include a number of world renowned experts working in both academia and industry.

Gordon Research Conference: Biology of Aging

Biology of Aging
Gordon Research Conference

Integrative Biology of Aging: New Insights from Molecules to Systems

July 9 - 14, 2017

Date(s): July 9-14. 2017

Location: Les Diablcrcts. Switzerland

Website: https://www.grc.org/biology-of-aging-conference/2017/

Description:

The program has been developed around the theme of «Integrative Biology of Aging: New Insights from Molecules to Systems». Recent studies from diverse model organisms, such as worms, flies, and mice, have demonstrated that systemic interplay between multiple tissues and organs regulates aging and longevity. Additionally, subcellular systems such as organelles and stress pathways can often communicate intra- and intercellularly. To dissect such complex systemic regulation of aging and longevity, significant progress has been made in identifying control networks and basic architectures, but how communication is achieved at different levels of organization and assembled into larger architectures is only beginning to be explored. The dysfunction of critical components in these control networks contributes to the induction of the cellular and molecular hallmarks of aging, including mitochondrial dysfunction, epigenetic alterations, chronic inflammation, circadian rhythm dysfunction, genomic instability, loss of proteostasis, and others, and underlies diminished healthspan and lifespan. In the 2017 GRC, our major objective is to capture this new wave of the «integrative biology of aging», and further stimulate our thoughts and efforts to translate our knowledge into the development of effective interventions to achieve «productive aging», making the later years of our lives as healthy and productive as possible. The major objective of the GRS is to explore these themes in a supportive setting that particularly focuses on the needs of graduate students and postdoctoral trainees, and prepare them for a full and productive participation in the GRC to follow.

Cell Growth and Proliferation
Gordon Research Conference

Mechanisms of Cell Division with Special Emphasis on Cancer

July 9 - 14, 2017

Date(s): July 9-14. 2017

Location: West Dover. Vermont

Website: https://www.grc.org/cell-growth-and-proliferation-conference/2017/

Description:

Proliferation of cells represents one of the most fundamental biological processes. The core cell cycle machinery that drives cell proliferation has been conserved from yeast to humans. Proper spatial and temporal control of cell division is essential to allow normal organismal development, and to maintain physiological homeostasis. Abnormal and uncontrolled cell proliferation leads to several pathological states, most notably cancer. Despite decades of research, our understanding of mechanisms governing cell proliferation in normal tissues and in cancer remains very incomplete. The 2017 Gordon Research Conference on Cell Growth and Proliferation will provide a venue to present the most recent discoveries in the field. Leaders in the field will discuss their unpublished work involving cutting-edge approaches and topics, such as studies of normal stem cells and cancer «stem cell-like» cells, analyses of cell populations at a single cell resolution, elucidating the links between cell proliferation and cell metabolism, as well as the roles of non-coding RNAs and epigenetic modifications in regulating cell proliferation. The Conference will focus on abnormal cell proliferation in cancer. Speakers will discuss a range of topics from the use of mouse cancer models to cell cycle-focused targeted therapies for cancer patients. The talks will also cover other aspects of cancer cell proliferation, including aberrant chromosome separation and aneuploidy, proteolysis and cancer, as well as DNA damage and cancer. Because of the emphasis on novelty, the Chairs plan to select approximately half of the talks from submitted abstracts. Hence, the Chairs invite Principal Investigators and trainees from academia and industry to register and submit their most recent work. We also encourage students and post-docs to attend the associated Gordon Research Seminar (GRS) that will immediately precede the research conference. This seminar will offer a great opportunity for networking with other trainees and with Principal Investigators, and to give oral presentations.

Glial Biology: Functional Interactions Among Glia and Neurons

Gordon Research Conference

Neuron-Glia Interactions in Health and Disease

March 5 - 10, 2017

Date(s): March 5-10. 2017

Location: Ventura, California

Website: https://www.grc.org/glial-biology-functional-interactions-among-glia-and-neurons-conference/2017/

Description:

The goal of this meeting is to provide an active forum for exchange of results in the rapidly advancing fields of glial biology and neuron-glia interactions. Far more active than once thought, glial cells are critical participants in every major aspect of brain development, function, and disease. The biology of astrocytes, microglia, and other glial cells in physiology and pathology will be emphasized. Leaders in the field will present cutting edge research and discuss critical gaps in our knowledge. The spirit of this conference will be constructive, collaborative and forward-looking, with an emphasis on emerging research, tools and technologies. In conjunction with the affiliated Gordon Research Seminar (GRS), trainees will have many opportunities to present their work, network, and share new ideas. The topics addressed in this meeting have direct relevance for human health, as they seek to clarify key mechanisms underlying nervous system injury and disease.The program is divided into nine sessions covering the role of glia in brain development, plasticity, and homeostasis; modulation of synaptic function and dysfunction; metabolic control and neurovascular coupling; contribution to disease and repair; and emerging technologies for defining glial function. Poster sessions will permit all participants to contribute to these topics.

Stem Cells and Cancer
Gordon Research Conference

Mechanisms of Stem Cell Aging, Cancer Initiation Progression

February 12 - 17, 2017

Date(s): February 12-17

Location(s): Lucca, Italy

Website: https://www.grc.org/stem-cells-and-cancer-conference/2017/

Description:

The sixth Gordon Conference on Stem Cells and Cancer will focus on how stem cell aging influences the initiation and progression of cancer. Aging leads to progressive impairments in stem cell functionality. There is increasing evidence that this leads to initiation and clonal selection of stem cells harboring genetic and epigenetic instability. The meeting will explore stem cell intrinsic factors that contribute to the initiation and selection of aberrant stem cell clones, but also the influence of stem cell extrinsic factors including alteration in the stem cell niche, the systemic blood circulatory environment, metabolism, and proliferative competition. There is tremendous interest in the aberrant reactivation of pathways that govern development and stem cell plasticity. Session on basic principles aim to improve our understanding of carcinogenesis across different organ systems including the hematopoietic system, skin, breast, intestine, brain, pancreas, and others. A therapeutic aim will be to target aging related mechanisms driving the clonal dominance of aberrant stem cells and tumor initiation as well as the plasticity and selection of sub-clones in cancers. There is also a GRS associated with the conference, allowing students and postdoctoral fellows to explore aging induced differences in signaling in cancer stem cells and normal stem cells and how organismal and tissue aging may influence this transition.

Oxidative Stress and Disease
Gordon Research Conference

Redox Biology in Disease and Translational Medicine

March 19 - 24, 2017

Date(s): March 19-24. 2017

Location: Lucca (Barga). Italy

Website: https://www.grc.org/oxidative-stress-and-disease-conference%2F2017%2Fdefault.aspx

Description:

The theme for 2017 Oxidative Stress and Disease GRC is «Redox Biology in Disease and Translational Medicine». Its focus is on questions and approaches at the forefront of the field of redox biology with particular emphasis on cutting edge basic research with high translational potential to eliminate disease, improve quality of life and promote healthy longevity. A special effort has been made to highlight important research areas not recently emphasized at other meetings. Topics of emphasis at the 2017 meeting will include: (1) recent insights into ROS/RNS signaling and its translational potential, (2) advances in our understanding of proteostasis and mitochondrial quality in longevity, (3) the role of ROS/RNS in human health, inflammation and disease progression, and (4) initial strategies currently being applied for translation of basic redox biology research discoveries into the clinical realm.

This GRC will be held in conjunction with the «Oxidative Stress and Disease (GRS)» Gordon Research Seminar (GRS). Those interested in attending both meetings must submit an application for the GRS in addition to an application for the GRC

Gordon Research Conference: Stress Proteins in Growth, Development & Disease

Stress Proteins in Growth, Development and Disease
Gordon Research Conference

From Protein Folding to Misfolding Disorders: The Importance of Maintaining Proteostasis over a Lifetime

July 9 - 14, 2017

Date(s): July 9-14. 2017

Location(s): Newry, Maine, USA

Website: https://www.grc.org/stress-proteins-in-growth-development-and-disease-conference/2017/

Description:

The Gordon Conference on «Stress Proteins in Growth, Development and Disease» will highlight the most recent advances in stress biology and biomedical research of stress-related diseases. Special emphasis is on a multitude of model systems that are being used to investigate stress sensing, signaling and regulation of gene expression, including epigenetic mechanisms. Cutting-edge work on spatial quality control and management of protein misfolding at the ribosome will be highlighted. Connections between compartmental protein folding status and disease will be explored. The Conference's collegial and scholarly environment encourages vigorous discussions of exciting developments related to several areas of stress research. The meeting also provides excellent opportunities for graduate students, postdoctoral fellows and junior group leaders to present their work either in posters or short talks. We will continue recent meetings innovations of poster teaser talks and career tables, and will be adding for the first time a Power Hour focused on women investigators in the field. The formal scientific program, limited attendance and organized but informal opportunities for interaction make this meeting a preeminent conference promoting deeper understanding of the versatile roles of stress proteins in human health, aging and disease.

IFA Global Think Tank on Ageing

Date(s): April 24-25

Location(s): Copenhagen, Denmark

Website: http://www.ifa-copenhagen-summit.com

Description:

The International Federation on Ageing (IFA) is the global point of connection of experts and expertise in the field of ageing and achieves this through the development of national, regional and international information platforms that help to influence and shape effective age-related policy.

The purpose of the connected events of the IFA Global Think Tank on Ageing (as well as the IFA Copenhagen Summit) is to gain a deeper understanding of potential cognitive reserve models and their benefits.

Finding initiatives that will maintain cognitive function and reduce cognitive decline in older adults is imperative. Peer-reviewed literature generally supports maintaining and increasing cognitive reserve as effective buffers against cognitive ageing. Nonetheless, an increasing list of questions remain unanswered, such as:

- What gaps in knowledge and practice must be addressed to render maintaining and increasing cognitive reserve a viable policy strategy?
- Why should stakeholders, including governments, funding bodies, and caregivers, maintain and increase cognitive reserve?
- How would a successful cognitive reserve model look, and what support would it require?
- What challenges must be overcome to implement a cognitive reserve model?
- What are the global, societal, and individual implications of a cognitive reserve model?

The Think Tank on Ageing is an invitation-only meeting.

Immuno-Metabolic Mechanisms of Atherosclerosis Conference

Novel critical mediators and therapeutic targets

11 Mar 2017 - 14 Mar 2017

Cancun, Mexico

Date(s): March 11-14. 2017

Location: Cancun. Mexico

Website: https://www.fusion-conferences.com/conference54.php

Description:

The goal of this meeting is to provide attendees with a comprehensive overview of current research on atherosclerosis with a focus on the latest and most exciting developments in the immuno-metabolic mechanisms that govern disease initiation and progression. There is little doubt that the next most exciting therapy to combat cardiovascular disease will be based on targeting a biological pathway that will have been discussed during this conference.

Seven sessions are planned and will highlight the following major research areas: vascular cell activation, monocyte/macrophage identity and activation by lipoproteins, microRNAs and immuno-metabolism, innate immune mechanisms involving inflammasome activation, NETosis, necroptosis and their interplay with the cell metabolic environment, pro- and anti-atherogenic mechanisms operated by selective subsets of T and B lymphocytes, adipose tissue inflammation, microbiome and immunometabolism. We will also review the pathways that govern inflammation resolution, their regulation by bioactive lipids, and how they can be harnessed to develop new therapeutic strategies to combat the disease. Finally, we will discuss existing and validated targets that are now in late-phase clinical trials.This conference will bring together a restricted but high-level group of scientists from different disciplines and participants from all career levels enabling thorough discussions of the latest research between established and young investigators and trainees, and cross-fertilization among scientists from a variety of backgrounds.

18th International Conference on Alzheimer's Drug Discovery

Date(s): September 11-12. 2017

Location: Jersey City. New Jersey

Website: https://www.alzdiscovery.org/events/event/18th-international-conference-on-alzheimers-drug-discovery

Description:

This annual conference brings together academic and industry scientists intent on accelerating the development of innovative treatments for Alzheimer's disease and related dementias. The ADDF's funded investigators and leading scientists in the field present their current research progress and stimulate discussion. The conference offers ample opportunity for collaboration and partnering.

The 2017 program is organized into four sessions.

- Session 1: Neuroinflammation
  Talks will highlight unique neuroinflammation targets and repurposing opportunities relevant to inflammation.

- Session 2: Neuroprotection And Neural Regeneration
  Talks will highlight therapeutic approaches targeting neurotrophic factors or hormones that promote neuronal survival, strategies to convert neural stem cells into mature neurons, and approaches to prevent neuronal death.

- Session 3: Epigenetics And Cognitive Enhancing
  Talks will highlight advances in epigenetic therapeutics, comparative effectiveness research, and drug repurposing in treating or preventing cognitive symptoms associated with Alzheimer's, mild cognitive impairment, and aging.

- Session 4: Misfolded Proteins And Proteostasis
  Talks will highlight drug discovery programs pursuing innovative routes towards solving the problem of misfolded proteins and protein accumulation, along with biomarker programs under development.

Keystone Symposia: Aging and Mechanisms of Aging-Related Disease (E2)

Date(s): May 15-19

Location(s): Yokohama, Japan

Website: https://www.keystonesymposia.org/17E2

Description:

Populations are aging rapidly worldwide, particularly in Asia, driving a strong interest in aging/longevity research. This Keystone Symposia meeting will capture the cutting-edge front of this exciting field of science, covering essential aspects of aging/longevity research, including critical signaling pathways and regulators, inter-tissue communication, stem cells, stress and damage responses, cellular senescence, physiological rhythms, human genetics and mental well-being (happiness). Because aging is a systemic phenomenon, it is important to address various layers of the aging/longevity-controlling hierarchy, particularly focusing on metabolic regulation, including mitochondria, NAD+, oxidative stress, inflammation, protein homeostasis, autophagy and many other age-associated pathophysiologies. The outcome of these studies needs to be translated to resolve social and economic issues caused by rapidly aging societies. Novel therapeutic and preventive interventions have been explored and developed as a growing attempt to meet the unmet needs of our aging societies, and these new aspects of aging/longevity research and the gaps in knowledge between the basic science and practical applications will also be covered in the meeting. There is a growing body of evidence that our modern lifestyle, such as the heavy use of blue light in smart phones and tablet computers, affects physiological rhythms and metabolism, promoting age-associated diseases such as obesity, diabetes, cancer and depression. Therefore, it is now time to think differently about what we can do to deal with all these problems in light of recent progress in this exciting field of science.

Keystone symposia: Cancer Immunotherapy

Date(s): March 19-23. 2017

Location: Whistler. Canada

Website: http://www.keystonesymposia.org/18C5

Description:

By 2025, most patients with cancer will receive immunotherapy as part of their treatment regimen. This symposium will cover the most critical topics integral to this vision: How can we integrate, sequence or combine immunotherapy with standard-of-care cytotoxic therapy, radiotherapy and targeted therapies? Which preclinical models are best predictive of combination approaches? How do we combine immune agonists as well as molecules inhibiting immune-suppressive pathways with checkpoint inhibitors? What are the rational combinations for cancer vaccines and viro-therapy? Which combinatorial approaches could prevent or treat adaptive mechanisms of resistance? Most immunotherapies are being developed in isolation, or being tested as single agents in preclinical models or in clinical studies. This conference helps to address the gaps in knowledge of how and when to combine therapies, and how to integrate immunotherapy into current standard-of-care or novel targeted therapy approaches – both preclinical and clinical. Overall, the objectives of this meeting are to: 1) Elucidate rational combinations for immunotherapy; 2) Discuss preclinical and other models to inform combinatorial approaches; 3) Understand the relevance for biomarker approaches; and 4) Provide insights into the latest preclinical and clinical data for immunotherapy combinations.

Keystone Symposium: Engineered Cells and Tissues as Platforms for Discovery and Therapy

Date(s): March 9-12. 2017

Location: Boston. Massachusetts

Website: http://www.keystonesymposia.org/index.cfm?e=Web.Meeting.Summary&meetingid=1484&subTab=summary

Description:

Tissue engineering, cell therapies and regenerative medicine have witnessed accelerated progress over the past decade. Fueled by fundamental discoveries in iPS, progenitor, and developmental cell biology, cells are now used as building blocks to create model systems, as testing platforms for drug interventions and as active therapeutics. High-throughput production of various types of “microtissues” or “organoids” is making increasing contributions to our understanding of human development, disease and repair. This Keystone Symposia meeting will highlight these rapidly emerging cell-based tools for fundamental and applied discovery. Culture systems ranging from simple cell cluster organoids, to highly advanced cell-electronic composites, will be discussed. In addition, the encouraging progress that is being made in cell-based therapies across a range of organs and diseases will be featured. The goal of this meeting is to provide a state-of-the-art review of both pluripotent and differentiated cells as tools for discovery and therapy. A broad range of cell types and therapeutic areas will be included.

Keystone Symposium: Tumor Metabolism: Mechanisms and Targets

Date(s): March 5-9. 2017

Location: Whistler. Canada

Website: http://www.keystonesymposia.org/17X3

Description:

This conference is on the rapidly moving field of tumor metabolism and its implications in cancer development, progression and therapy. Experts from distinct fields of research will be brought together to present their latest discoveries on tumor metabolism, which is an inherently interdisciplinary field. Defining the diversity of metabolic strategies employed by cancer cells and how the genetic events underlying different types of cancer, as well as the tumor microenvironment, influence these metabolic properties is a major goal of this meeting. In addition, a combination of basic, translational and clinical studies will be presented, with the goal of identifying promising avenues in tumor metabolism that impact our understanding, diagnosis and treatment of cancer. In addition to a stellar line up of invited speakers, short talks and poster presentations will provide opportunities for researchers at all levels to discuss their most current work in this field. This meeting provides an excellent opportunity to share knowledge and methodology in tumor metabolism research in a collegial and social atmosphere.

Date(s): March 13-16. 2017

Location: Amsterdam. The Netherlands

Website: https://www.eacr.org/conference/precisionmedicine2017/scientific-programme

Description:

This conference is the second on this topic co-organised by the EACR and OECI. The conference will update you on advances in personalised cancer medicine, focusing on targeted and immunological therapeutic approaches. It will cover the challenges of tumour heterogeneity, drug resistance and the influence of the tumour microenvironment.

The programme will emphasise new in vitro and in vivo experimental models capturing the complexity of human tumours. New therapeutic targets will be discussed, including those from the metabolome and microenvironment. We will also give attention to how advances coming from the laboratory are being implemented in the clinic.

The programme includes plenary lectures and dedicated poster sessions, providing an excellent forum to share new data and to network with colleagues. Indeed, this conference will be limited to 120 participants, and speakers are invited to stay for the duration of the conference. There will be ample opportunity for networking and interaction, including a meet-the-speaker round table session.

MENA Geriatrics Summit

Date(s): November 2-3, 2017

Location: Dubai. United Arab Emirates

Website: http://geriatricssummit.org/

Description:

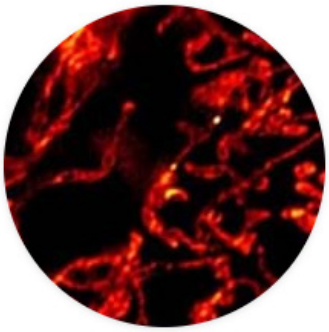
On behalf of the scientific and organizing committees, it is my great pleasure as the Chairperson, to welcome you all to attend and participate in MENA Geriatric Summit 2017, which is hosted by the Dubai Health Authority. The event will take place on 2nd - 3rd November 2017 in Dubai.

As the region's healthcare delivery improves, mortality numbers are dropping and there is an increasing ageing population that we as healthcare professionals must take care of. This event will be an intensive and comprehensive review of the most important changes in Elderly Healthcare and Geriatric medicine.

The objective is to bring together Geriatricians, Family Physicians, Internists, General Practitioners, Cardiologists, Neurologists, Ophthalmologists, ENT physicians, Oncologists, Medical residents Nurses, Physiotherapists, Paramedics, Health care providers, academicians and other specialists to exchange ideas and knowledge between the different disciplines.

The scientific program will showcase new developments and share international views on different topics in elderly care witch will cover the Healthy Aging, Nutrition for the aging, Geronto-psychiatry, Sensory, Neuro disorders of aging, NCDs, Anti-aging medicine and Chronic disease,

This program is credited by the Dubai Health Authority's continuous Medical Education Department and will award participants CME credits



Mitochondria in Health and Disease

Thursday, November 2, 2017

The New York Academy of Sciences, 7 World Trade Center, 250 Greenwich St Fl 40, New York, USA

Date(s): November 2. 2017

Location: New York, USA

Website: https://www.nyas.org/events/2017/mitochondria-in-health-and-disease/

Description:

The Mitochondria in Health and Disease, organized by the The New York Academy of Sciences will take place on 2nd November 2017 at the The New York Academy of Sciences in New York, United States Of America.

Mitochondria in Health and Disease will capitalize on growing excitement surrounding the field of mitochondrial function in physiology and medicine. Speakers will explore mitochondrial dynamics, their role in signaling, physiology, mitophagy, and regulated metabolic and bioenergetic functions, across diverse disciplines including neurology, aging, oncology, autophagy, membrane morphogenesis, structural biology, and bioenergetics. As the most important discoveries in mitochondrial dynamics lie ahead, interactions at this meeting will play a key role in advancing the field.

Mitochondria, Metabolism and Heart

Date(s): May 8-12. 2017

Location: Santa Fe, New Mexico

Website: https://www.keystonesymposia.org/17Z4

Description:

The overall learning objectives of this meeting are to: 1) Understand how the novel functions of mitochondria contribute to the development or the prevention of myocardial injury and heart failure, and 2) Discuss how the quality of mitochondria is maintained in adult cardiomyocytes, whose mitochondrial dynamics are quite distinct from other commonly investigated cell types. Special emphasis will be placed on discussing the function and the mechanism of mitophagy; a novel mechanism of cell death mediated through autophagy; interaction between mitochondria dynamics and mitophagy; mitochondrial unfolded protein response (UPR) controlling aging, stress resistance and longevity; the role of metabolic intermediates as signaling mechanisms; and novel biomarkers identified through metabolomics analyses. With a joint session on angiogenesis shared with the meeting on “Angiogenesis and Vascular Disease,” attendees will get a quick overview regarding how mitochondria and metabolism regulate angiogenesis, a critical determinant for physiological versus pathological hypertrophy and ischemic injury. Overall, the audience will obtain better understanding regarding how the function of mitochondria is regulated in the heart, how it affects the overall function of the cardiovascular system, and how one intervenes with mitochondria and metabolism to achieve better treatment for heart failure and other cardiovascular diseases.

Modulating Ageing / Antiageing: from Molecular Biology to Clinical Perspectives

The workshop will be held from September 01st - 03rd 2017 at the Martin Luther University

Halle-Wittenberg, Germany

Date(s): September 1-3, 2017

Location: Halle-Wittenberg. Germany

Website: http://www.medizin.uni-halle.de/index.php?id=3709

Description:

Within the world wide health systems, the major goal will change from just treating isolated single diseases to an increase in healthspan. Ageing is the most important common risk factor and the basis for most of the age-related chronic diseases. In model systems, we have learned a great deal about the mechanisms of ageing and are able to modify health as well as lifespan by genetic, pharmacological or lifestyle interventions. It will be the goal in the future to translate such results into humans.

The purpose of this meeting is (1) to discuss aging as a modifiable risk factor of diseases, (2) to promote greater communication among the world-wide community of individuals engaged in ageing research and (3) to invite young students to join this field of research.

The congress will be the 8th international meeting on ageing in Halle (Saale) and will accompany the development of a focus on ageing research in Central-Germany. It will comprise invited talks and poster sessions. There will be no concurrent sessions.

NAD+ Metabolism and Signalling 2017

Date(s): July 9-14. 2017

Location: New Orleans. Louisiana

Website: http://faseb.org/src/micro/Site/NAD/home.aspx

Description:

NAD and its metabolites are important regulators of cancer, metabolic disease, autoimmunity, and aging. They play important roles in energy metabolism, function as signaling molecules, and as protein modifications such as ADP-ribosylation. This diversity of function demonstrates the biological importance of NAD and the interconnectivity between cellular metabolism, physiology, and cellular signaling. Recently, significant progress has been made in our understanding of NAD that highlight its broad relevance to human health and disease. This SRC brings together all of the leading experts in NAD biology to one venue with the goal of advancing our understanding of the molecule. Experts come from several NAD relevant fields that include Poly-(ADP-ribose) polymerases (PARPs), Sirtuins, NAD dependent signaling networks, calcium signaling, NAD biosynthesis and the chemical biology of NAD.

Over 30 scientific leaders from institutions worldwide will present their latest data. In addition, a large number of oral presentations will be selected from submitted abstracts. Selected talks, poster presentations, and recreational activities will provide students and postdoctoral fellows opportunities to exchange ideas and interact with senior colleagues. For the first time, this meeting will be held in the exciting city of New Orleans, an ideal setting to discuss science.

Natureconferences: 5th Helmholtz-Nature Medicine Diabetes Conference

Date(s): September 17-19. 2017

Location: Munich, Germany

Website: http://www.nature.com/natureconferences/hmgu2017/index.html

Description:

Our fifth, high impact conference brings together international top leaders in the field of diabetes to facilitate the identification of, and potential solutions to, the preeminent scientific challenges facing the prevention and treatment of type 2 diabetes. Moreover the conference will feature two award presentations: the Helmholtz Diabetes Lecture, in recognition of the lifetime achievements of a senior leader in the field, and the Novo Nordisk Helmholtz Young Investigator in Diabetes Award (HeIDi), in recognition of a rising star. Every year, this conference series integrates research reports on essential scientific questions in urgent need of a breakthrough. In 2017, we will focus on continuing and emerging hot topic areas including the molecular basis of exercise benefits, beta-cell regeneration, adipocyte biology and novel links connecting cellular energy metabolism with ageing.

Scientific Sessions:

Session 1: Systems Control of Energy Storage
Session 2: Incretin Biology
Session 3: Diabetes and the Brain
Session 4: Metabolic Liver Disease
Session 5: Systemic Control of Metabolism
Session 6: Role of Adipocyte Function
Session 7: Cellular Energy Metabolism
Session 8: Islet Biology & Beta Cell regeneration
Session 9: Energy Homeostasis and Ageing
Session 10: Exercise Metabolis

NatureConferences: Nature Conference on Inflammatory Diseases

Date(s): September 17-20. 2017

Location: Beijing. China

Website: http://www.nature.com/natureconferences/ncid2017/index.html

Description:

Uncontrolled inflammation is the underlying pathological mechanism of a variety of infectious and non-infectious diseases that together are responsible for a growing burden on human health. Insights into the biology, molecular basis and regulation of inflammation and its role in disease are crucial for exploring novel approaches to modulating the pathological mechanisms in human inflammatory diseases. This Nature Conference will bring together leading international scientists to explore emerging themes in inflammatory mechanisms, innate immune signaling and immune dysregulation, as well as the role of inflammation in the pathogenesis of inflammation-associated diseases, including autoinflammatory diseases, cancer, metabolic syndrome and autoimmune diseases. The conference will also include a session on new technologies in inflammation research, as well as industry and young researcher networking opportunities.

Scientific Sessions:

1) Innate immune cells
2) Microbiota and immune regulation
3) Cell death and inflammation I
4) Cell death and inflammation II
5) Metabolism and inflammation I
6) Metabolism and inflammation II
7) Technologies in inflammation research
8) Innate sensing and signaling
9) Inflammatory diseases
10) Inflammation and cancer

Neoantigen Summit

Date(s): November 14-16, 2017

Location: Boston. Massachusetts

Website: http://neo-antigen.com/

Description:

The Neoantigen Summit is the dedicated end-to-end industry focused meeting ensuring the supercharging of immunotherapies and cancer vaccines to bring truly individualized therapies to patients in need.

Hear the latest clinical updates from pioneers in this field and define your commercialization roadmap to achieve future regulatory success, scale manufacturing and ensure enhanced clinical efficacy.

In such a rapidly evolving field, this is the premier platform to benchmark against the industry and network with the crème de la crème of neoantigen therapy developers.

The Neoantigen Summit brings together the pioneers supercharging immunotherapy and vaccine development to share key clinical data and insights from sample acquisition, all the way through to vaccine manufacturing and getting a product to market.

Neuroscience 2017

November 11-15 | Washington, DC

Date(s): November 11-15. 2017

Location: Washington, DC

Website: https://www.sfn.org/annual-meeting/neuroscience-2017

Description:

SfN's 47th annual meeting, Neuroscience 2017, is the world's largest neuroscience conference for scientists and physicians devoted to understanding the brain and nervous system. Attendees can take advantage of countless opportunities to share and learn about emerging and unpublished findings, explore career paths and professional development opportunities, and discuss hot topics in scientific publishing, academia, advocacy, public education, and more.

Neuroscience 2017 was held November 11-15 at the Walter E. Washington Convention Center in Washington, DC. More than 30,300 attendees convened in the U.S. capital city for the world's largest marketplace of ideas and tools for global neuroscience. Abstracts from the annual meeting are available online.

Neuroscience 2017 events included:

- Major featured and special lectures by world-renowned scientists from around the globe
- More than 15,000 abstracts sharing new and exciting discoveries
- Symposia and minisymposia promoting comprehensive coverage of significant neuroscience research topics
- More than 600 exhibitors showcasing new tools, technologies, and publishing opportunities
- Dozens of professional development, advocacy, and networking events
- More than 100 satellite events being held in conjunction with the annual meeting

Next Gen Immuno-Oncology Congress

Date(s): March 14-15. 2017

Location: London. United Kingdom

Website: http://www.mnmconferences.com/Next-Gen-Immuno-Oncology-Congress#MediaPartners

Description:

In recent years, the field of immuno-oncology has become one of the most promising and fastest growing areas of cancer research with many drugs introduced in the market and many more in the pipeline of different pharmaceutical companies. Immuno-oncology has become a sub-specialty within oncology owing to its unique science and its potential for substantial and long-term clinical benefit. This success is based on progress in both preclinical and clinical development of first and second generation of therapeutics using different molecules and immune system that include Antibody drug conjugates, bispecific antibodies, immune checkpoint blockades, adoptive cellular therapy.

Despite the growth much more research is needed to understand the breadth of opportunities these new generations of immunotherapies represent.

Next Gen Immuno-Oncology Congress to be held on 13th and 14th March 2017 in London, UK aims to bring academicians, researchers and scientists from research institutes pharmaceutical, bio-pharmaceutical and biotechnology companies to discuss the growth of existing therapeutics and pave way for emerging next generation therapeutics. Keynote presentations, Brainstorming Panel Discussions and Case studies will give the stakeholders an opportunity to discuss and understand the issues faced.

Oxford Global 3rd Annual Cell/ Gene Therapy Congress

Date(s): November 6-7. 2017

Location: London, United Kingdom

Website: https://www.celltherapy-congress.com/

Description:

Cell & Gene Therapy: Development & Clinical Trials - Cell Therapy Bioprocessing and Manufacturing Presentations will include cell & gene therapy development, updates in regulatory pathways, commercialisation, bioprocessing and manufacturing.

These conferences bring together ver 250 delegates representing leading biotech companies, global pharma organisations and internationally renowned academic institutions.

Over 20 presentations and case studies focused on the key issues in cell & gene therapy development, updates in regulatory pathways, commercialisation, bioprocessing and manufacturing are shown here.

The conference contain 2 interactive streams:

- Cell & Gene Therapy: Development & Clinical Trials
- Cell Therapy Bioprocessing and Manufacturing

Oxygen Club of California World Congress

Date(s): June 21-23, 2017

Location(s): Berlin, Germany

Website: http://www.occ-2017.com/

Description:

The Oxygen Club of California (OCC) is a non-profit scientific organization dedicated to enhancing education and promoting research in the field of oxidants, antioxidants, nutrition, micronutrients and free radicals in biology and medicine with the goal of promoting human health.

Both events, the annual meeting of the SFRR-E and the OCC World Congress, have a long lasting history. Some OCC events have been hosted already in Europe. For the first time, both events will be merged ensuring a high quality and first rate scientific program with the participation of renowned scientists from around the world. Both events, the annual meeting of the SFRR-E and the OCC World Congress, have a long lasting history. Some OCC events have been hosted already in Europe. For the first time, both events will be merged ensuring a high quality and first rate scientific program with the participation of renowned scientists from around the world.

Topics:

- Nutrition, nutrient sensing, and redox regulation
- Redox control of proteostasis and cell functions
- Metabolic stress, adaptation and aging

PCS 4th World Congress of Cardiotlioracic-Renal Diseases

Date(s): November 4-5. 2017

Location: Lisbon, Portugal

Website: http://www.pcscongress.com/wccrd2017/

Description:

2017 PCS 4th World Congress of Cardiothoracic-Renal Diseases (WCCRD-2017) will be held in Lisbon, Portugal on 4-5 November, 2017 with the theme of «Bridging Basic Research and Clinical Practice». PCS WCCRD-2017 will emphasize its topics from Research Innovation to Clinical Management. The conference provide a highly interactive platform for all experts from more than 30 countries worldwide.

A number of new topics were introduced as the highlights of WCCRD-2017 to emphasize its topics from Research Innovation to Clinical Management. All participants shared their new ideas and had a wonderful experience during the conference.

Highlights of WCCRD-2017:

- Research Breakthrough of Cardiothoracic-Renal Diseases
- PCS 3rd World Cardiology Summit
- PCS 2nd World Thoracic Summit
- Global Research Integration Forum

Synthetic Immunity Symposium 2017

Date(s): July 10-14. 2017

Location: Santa Fe. New Mexico

Website: https://newmexicoconsortium.org/events/symposium-on-synthetic-immunity

Description:

The Symposium on Synthetic Immunity 2017 will be held from July 10 - 14, 2017 at the La Fonda Hotel in Santa Fe, New Mexico. This symposium is hosted by the New Mexico Consortium and sponsored in part by Los Alamos National Laboratory.

The participants in this symposium will discuss and debate how a combination of biology, clinical medicine, nanotechnology, and modeling enables us to obtain quantitative knowledge of specific processes in adaptive and innate immune responses in a healthy state as well as to determine the key steps that fail in a given disease state.

The symposium sessions will cover the following specific topics:

- Immune System Modeling
- Immune System Evasion by Pathogens
- Novel Vaccines and Therapeutics Against Highly Variable and Resistant Pathogens
- Immunology and Immunotherapy of Cancer and Neurological Disorders

Stem Cells in Drug Discovery

Date(s): March 6-7. 2017

Location: Cambridge. United Kingdom

Website: http://selectbiosciences.com/conferences/index.aspx?conf=SCDD2017

Description:

This meeting was at the Wellcome Genome Campus Conference Centre in Cambridge, UK on 6 - 7 March 2017, attendees will benefit from unrestricted access to all four tracks.

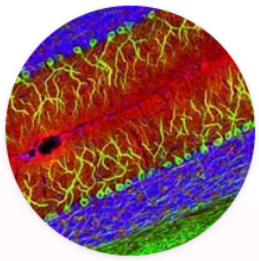
Progress in developmental and stem cell biology is revolutionising drug discovery research; the ability to grow and differentiate stem cell lines is providing a far more relevant model for pre-clinical testing. So much so that the FDA is looking into replacing previous models as a matter of urgency. However, challenges in assay development, scale up and quality control still persist and need to be addressed in order for success in this field to continue.

Stem Cells in Drug Discovery 2017 will see an even larger event with more talks, attendees and discussions than ever before. Hear from and network with researchers who are currently screening for efficacy and toxicity using iPS cell lines, and those responsible for developing the techniques and technologies enabling them to do so. There will also be discussions on industry and regulatory developments that are shaping the future of drug discovery.

Agenda Topics

- 3D Cell Based Models
- Cellular Reproducibility and Robustness
- Disease Modelling
- Scale Up and Quality Control
- Screening and Drug Discovery Assays

Targeting Tau in Alzheimer's Disease and Related Disorders



Targeting Tau in Alzheimer's Disease and Related Disorders

Monday, March 13, 2017

The New York Academy of Sciences

Date(s): March 13, 2017

Location: New York. New York

Website: http://www.globaleventslist.elsevier.com/events/2017/03/targeting-tau-in-alzheimers-disease-and-related-disorders/

Description:

The microtubule associated protein tau (MAPT) is a key mediator of neurodegeneration in Alzheimer's disease and related disorders. This symposium will address the potential of tau-related targets for immunotherapy, across the spectrum of tauopathies. On this conference, participants reviewed the pre-clinical and clinical development of several tau immunotherapy programs that exemplify this emerging therapeutic strategy for Alzheimer's disease and other devastating neurodegenerative disorders.

Telomeres & Telomerase

May 2 - 6, 2017

Abstract Deadline: February 27, 2017

Organizers:

Steven Artandi, Stanford University
Julia Cooper, National Cancer Institute
Roger Reddel, Children's Medical Research Institute, Australia

Date(s): May 2-6. 2017

Location: Cold Spring Harbor. New York

Website: https://meetings.cshl.edu/meetings.aspx?meet=TELO&year=17

Description:

Cold Spring Harbor Laboratory is a big venue which is quite spacious and along with various additional facilities that makes it one of the perfect places to host official events or conferences with some positive results. This place is famous and noted for bringing together more than 12,500 scientists each year from around the world to discuss about the latest technologies and share advances in biological and biomedical research. This venue is quite easy to reach. People who are interested to visit this place can take their nearest flight and reach either of the two big airports which are LaGuardia Airport or the Newark Liberty International Airport. Cold Spring Harbor Laboratory is ideal for holding important scientific meetings and is always packed with bookings.

Topics:

- Regulation of Telomerase Expression & Activity
- Telomerase Biogenesis & Structure
- Telomere Replication
- Mechanisms of ALT
- Mechanisms of Telomere Protection
- Telomere Protein Functions at Telomeres and Genomewide
- Telomere Shortening & Mechanisms of Senescence
- Telomeres & Human Health & Disease

The 13th International Conference on Alzheimer's & Parkinson's Diseases - AD/PD 2017

Date(s): March 29 - April 2, 2017

Location(s): Vienna, Austria

Website: http://adpd2017.kenes.com

Description:

The continuing success of the AD/PDTM meetings is the result of several key ingredients:

A high-quality scientific program covering most recent research, developments, and treatments, with emphasis on overlaps and congruent results among AD, PD and related neurological disorders.

A multidisciplinary mix of participants representing both clinical investigators and basic scientists; as well as both established investigators and young upcoming talents.

An International Scientific Advisory Board covering a broad range of expertise in AD, PD and related neurological disorders.

A concerted attempt to provide an ambiance at the Conference that encourages interaction, exchange of ideas and networking opportunities among all participants.

The 2018 Undoing Aging Conference

Date(s): March 15 - 17, 2018

Location: Berlin, Germany

Website: https://www.undoing-aging.org/

Description:

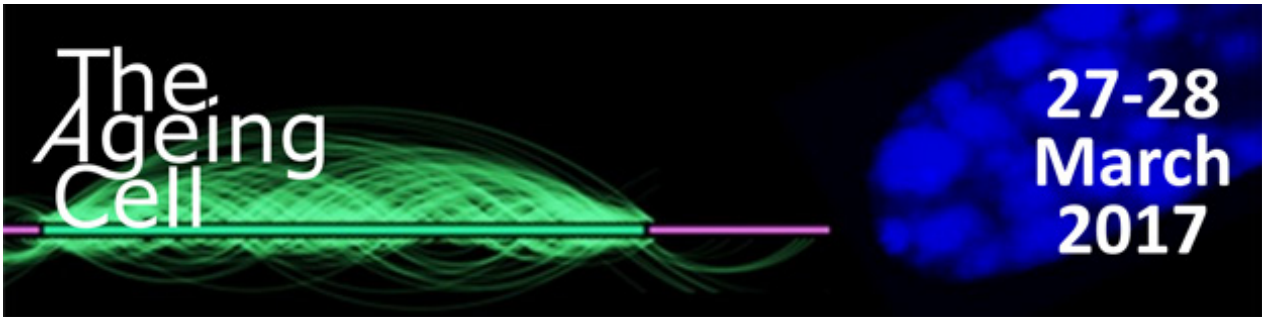
The 2018 Undoing Aging Conference is focused on the cellular and molecular repair of age-related damage as the basis of therapies to bring aging under full medical control.

The conference provides a platform for the existing science community that already works on damage repair and at the same time offers interested scientists and students a first-hand understanding of the current state of this exciting new field of biomedical research.

Speakers will include leading researchers from around the world focused on topics including stem cells, senescent cells, immunotherapies, biomarkers and drug discovery.

Undoing Aging is not only open to the scientific community but also welcomes all interested members of the broader Life Extension community.

The Ageing Cell



Date(s): March 27-28. 2017

Location(s): Cambridge, UK

Website: https://www.babraham.ac.uk/the-ageing-cell

Description:

One of the major achievements of the modern era is the extension of the human lifespan through improvements in medical care, nutrition, sanitation and access to clean water. Over the last century, life expectancy at birth in the UK has risen by almost 30 yrs so that both men and women can now expect to live well into their 80s. This is shifting population demographics; almost 1 in 5 of the UK's total population is aged 65 or over and this is expected to rise to 1 in 4 by 2050.

The Ageing Cell conference will bring together an international community of researchers from academia, industry and the clinic in the fields of immunology, genetics, epigenetics and signalling to discuss ageing at the cellular level.

The conference sessions will include:

- The ageing stem cell – how stem cell development, proliferation and function changes with age
- The ageing immune system – how composition and function change with age
- Signalling and the ageing cell – signalling pathways that control metabolism and cellular fitness
- Epigenetics of the ageing cell – exploring changes to the epigenome during ageing

The Asian Conference on Aging and Gerontology

Date(s): 8-11 June 2017

Location(s): Kobe, Japan

Website: https://agen.iafor.org/agen2017/

Description:

The theme of the conference explores the tensions that have emerged due to globalisation and the growing influence of Western cultural values on Eastern traditions such as intergeneration coresidence, filial piety and the family-based support networks that provide for the care of the elderly in later life. Jolly and Macintyre's depiction of the persistent belief in an "unchanging cultural core" of bedrock values such as family support for the elderly has resulted in the resistance of many governments in Asia and the Pacific Rim to plan effectively for the care and needs of a growing aging population. By treating culture as a dynamic process that adapts to new ideas, opportunities and economic realities we can anticipate change and implement proactive policies that support the elderly, their families and the societies that are ultimately responsible for the quality of life among their populations. This conference serves as an opportunity to present new research on the changing face of aging in the Asia-Pacific Region, to network with fellow professionals and to develop policy interventions that improve the lives of our elders.

The Biology of Aging: Advances in Therapeutic Approaches to Extend Healthspan

Date(s): January 22-25

Location(s): Jupiter, FL, USA

Website: http://aging.scripps.edu/

Description:

The 2nd Scripps Florida Symposium on The Biology of Aging entitled 'Advances in Therapeutic Approaches to Extend Healthspan' was held on January 22nd–25th, 2017 at The Scripps Research Institute in Jupiter, Florida. The goal of the symposium was to bring together leaders in the fields of aging and drug development to discuss strategies for identifying and developing therapeutic approaches to extend human healthspan. This symposium made it highly evident that the biology of aging field is moving quickly toward translational research. At the symposium, there were numerous reports of successful drug screens and drug testing in a variety of model systems. There was also an overall sense of excitement, given that multiple therapeutic modalities, including young plasma, recombinant proteins, and small molecules, extend healthspan and lifespan in model organisms and that clinical trials to test the efficacy of these treatment modalities on healthspan and resilience have been initiated.

Session topics included:

- Drug Screening
- Anti-geronic Factors
- Senotherapeutics
- Genetic Identificaiton of Drug Targets
- Molecular Targets for Drug Development
- Stem Cells and Clinical Trials.

The IFA 14th Global Conference on Ageing

Date(s): 8-10 August 2018

Location(s): Toronto, Canada

Website: https://www.ifa2018.com

Description:

he IFA 14th Global Conference on Ageing is being convened at the Chelsea Hotel and Ryerson University in the IFA's home city of Toronto, Ontario on 8–10 August 2018. The Conference will revolve around four key themes related to the field of ageing, and will feature prominent experts presenting and discussing critical issues. The conference is proud to be supported by an international network of partners.

The title of IFA's 14th Global Conference, "Towards a Decade of Healthy Ageing – From Evidence to Action," is in response to the World Health Organization (WHO) Global Report on Ageing and Health and the subsequent goals of the WHO Global Strategy and Action Plan (2016).

Specifically, the Global Strategy focuses on five strategic objectives: commitment to action on healthy ageing in every country; developing age-friendly environments; aligning health systems to the needs of older populations; developing sustainable and equitable systems for providing long-term care (home, communities, institutions); and improving measurement, monitoring and research on Healthy Ageing.

The Global Strategy and Action Plan is a significant and much needed step forward in establishing a framework for Member States. The IFA, in its formal relations with the WHO, is strongly committed, through the platform of our Global Conference and attending delegates, to contributing to the evidence and partnerships necessary to support a Decade of Healthy Ageing from 2020 to 2030.

The IFA is committed to helping enable older people to do what they value through a deeper evidence-based understanding and has aligned the IFA Global Conference's themes to the WHO's Strategy with links to the UN Sustainable Development Goals (SDGs).

The International Growth and Development Conference (IGDC)

Date(s): March 16-18. 2017

Location: Dubai, United Arab Emirates

Website: https://www.nutritionsociety.org/events/international-growth-and-development-conference

Description:

The International Growth and Development Conference (IGDC) entitled 'Healthy Ageing: Paediatric to Geriatric' has been organised by an Organising Committee and the programme has been produced by a Scientific Committee.The First International Growth and Development Conference - 2017 (IGD-2017) is to be held on 16 - 18 March 2017 in Dubai, United Arab Emirates (UAE). The IGD Conference-2017 highlights the theme «Healthy Ageing: Paediatric to Geriatric».Health is a basic human right! Optimising individual physical, social and mental well-being is an essential element of health development throughout the life course.

The IGD Conference-2017 with the theme of Healthy Ageing: Paediatric to Geriatric is the first conference to be held in the region. It will feature leading keynote speakers, session speakers and poster presenters. Researchers will present their research on topics related to healthy ageing, along with age-related changes in metabolism and body composition, as well as the effects of conditions that develop during the ageing process. The conference provides a great platform for multidisciplinary collaboration between medical professionals, scientific and public health researchers from around the world.

THE ISSCR INTERNATIONAL SYMPOSIA

Date(s): November 10-12. 2017

Location: Guangzhou, China

Website: http://www.isscr.org/meetings-events/international-symposia/guangzhou-2017

Description:

The International Society for Stem Cell Research (ISSCR) and the Guangzhou Institutes of Biomedicine and Health (GIBH) present Stem Cells: The Next Generation, an ISSCR International Symposium, 10-12 November, 2017. This forward-thinking conference will explore the development of stem cell therapy. From the foundational to the translational, the ISSCR continues to bring you the latest information from the field's leading minds: the «next generation» of stem cell research and therapeutic application.

The International Society for Stem Cell Research (ISSCR) and the Guangzhou Institute for Biological Health (GIBH) are proud to present an exciting scientific program in an engaging, intimate atmosphere. The meeting begins with a keynote lecture on Friday, 10 November and conclude on Sunday, 12 November. There are opportunities for interactions among all levels of attendees. Lecture sessions will be supplemented with opportunities for abstract-selected talks, poster teasers presentations, and social and networking events.

SESSION TOPICS

- Stem Cell State and Differentiation
- Organoids and Disease Modeling
- Cell-Based Therapies
- Ethics of Genome Engineering

Part VII

Top 100 Longevity Journals

Analytical Report 2017

AGING ANALYTICS AGENCY
Invest for life

Biogerontology Research Foundation
Prevent. Restore. Preserve.

DEEP KNOWLEDGE LIFE SCIENCES

Top Longevity Journals

1. Activities, Adaptation & Aging
2. AGE
3. Ageing Horizons
4. Ageing International
5. Ageing Research Reviews
6. Aging
7. Aging and Disease
8. Aging Cell
9. Aging Clinical and Experimental Research
10. Alzheimer Disease & Associated Disorders: An International Journal
11. Alzheimer's Care Today
12. Alzheimer's Research & Therapy
13. Anthropology & Aging
14. Quarterly (AAQ)
15. Apoptosis
16. Asian Journal of Gerontology and Geriatrics
17. Australasian Journal on Ageing
18. Biogerontology
19. Canadian Journal on Aging
20. Clinical Epigenetics
21. Current Aging Science
22. Current Alzheimer Research
23. Current Gerontology and Geriatrics Research
24. Dementia
25. Dementia and Geriatric
26. Cognitive Disorders
27. Drugs & Aging
28. Educational Gerontology
29. European Journal of Ageing
30. European Geriatric Medicine
31. European Review of Aging and Physical Activity
32. Experimental Aging Research
33. Experimental Gerontology
34. Frontiers in Aging Neuroscience
35. Generations
36. Geriatrics & Gerontology International
37. Geriatric Nursing
38. Geriatric Orthopaedic Surgery & Rehabilitation
39. Gerokomos
40. Gerontechnology
41. Gerontology
42. Gerontology & Geriatrics Education
43. Gérontologíe et Société
44. GeroScience
45. Hallym International Journal of Aging
46. Immunity & Ageing
47. Indian Journal of Gerontology
48. International Journal of Ageing and Later Life
49. International Journal of Aging and Society
50. International Journal of Alzheimer's Disease
51. International Journal of Geriatric Psychiatry
52. International Journal of Gerontology
53. International Psychogeriatrics
54. International Urology and Nephrology
55. Journal of Aging & Social Policy
56. Journal of Aging and Health
57. Journal of Aging and Physical Activity
58. Journal of Aging Research
59. Journal of Aging Research & Clinical Practice
60. Journal of Aging Studies
61. Journal of Alzheimer's Disease
62. Journal of Applied Gerontology
63. Journal of Cross-Cultural Gerontology
64. Journal of Elder Abuse & Neglect
65. Journal of Geriatric Oncology
66. Journal of Geriatric Psychiatry and Neurology
67. Journal of Gerontological Nursing
68. Journal of Gerontological Social Work
69. Journal of Neurodegeneration and Regeneration
70. Journal of Population Ageing
71. Journal of the American Geriatrics Society
72. Journal of the American Medical Directors Association
73. Journal of Women & Aging
74. Maturitas
75. Mechanisms of Ageing and Development
76. Metabolic Brain Disease
77. Molecular Neurodegeneration Oncotraget
78. Oxidative Medicine & Cellular Longevity
79. Rejuvenation Research
80. Research on Aging
81. Reviews in Clinical Gerontology
82. Revista Brasileira de Ciências do Envelhecimento Humano
83. Revista Brasileira de Geriatria e Gerontologia
84. Revista Española de Geriatria y Gerontologia
85. Revista Multidisciplinar De Gerontologia
86. The Aging Male
87. The American Journal of Geriatric Pharmacotherapy
88. The American Journal of Geriatric Psychiatry
89. The Brown University Geriatric Psychopharmacology Update
90. The Gerontologist
91. The International Journal of Aging and Human Development
92. The Journal of Nutrition, Health & Aging
93. The Journal of the Economics of Ageing
94. The Journals of Gerontology, Series A: Biological Sciences
95. The Journals of Gerontology, Series B: Psychological Sciences
96. Tijdschrift voor Gerontologie en Geriatrie
97. Topics in Geriatric Rehabilitation
98. Turkish Journal of Geriatrics
99. Zeitschrift für Gerontologie and Geriatrie

Activities, Adaptation & Aging

First Issue/Volume: 1981

First online Issue/Volume: 1981

Editor-in-Chief: Couture, Linnea M.

Publisher: Taylor & Francis

EISSN: 1544-4368

SCImago Journal Rank (2012): 0.0217

Impact factor (IF):

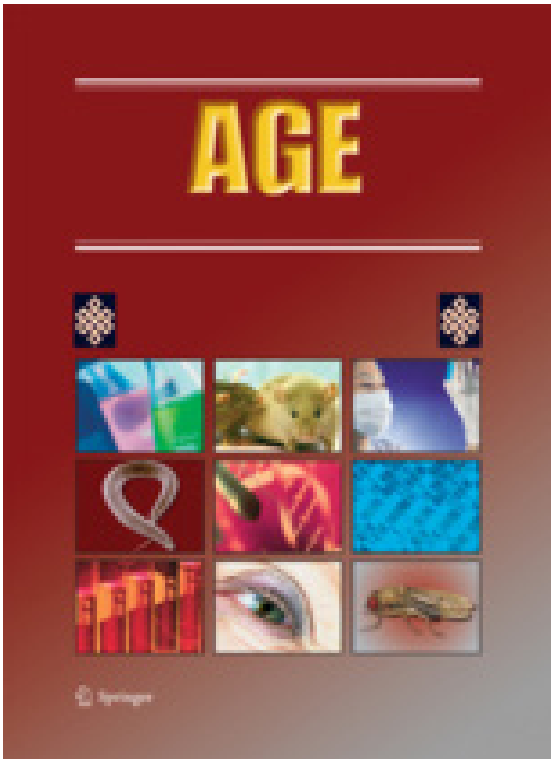
4-year impact factor (IF):

Website: http://www.tandfonline.com/toc/waaa20/current

Description:

Activities, Adaptation, & Aging is the working tool for activity directors and all health care professionals concerned with the enhancement of the lives of the aged. Established as the primary journal for activity professionals, Activities, Adaptation & Aging provides a professional outlet for research regarding the therapeutic implications of activities on quality-of-life issues and overall life satisfaction for the elderly. The journal examines a wide spectrum of activities: activity-based intervention for persons with dementia; activity determinants in independent-living elderly; activity implications in a variety of settings; activity participation patterns; and activity implications for everyday practice.

The journal addresses such important topics such as evidence-based practice, evaluation, assessment of psychosocial history, culture and its influence on meaningful activity, activities and caregivers, volunteerism, and successful aging. Activities, Adaptation & Aging fills an important quality-of-life niche in the field of gerontology. It is a highly regarded journal that continues to provide timely and useful research, case studies, and program evaluations.



AGE

First Issue/Volume:1978

Editosr-in-Chief: Donald K. Ingram

Publisher: Springer (Netherlands)

Print ISSN: 0161-9152

Online ISSN:1574-4647

impact factor 2012: 4.084

Journal's website:https://www.springer.com/life+sciences/cell+biology/journal/11357

Description:

Age is a bi-monthly, international, peer-reviewed journal that publishes articles related to research in the biology of aging and research on biomedical applications that impact aging. The scope of articles to be considered include evolutionary biology, biophysics, genetics, genomics, proteomics, molecular biology, cell biology, biochemistry, endocrinology, immunology, physiology, pharmacology, neuroscience, and psychology.

Articles concerning clinical studies may also be considered but the results should reveal underlying biological mechanisms of aging. Studies must reflect more than issues related to the care and treatment of geriatric patients. Papers concerned with social, economic, and political issues of aging will generally not be considered unless they relate directly to biomedical gerontology.

In addition to manuscripts emerging from original research, the journal actively solicits research reviews of important topics in biomedical gerontology. Other types of manuscripts are also acceptable, such as commentaries, debates, and meeting reports...

Ageing Horizons

First Issue/Volume: 2004

First online Issue/Volume: 2004

Editor-in-Chief:

Publisher: Oxford Institute of Ageing

ISSN: 1746-1073

EISSN: 1746-1081

SCImago Journal Rank (2012): not (yet) indexed by SCImago

Impact factor (IF):
4-year impact factor (IF):
Website: http://www.ageing.ox.ac.uk/publications/ageing-horizons

Description:

Ageing Horizons was published between 2004 and 2010. It was a review of analysis and research on policy futures in an ageing society. It also served as a thematic resource for abstracts, news, commentary, and debate on the policy issues that are likely to arise in the medium term as a result of population ageing.

Ageing International

First Issue/Volume: 2011

First online Issue/Volume: 2011

Editor-in-Chief: Sue Ellen Levkoff

Publisher: Springer

ISSN: 0163-5158

EISSN: 1936-606X

SCImago Journal Rank (2016): 0.368

Impact factor (IF): SNIP 0.512

5-year impact factor (IF): 13

Journal's website: http://www.springer.com/social+sciences/journal/12126

Description:

As a quarterly peer-reviewed journal that has existed for over three decades, Ageing International serves all professionals who deal with complex ageing issues. The journal is dedicated to improving the life of ageing populations worldwide through providing an intellectual forum for communicating common concerns, exchanging analyses and discoveries in scientific research, crystallizing significant issues, and offering recommendations in ageing-related service delivery and policy making.

Besides encouraging the submission of high-quality research and review papers, Ageing International seeks to bring together researchers, policy analysts, and service program administrators who are committed to reducing the «implementation gap» between good science and effective service, between evidence-based protocol and culturally suitable programs, and between unique innovative solutions and generalizable policies.

Ageing Research Reviews

First Issue/Volume: 2002

First online Issue/Volume: 2002

Editor-in-Chief: Mattson, M.P.

Publisher: Elsevier

ISSN: 1568-1637

EISSN: 1872-9649

SCImago Journal Rank (2016): 3.188

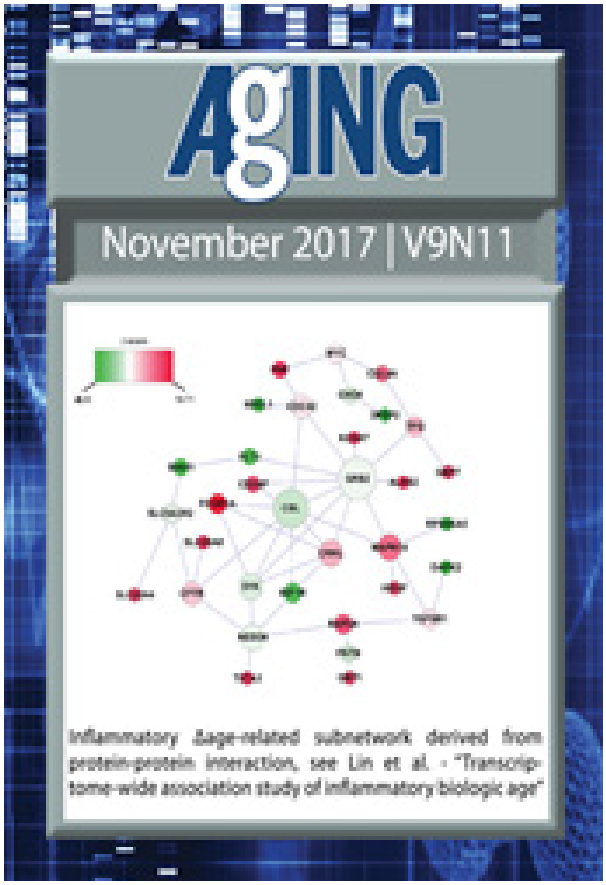
Impact factor (IF): 7.452

5-year impact factor (IF): 8.084

Journal's website: https://www.journals.elsevier.com/ageing-research-reviews/

Description:

As the average human life expectancy has increased, so too has the impact of ageing and age-related disease on our society. Ageing research is now the focus of thousands of laboratories that include leaders in the areas of genetics, molecular and cellular biology, biochemistry, and behaviour. Ageing Research Reviews (ARR) covers the trends in this field. It is designed to fill a large void, namely, a source for critical reviews and viewpoints on emerging findings on mechanisms of ageing and age-related disease. Rapid advances in understanding of mechanisms that control cellular proliferation, differentiation and survival are leading to new insight into the regulation of ageing



Aging

First Issue/Volume: December 2009 - present

First online Issue/Volume: 2009

Editosr-in-Chief: Jan Vijg,Vera Gorbunova, Mikhail V. Blagosklonny, David A. Sinclair, Judith Campisi

Publisher: Impact Journals

ISSN: 1945-4589

EISSN:

SCImago Journal Rank (2016):

Impact factor IF 2016: 4.867

5-year impact factor: 5.240

Journal's website: http://www.aging-us.com/

Description:

In aging research, evidence emerges that aging is controlled by genetic mechanisms involving signal transduction pathways highly conserved from yeast to mammals. Hyper-stimulation of certain signaling pathways drives the aging process and is involved in cell senescence and age-related disease. Modulation of DNA-damage response, sirtuins and stress-response, insulin-activated pathways, nutrient-sensing pathways, p53, FOXO and PTEN extends life span. And calorie restriction extends life span by modulating the same signaling pathways. This provides a potential means of pharmacologic intervention to extend life span and treat age-related diseases. Aging welcomes scientists in all disciplines, not only those in traditional gerontology.

Aging publishes high-impact research papers of general interest and biological significance in all fields of aging research including but not limited to cellular senescence, DNA damage and repair, organismal aging, age-related diseases, genetic control of aging from yeast to mammals, regulation of longevity, evolution of aging, anti-aging strategies and drug development and especially the role of signal transduction pathways in aging and potential approaches to modulate these signaling pathways to extend lifespan.

Aging covers (in addition to traditional topics on aging) many other topics including cellular and molecular biology (regulation of translation, cell growth, death and autophagy, mitochondria, DNA damage and repair, microRNAs, stem cells), human age-related diseases, pathology in model organisms, cancer and first of all signal transduction pathways (p53, sirtuins, PI-3K/AKT/mTOR and so on) and approaches to modulate these signaling pathways.

Aging and Disease

First Issue/Volume: 2010

First online Issue/Volume: 2010

Editor-in-Chief: Jin, Kunlin, Shetty, Ashok K. & Greenberg, David A.

Publisher: Buck Institute for Age Research

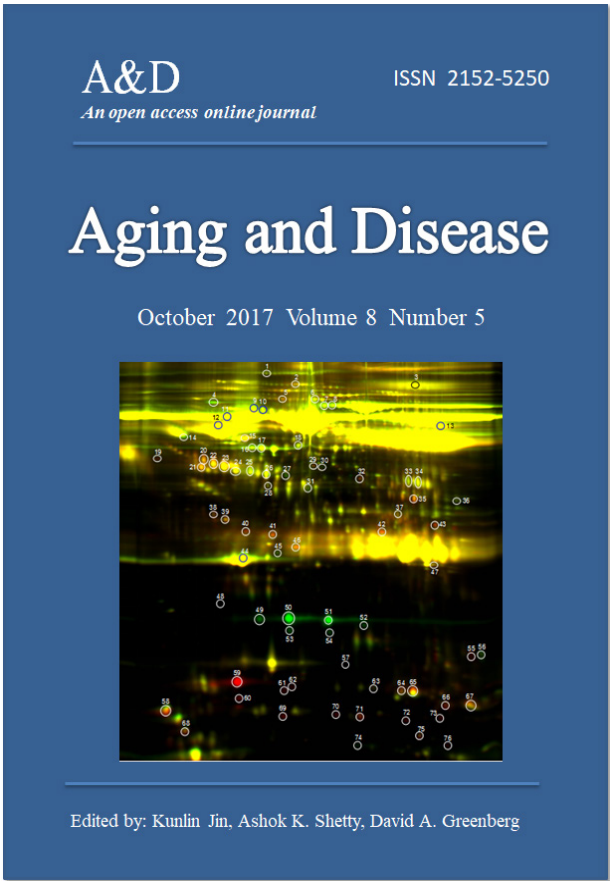
ISSN:

EISSN: 2152-5250

SCImago Journal Rank (2016): 1.598

Impact factor (IF):4.648

5-year impact factor (IF): 4.1

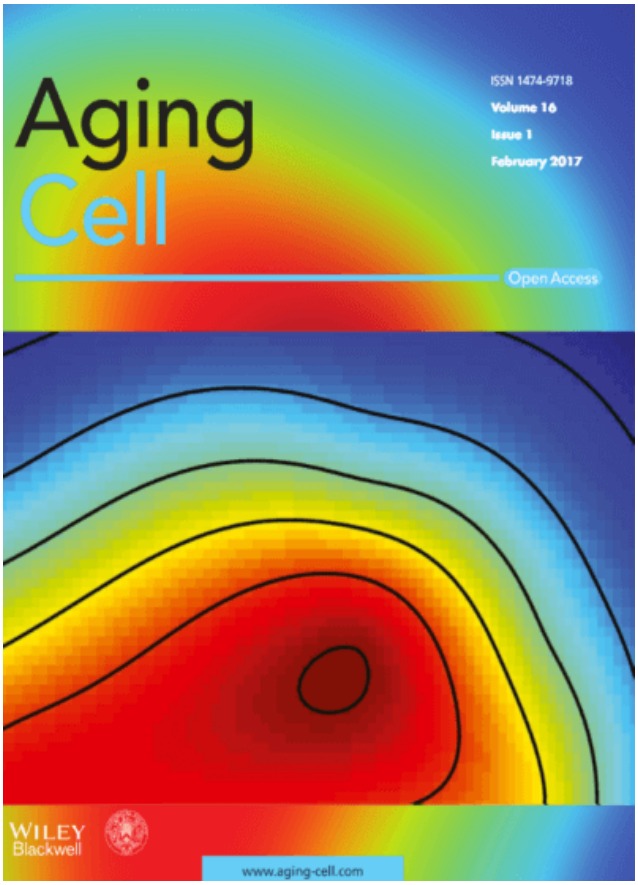


Journal's website: http://www.aginganddisease.org/EN/2152-5250/home.shtml

Description:

Aging & Disease (A&D) is a peer reviewed, open access online journal that aspires to publish novel and high-impact findings on central issues pertaining to the biology of aging, pathophysiology of age-related diseases, and innovative therapies for diseases afflicting the elderly population. The diseases of interest include (but not limited to) Stroke, Alzheimer's disease, Parkinson's disease, Epilepsy, Dementia, Depression, Cardiovascular Disease, Cancer, Arthritis, Cataract, Osteoporosis, Diabetes and Hypertension. Studies on animal models as well as human tissues or cells are welcome.

Aging Cell



First Issue/Volume: 2002

First online Issue/Volume: 2002

Editor-in-Chief: Miller, Richard; Antebi, Adam; Sedivy, John & Cuervo, Ana Maria

Publisher: Wiley-Blackwell

ISSN: 1474-9718

EISSN: 1474-9726

SCImago Journal Rank (2016): 3.796 (2012: 2.643)

Impact factor (IF): 6.714

5-year impact factor (IF):

Journal's website: http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291474-9726

Description:

Aging Cell is a new journal aiming to publish novel and exciting science which addresses fundamental issues in the biology of aging. All areas of aging biology are welcome in the journal and the experimental approaches used can be wide-ranging. With the rapid developments in genomic sequencing and analysis, and availability of new technologies to analyse functional genomics and proteomics, the combined powers of genetics, biochemistry and cell biology are leading to the very rapid production of new information. Aging Cell welcomes the results of these programmes.

Aging Clinical and Experimental Research

First Issue/Volume: 1988

First online Issue/Volume: 2005

Editor-in-Chief: Maggi, Stefania

Publisher: Springer

ISSN: 1594-0667

EISSN: 1720-8319

SCImago Journal Rank (2016): 0.48 (2012: 0.404)

Impact factor (IF): 1.394

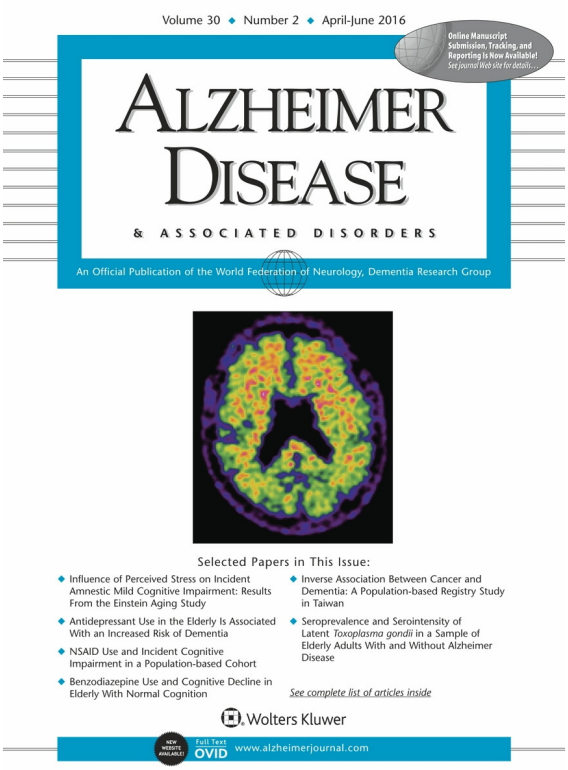
5-year impact factor (IF): 1.393

Journal's website: http://www.springer.com/medicine/family/journal/40520

Description:

Aging Clinical and Experimental Research offers a multidisciplinary forum on the progressing field of gerontology and geriatrics. The areas covered by the journal include: biogerontology, neurosciences, epidemiology, clinical gerontology and geriatric assessment, social, economical and behavioral gerontology. "Aging Clinical and Experimental Research" appears bimonthly and publishes review articles, original papers and case reports.

Alzheimer Disease &Associated Disorders: AnInternational Journal



First Issue/Volume: 1987

First online Issue/Volume: 1987

Editor-in-Chief: Dr. José Luchsinger-Stuart, MD, MPH

Publisher: Lippincott Williams & Wilkins

ISSN: 0893-0341

EISSN: 1546-4156

SCImago Journal Rank (2016): 1.185 (2012: 1.302)

Impact factor (IF): 2.395

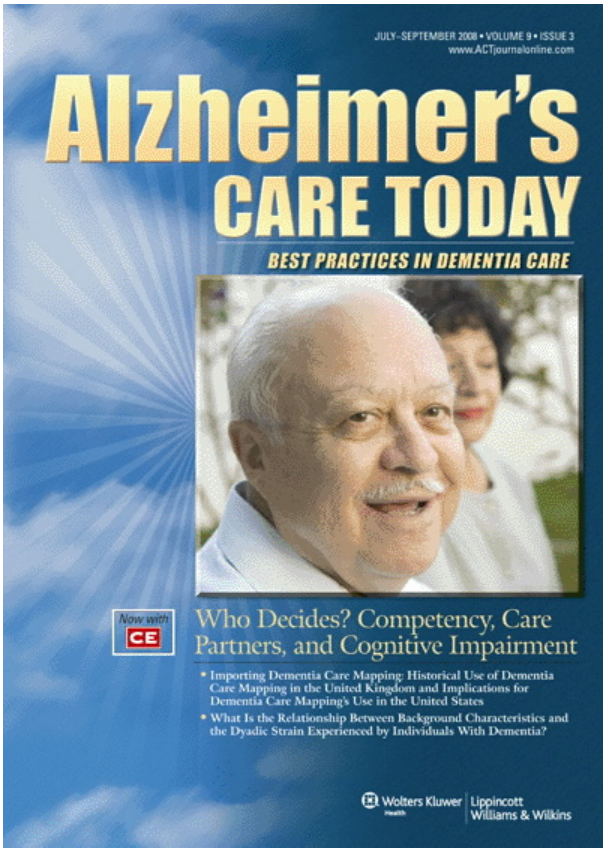
5-year impact factor (IF):

Journal's website:

Description:

Alzheimer Disease & Associated Disorders is a leading international forum for reports of new research findings and new approaches to diagnosis and treatment. Contributions fall within all relevant scientific fields and clinical specialties, including neurobiology, neurochemistry, molecular biology, neurology, neuropathology, neuropsychology, psychiatry, gerontology, and geriatrics

Alzheimer‘s Care Today



First Issue/Volume: 2000

First online Issue/Volume: 2000

Editor-in-Chief: Gray-Vickrey, Peg

Publisher: Lippincott Williams & Wilkins

ISSN: 1936-3001

EISSN: 1936-6760

SCImago Journal Rank (2013): 0.178

Impact factor (IF): 0.29 (RG 2012)

5-year impact factor (IF):
Journal's website: http://journals.lww.com/ctjournalonline/Pages/default.aspx

Description:

Alzheimer»s Care Today is a peer-reviewed journal that provides information on dementia care practices that can be readily incorporated into the day-to-day activities of health care professionals, regardless of setting. The needs of persons with Alzheimer»s disease (AD) and other forms of dementia present unique challenges to health care professionals. Although there is presently no cure for AD, treatment is available. Contemporary interventions are increasingly person-centered—the goals are to maintain a familiar lifestyle, maximize quality of life and independence, and make use of the continuing strengths of persons with AD, thereby reducing excess disability

Alzheimer‘s Research & Therapy

First Issue/Volume: 2009

First online Issue/Volume: 2009

Editor-in-Chief: Galasko, Douglas R.; Golde, Todd E. & Wilcock, Gordon K.

Publisher: BioMed Central

ISSN: 1758-9193

EISSN: 1758-9193

SCImago Journal Rank (2016): 2.438 (2012: 1.115)

Impact factor (IF): 6.196

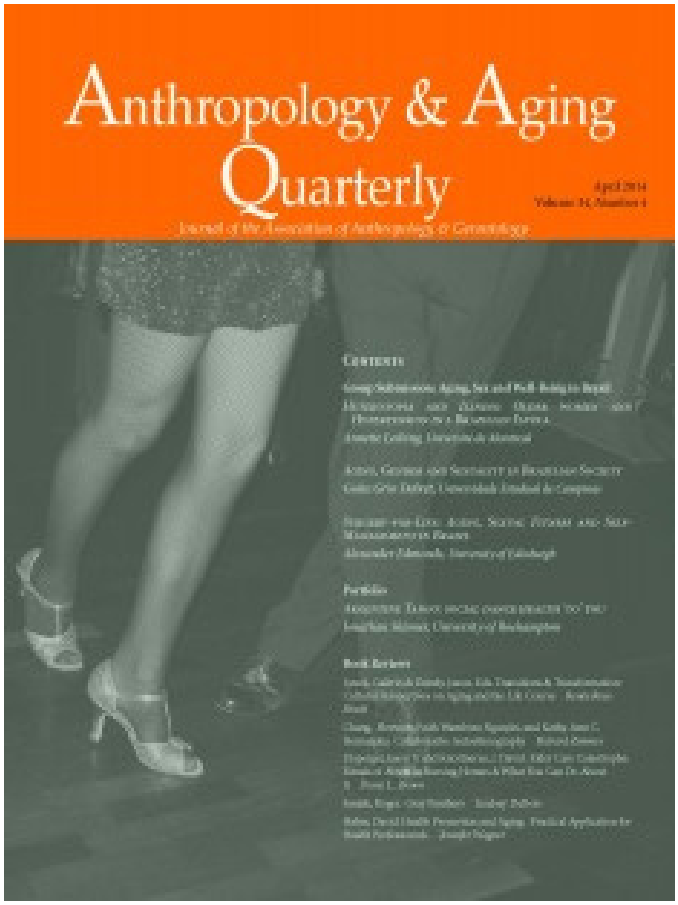
5-year impact factor (IF):

Journal's website: https:https://alzres.biomedcentral.com

Description:

Alzheimer's Research & Therapy is the major forum for translational research into Alzheimer's disease. An international peer-reviewed journal, it publishes open access basic research with a translational focus, as well as clinical trials, research into drug discovery and development, and epidemiologic studies. The journal also provides reviews, viewpoints, commentaries, debates and reports. Although the primary focus is Alzheimer's disease, the scope encompasses translational research into other neurodegenerative diseases.

Anthropology & Aging Quarterly (AAQ)



First Issue/Volume: 2006

First online Issue/Volume: 2006

Editor-in-Chief: Philip Kao, Dr. Cortney Hughes Rinker

Publisher: Association for Anthropology and Gerontology (AAGE)

ISSN:

EISSN: 2374-2267

SCImago Journal Rank (2016):

Impact factor (IF):

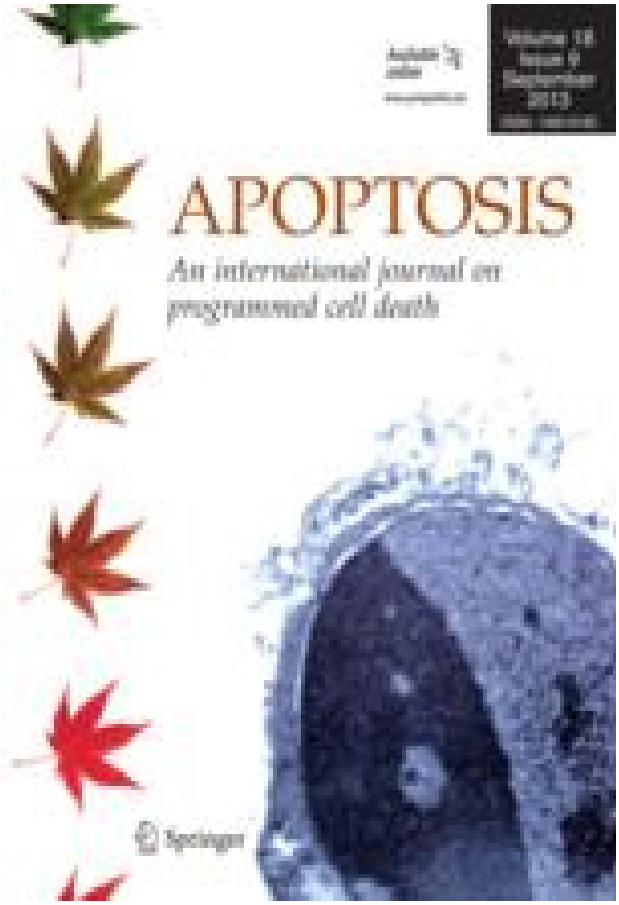
5-year impact factor (IF):

Journal's website: http://anthro-age.pitt.edu/ojs/index.php/anthro-age

Description:

Anthropology & Aging is the official journal of the Association for Anthropology, Gerontology, and the Life Course (AAGE), a nonprofit organization established in 1978 as a multidisciplinary group dedicated to the exploration and understanding of aging within and across the diversity of human cultures. Our perspective today remains holistic, comparative, and international. We are particularly interested in manuscripts that have cross-disciplinary appeal, that present cutting-edge research and bring creative and stimulating insight to aging studies and the human condition across the life course. Our journal strives to advance anthropological theory, whilst contributing to knowledge at the intersection of anthropology and gerontology.

Apoptosis



First Issue/Volume: 1997

First online Issue/Volume: 1997

Editor-in-Chief: A.W. Griffioen;
P. Nowak-Sliwinska

Publisher: Springer

ISSN: 1360-8185

EISSN: 1573-675X

SCImago Journal Rank (2016): 1.489
(2012: 1.954)

Impact factor (IF): 3.883

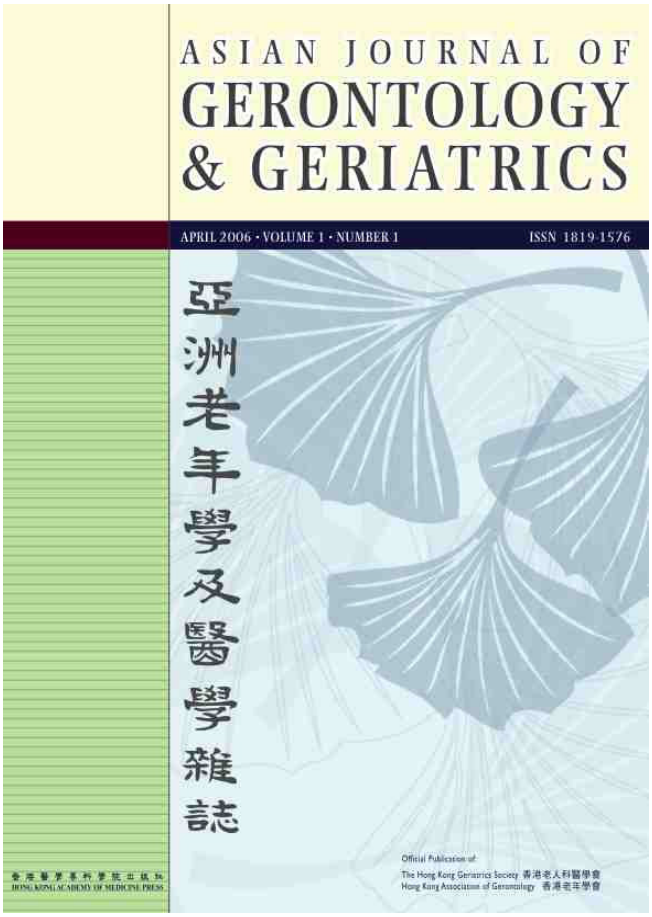
5-year impact factor (IF): 3.704

Journal's website: http://www.springer.com/biomed/cancer/journal/10495

Description:

Apoptosis is an international peer-reviewed journal devoted to the rapid publication of innovative basic and clinically-oriented investigations into programmed cell death. It aims to stimulate research on the basis of mechanisms of apoptosis and on its role in various human disease processes including: cancer, autoimmune disease, viral infection, AIDS, cardiovascular disease, neurodegenerative disorders, osteoporosis and ageing. The editors intend to encourage the development of clinical therapies against apoptosis-related diseases.

Asian Journal of Gerontology and Geriatrics



First Issue/Volume: 2006

First online Issue/Volume: 2006

Editor-in-Chief: TW Au Yeung, Edward MF Leung (Hong Kong)

Publisher: Hong Kong Geriatrics Society and Hong Kong Association of Gerontology

ISSN: 18191576

EISSN:

SCImago Journal Rank (2016): 0.165

Impact factor (IF): 0.39(RG)

5-year impact factor (IF):
Journal's website: http://ajgg.org

Description:

The ASIAN JOURNAL OF GERONTOLOGY AND GERIATRICS is the official joint publication of the Hong Kong Geriatrics Society and Hong Kong Association of Gerontology. It publishes peer-reviewed English and Chinese articles representing the full range of medical, social, and rehabilitation sciences related to older people. The Journal is committed to the improvement of practice, extension of knowledge, as well as development, promotion and dissemination of research findings in very broad fields of Gerontology and Geriatric Medicine. It also aims at providing linkages of regional and international research, education, and practice.

The Journal is published two times a year in June and December. The circulation volume is more than 2,000 copies and is distributed locally to members of the two co-publishing organizations, physicians, physiotherapists, social scientists, all private and public hospitals, nursing schools and tertiary education institutions; internationally to Geriatrics organizations,

Australasian Journal on Ageing

First Issue/Volume: 1982

First online Issue/Volume: 1982

Editor-in-Chief: Professor Lynne Parkinson

Publisher: Wiley-Blackwell

ISSN: 1440-6381

EISSN: 1741-6612

SCImago Journal Rank (2016): 0.417 (2012: 0.422)

Impact factor (IF): 0.825

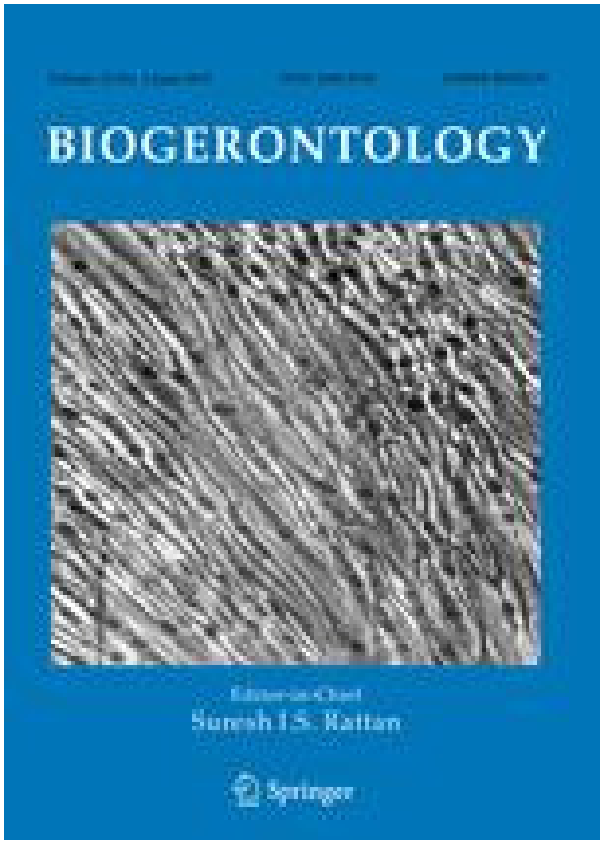
5-year impact factor (IF):

Journal's website: http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291741-6612

Description:

Australasian Journal on Ageing is a peer reviewed journal, which publishes original work in any area of gerontology and geriatric medicine. It welcomes international submissions, particularly from authors in the Asia Pacific region

Biogerontology



First Issue/Volume: 2000

First online Issue/Volume: 2000

Editor-in-Chief: Suresh I.S. Rattan

Publisher: Springer

ISSN: 1389-5729

EISSN: 1573-6768

SCImago Journal Rank (2016): 1.172 (2012: 1.096)

Impact factor (IF): 3.231

5-year impact factor (IF): 3.203

Journal's website: http://www.springer.com/life+sciences/cell+biology/journal/10522

Description:

The journal Biogerontology offers a platform for research which aims primarily at achieving healthy old age accompanied by improved longevity. The focus is on efforts to understand, prevent, cure or minimize age-related impairments. Biogerontology provides a peer-reviewed forum for publishing original research data, new ideas and discussions on modulating the aging process by physical, chemical and biological means, including transgenic and knockout organisms; cell culture systems to develop new approaches and health care products for maintaining or recovering the lost biochemical functions; immunology, autoimmunity and infection in aging; vertebrates, invertebrates; biodemography and theoretical models linking aging and survival kinetics.

Canadian Journal on Aging

First Issue/Volume: 1982

First online Issue/Volume: 1982

Editor-in-Chief: Dr Paul Stolee

Publisher: Cambridge University Press

ISSN: 0714-9808

EISSN: 1710-1107

SCImago Journal Rank (2016): 0.372

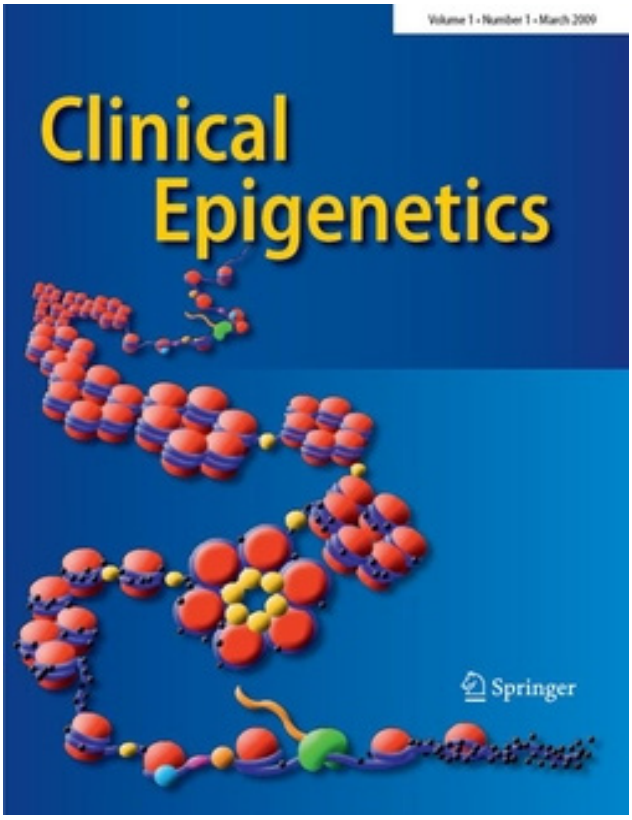
Impact factor (IF): 0.734

5-year impact factor (IF):

Journal's website: https://www.cambridge.org/core/journals/canadian-journal-on-aging-la-revue-canadienne-du-vieillissement

Description:

The Canadian Journal on Aging/La Revue canadienne du vieillissement (CJA/RCV) promotes excellence in research and disseminates the latest work of researchers in the social sciences, humanities, health and biological sciences who study the older population of Canada and other countries; informs policy debates relevant to aging through the publication of the highest quality research; seeks to improve the quality of life for Canada»s older population and for older populations in other parts of the world through the publication of research that focuses on the broad range of relevant issues from income security to family relationships to service delivery and best practices.



Clinical Epigenetics

First Issue/Volume: 2010

First online Issue/Volume: 2010

Editor-in-Chief: L. Altucci; M. Rots

Publisher: Springer

ISSN: 1868-7075

EISSN: 1868-7083

SCImago Journal Rank (2016): 1.845

Impact factor (IF): 4.987

5-year impact factor (IF):

Journal's website: http://www.springer.com/biomed/human+genetics/journal/13148

Description:

Clinical Epigenetics, the official journal of the Clinical Epigenetics Society, is an open access, peer-reviewed journal that encompasses all aspects of epigenetic principles and mechanisms in relation to human disease, diagnosis and therapy. Clinical trials and research in disease model organisms are particularly welcome.

Current Aging Science

First Issue/Volume: 2008

First online Issue/Volume: 2008

Editor-in-Chief: Lahiri, Debomoy K.

Publisher: Debomoy K. Bentham Science Publishers

ISSN: 1874-6128 (Online) 1874-6098 (Print)

EISSN:

SCImago Journal Rank (2016): 0.850

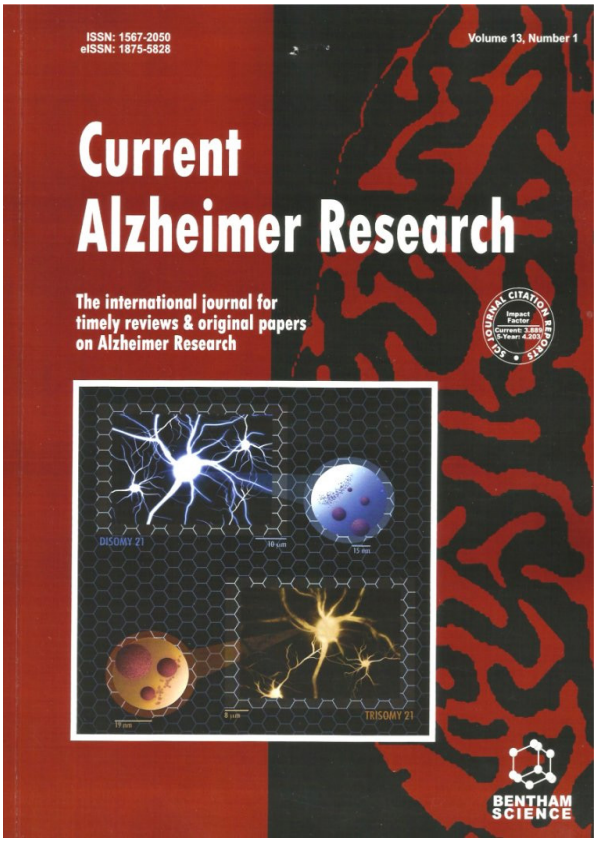
Impact factor (IF): 1.33

5-year impact factor (IF):

Journal's website: https://benthamscience.com/journal/index.php?journalID=cas

Description:

Current Aging Science publishes frontier review and experimental articles in all areas of aging and age-related research that may influence longevity. This multidisciplinary journal will help in understanding the biology and mechanism of aging, genetics, pathogenesis, intervention of normal aging process and preventive strategies of age-related disorders. The journal publishes objective reviews written by experts and leaders actively engaged in research using cellular, clinical, molecular, and animal models, including lower organism models (e.g., yeast, Caenorhabditis elegans and Drosophila). In addition to the affect of aging on integrated systems, the journal also covers original articles on recent research in fast emerging areas of adults stem cells, brain imaging, calorie restriction, immunosenescence, molecular diagnostics, pharmacology and clinical aspects of aging. Manuscripts are encouraged that relate to developmental programming of aging and the synergistic mechanism of aging with cardiovascular diseases, obesity and neurodegenerative disorders.



Current Alzheimer Research

First Issue/Volume: 2004

First online Issue/Volume: 2004

Editor-in-Chief: Lahiri, Debomoy K. & Murad, Ferid

Publisher: Bentham Science Publishers

ISSN: 1567-2050

EISSN:

SCImago Journal Rank (2016): 1.169

Impact factor (IF): 2.952

5-year impact factor (IF): 3.459

Journal's website: http://www.current-alzheimer-research.com/

Description:

Current Alzheimer Research publishes frontier review and research articles on all areas of Alzheimer's disease. This multidisciplinary journal will help in understanding the neurobiology, genetics, pathogenesis, and treatment strategies of Alzheimer's disease. The journal publishes objective reviews written by experts and leaders actively engaged in research using cellular, molecular, and animal models. The journal also covers original articles on recent research in fast emerging areas of molecular diagnostics, brain imaging, drug development and discovery, and clinical aspects of Alzheimer's disease. Manuscripts are encouraged that relate to the synergistic mechanism of Alzheimer's disease with other dementia and neurodegenerative disorders. Book reviews, meeting reports and letters-to-the-editor are also published. The journal is essential reading for researchers, educators and physicians with interest in age-related dementia and Alzheimer's disease. Current Alzheimer Research provides a comprehensive 'bird's-eye view' of the current state of Alzheimer's research for neuroscientists, clinicians, health science planners, granting, caregivers and families of this devastating disease.

Current Gerontology and Geriatrics Research

First Issue/Volume: 2008

First online Issue/Volume: 2008

Editor-in-Chief:

Publisher: Hindawi

ISSN: 1687-7063

EISSN: 1687-7071

SCImago Journal Rank (2016): 0.320

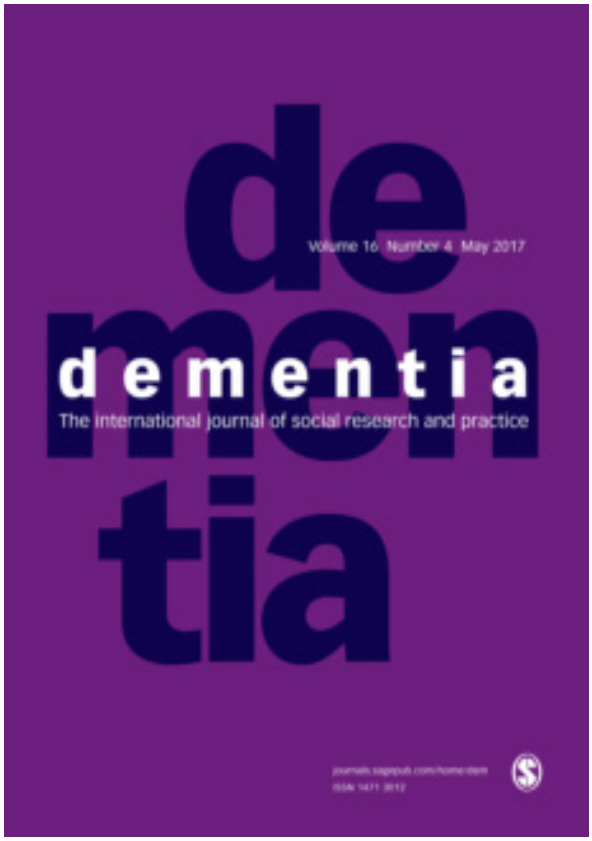
Impact factor (IF): 2.21

5-year impact factor (IF):

Journal's website: https://www.hindawi.com/journals/cggr/

Description:

Current Gerontology and Geriatrics Research is a peer-reviewed, journal aims at scientists, geriatricians, health professionals interested in molecular, cellular, organismal aspects of gerontological research and in diagnosis, treatment, evaluation and educational aspects of geriatrics research. The journal also highlights new discoveries, approaches as well as technical developments in basic, clinical and discovery driven translational research.Current Gerontology and Geriatrics Research is archived in Portico, which provides permanent archiving for electronic scholarly journals, as well as via the LOCKSS initiative. It operates a fully open access publishing model which allows open global access to its published content.



Dementia

First Issue/Volume:

First online Issue/Volume:

Editor-in-Chief: Keady, John & Harris, Phyllis Braudy

Publisher: Sage

ISSN: 1471-3012

EISSN: 1741-2684

SCImago Journal Rank (2016): 0.432

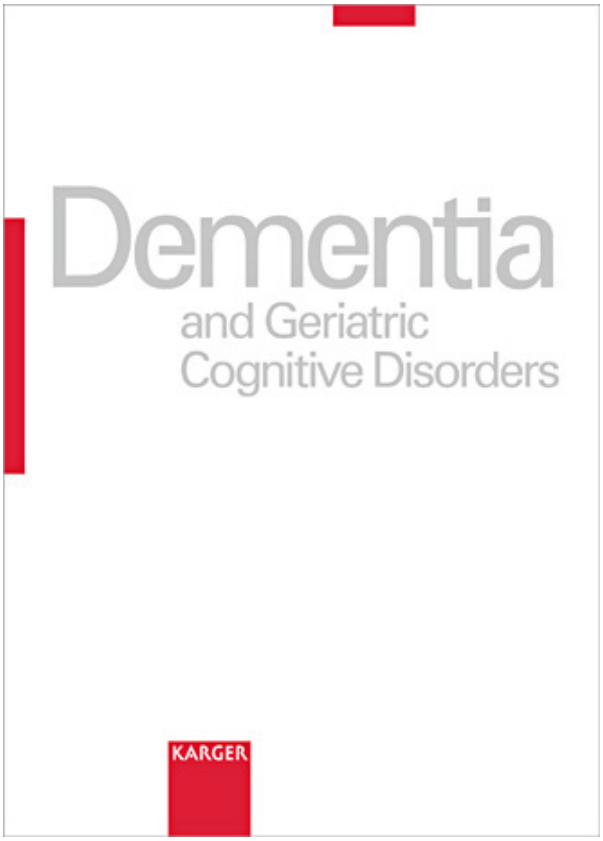
Impact factor (IF): 1.768

5-year impact factor (IF):

Journal's website: https://us.sagepub.com/en-us/nam/journal/dementia

Description:

The International Journal of Social Research and Practice has proved an exciting step forward for the field of dementia care generally, and social research specifically. Dementia acts as a major forum for social research of direct relevance to improving the quality of life and quality of care for people with dementia and their families.The Journal has proved an exciting step forward for the field of dementia care generally, and social research specifically. It acts as a major forum for social research of direct relevance to improving the quality of life and quality of care for people with dementia and their families.



Dementia and Geriatric Cognitive Disorders

First Issue/Volume: 1990

First online Issue/Volume: 1990

Editor-in-Chief: Chan-Palay, V.

Publisher: Karger

ISSN: 1420-8008

EISSN: 1421-9824

SCImago Journal Rank (2016): 1.235

Impact factor (IF): 3.511

5-year impact factor (IF): 3.121

Journal's website: https://content.karger.com/Journal/Home/224226

Description:

As a unique forum devoted exclusively to the study of cognitive dysfunction, Dementia and Geriatric Cognitive Disorders concentrates on Alzheimer's and Parkinson's disease, Huntington's chorea and other neurodegenerative diseases. The journal draws from diverse related research disciplines such as psychogeriatrics, neuropsychology, clinical neurology, morphology, physiology, genetic molecular biology, pathology, biochemistry, immunology, pharmacology and pharmaceutics. Strong emphasis is placed on the publication of research findings from animal studies which are complemented by clinical and therapeutic experience to give an overall appreciation of the field.The open access journal Dementia and Geriatric Cognitive Disorders Extra provides additional contents based on reviewed and accepted submissions to the main journal Dementia and Geriatric Cognitive Disorders.

Drugs & Aging

First Issue/Volume: 1991

First online Issue/Volume: 1991

Editor-in-Chief: Williamson, David

Publisher: Adis

ISSN: 1170-229X (print version)
1179-1969 (online version)

EISSN: 1179-1969

SCImago Journal Rank (2016): 0.812

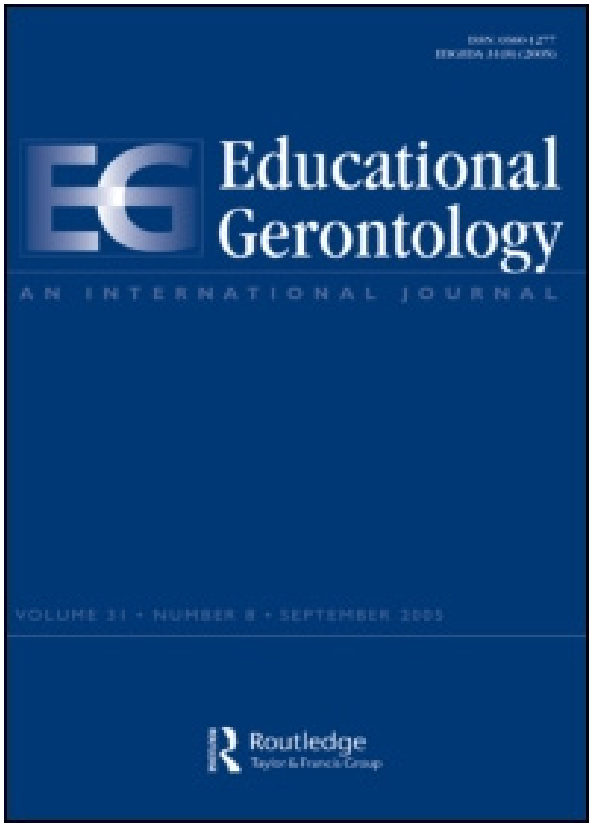
Impact factor (IF): 2.759

5-year impact factor (IF): 3.086

Journal's website: http://www.springer.com/medicine/family/journal/40266

Description:

Drugs & Aging delivers essential information on the most important aspects of drug therapy to researchers and healthcare professionals involved in the care of older patients.Through a program of reviews and original research articles, the journal addresses major issues relating to drug therapy in older adults, including the management of specific diseases or disorders, particularly those associated with aging, age-related physiological changes impacting drug therapy, and issues related to drug utilization and prescribing. Articles published in Drugs & Aging may be accompanied by plain language summaries, to assist patients, caregivers and others in understanding important medical advances.



Educational Gerontology

First Issue/Volume: 1976

First online Issue/Volume: 1976

Editor-in-Chief: Lumsden, Barry

Publisher: Routledge

ISSN: 0360-1277

EISSN: 1521-0472

SCImago Journal Rank (2016): 0.342

Impact factor (IF): 0.63

5-year impact factor (IF):

Journal's website: http://www.tandfonline.com/toc/uedg20/current

Description:

This well-respected journal offers up-to-date original research in the fields of gerontology, adult education, and the social and behavioral sciences. Researchers from around the world will benefit from the exchange of ideas for both the study and practice of educational gerontology. Papers published in the journal will also serve as authoritative contributions to the growing literature in this burgeoning field. Educational Gerontology is the only international journal of it s kind to publish eight issues per volume year.

European Journal of Ageing

First Issue/Volume: 2004

First online Issue/Volume: 2004

Editor-in-Chief: D.J.H. Deeg;
H.-W. Wahl; M. Aartsen

Publisher: Springer

ISSN: 1613-9372

EISSN: 1613-9380

SCImago Journal Rank (2016): 0.72

Impact factor (IF): 1.177

5-year impact factor (IF): 1.834

Journal's website: http://www.springer.com/social+sciences/journal/10433

Description:

The interdisciplinary European Journal of Ageing: Social, Behavioural and Health Perspectives (EJA) is devoted to the understanding of ageing around the world. Coverage includes original articles on the social, behavioral and health-related aspects of ageing, encouraging an integrated approach among these aspects. The editors emphasize empirical research, including meta-analyses, but also consider conceptual papers, including narrative reviews, and methodological contributions. By stimulating communication between researchers and those using research findings, EJA aims to contribute to the formulation of better policies and the development of better practice in serving older adults.

European Geriatric Medicine

First Issue/Volume: 2010

First online Issue/Volume: 2010

Editor-in-Chief: Michel, Jean-Pierre

Publisher: Elsevier

ISSN: 1878-7649

EISSN:

SCImago Journal Rank (2016): 0.204

Impact factor (IF): 1.336

5-year impact factor (IF): 1.078

Journal's website: https://www.journals.elsevier.com/european-geriatric-medicine/

Description:

European Geriatric Medicine is the official journal of the European Geriatric Medicine Society (EUGMS). Launched in 2010 this journal aims to publish the highest quality material, both scientific and clinical, on all aspects of Geriatric Medicine.The EUGMS is interested in the promotion of Geriatric Medicine in any setting (acute or subacute care, rehabilitation, nursing homes, primary care, fall clinics, ambulatory assessment, dementia clinics …), and also in functionality in old age, comprehensive geriatric assessment, geriatric syndromes, geriatric education, old age psychiatry, models of geriatric care in health services, and quality assurance.European Geriatric Medicine welcomes very specially research in any of the main focus areas of EUGMS at present: appropriate research and use of drugs in older people, cardiovascular geriatric medicine, sarcopenia & frailty, geriatric care and end of life care for older people.European Geriatric Medicine does not publish research in basic (laboratory or animal models) or social sciences or other wider aspects of gerontology and aging.

European Review of Aging and Physical Activity

First Issue/Volume: 2004

First online Issue/Volume: 2006

Editor-in-Chief: W. Zijlstra; Y. Netz

Publisher: Springer

ISSN: 1813-7253

EISSN: 1861-6909

SCImago Journal Rank (2016): 0.568

Impact factor (IF): 2.154

5-year impact factor (IF):

Journal's website: https: http://www.springer.com/medicine/family/journal/11556

Description:

The European Review of Aging and Physical Activity (EURAPA) is the official journal of EGREPA. It includes reviews on issues related to physical activity and aging in the biomedical and behavioral sciences. It covers topics from biochemistry, biomechanics, clinical sciences, ethics and philosophy, geriatrics, gerontology, health, motor learning and motor control, orthopedics, research methods, immunology, nutrition, pedagogy, physiology, psychology, sociology, test and measurement, and training. EURAPA offers the scientific community in-depth literature reviews from distinguished scholars, meta-analytically based reviews, and introductory reviews for researchers and practitioners wishing to look beyond the borders of their specialization.

Experimental Aging Research

First Issue/Volume: 1975

First online Issue/Volume: 1975

Editor-in-Chief: Jeffrey W. Elias, Ph.D.

Publisher: Routledge

ISSN: 0361-073X

EISSN: 1096-4657

SCImago Journal Rank (2016): 0.553

Impact factor (IF): 1.345

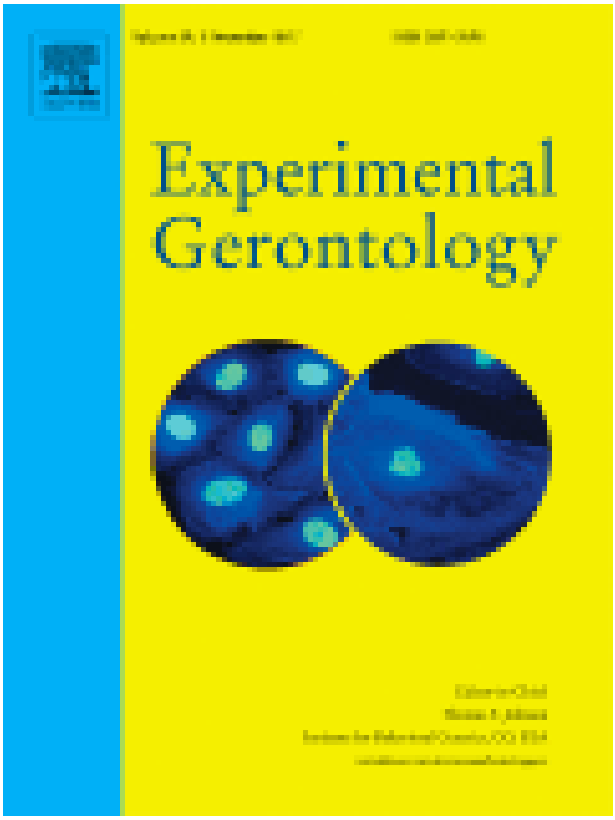
5-year impact factor (IF):

Journal's website: http://www.tandfonline.com/toc/uear20/current

Description:

Experimental Aging Research is a life span developmental and aging journal dealing with research on the aging process from a psychological and psychobiological perspective. It meets the need for a scholarly journal with refereed scientific papers dealing with age differences and age changes at any point in the adult life span. Areas of major focus include experimental psychology, neuropsychology, psychobiology, work research, ergonomics, and behavioral medicine. Original research, book reviews, monographs, and papers covering special topics are published

Experimental Gerontology



First Issue/Volume: 1964

First online Issue/Volume: 1964

Editor-in-Chief: Thomas Johnson

Publisher: Elsevier

ISSN: 0531-5565

EISSN:

SCImago Journal Rank (2016): 1.584

Impact factor (IF): 3.340

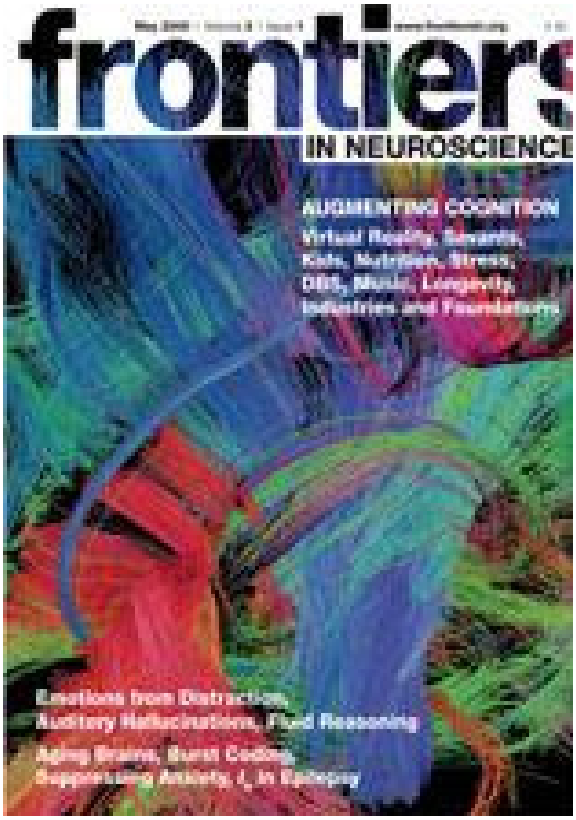
5-year impact factor (IF): 3,491

Journal's website: https://www.journals.elsevier.com/experimental-gerontology/

Description:

Experimental Gerontology is a multidisciplinary journal for the publication of work from all areas of biogerontology, with an emphasis on studies focused at the systems level of investigation, such as whole organisms (e.g. invertebrate genetic models), immune, endocrine and cellular systems, as well as whole population studies (e.g. epidemiology). The journal also publishes studies into the behavioural and cognitive consequences of aging, where a clear biological causal link is implicated.

Frontiers in Aging Neuroscience



First Issue/Volume: 2009

First online Issue/Volume: 2009

Editor-in-Chief: Gemma Casadesus, Rodrigo Orlando Kuljiš

Publisher:

ISSN:

EISSN: 1663-4365

SCImago Journal Rank (2016): 1.865

Impact factor (IF): 4.504

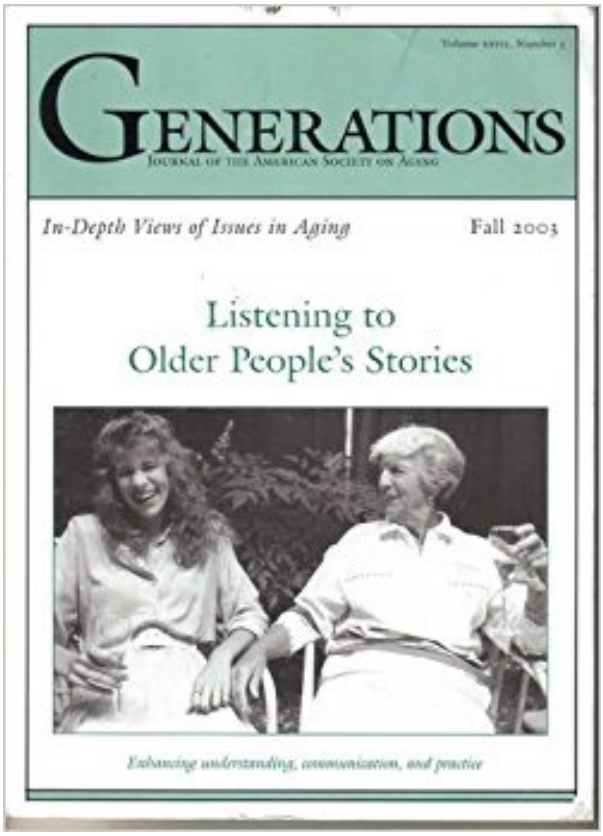
5-year impact factor (IF):

Journal's website: https://www.frontiersin.org/journals/aging-neuroscience

Description:

Frontiers in Aging Neuroscience is a leading journal in its field, publishing rigorously peer-reviewed research that advances our understanding of the mechanisms of Central Nervous System aging and age-related neural diseases.This multidisciplinary open-access journal is at the forefront of disseminating and communicating scientific knowledge and impactful discoveries to researchers, academics, clinicians and the public worldwide.

Frontiers in Aging Neuroscience is a cutting-edge multidisciplinary journal aimed at fostering the understanding of mechanistic processes associated with CNS aging and age-related neuronal diseases. Another central role of the journal is to bring cohesion between disciplines and theories focused on understanding the fundamental processes of senescence.



Generations

First Issue/Volume: 1977

First online Issue/Volume: 2000

Editor-in-Chief: Guest editors

Publisher: American Society on Aging

ISSN: 0738-7806

EISSN:

SCImago Journal Rank (2016): 0.183

Impact factor (IF): 0.215

5-year impact factor (IF):

Journal's website: https://metapress.com/about/

Description:

We're on a mission to grow and share the world's knowledge, to help people take more informed actions. Metapress is the best place to learn about entrepreneurship, medicine, law and so much more — with content created specifically to take hard topics, and make them easier to understand. Practitioners and researchers in the field of aging have long relied on Generations to provide them with in-depth research, practical applications, and valuable insight into the lives of older adults and those who work with them. Each issue features several articles on a single topic, guest-edited by one or more recognized experts in the subject area, and includes contributions from a range of practitioners, researchers, policymakers and elders. Authoritative and comprehensive, Generations offers a wide range of perspectives on relevant and timely topics in aging.

Geriatrics & Gerontology International

First Issue/Volume: 2001

First online Issue/Volume: 2001

Editor-in-Chief: Kentaro Shimokado

Publisher: Wiley-Blackwell

ISSN: 1444-1586

EISSN: 1447-0594

SCImago Journal Rank (2016): 0.831

Impact factor (IF): 2.351

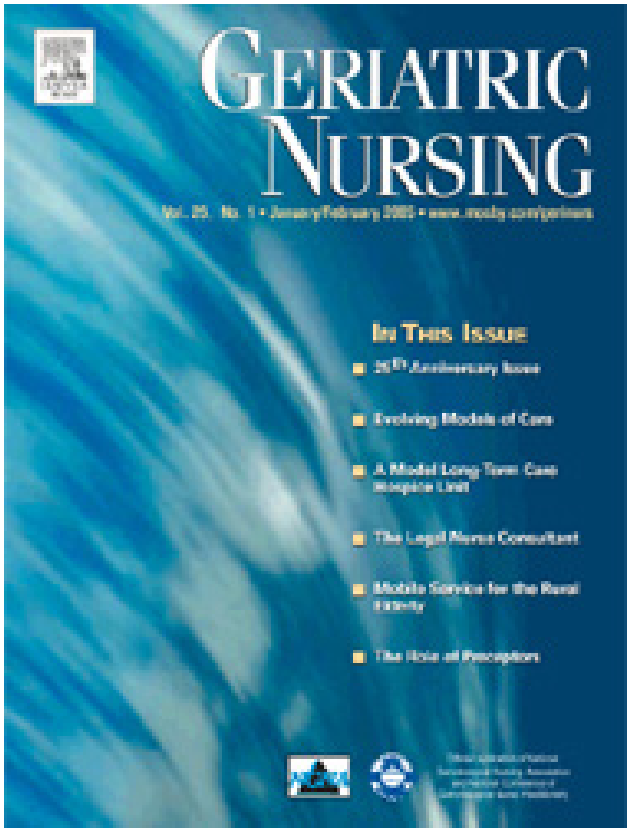
5-year impact factor (IF):

Journal's website: http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1447-0594

Description:

Geriatrics & Gerontology International in interdisciplinary journal. Upon submission, authors will be asked to identify the category for their article is Biology/ Behavioral and Social Sciences/ Epidemiology, Clinical Practice and Health/ Social Research, Planning and Practice, in order to allow their manuscripts to be processed with speed and efficiency.Manuscrip Submission is welcome via Manuscript Central

Geriatric Nursing



First Issue/Volume: 1980

First online Issue/Volume: 1980

Editor-in-Chief: Barbara Resnick, Baltimore, Maryland

Publisher: Elsevier

ISSN: 0197-4572

EISSN: 1528-3984

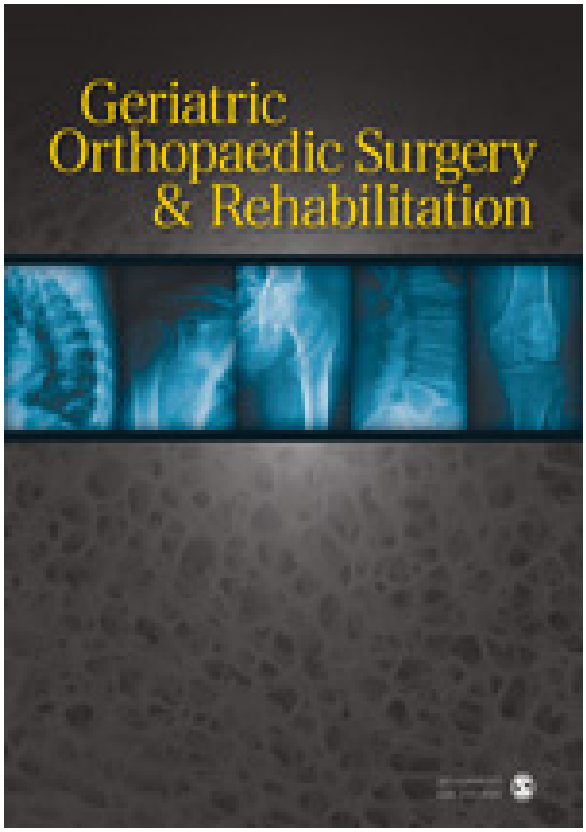
SCImago Journal Rank (2016): 0.374

Impact factor (IF): 1.142

5-year impact factor (IF): 1.601
Journal's website: https://www.journals.elsevier.com/geriatric-nursing/

Description:

Geriatric Nursing is a comprehensive source for clinical information and management advice relating to the care of older adults. The journal peer-reviewed articles report the latest developments in the management of acute and chronic disorders and provide practical advice on care of older adults across the long term continuum. Geriatric Nursing addresses current issues related to drugs, advance directives, staff development and management, legal issues, client and caregiver education, infection control, and other topics. The journal is written specifically for nurses and nurse practitioners who work with older adults in any care setting.



Geriatric Orthopaedic Surgery & Rehabilitation

First Issue/Volume: 2003

First online Issue/Volume: 2011

Editor-in-Chief: Stephen L. Kates, MD

Publisher: Sage

ISSN: 2151-4585

EISSN: 2151-4593

SCImago Journal Rank (2016): 0.291

Impact factor (IF):

5-year impact factor (IF):

Journal's website: https://us.sagepub.com/en-us/nam/geriatric-orthopaedic-surgery-rehabilitation/journal201994

Description:

Geriatric Orthopaedic Surgery & Rehabilitation (GOS) is an online resource providing open access, peer-reviewed clinical information for orthopaedic surgeons and anesthesiologists, geriatricians, and other physicians, publishing the broad range of musculoskeletal disorders in the aging patient through research reports and reviews, technical perspectives, case studies, and other evidence-based articles.

Gerokomos

First Issue/Volume: 1990

First online Issue/Volume: 2006

Editor-in-Chief: J. Javier Soldevilla Agreda

Publisher: Ediciones SPA S.L.

ISSN: 1134-928X

EISSN: 1578-164X

SCImago Journal Rank (2016): 0.212

Impact factor (IF):

2-year impact factor (IF): 0.0615/ 3-year IF:0.1429

Journal's website: http://scielo.isciii.es/scielo.php?script=sci_serial&lng=es&pid=1134-

Description:

Publish works addressed to the nursing staff dedicated to gerontology and geriatrics and other professionals involved in the care of the elderly and in the care of chronic wounds.

Gerontechnology

First Issue/Volume:

First online Issue/Volume:

Editor-in-Chief: van Bronswijk, Johanna E.M.H.

Publisher: International Society for Gerontechnology

ISSN: 1569-1101

EISSN: 1569-111X

SCImago Journal Rank (2016): 0.176

Impact factor (IF): 0.21

5-year impact factor (IF):

Journal's website: https://www.ncbi.nlm.nih.gov/labs/journals/gerontechnology/

Description:

This is the Official Journal of the International Society for Gerontechnology (www.gerontechnology.info). Members receive the electronic version as part of their membership benefits. Sustainability of an ageing society depends upon our effectiveness in creating technological environments for innovative and independent living and social participation of older persons in good health, comfort, and safety. These objectives comprise the multidisciplinary field of Gerontechnology. The aim of this journal is to provide a forum for reporting original research and review papers in the broad area of fitting technological environments to living, leisure and working of the ageing.

Gerontology

First Issue/Volume: 1957

First online Issue/Volume: 1957

Editor-in-Chief: Wick G

Publisher: Karger

EISSN: 1423-0003

SCImago Journal Rank (2016): 1.511

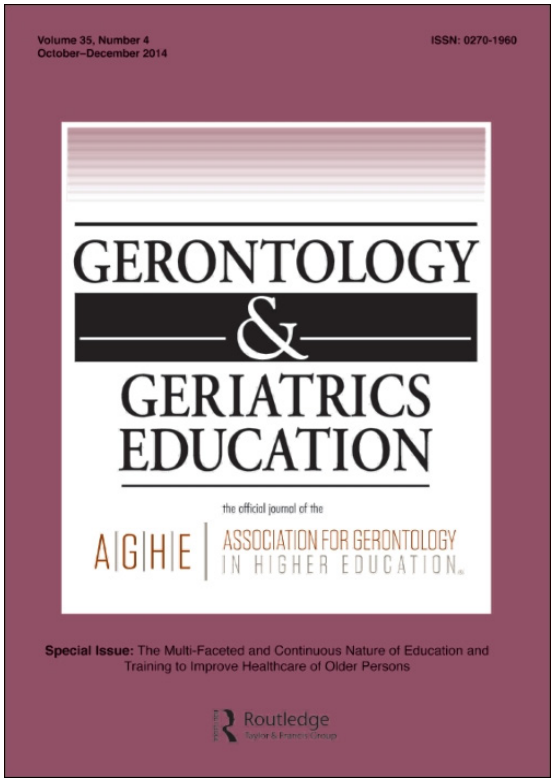
Impact factor (IF): 4,252

5-year impact factor (IF): 3.824

Journal's website: https://content.karger.com/Journal/Home/224091

Description:

As the ratio of people over sixty-five continues to rise, understanding the basic mechanisms of aging and age-related diseases has become a matter of urgent necessity. «Gerontology» responds to this need by drawing experimental contributions from diverse medical, biological, behavioural and technological disciplines to provide a primary source of high quality papers covering all aspects of aging in man and animals. Recent research on the clinical problems of aging and the practical applications of laboratory results is also included to support the fundamental goals of extending active life and enhancing its quality. Informative reviews and an open Debate Section for stimulating, speculative articles carry strong reader approval.



Gerontology & Geriatrics Education

First Issue/Volume: 1980

First online Issue/Volume: 1980

Editor-in-Chief: JUDITH L. HOWE, PhD

Publisher: Routledge

ISSN: 0270-1960

EISSN: 1545-3847

SCImago Journal Rank (2016): 0.496

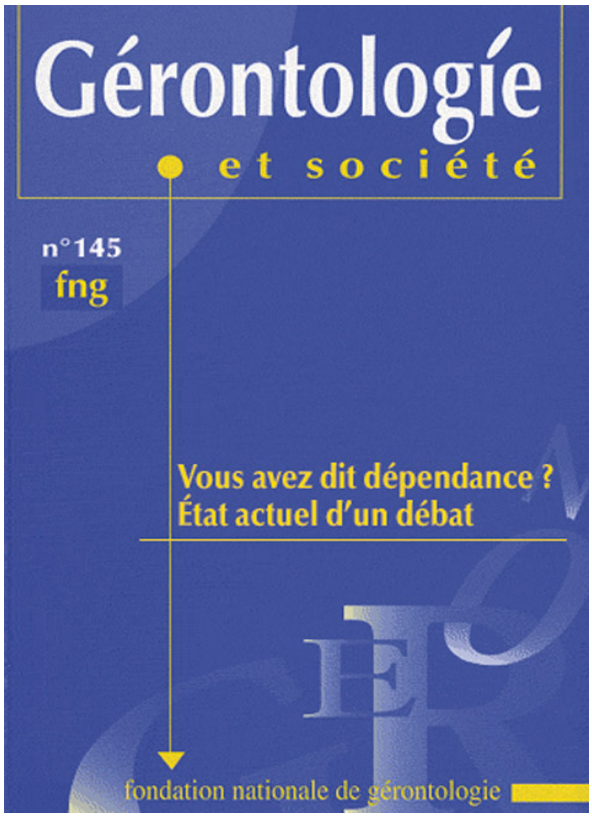
Impact factor (IF): 0.27

5-year impact factor (IF):

Journal's website: http://www.tandfonline.com/toc/wgge20/current

Description:

Gerontology & Geriatrics Education is geared toward the exchange of information related to research, curriculum development, course and program evaluation, classroom and practice innovation, and other topics with educational implications for gerontology and geriatrics. It is designed to appeal to a broad range of students, teachers, practitioners, administrators, and policy makers and is dedicated to improving awareness of best practices and resources for gerontologists and gerontology/geriatrics educators. Peer Review Policy: All research articles in this journal have undergone rigorous peer review, based on initial editor screening and anonymous refereeing by two anonymous referees



Gérontologie et Société

First Issue/Volume: 1972

First online Issue/Volume: 2001

Editor-in-Chief:

Publisher: Fondation National de Gérontologie

ISSN: 0151-0193

EISSN: 2101-0218

SCImago Journal Rank (2016): 0.1

Impact factor (IF):

5-year impact factor (IF):

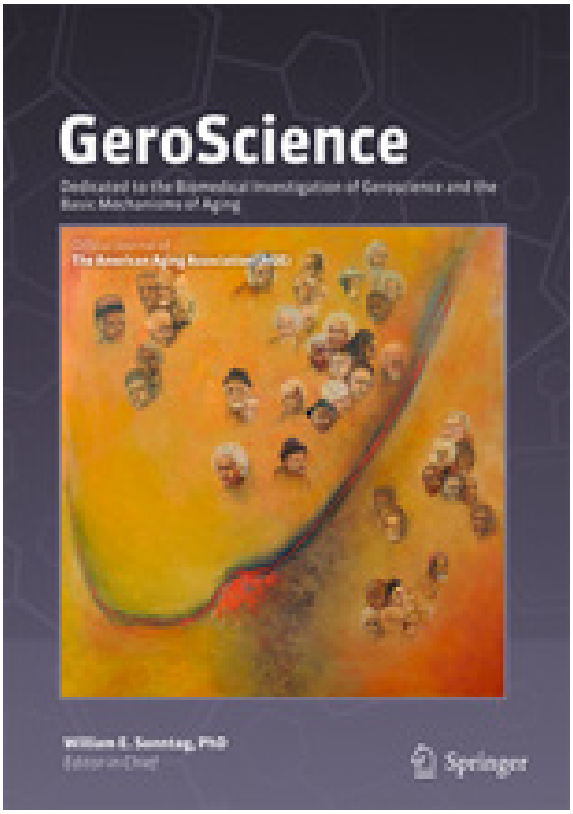
Journal's website: http://indexsavant.net/index.php?title=G%E9rontologie_et_soci%E9t%E9

Description:

Each quarter, Gerontology and Society presents a thematic file on the state of reflection and research on an issue.

Treated by specialists in the social and medical sciences, as well as by field workers and decision-makers, the most varied subjects are discussed in the form of analyzes, testimonials or opinion pieces. A bibliography at the end of each issue reviews the books available on this topic at the Foundation's Documentation Center.

GeroScience



First Issue/Volume: 1978

First online Issue/Volume: 1978

Editor-in-Chief: William E. Sonntag

Publisher: Springer

ISSN: 0161-9152

EISSN: 1574-4647

SCImago Journal Rank (2012): 0.661

Impact factor (IF): 2.123

5-year impact factor (IF):

Journal's website: http://www.springer.com/life+sciences/cell+biology/journal/11357

Description:

GeroScience is a bi-monthly, international, peer-reviewed journal that publishes articles related to research in the biology of aging and research on biomedical applications that impact aging. The scope of articles to be considered include evolutionary biology, biophysics, genetics, genomics, proteomics, molecular biology, cell biology, biochemistry, endocrinology, immunology, physiology, pharmacology, neuroscience, and psychology.

Hallym International Journal of Aging

First Issue/Volume:

First online Issue/Volume:

Editor-in-Chief: Yoon, Hyunsook & Hendricks, Jon

Publisher: Baywood Publishing Company

ISSN: 1535-6523

EISSN: 1541-4485

SCImago Journal Rank (2013): 0.141

Impact factor (IF) (2001): 0.4

5-year impact factor (IF):

Journal's website: https://www.routledge.com/posts/10153

Description:

Hallym University has been designated by the Korean Government as a university specializing in studies on aging and has received research funding. For the first time in Korea, both Undergraduate and Graduate Schools of Hallym University have established courses on Gerontology and Geriatrics. Hallym University has become the center for research and education on aging in Korea. The University publishes foreign countries' research findings in the field of social and behavioral sciences carried out in Korea and contributes to enhancing the domestic research level through academic and research exchanges with foreign scholars. Considering the cultural characteristics of Asia toward the aged, Hallym University plans to focus research on Family and Community Care.

Immunity & Ageing

First Issue/Volume: 2004

First online Issue/Volume: 2004

Editor-in-Chief: Caruso, Calogero

Publisher: BioMed Central

ISSN:

EISSN: 1742-4933

SCImago Journal Rank (2016): 1.108

Impact factor (IF): 2.216

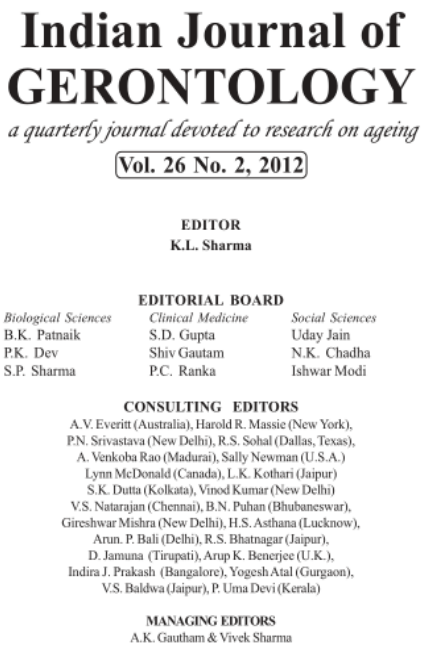
5-year impact factor (IF):

Journal's website: https://immunityageing.biomedcentral.com

Description:

Immunity & Ageing is an Open Access, peer-reviewed, online journal that considers manuscripts on all aspects of ageing examined from an immunological point of view. During the past century, mankind has gained more years of average life expectancy than in the last 10,000 years. More than 20% of the Western population is over 60 years of age, and the proportion of those over 85 is growing six times faster than the population as a whole. Over the last few years, journals oriented towards gerontology and geriatric sciences have been accepting an increasing number of articles dealing with immunology of ageing, but a specialised journal in this area does not exist. Immunity & Ageing will be an opportunity to focus on this topic, which is emerging as one of the critical mechanisms in ageing

Indian Journal of Gerontology


Indian Journal of
GERONTOLOGY
a quarterly journal devoted to research on ageing
Vol. 26 No. 2, 2012

EDITOR
K.L. Sharma

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First Issue/Volume: 1969

First online Issue/Volume:

Editor-in-Chief: Sharma, K.L.

Publisher: Gerontology India

ISSN: 0971-4189

EISSN:

SCImago Journal Rank (2016):

Impact factor (IF):

5-year impact factor (IF):

Journal's website: http://www.gerontologyindia.com/journal.htm

Description:

Indian Journal of Gerontology is a quarterly Journal., devoted to research on Ageing. It was first published in January 1969. It is the first Journal in India and ranks 17 in the chronology of all the Journals published on gerontology the world over. Indian Journal of Gerontology is of an interdisciplinary character and has three sections: Biological Sciences, Clinical Medicine and Social Sciences. It publishes research studies, review articles, book-reviews on Gerontology. In Readers' column one can send his views and comments on the published articles.Sofar16 vols. of the Journal have come out. Vol. 15 and Vol. 16, Nos.1&2 are special issues on Social and Biological aspects of Ageing respectively. We are planning to bring out a special issue on Clinical aspect of ageing.

International Journal of Ageing and Later Life

First Issue/Volume:

First online Issue/Volume: 2006

Editor-in-Chief: Peter Öberg,
Gävle University, Sweden

Publisher: Linköping University
Electronic Press

ISSN: 1652-8670

EISSN:

SCImago Journal Rank (2016): 0.157

Impact factor (IF): 0.58

5-year impact factor (IF):

Journal's website: http://www.ep.liu.se/ej/ijal/

Description:

The International Journal of Ageing and Later Life (IJAL) serves an audience interested in social and cultural aspects of ageing and later life development. As such, the Journal welcomes contributions that aim at advancing the theoretical and conceptual debate on research on ageing and later life. Contributions based on empirical work are also welcome as are methodologically interested discussions of relevance to the study of ageing and later life. Being an international journal, IJAL acknowledges the need to understand the cultural diversity and context dependency of ageing and later life.

International Journal of Aging and Society

First Issue/Volume: 2011

First online Issue/Volume: 2012

Editor-in-Chief: Wray, Sharon

Publisher: Common Ground

ISSN: 2160-1909

EISSN: 2160-1917

SCImago Journal Rank (2016):

Impact factor (IF):

5-year impact factor (IF):

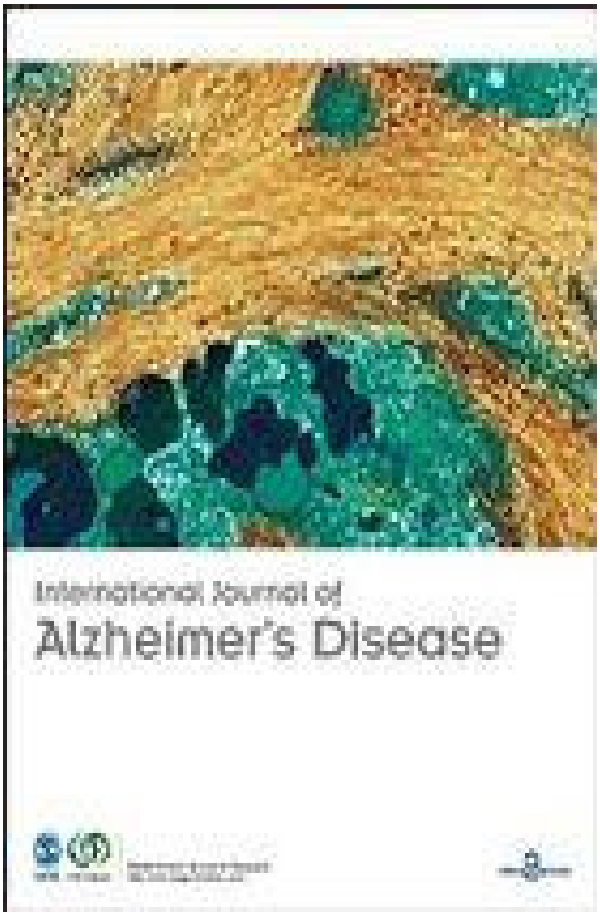
Journal's website: http://agingandsociety.com/journal

Description:

The International Journal of Aging and Society provides an international forum for the discussion of a rapidly growing segment of the population, in developed countries as well as in developing countries. Contributions range from broad theoretical and global policy explorations to detailed studies of the specific human physiological, health, economic, and social dynamics of aging in today's global society. The journal is a focal point for interdisciplinary research involving psychology, neuroscience, economics, sociology, anthropology, demography, nursing, biology, medicine, public health, epidemiology, gerontology, pharmacology, dentistry, health behavior and health education, "third age" education, management, marketing, and communications. Articles cover a range from big picture questions of public policy to the fine detail of research and practice-based discussion.

The International Journal of Aging and Society is peer-reviewed, supported by rigorous processes of criterion-referenced article ranking and qualitative commentary, ensuring that only intellectual work of the greatest substance and highest significance is published.

International Journal of Alzheimer‘s Disease



First Issue/Volume: 2009

First online Issue/Volume: 2009

Editor-in-Chief: Allsop, David et al.

Publisher: Sage-Hindawi

ISSN: 20908024

EISSN: 2090-0252

SCImago Journal Rank (2016): 0.599

Impact factor (IF): 1.53

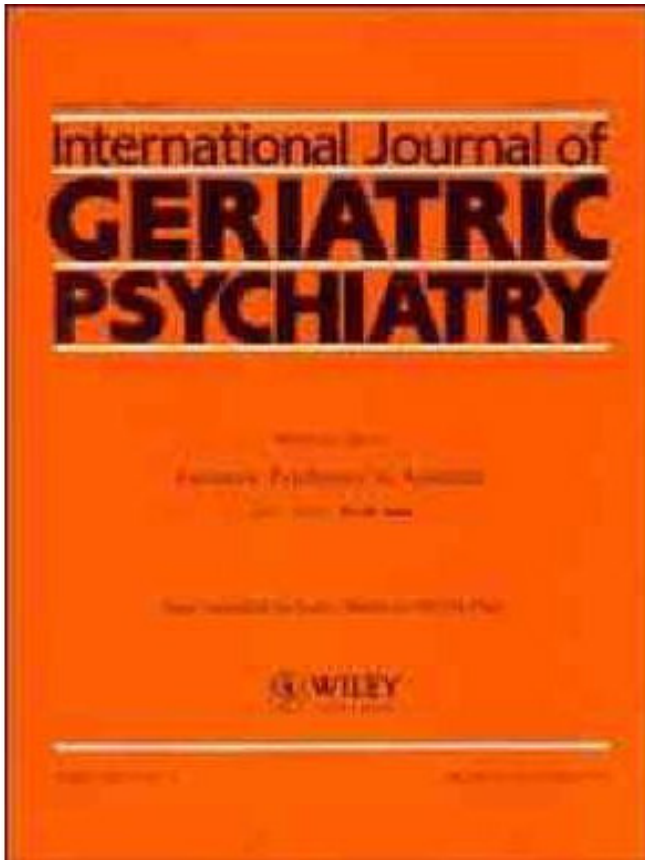
5-year impact factor (IF):

Journal’s website: https://www.hindawi.com/journals/ijad/

Description:

International Journal of Alzheimer’s Disease is a peer-reviewed, Open Access journal that publishes original research articles, review articles, and clinical studies in all areas of Alzheimer’s disease.

International Journal of Alzheimer’s Disease is archived in Portico, which provides permanent archiving for electronic scholarly journals, as well as via the LOCKSS initiative. It operates a fully open access publishing model which allows open global access to its published content. This model is supported through Article Processing Charges.



International Journal of Geriatric Psychiatry

First Issue/Volume: 1986

First online Issue/Volume: 1986

Editor-in-Chief: Burns, Alistair

Publisher: Wiley-Blackwell

ISSN: 0885-6230

EISSN: 1099-1166

SCImago Journal Rank (2016): 1.349

Impact factor (IF): 3.018

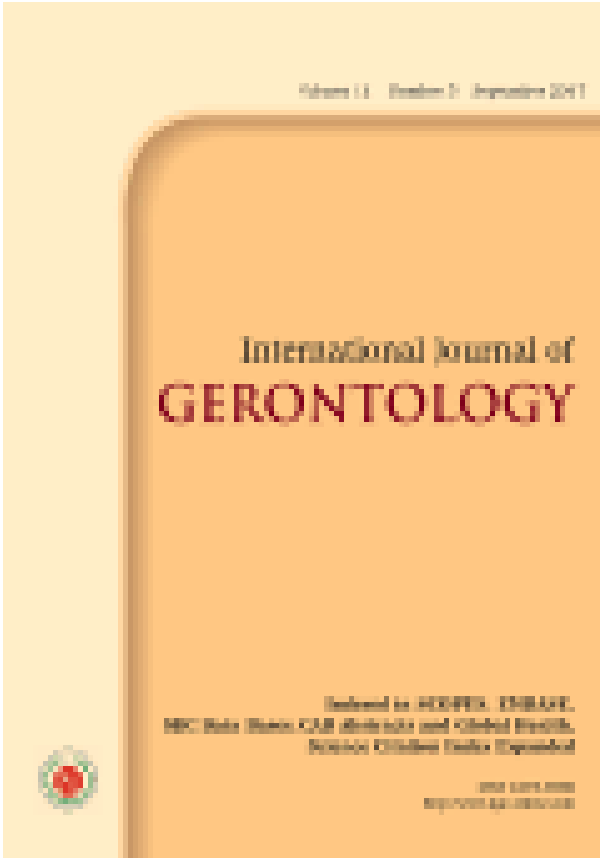
5-year impact factor (IF):

Journal's website: http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-1166

Description:

The rapidly increasing world population of aged people has led to a growing need to focus attention on the problems of mental disorder in late life. The aim of the Journal is to communicate the results of original research in the causes, treatment and care of all forms of mental disorder which affect the elderly. The Journal is of interest to psychiatrists, psychologists, social scientists, nurses and others engaged in therapeutic professions, together with general neurobiological researchers. The Journal provides an international perspective on the important issue of geriatric psychiatry, and contributions are published from countries throughout the world.

International Journal of Gerontology



First Issue/Volume: 2007

First online Issue/Volume: 2007

Editor-in-Chief: Hung-I Yeh

Publisher: Elsevier

ISSN: 1873-9598

EISSN:

SCImago Journal Rank (2016): 0.219

Impact factor (IF): 0.396

5-year impact factor (IF): 0.510

Journal's website: https://www.journals.elsevier.com/international-journal-of-gerontology/

Description:

The International Journal of Gerontology is the journal with intention to explore and clarify the medical science and philosophy in geriatric fields, especially those in the emergency and critical care medicine. The scientific information published here is grounded on clinical cases, statistic evidence of original studies, and accumulation of medical knowledge, humanistic ethics and basic researches.

International Psychogeriatrics

First Issue/Volume: 1989

First online Issue/Volume: 1989

Editor-in-Chief: Dilip V. Jeste

Publisher: Cambridge Journals

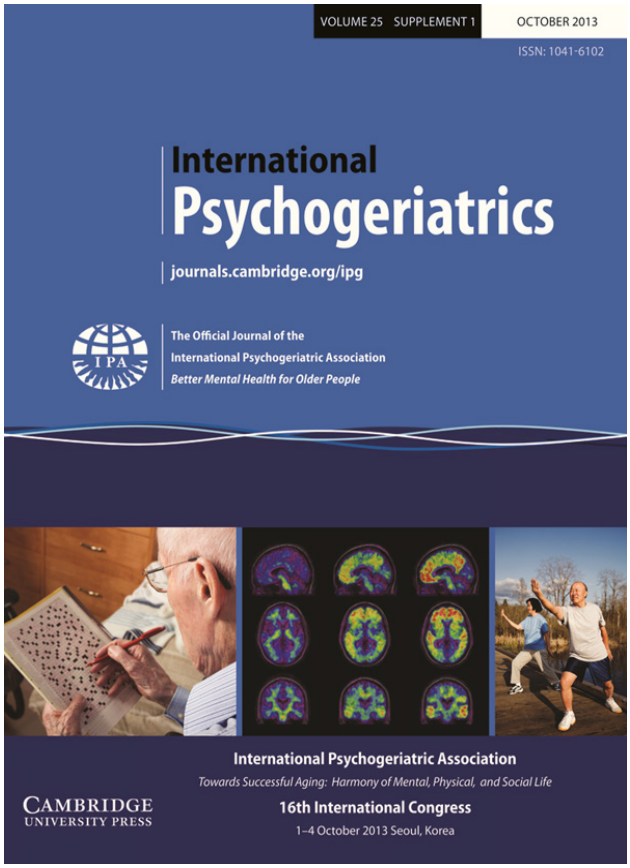
ISSN: 1041-6102

EISSN: 1741-203X

SCImago Journal Rank (2016): 1.007

Impact factor (IF): 2.423

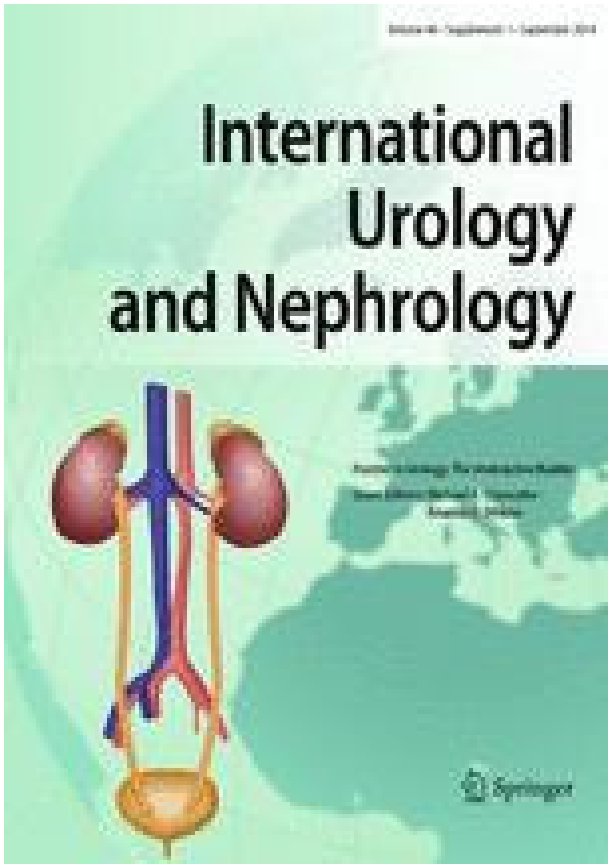
5-year impact factor (IF):



Journal's website: https://www.cambridge.org/core/journals/international-psychogeriatrics#

Description:

A highly respected, multidisciplinary journal, International Psychogeriatrics publishes high quality original research papers in the field of psychogeriatrics. The journal aims to be the leading peer reviewed journal dealing with all aspects of the mental health of older people throughout the world. Circulated to over 1,000 members of the International Psychogeriatric Association, published six times a year, International Psychogeriatrics also features important editorials, provocative debates, literature reviews, book reviews and letters to the editor. The journal published 2 supplements in 2009 and changed to an A4 format allowing an increase in content of around 20% in its six 224 page issues. Published for the International Psychogeriatric Association



International Urology and Nephrology

First Issue/Volume:

First online Issue/Volume:

Editor-in-Chief: A. Covic; A. Diokno

Publisher: Springer

ISSN: 0301-1623

EISSN: 1573-2584

SCImago Journal Rank (2016): 0.551

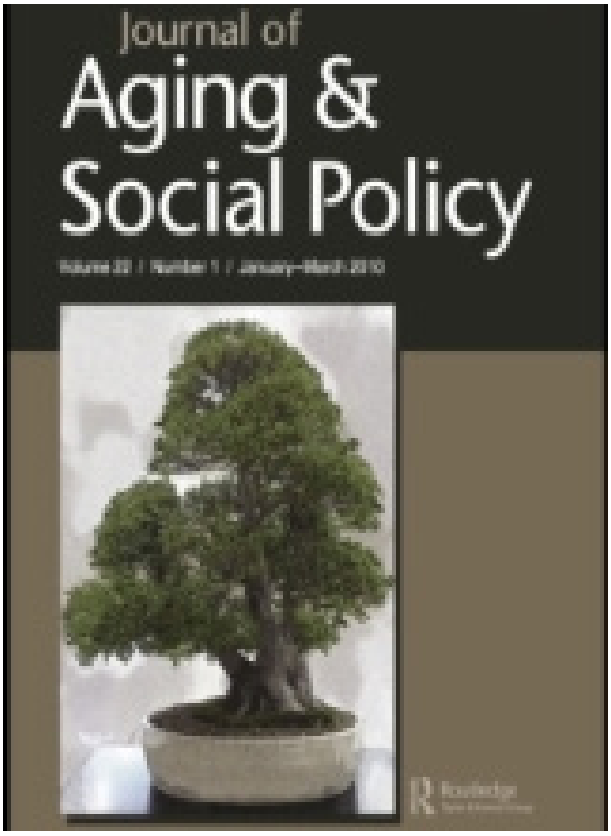
Impact factor (IF): 1.564

5-year impact factor (IF):

Journal's website: http://www.springer.com/medicine/internal/journal/11255

Description:

International Urology and Nephrology publishes original papers on a broad range of topics in urology, nephrology and andrology. The journal integrates papers originating from clinical practice. In addition to the regular papers, book reviews form an essential feature of the journal



Journal of Aging & Social Policy

First Issue/Volume: 1989

First online Issue/Volume: 1989

Editor-in-Chief:

Publisher:

ISSN:0895-9420

EISSN: 1545-0821

SCImago Journal Rank (2016): 0.628

Impact factor (IF): 1.256

5-year impact factor (IF):

Journal's website:

Description:

The Journal of Aging & Social Policy presents insightful contributions from an international and interdisciplinary panel of policy analysts, researchers, and scholars. The journal examines and analyzes policymaking and the political processes that affect the development and implementation of programs for the elderly from a global perspective, highlighting not only the United States but also Europe, the Middle East, Australia, Latin America, Asia, and the Asia-Pacific rim. Issues regularly addressed in the journal include: long-term care, home and community-based care, nursing home care, assisted living; long-term care financing, financial security, employment and training, public and private pension coverage; housing; transportation; health care access and financing; retirement.

Journal of Aging and Health

First Issue/Volume: 1989

First online Issue/Volume: 1989

Editor-in-Chief: Markides, Kyriakos, S.

Publisher: Sage

ISSN: 0898-2643

EISSN: 1552-6887

SCImago Journal Rank (2016): 1.198

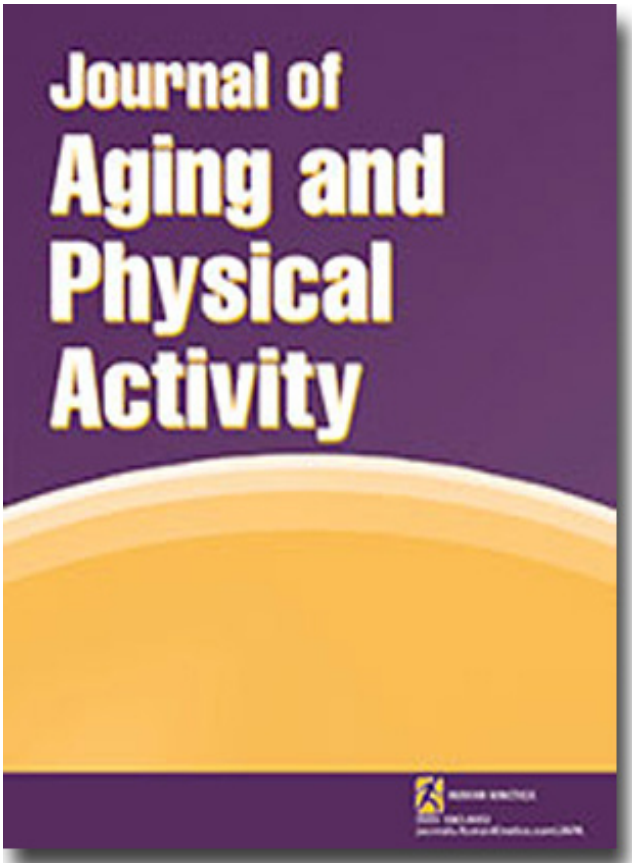
Impact factor (IF): 2.168

5-year impact factor (IF):

Journal's website: https://us.sagepub.com/en-us/nam/journal/journal-aging-and-health

Description:

The Journal of Aging and Health is an interdisciplinary forum for the presentation of research findings and scholarly exchange in the area of aging and health. Manuscripts are sought that deal with social and behavioral factors related to health and aging. Disciplines represented include the behavioral and social sciences, public health, epidemiology, demography, health services research, nursing, social work, medicine, and related disciplines. Although preference is given to manuscripts presenting the findings of original research, review and methodological pieces will also be considered



Journal of Aging and Physical Activity

First Issue/Volume: 1993

First online Issue/Volume: 1993

Editor-in-Chief: Philip D. Chilibeck

Publisher: Human Kinetics Publ. Inc.

ISSN: 1063-8652

EISSN: 1543-267X

SCImago Journal Rank (2016): 0.748

Impact factor (IF): 1.27

5-year impact factor (IF):

Journal's website: http://journals.humankinetics.com/journal/japa

Description:

The official journal of the International Coalition for Aging and Physical Activity. A multidisciplinary journal examining the dynamic relationship between physical activity and the aging process. To subscribe to either the print or e-version of JAPA, press the Subscribe or Renew button at the top of your screen

Journal of Aging Research

First Issue/Volume: 2010

First online Issue/Volume: 2010

Editor-in-Chief: Giulia Accardi and other

Publisher: Sage-Hindawi

ISSN: 2090-2212

EISSN: 2090-2212

SCImago Journal Rank (2016): 0.796

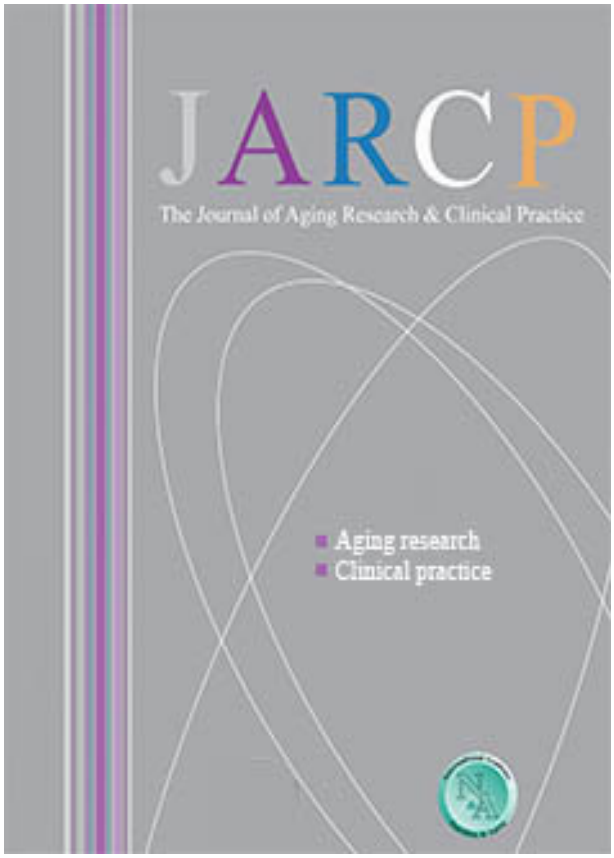
Impact factor (IF): 1.53

5-year impact factor (IF):

Journal's website: https://www.hindawi.com/journals/jar/

Description:

Journal of Aging Research is a peer-reviewed, Open Access journal that publishes original research articles, review articles, and clinical studies related to all aspects of aging. Journal of Aging Research is archived in Portico, which provides permanent archiving for electronic scholarly journals, as well as via the LOCKSS initiative. It operates a fully open access publishing model which allows open global access to its published content. This model is supported through Article Processing Charges.



Journal of Aging Research & Clinical Practice

First Issue/Volume: 2012

First online Issue/Volume: 2012

Editor-in-Chief: Garry, P.J.

Publisher: IAGG (International Association of Gerontology and Geriatrics) and GARN (IAGG's Global Aging Research Network)

ISSN: 2258-8094

EISSN: 2273-421X

SCImago Journal Rank (2016):

Impact factor (IF):

5-year impact factor (IF):

Journal's website: http://www.jarcp.com

Description:

The aims of the new journal is to connect more closely research on aging and clinical practice in several fields including Alzheimer's disease, memory and physical decline, sarcopenia, nutrition, and other age-related diseases or syndromes. Our aging population is growing fast, mostly in new emerging countries from Asia, South America and Africa. In the next few decades, these regions will need to benefit from all that has already been accomplished during the last century in Northern America and Western Europe. The Journal of Aging Research and Clinical Practice (J.A.R.C.P) is a new initiative of the IAGG (International Association of Gerontology and Geriatrics), and of the GARN (IAGG's Global Aging Research Network), dedicated to latest findings and clinical experiences in the fields of aging, gerontology and geriatrics.

Journal of Aging Studies

First Issue/Volume: 1987

First online Issue/Volume: 1987

Editor-in-Chief: J. Gubrium

Publisher: Elsevier

ISSN: 0890-4065

EISSN:

SCImago Journal Rank (2016): 1.094

Impact factor (IF): 1.248

5-year impact factor (IF): 1.874

Journal's website: https://www.journals.elsevier.com/journal-of-aging-studies/

Description:

The Journal of Aging Studies features scholarly papers offering new interpretations that challenge existing theory and empirical work. Articles need not deal with the field of aging as a whole, but with any defensibly relevant topic pertinent to the aging experience and related to the broad concerns and subject matter of the social and behavioral sciences and the humanities. The journal emphasizes innovations and critique - new directions in general - regardless of theoretical or methodological orientation or academic discipline. Critical, empirical, or theoretical contributions are welcome.

Journal of Alzheimer's Disease

First Issue/Volume: 1998

First online Issue/Volume: 1998

Editor-in-Chief: Smith, Mark A. & Perry, George

Publisher: IOS Press

ISSN: 1387-2877

EISSN: 1875-8908

SCImago Journal Rank (2016): 1.536
Comments:

Impact factor (IF): 3.731

5-year impact factor (IF):

Journal's website: https://www.j-alz.com/about/

Description:

The Journal of Alzheimer's Disease is an international multidisciplinary journal to facilitate progress in understanding the etiology, pathogenesis, epidemiology, genetics, behavior, treatment and psychology of Alzheimer's disease. The journal publishes research reports, reviews, short communications, book reviews, and letters-to-the-editor. The journal is dedicated to providing an open forum for original research that will expedite our fundamental understanding of Alzheimer's disease.

Journal of Applied Gerontology

First Issue/Volume: 1982

First online Issue/Volume: 1982

Editor-in-Chief: Cutchin, Malcolm P.

Publisher: Sage

ISSN: 0733-4648

EISSN: 1552-4523

SCImago Journal Rank (2016): 0.572

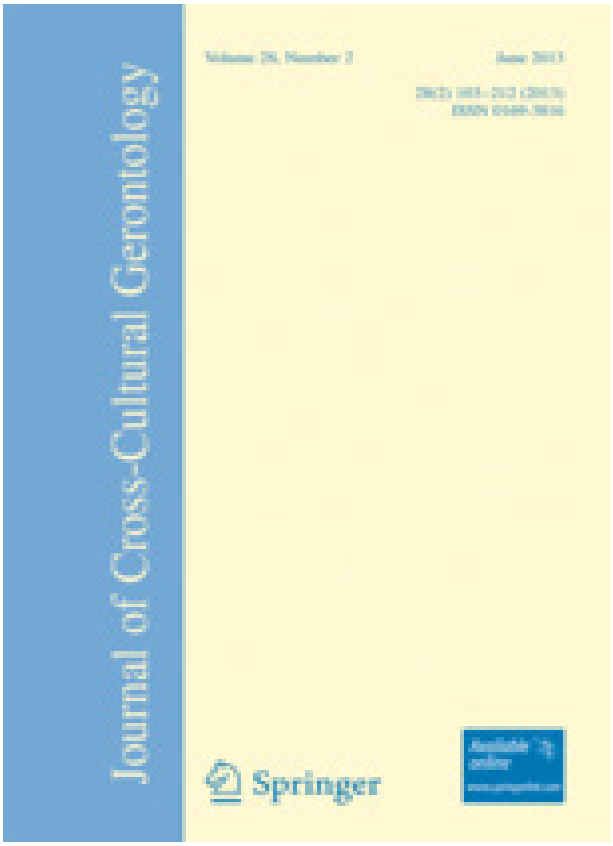
Impact factor (IF): 1.638

5-year impact factor (IF):

Journal's website: http://journals.sagepub.com/home/jag

Description:

Journal of Applied Gerontology (JAG), peer-reviewed and published monthly, provides an international forum for information that has clear and immediate applicability to the health, care, and quality of life of the elderly. It brings you comprehensive coverage of all areas of gerontological practice and policy, such as care-giving, exercise, death and dying, ethnicity and aging, technology and care, long-term care, mental health, and sexuality.



Journal of Cross-Cultural Gerontology

First Issue/Volume: 1986

First online Issue/Volume: 1997

Editor-in-Chief: Margaret A. Perkinson

Publisher: Springer

ISSN: 0169-3816

EISSN: 1573-0719

SCImago Journal Rank (2016): 0.444

Impact factor (IF): 1.61

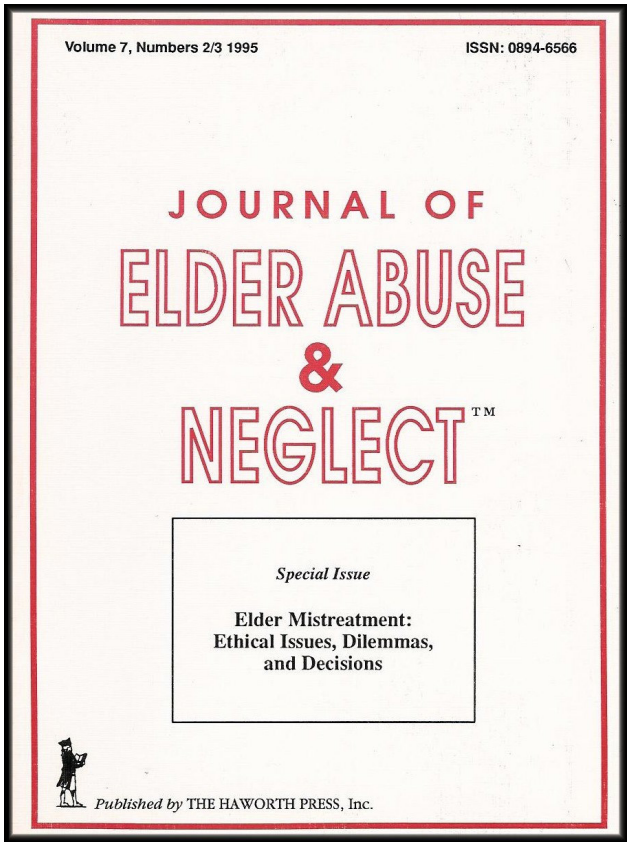
5-year impact factor (IF):

Journal's website: http://www.springer.com/social+sciences/journal/10823

Description:

The Journal of Cross-Cultural Gerontology offers an international and interdisciplinary forum for discussion of the aging process and the problems of the aged throughout the world. The journal emphasizes discussions of research findings, theoretical issues and applied approaches that deal with non-Western populations, as well as articles providing comparative orientation to the study of the aging process in its social, economic, historical and biological perspectives. Coverage includes a broad range of articles exploring non-Western societies, from such perspectives as history, anthropology, sociology, political science, psychology, population studies and health. Also included are articles from Western societies comparing sub-cultural groupings or ethnic minorities.

Journal of Elder Abuse & Neglect



First Issue/Volume: 1988

First online Issue/Volume: 1988

Editor-in-Chief: Anetzberger, Georgia

Publisher: Routledge

ISSN: 0894-6566

EISSN: 1540-4129

SCImago Journal Rank (2016): 0.491
Impact factor (IF) (2011): 2.83

5-year impact factor (IF):

Journal's website: http://www.tandfonline.com/action/aboutThisJournal?show=aimsScope&journalCode=wean20

Description:

The Journal of Elder Abuse & Neglect is the peer-reviewed quarterly journal that explores the advances in research, policy and practice, and clinical and ethical issues surrounding the abuse and neglect of older people. This unique forum provides state-of-the-art research and practice that is both international and multidisciplinary in scope. The journal»s broad, comprehensive approach is only one of its strengths—it presents training issues, research findings, case studies, practice and policy issues, book and media reviews, commentary, and historical background on a wide range of topics. Readers get tools and techniques needed for better detecting and responding to actual or potential elder abuse and neglect.

Journal of Geriatric Oncology

First Issue/Volume:

First online Issue/Volume:

Editor-in-Chief: Supriya Mohile

Publisher: Elsevier

ISSN: 1879-4068

EISSN: 18794076

SCImago Journal Rank (2016): 1.083

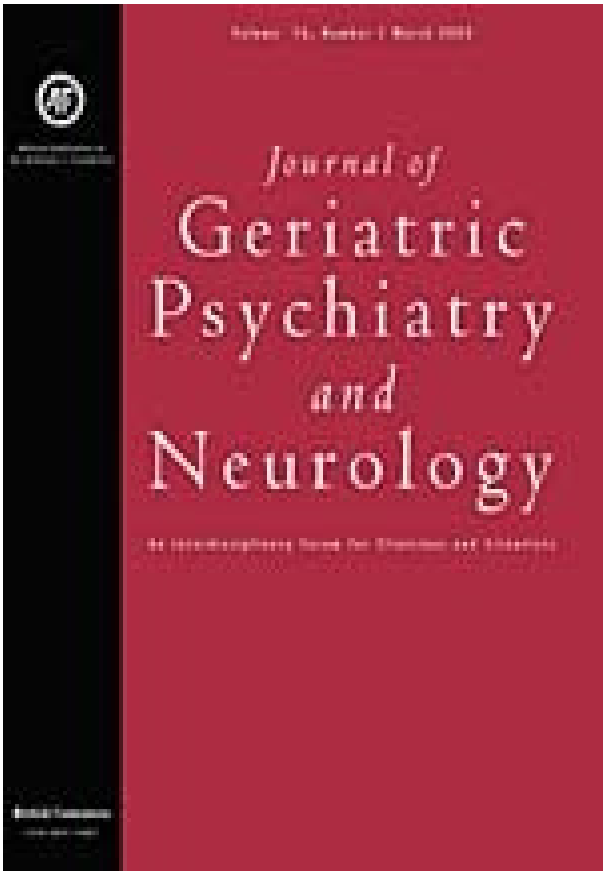
Impact factor (IF): 2.852

5-year impact factor (IF): 2.275

Journal's website: https://www.journals.elsevier.com/journal-of-geriatric-oncology/

Description:

The Journal of Geriatric Oncology is an international, multidisciplinary journal which is focused on advancing research in the treatment and survivorship issues of older adults with cancer, as well as literature relevant to education and policy development in geriatric oncology.



Journal of Geriatric Psychiatry and Neurology

First Issue/Volume:1966

First online Issue/Volume: 1988

Editor-in-Chief: Mellow, Alan M.

Publisher: Sage

ISSN: 0891-9887

EISSN: 1552-5708

SCImago Journal Rank (2016): 1.109

Impact factor (IF): 2.29

5-year impact factor (IF):

Journal's website: http://journals.sagepub.com/home/jgp

Description:

JGPN presents the results of clinical and research studies considering all aspects of the psychiatric and neuralgic care of aging patients, including age-related biologic, neuralgic, and psychiatric illness; psychosocial problems; forensic issues; and family care. It pursues advances in allied sciences as diverse as molecular biology and genetics, brain imaging, neuropathology, neuropsychology, pharmacology, epidemiology and health sciences research, which have fueled the burgeoning body of knowledge in geriatric psychology and neurology

Journal of Gerontological Nursing

First Issue/Volume: 1975

First online Issue/Volume: 2003

Editor-in-Chief: Buckwalter, Kathleen C

Publisher: Slack Inc.

ISSN: 0098-9134

EISSN:

SCImago Journal Rank (2016): 0.353

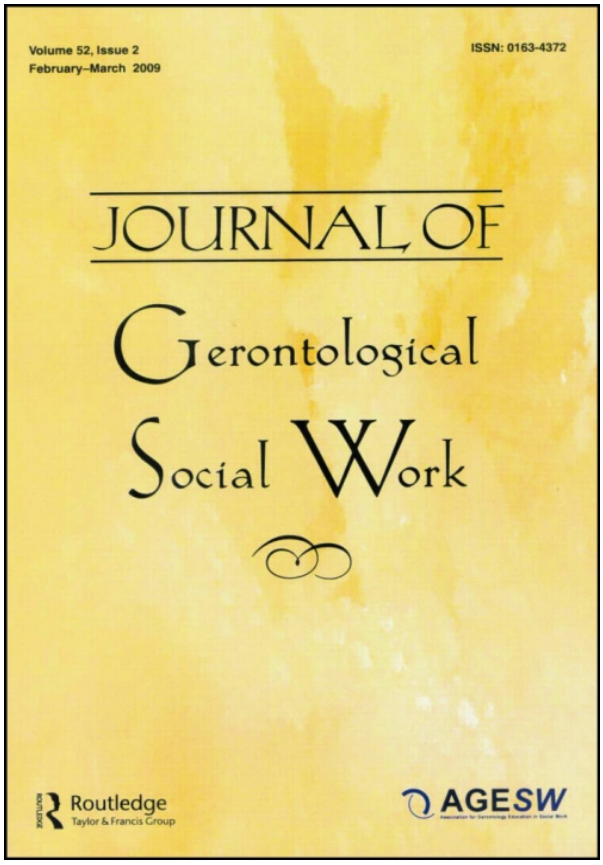
Impact factor (IF): 0.79

5-year impact factor (IF):

Journal's website: https://www.healio.com/nursing/journals/jgn

Description:

Today»s gerontological nurse needs the most practical, useful, and timely information available to achieve maximum success on the job. The Journal of Gerontological Nursing is a monthly peer-reviewed journal, publishing clinically relevant original articles on the practice of gerontological nursing across the continuum of care in a variety of health care settings. Sections include geropharmacology, clinical concepts, diagnosis dementia, legal issues, public policy, research briefs, and technology innovations, as well as a Continuing Nursing Education quiz, available in a full-color magazine format. Subscribers can also benefit from our featured Online Advanced Release—read articles before they appear in the print issue!



Journal of Gerontological Social Work

First Issue/Volume: 1979

First online Issue/Volume: 1979

Editor-in-Chief: Barusch, Amanda

Publisher: Routledge

ISSN: 0163-4372

EISSN: 1540-4048

SCImago Journal Rank (2016): 0.628

Impact factor (IF): 0.8

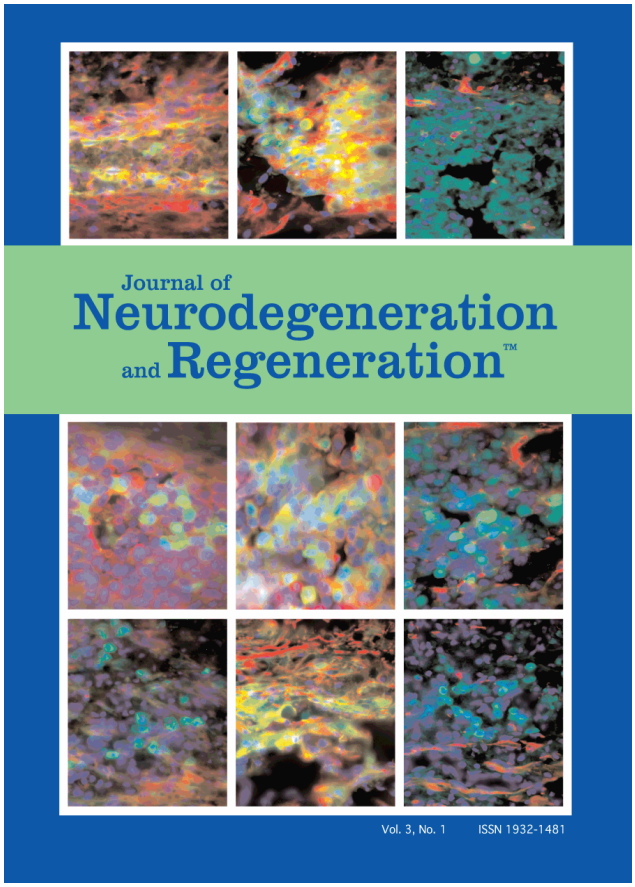
5-year impact factor (IF):

Journal's website: http://www.tandfonline.com/toc/wger20/current

Description:

With over 30 years of consistent, quality articles devoted to social work practice, theory, administration, and consultation in the field of aging, the Journal of Gerontological Social Work offers you the information you need to stay abreast of the changing and controversial issues of today»s growing aging population. A valuable resource for social work administrators, practitioners, consultants, and supervisors in long-term care facilities, acute treatment and psychiatric hospitals, mental health centers, family service agencies, community and senior citizen centers, and public health and welfare agencies, JGSW provides a respected and stable forum for cutting-edge insights by experts in the field

Journal of Neurodegeneration and Regeneration



First Issue/Volume:

First online Issue/Volume:

Editor-in-Chief: Taupin, Philippe & Helgason, Cathy M.

Publisher: Weston Medical Publishing, LLC

ISSN: 1932-1481

EISSN:

SCImago Journal Rank (2016): not (yet) indexed by SCImago

Impact factor (IF): 2.481

5-year impact factor (IF):

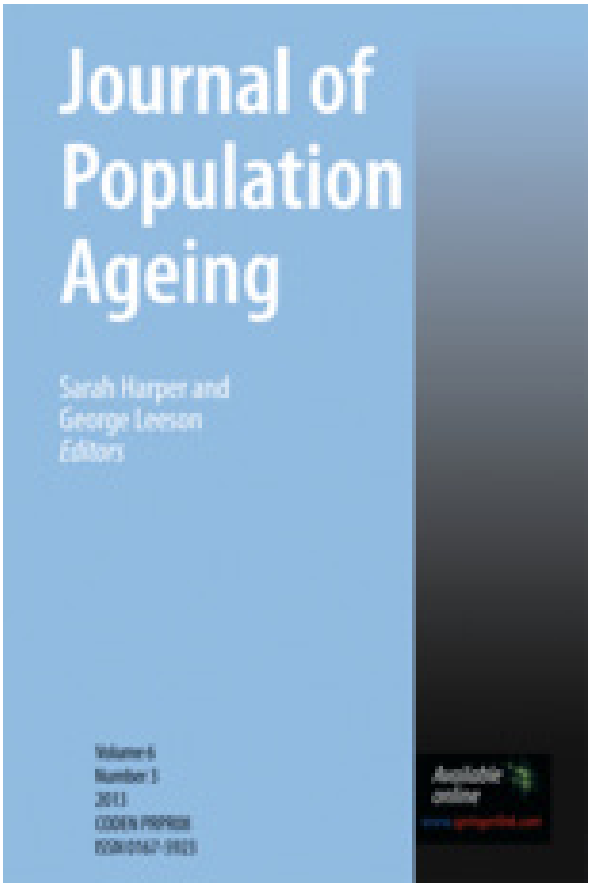
Journal's website: http://www.pnpco.com/pn02000.html

Description:

Until now, no journal has put the whole spectrum of neurodegeneration and regeneration from basic clinical research to case studies between its covers. With the introduction of the Journal of Neurodegeneration and Regeneration that now happens as the nation's top experts in the field bring to the medical community a long awaited exploration of the basic and clinical new and ongoing research being conducted in this critical field, research that will lead to better diagnosis, more effective treatments and ultimately, perhaps, cures.. Readers now have access to in-depth coverage of such things as:

- Recent developments in understanding the molecular mechanisms of neurodegeneration and neuroprotection
- The role of acetylcholinesterase in neurodegenerative diseases
- Understanding the aetiology of major neurodegenerative diseases and identifying ways of early detection
- The pathophysiological function of JNK
- The role of extracellular proteolysis by metalloproteases such as ADAMB in neuroprotection

Journal of Population Ageing



First Issue/Volume: 2008

First online Issue/Volume: 2008

Editor-in-Chief: Harper, Sarah & Leeson, George

Publisher: Springer

ISSN: 1874-7884

EISSN: 1874-7876

SCImago Journal Rank (2016): 0.207

Impact factor (IF):1.882

5-year impact factor (IF):

Description:

The Journal of Population Ageing (JPA) examines the broad questions of ageing societies throughout the world, thereby stimulating discussion of North American, European, and Transitional and Developing World issues. It provides a forum for international, cross-disciplinary debate on population ageing, focusing on theoretical and empirical research and methodological innovation and development.This interdisciplinary journal publishes editorials, original peer reviewed articles, book reviews, and abstracts. It offers high quality research of interest to professionals working in the fields of demography, bio-demography, development studies, area studies, sociology, geography, history, social gerontology, economics, and social and health policy.Examines the broad questions of ageing societies throughout the world .Provides a forum for international, cross-disciplinary debate on population ageing . Focuses on theoretical and empirical research and methodological innovation and development.

Journal of the American Geriatrics Society

First Issue/Volume: 1954

First online Issue/Volume: 2001

Editor-in-Chief: Yoshikawa, Thomas T.

Publisher: Wiley-Blackwell

ISSN: 0002-8614

EISSN: 1532-5415

SCImago Journal Rank (2016): 2.088

Impact factor (IF): 4.388

5-year impact factor (IF):

Journal's website: http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291532-5415

Description:

The primary goal of the Journal of the American Geriatrics Society is to publish articles that are relevant in the broadest terms to the clinical care of older persons. Such articles may span a variety of disciplines and fields and may be of immediate, intermediate, or long-term potential benefit to clinical practice. Sections of JAGS include Clinical Investigations; Brief Reports; Brief Methodological Reports; Progress in Geriatrics; Geriatric Bioscience; Nursing; Education and Training; Drugs and Pharmacology; Ethics, Public Policy, and Medical Economics; International Health Affairs; Ethnogeriatrics and Special Populations.

Journal of the American Medical Directors Association

First Issue/Volume: 2000

First online Issue/Volume: 2001

Editor-in-Chief: Morley, John E.

Publisher: Elsevier

ISSN: 1525-8610

EISSN:

SCImago Journal Rank (2016): 1.778

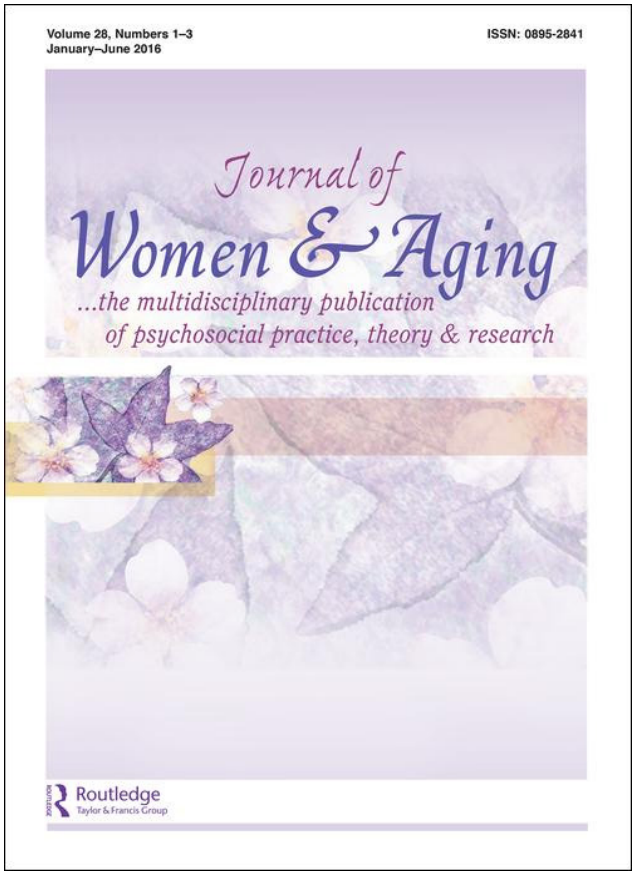
Impact factor (IF): 5.775

5-year impact factor (IF): 5.449

Journal's website: https://www.journals.elsevier.com/journal-of-the-american-medical-directors-association/

Description:

JAMDA is the official journal of the American Medical Directors Association. Subscribe to JAMDA or join AMDA and receive JAMDA as a member benefit. Committed to the continuous improvement of the quality of patient care through education, advocacy, information, and professional development for health care professionals, the Journal of the American Medical Directors Association provides bimonthly coverage of the issues most important to healthcare professionals providing long-term care. Peer-reviewed articles include original studies, reviews, clinical experience articles, case reports, and more.



Journal of Women & Aging

First Issue/Volume: 1989

First online Issue/Volume: 1989

Editor-in-Chief: Garner, J. Dianne

Publisher: Routledge

ISSN: 0895-2841

EISSN: 15407322

SCImago Journal Rank (2016): 0.534

Impact factor (IF):

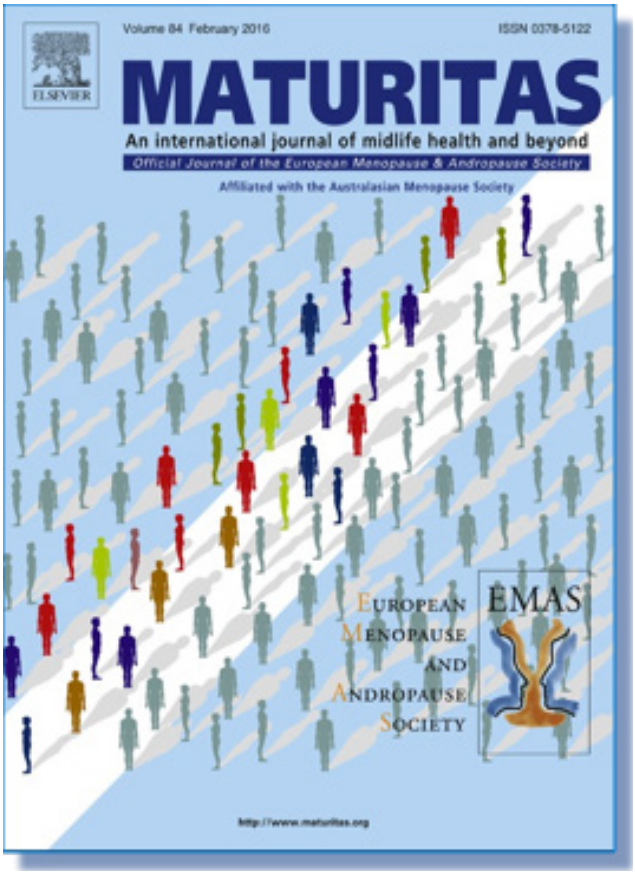
5-year impact factor (IF): 1.049

Journal's website: http://www.tandfonline.com/action/aboutThisJournal?show=aimsScope&journalCode=wjwa20

Description:

Through a variety of disciplines and a blend of scholarly and clinical articles, the Journal of Women & Aging provides practitioners, educators, researchers, and administrators with a comprehensive guide to the unique challenges facing women in their later years.

Maturitas



First Issue/Volume: 1972

First online Issue/Volume: 1972

Editor-in-Chief: Rees, M.

Publisher: Elsevier

ISSN: 0378-5122

EISSN:

SCImago Journal Rank (2016): 1.103

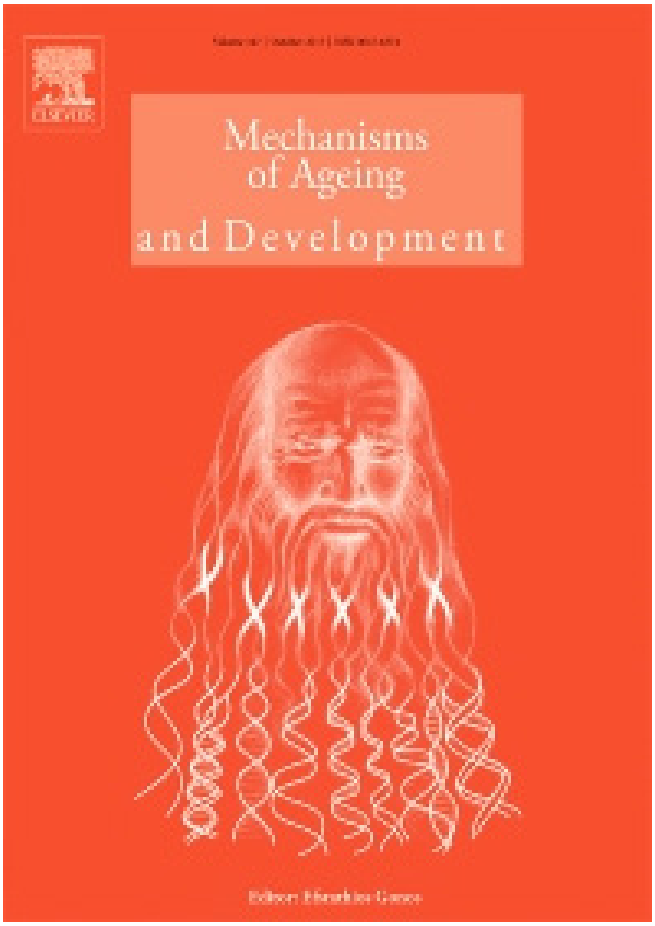
Impact factor (IF): 3.255

5-year impact factor (IF): 3.279

Journal's website: https://www.journals.elsevier.com/maturitas/

Description:

Maturitas is an international multidisciplinary peer reviewed scientific journal of midlife health and beyond publishing original research, reviews, consensus statements and guidelines. The scope encompasses all aspects of post reproductive health in both genders ranging from basic science to health and social care. Maturitas will publish in the following areas: • predictors, effects and management of chronic diseases • sex steroid deficiency in both genders • epidemiology, health and social care • therapeutic advances • complementary and alternative medicines



Mechanisms of Ageing and Development

First Issue/Volume: 1972

First online Issue/Volume: 1972

Editor-in-Chief: Bohr, V.A.

Publisher: Elsevier

ISSN: 0047-6374

EISSN:

SCImago Journal Rank (2012): 1.310

Impact factor (IF): 3.087

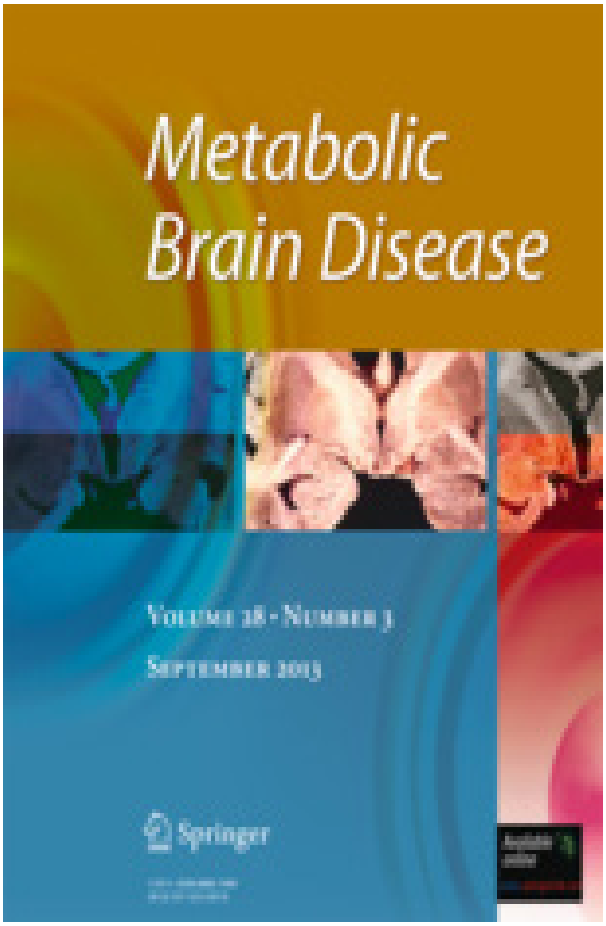
5-year impact factor (IF): 3.304

Journal's website: https://www.journals.elsevier.com/mechanisms-of-ageing-and-development/

Description:

Mechanisms of Ageing and Development is a multidisciplinary journal aimed at revealing the molecular, biochemical, and biological mechanisms that underlie the process of ageing and the development of age-associated disease. Emphasis is placed on investigations that delineate the contribution of (1) oxidative damage and/or cellular metabolism; (2) genetic instability; (3) telomere integrity; (4) mitochonidrial function; (5) genetic programs. Not of interest are (1) studies on age changes that are purely descriptive and which do not address the underlying mechanisms; (2) psychological or social case studies and reports. Manuscripts in basic research areas relevant to the aims and scope are welcomed.

Metabolic Brain Disease



First Issue/Volume: 1986

First online Issue/Volume: 1986

Editor-in-Chief: Gregory W. Konat

Publisher: Springer

ISSN: 0885-7490

EISSN: 1573-7365

SCImago Journal Rank (2016): 0.791

Impact factor (IF): 2,297

5-year impact factor (IF): 2.397

Journal's website: http://www.springer.com/biomed/neuroscience/journal/11011

Description:

Metabolic Brain Disease serves as a forum for the publication of outstanding basic and clinical papers on all metabolic brain disease, including both human and animal studies. The journal publishes papers on the fundamental pathogenesis of these disorders and on related experimental and clinical techniques and methodologies. Metabolic Brain Disease is directed to physicians, neuroscientists, internists, psychiatrists, neurologists, pathologists, and others involved in the research and treatment of a broad range of metabolic brain disorders

Molecular Neurodegeneration

First Issue/Volume: 2006

First online Issue/Volume: 2006

Editor-in-Chief: Guojun, Bu & Huaxi, Xu

Publisher: BioMed Central

ISSN: 1750-1326

EISSN:

SCImago Journal Rank (2012): 1.999

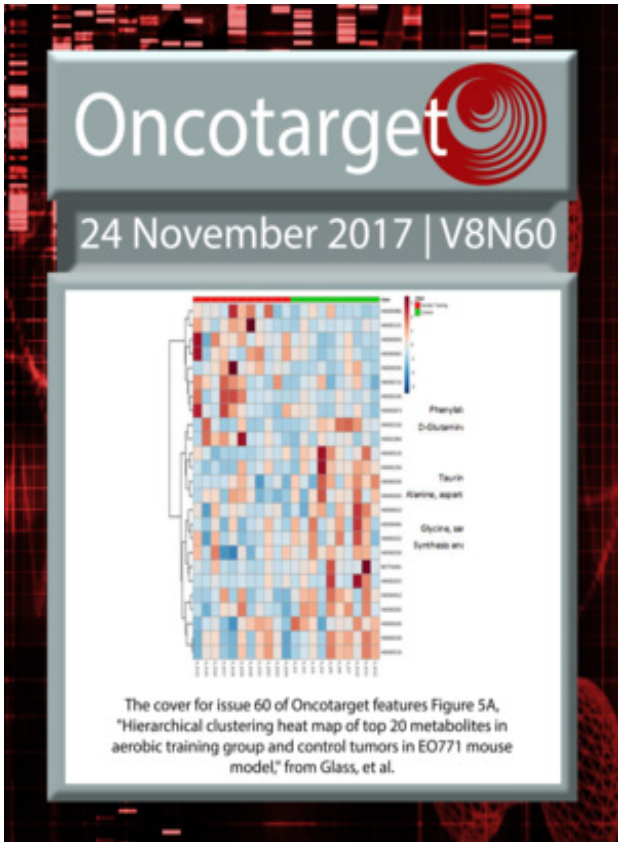
Impact factor (IF): 6.78

5-year impact factor (IF):

Journal's website: https://molecularneurodegeneration.biomedcentral.com

Description:

Molecular Neurodegeneration is an open access, peer-reviewed online journal that will encompass all aspects of neurodegeneration research at the molecular and cellular levels. Neurodegenerative diseases collectively refer to neurological disorders that result from neurodegeneration and include, but are not limited to, Alzheimer»s disease, Parkinson disease, Huntington disease, and prion diseases. These diseases, which are often associated with advanced aging and display varying degrees of dementia, have become a significant public health issue as humans live longer and the aging population grows larger.



Oncotraget

First Issue/Volume:2010

Editosr-in-Chief:Andrei V. Gudkov, Mikhail V. Blagosklonny

Publisher: Impact Journals

Impact factor (2016) : 5,168

ISSN - 1949-2553

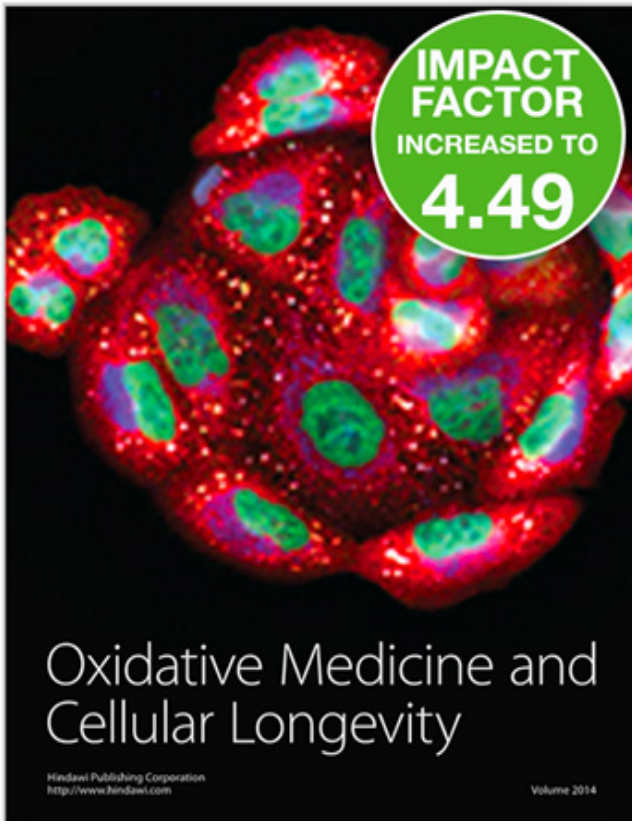
OCLC no. 408119940

Journal's website:https:http://www.oncotarget.com/index.php?journal=oncotarget

Description:

This journal continues to play a major role in the publication of important basic science research papers. Editorial practices are consistently high. Ethical guidelines are consistently followed. This is an important research journal for the field.

Section on Aging (Gerotarget) publishes high-impact papers in all areas of aging-related research, including genetics and mechanisms of aging, signal transduction pathways, cellular senescence, pharmacological and dietary anti-aging modalities, pathology in model organisms, age-related diseases including atherosclerosis, metabolic syndrome, hypertension, Alzheimer's and Parkinson's and other diseases.



Oxidative Medicine & Cellular Longevity

First Issue/Volume: 2008

First online Issue/Volume: 2008

Editor-in-Chief: Maiese, Kenneth

Publisher: Landes Bioscience

ISSN: 1942-0900

EISSN: 1942-0994

SCImago Journal Rank (2016): 1.468

Impact factor (IF): 4,593

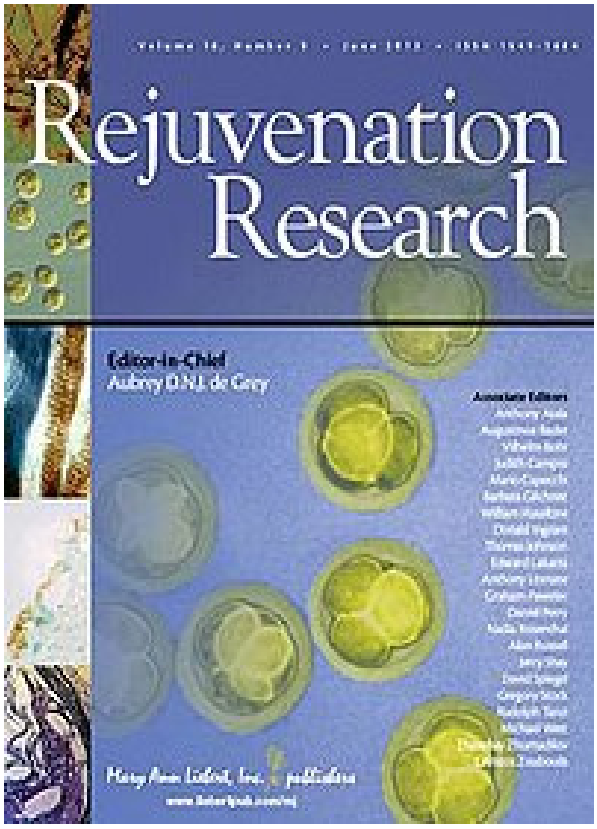
5-year impact factor (IF):

Journal's website: https://www.hindawi.com/journals/omcl/

Description:

Oxidative Medicine and Cellular Longevity is a unique peer-reviewed journal that publishes original research and review articles dealing with the cellular and molecular mechanisms of oxidative stress in the nervous system and related organ systems in relation to aging, immune function, vascular biology, metabolism, cellular survival and cellular longevity. Oxidative stress impacts almost all acute and chronic progressive disorders and on a cellular basis is intimately linked to aging, cardiovascular disease, cancer, immune function, metabolism and neurodegeneration. The journal fills a significant void in today's scientific literature and serves as an international forum for the scientific community worldwide to translate pioneering "bench to bedside" research into clinical strategies.

Rejuvenation Research



First Issue/Volume: 1998

First online Issue/Volume: 1998

Editor-in-Chief: de Grey, Aubrey D.N.J.

Publisher: Mary Ann Liebert Inc.

ISSN:1549-1684

EISSN:1557-8577

SCImago Journal Rank (2016):0.806

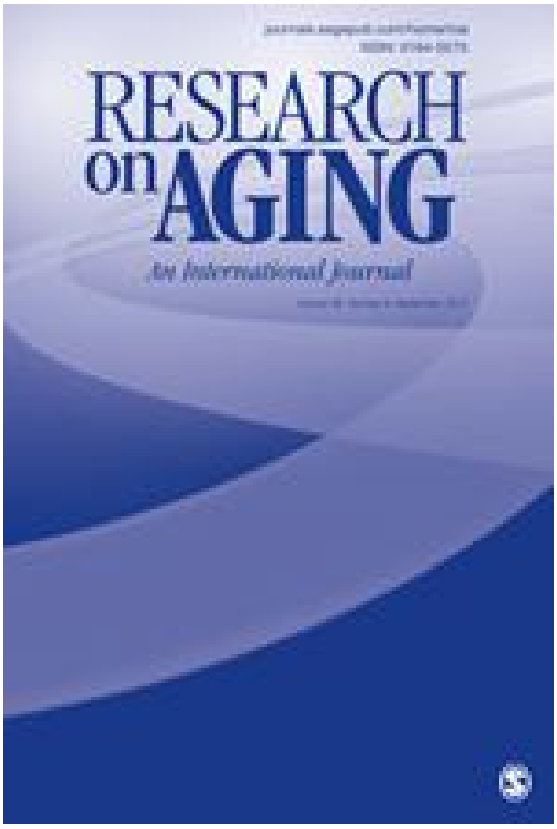
Impact factor (IF):2.827

5-year impact factor (IF):

Journal's website: http://www.liebertpub.com/overview/rejuvenation-research/127/

Description:

Official journal of the European Society of Preventive, Regenerative and Anti-Aging Medicine (ESAAM). Rejuvenation Research publishes cutting-edge work on rejuvenation therapies in the laboratory and clinic, as well as the latest research relevant to what these novel therapeutic approaches must do at the molecular and cellular level in order to be truly effective. This fully indexed MEDLINE journal covers: •Cardiovascular aging •Cell immortalization and senescence •Cloning/ESCs •DNA damage/repair •Gene targeting, gene therapy, and genomics •Growth factors •Immunology •Invertebrate lifespan •Neurodegeneration •Tissue engineering •Public policy, social context •And much more



Research on Aging

First Issue/Volume: 1979

First online Issue/Volume: 1979

Editor-in-Chief: O' Rand, Angela

Publisher: Sage

ISSN: 0164-0275

EISSN: 1552-7573

SCImago Journal Rank (2016): 0.69

Impact factor (IF): 1.214

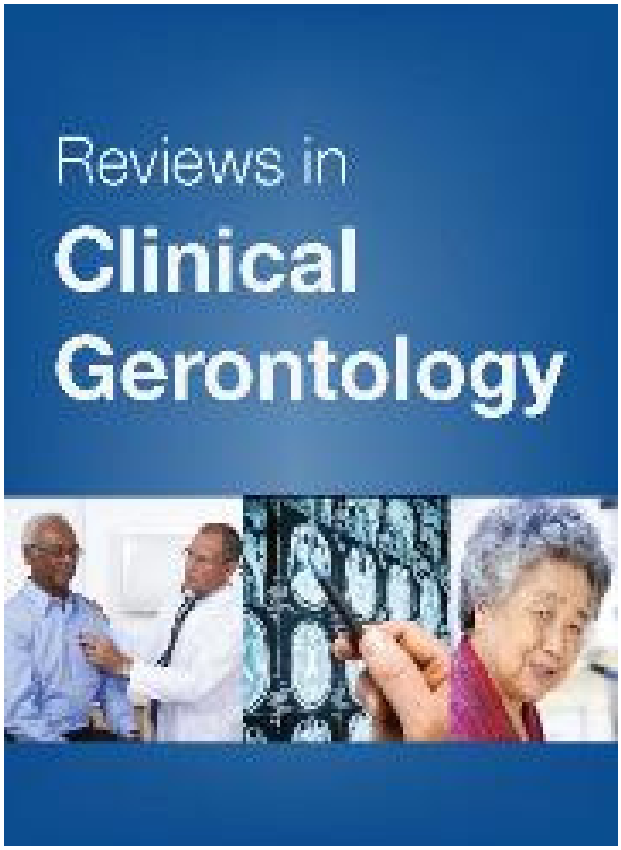
5-year impact factor (IF):

Journal's website: http://journals.sagepub.com/home/roa

Description:

Research on Aging is an interdisciplinary journal designed to reflect the expanding role of research in the field of social gerontology. Research on Aging exists to provide for publication of research in the broad range of disciplines concerned with aging. Scholars from the disciplines of sociology, geriatrics, history, psychology, anthropology, public health, economics, political science, criminal justice, and social work are encouraged to contribute articles to the journal. Emphasis will be on materials of broad scope and cross-disciplinary interest. Assessment of the current state of knowledge is as important as provision of an outlet for new knowledge, so critical and review articles are welcomed. Systematic attention to particular topics will also be featured.

Reviews in Clinical Gerontology



First Issue/Volume: 1991

First online Issue/Volume: 1991

Editor-in-Chief: Bayer, Antony

Publisher: Cambridge University Press

ISSN: 0959-2598

EISSN: 1469-9036

SCImago Journal Rank (2016): 0.253

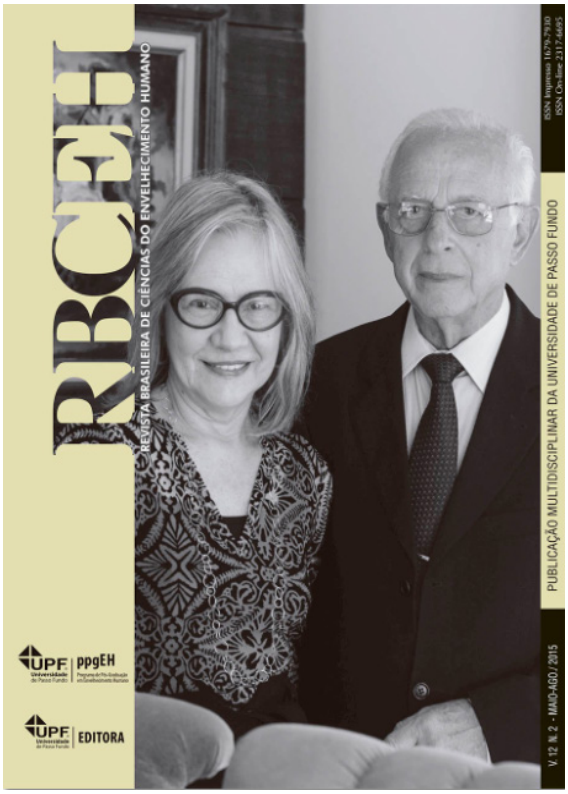
Impact factor (IF): 0.7

5-year impact factor (IF):

Journal's website: https://www.cambridge.org/core/journals/reviews-in-clinical-gerontology#

Description:

Reviews in Clinical Gerontology brings together specially commissioned international reviews on recent developments in geriatric medicine (including rehabilitation, nursing care and psychiatry of old age) and in biological, psychological and social gerontology. There is systematic coverage of the literature on a cyclical basis. All the major topics of interest are reviewed during the course of a five-year cycle. The issues build into a valuable source of reference for everyone working with elderly people



Revista Brasileira de Ciências do Envelhecimento Humano

First Issue/Volume: 2004

First online Issue/Volume: 2004

Editor-in-Chief: Daiana Argenta Kümpel, Pasqualotti A., Portella, M., de Paula Rocha, J. & Marinho da Silveira, M

Publisher: Universidade de Passo Fundo

ISSN: 1679-7930

EISSN:

SCImago Journal Rank (2016): not (yet) indexed by SCImago

Impact factor (IF):

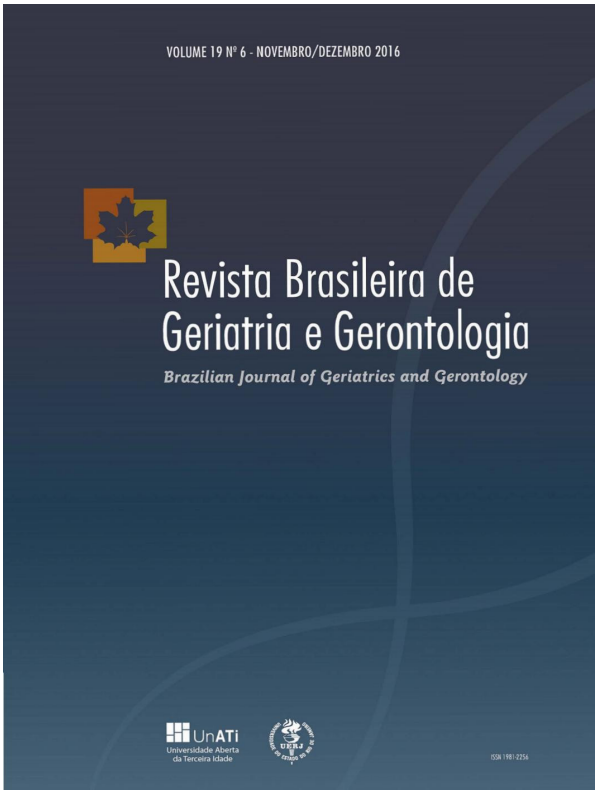
5-year impact factor (IF):

Journal's website: http://seer.upf.br/index.php/rbceh/index

Description:

The Brazilian Journal of Human Aging Sciences (RBCEH) is a scientific publication of the Graduate Program in Human Aging (ppgEH) and the Faculty of Physical Education and Physiotherapy (FEEF) of the University of Passo Fundo (UPF) printed and online version. It was created in 2004, with biannual periodicity up to 2008, becoming a quarterly from 2009.

It publishes original and unpublished research and development articles in Portuguese, Spanish and English that represent an effective contribution to the area of the human aging sciences, as well as topics of interest and the like. The magazine aims to be a vehicle for scientific, cultural and even ethical events around the issues of human aging, open and critical; at the same time, it wants to contribute to the improvement of the living conditions of the population.



Revista Brasileira de Geriatria e Gerontologia

First Issue/Volume: 1998

First online Issue/Volume: 2006

Editor-in-Chief: Peixoto Veras, Renato

Publisher: Universidade Aberta da Terceira Idade

ISSN: 1809-9823

EISSN: 1981-2256

SCImago Journal Rank (2016): not (yet) indexed by SCImago

Impact factor (IF):

5-year impact factor (IF):

Journal's website: http://www.scielo.br/revistas/rbgg/iaboutj.htm

Description:

As the average human life expectancy has increased, so too has the impact of ageing and age-related disease on our society. Ageing research is now the focus of thousands of laboratories that include leaders in the areas of genetics, molecular and cellular biology, biochemistry, and behaviour. Ageing Research Reviews (ARR) covers the trends in this field. It is designed to fill a large void, namely, a source for critical reviews and viewpoints on emerging findings on mechanisms of ageing and age-related disease. Rapid advances in understanding of mechanisms that control cellular proliferation, differentiation and survival are leading to new insight into the regulation of ageing

Revista Española de Geriatria y Gerontologia

First Issue/Volume: 1998

First online Issue/Volume: 2006

Editor-in-Chief: Casanovas, A. Salvà

Publisher: Elsevier

ISSN: 0211-139X

EISSN: 1578-2747

SCImago Journal Rank (2016): 0.222

Impact factor (IF):

5-year impact factor (IF):

Journal's website: https://ees.elsevier.com/regg/default.asp?acw=&utt=605486140677f51a2f0eec3-86608837daa21ec3-5gY

Description:

A magazine of great prestige for its original articles of investigation and revisions. It covers all areas of medicine but always from the care of the elderly patient, and is present in the most recognized international indexes.

Revista Multidisciplinar De Gerontologia

First Issue/Volume:

First online Issue/Volume:

Editor-in-Chief: Cervera, Antoni M.

Publisher: Nexus Medica Editores

ISSN: 1139-0921

EISSN: 2013-8458

SCImago Journal Rank (2016): 0.101

Impact factor (IF):

5-year impact factor (IF):

Journal's website: http://www.scgig.org/?q=content%2Frevista-multidisciplinar-de-gerontolog%C3%ADa

Description:

The Aging Male

First Issue/Volume: 1998

First online Issue/Volume: 1998

Editor-in-Chief: Lunenfeld, Bruno

Publisher: Informa Healthcare

ISSN: 1368-5538

EISSN: 1473-0790

SCImago Journal Rank (2016):0.456

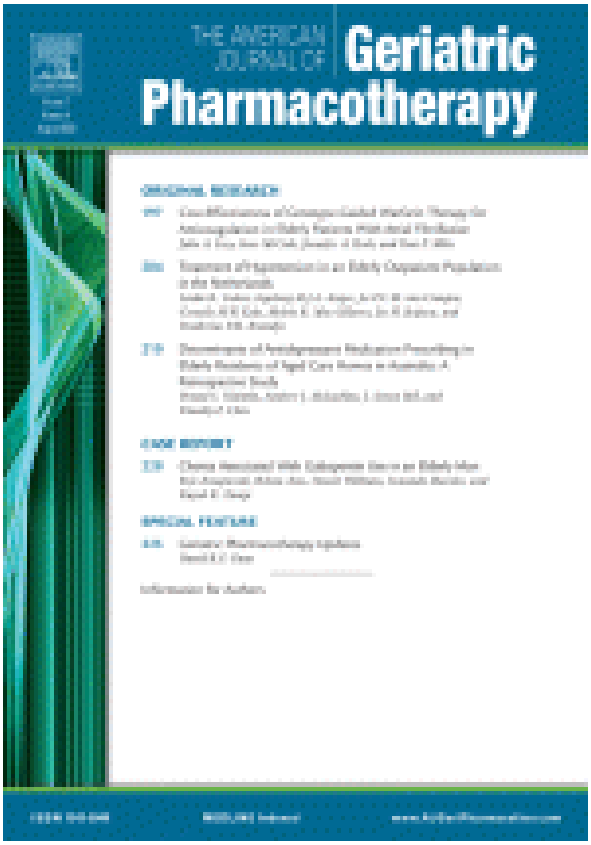
Impact factor (IF): 2.108

5-year impact factor (IF): 1.912

Journal's website: http://www.tandfonline.com/loi/itam20

Description:

The Aging Male , the official journal of the International Society for the Study of the Aging Male, is a multidisciplinary publication covering all aspects of male health throughout the aging process. The Journal is a well-recognized and respected resource for anyone interested in keeping up to date with developments in this field. It is published quarterly in one volume per year.



The American Journal of Geriatric Pharmacotherapy

First Issue/Volume: 2003

First online Issue/Volume: 2003

Editor-in-Chief: Schmader, Kenneth E & Hanlon, Joseph T.

Publisher: Elsevier

ISSN: 1543-5946

EISSN:

SCImago Journal Rank (2016): 0.799

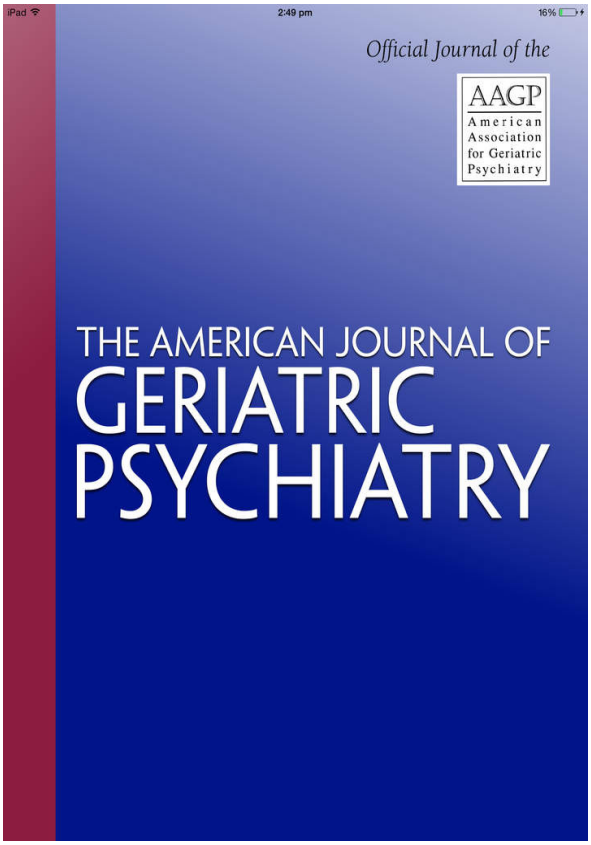
Impact factor (IF): 5.61

5-year impact factor (IF):

Journal's website: https:https://www.journals.elsevier.com/the-american-journal-of-geriatric-pharmacotherapy/

Description:

The mission of The American Journal of Geriatric Pharmacotherapy is to provide rapid publication of original reports of recent developments in drug therapy, pharmacoepidemiology, clinical pharmacology, health services research related to drug therapy, and pharmaceutical outcomes research in older patients...



The American Journal of Geriatric Psychiatry

First Issue/Volume: 1993

First online Issue/Volume: 1993

Editor-in-Chief: Jeste, Dilip V.

Publisher: Elsevier

ISSN: 1064-7481

EISSN: 1545-7214

SCImago Journal Rank (2016): 1.877

Impact factor (IF): 2.868

5-year impact factor (IF):

Journal's website: http://www.ajgponline.org

Description:

The American Journal of Geriatric Psychiatry is the authoritative source of information for the rapidly developing field of geriatric psychiatry. The Journal contains peer-reviewed articles on the diagnosis and classification of psychiatric disorders of later life, epidemiological and biological correlates of mental health of older adults, and psychopharmacology and other somatic treatments. The Journal is published twelve times a year.

The Brown University Geriatric Psychopharmacology Update

First Issue/Volume: 1997

First online Issue/Volume: 2005

Editor-in-Chief: Goldberg, Richard J.

Publisher: Wiley

ISSN: 1529-2584

EISSN: 1556-7540

SCImago Journal Rank (2016):

Impact factor (IF):

5-year impact factor (IF):

Journal's website: http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1556-7540
http://www.psychopharmacologyupdate.com

Description:

This monthly report is an easy way to keep up to date on the newest breakthroughs in geriatric medicine that have an impact on psychiatric practice. You'll find assembled in one place critical information on topics selected by an experienced editor and gathered by award-winning medical writers. These staff members bring you first-person interviews with physicians and researchers who are on the cutting edge of developing new medications and finding new uses for old ones. In addition, you'll learn about the regulatory issues pertaining to prescribing in the long-term care setting.

The Gerontologist

First Issue/Volume: 1961

First online Issue/Volume: 1961

Editor-in-Chief: McAuley, William J.

Publisher: Oxford University Press

ISSN: 0016-9013

EISSN: 1758-5341

SCImago Journal Rank (2016): 1.574

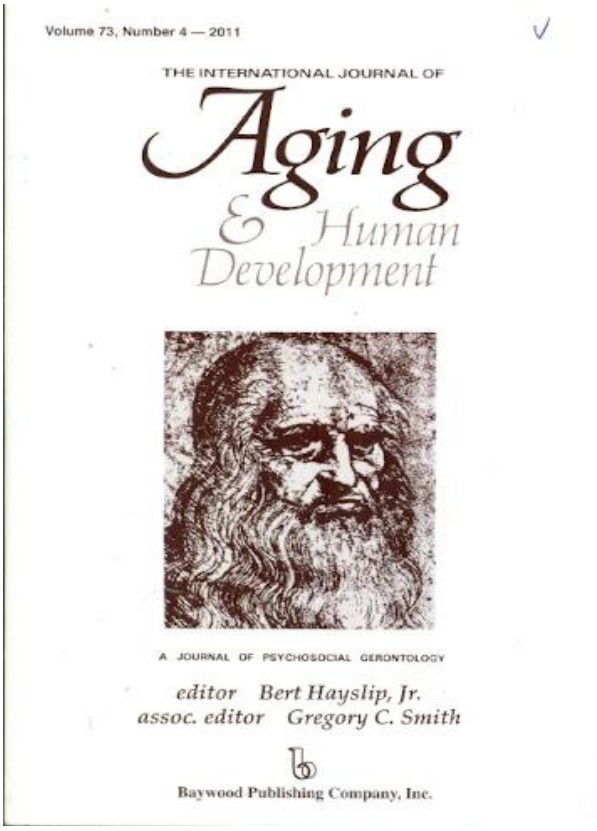
Impact factor (IF): 3.505

5-year impact factor (IF): 3.924

Journal's website: https://academic.oup.com/gerontologist

Description:

The Gerontologist, published since 1961, is a bimonthly journal (first issue in February) of The Gerontological Society of America that provides a multidisciplinary perspective on human aging through the publication of research and analysis in gerontology, including social policy, program development, and service delivery. It reflects and informs the broad community of disciplines and professions involved in understanding the aging process and providing service to older people. Articles, including those in applied research, should report concepts and research findings, with implications for policy or practice. Contributions from social and psychological sciences, biomedical and health sciences, political science and public policy, economics, education, law, and the humanities are welcome.



The International Journal of Aging and Human Development

First Issue/Volume: 1970

First online Issue/Volume: 1970

Editor-in-Chief: Smith, Gregory C

Publisher: Baywood Publishing Company

ISSN: 0091-4150

EISSN: 1541-3535

SCImago Journal Rank (2016): 0.308

Impact factor (IF): 0.662

5-year impact factor (IF):

Journal's website: https://us.sagepub.com/en-us/nam/the-international-journal-of-aging-and-human-development/journal202396

Description:

The International Journal of Aging and Human Development places emphasis upon psychological and social studies of aging and the aged. However, the Journal also publishes research that introduces observations from other fields that illuminate the «human» side of gerontology, or utilizes gerontological observations to illuminate in other fields. Under what conditions does «development» end? Under what conditions does «aging» begin? Can these conditions themselves be modified by intervention at the psychological, social, or biological levels? To what extent are patterns of development and aging attributable to biological factors? To psychological factors? How can the social and behavioral sciences contribute to the actualization of human potential throughout the entire life span? What are the implications of gerontological research for our understanding of the total development of human organism? These are some of the broad questions with which the International Journal of Aging and Human Development is concerned. Emphasis is upon psychological and social studies of aging and the aged. However, the Journal also publishes research that introduces observations from other fields that illuminate the «human» side of gerontology, or utilizes gerontological observations to illuminate in other fields.

The Journal of Nutrition, Health & Aging

First Issue/Volume: 1997

First online Issue/Volume: 2008

Editor-in-Chief: Vellas, Bruno

Publisher: Springer

ISSN: 1279-7707

EISSN: 1760-4788

SCImago Journal Rank (2016): 0.747

Impact factor (IF): 2.772

5-year impact factor (IF): 2.935

Journal's website:

Description:

There is increasing scientific and clinical interest in the interactions of nutrition and health as part of the aging process. This interest is due to the important role that nutrition plays throughout the life span. This role affects the growth and development of the body during childhood, affects the risk of acute and chronic diseases, the maintenance of physiological processes and the biological process of aging. A major aim of «The Journal of Nutrition, Health & Aging» is to contribute to the improvement of knowledge regarding the relationships between nutrition and the aging process from birth to old age.

The Journal of the Economics of Ageing

First Issue/Volume: 2013

First online Issue/Volume:

Editor-in-Chief: Sousa-Poza et al.

Publisher: Elsevier

ISSN: 2212-828X

EISSN:

SCImago Journal Rank (2016): not (yet) indexed by SCImago

Impact factor (IF):

5-year impact factor (IF):

Journal's website: https://www.journals.elsevier.com/the-journal-of-the-economics-of-ageing/

Description:

The Journal of the Economics of Ageing (JEoA) is an international academic journal that publishes original theoretical and empirical research dealing with the interaction between demographic change and the economy. JEoA encompasses both microeconomic and macroeconomic perspectives and offers a platform...

The Journals of Gerontology, Series A: Biological Sciences

First Issue/Volume: 1946

First online Issue/Volume: 1995

Editor-in-Chief: de Cabo, Rafael & Ferrucci, Luigi

Publisher: Oxford University Press

ISSN: 1079-5006

EISSN: 1758-535X

SCImago Journal Rank (2016): 1.708

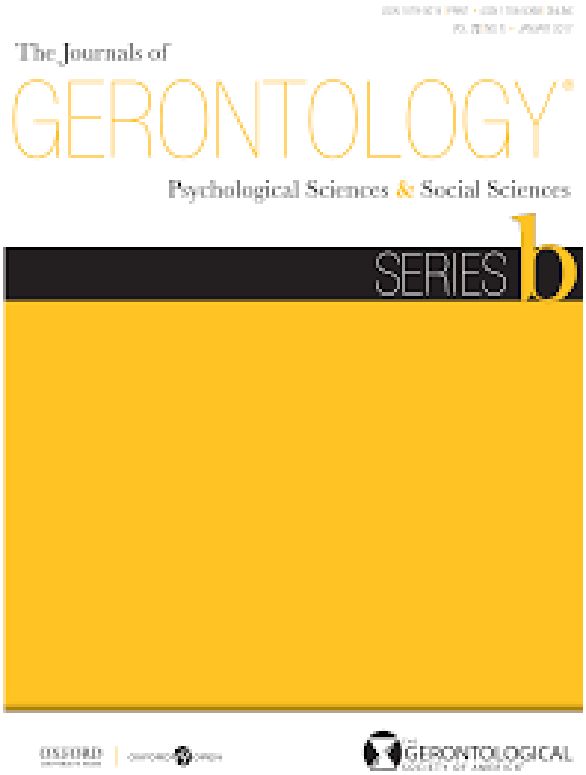
Impact factor (IF):3.064

5-year impact factor (IF):3.878

Journal's website: https://academic.oup.com/biomedgerontology

Description:

Publishes articles on the biological aspects of aging in areas such as biochemistry, biodemography, cellular and molecular biology, comparative and evolutionary biology, endocrinology, exercise sciences, genetics, immunology, morphology, neuroscience, nutrition, pathology, pharmacology, physiology, vertebrate and invertebrate genetics, and biological underpinnings of late life diseases.



The Journals of Gerontology, Series B: Psychological Sciences

First Issue/Volume: 1946

First online Issue/Volume: 1995

Editor-in-Chief: Blieszner, Rosemary & Silverstein, Merri

Publisher: Oxford University Press

ISSN: 1079-5014

EISSN: 1758-5368

SCImago Journal Rank (2016): 1.328

Impact factor (IF): 5.957

5-year impact factor (IF): 5.783

Journal's website: https://academic.oup.com/psychsocgerontology

Description:

Publishes articles on development in adulthood and old age that advance the psychological science of aging processes and outcomes. Articles in JG: PS have clear implications for theoretical or methodological innovation in the psychology of aging or contribute significantly to the empirical understanding of psychological processes and aging. Areas of interest include, but are not limited to, attitudes, clinical applications, cognition, education, emotion, health, human factors, interpersonal relations, neuropsychology, perception, personality, physiological psychology, social psychology, and sensation. Applied research with theoretical significance is welcome. Manuscripts reporting work that relates behavioral aging to neighboring disciplines are also appropriate. The Journal publishes three types of articles: (a) reports of original research, (b) brief reports of original research, (c) New Directions in Aging Research--reviews of cutting-edge topics with theoretical or methodological implications. See word and page limitations below. All submissions are peer-reviewed, with final decisions made by the Editor.

Tijdschrift voor Gerontologie en Geriatrie

First Issue/Volume: 1970

First online Issue/Volume: 2005

Editor-in-Chief: Braam, G.P.A., Dejaeger, E., Diesfeldt, H.F.A., Fokkema, C.M., Hertoch, C.M.P.M. & Marcoen, A.

Publisher: Springer (Bohn Stafleu van Loghum)

ISSN: 0167-9228

EISSN: 1875-6832

SCImago Journal Rank (2016): 0.188

Impact factor (IF):

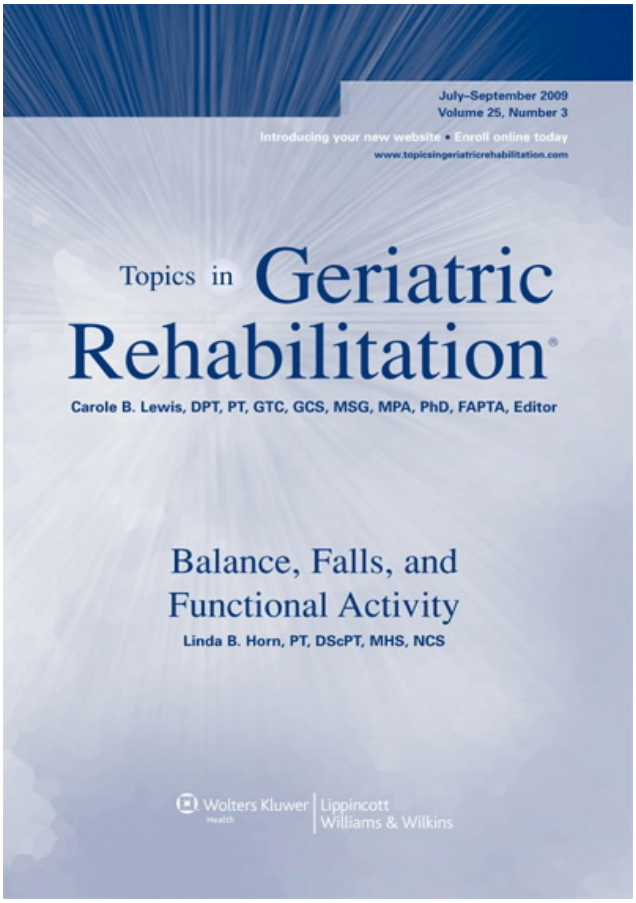
5-year impact factor (IF):

Journal's website: http://www.springer.com/medicine/family/journal/12439

Description:

Journal of Gerontology and Geriatrics covers the wide range of gerontology and geriatrics in all its facets, with contributions from the biological, medical, psychological and social sciences. In addition, attention is paid to the necessary interaction between gerontology and geriatrics.

Topics in Geriatric Rehabilitation



First Issue/Volume: 1986

First online Issue/Volume: 1986

Editor-in-Chief: Lewis, Carole B.

Publisher: Lippincott Williams & Wilkins

ISSN: 0882-7524

EISSN: 1550-2414

SCImago Journal Rank (2016):0.166

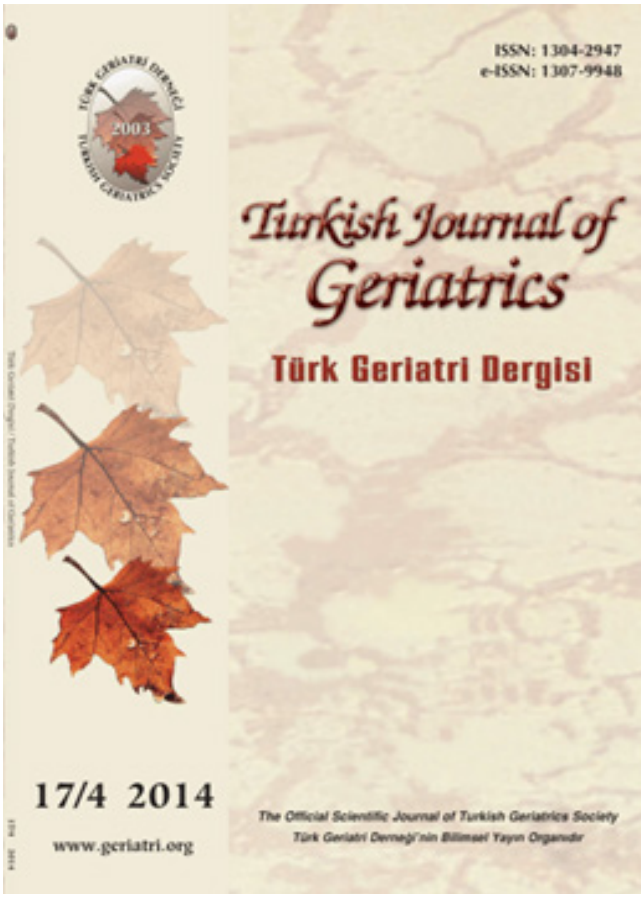
Impact factor (IF): 0.378

5-year impact factor (IF):

Journal's website: http://journals.lww.com/topicsingeriatricrehabilitation/pages/default.aspx

Description:

Topics in Geriatric Rehabilitation, (TGR) is a peer-reviewed quarterly publication that presents clinical, basic, and applied research, as well as theoretic information, consolidated into a clinically relevant form. TGR is a leading resource for the healthcare professional practicing in the area of geriatric rehabilitation. TGR provides useful treatment information written by and for specialists in all aspects of geriatric care. Each issue focuses on a specific topic, providing best practices and dependable hands-on tips and techniques.



Turkish Journal of Geriatrics

First Issue/Volume: 1998

First online Issue/Volume: 1998

Editor-in-Chief: Gökce-Kutsal, Yesim

Publisher: Geriatrics Society

ISSN: 1304-2497

EISSN: 1307-9948

SCImago Journal Rank (2016): not (yet) indexed by SCImago

Impact factor (IF): 0.139

5-year impact factor (IF):

Journal's website: http://geriatri.dergisi.org/instructions.php3?id=82

Description:

Official journal of the Turkish Geriatrics Society

Zeitschrift für Gerontologie and Geriatrie

First Issue/Volume: 1968

First online Issue/Volume: 1998

Editor-in-Chief:

Publisher: Springer

ISSN: 0948-6704

EISSN: 1435-1269

SCImago Journal Rank (2016): 0.196

Impact factor (IF): 0.885

5-year impact factor (IF):

Journal's website: http://www.springer.com/medicine/family/journal/391

Description:

The Journal of Gerontology and Geriatrics has been taking account of the fact that more and more people are getting older and older and that this is a crucial factor in informing the interested reader about central developments in aging sciences. Results of gerontological and geriatric research as well as derived interventions, treatment approaches and conceptual developments are published in original contributions. Thematic issues deal comprehensively and interdisciplinarily relevant questions of gerontology in all its facets: biological, geriatric, psychological, sociological, pedagogical, social worker and nursing. Target groups:, gerontologists, sociologists of aging, social workers / pedagogues, nurses and nursing scientists, employees in geriatric departments / clinics, gerontological institutes , Institutions and Institutions in gerontological fields of action as well as in teaching and further training.

Part VIII

Top 100 Longevity Books

Analytical Report 2017

AGING ANALYTICS AGENCY
Invest for life

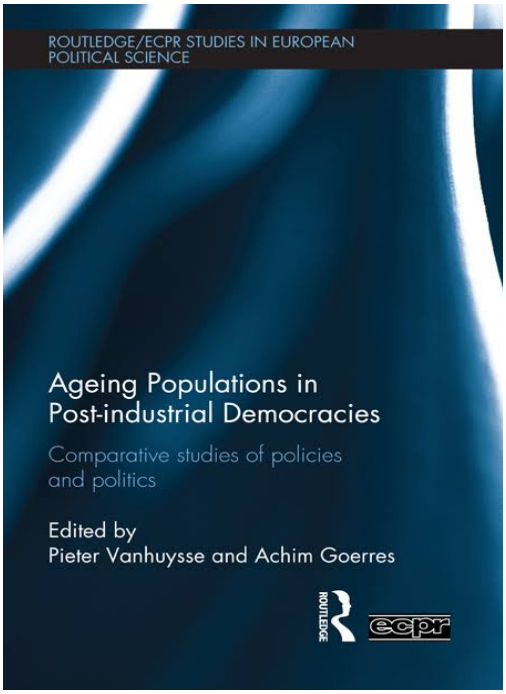
Biogerontology Research Foundation
Prevent. Restore. Preserve.

DEEP KNOWLEDGE LIFE SCIENCES

Top 100 Longevity Books

1. Ageing Populations in Post-Industrial Democracies
2. Ageless quest
3. Aging and age-related diseases
4. Aging and Money
5. Aging and the heart
6. Aging: an introduction to gerontology
7. Aging, Biotechnology and the Future
8. Aging by Design
9. Aging: genetic and environmental influences
10. Aging in Comparative Perspective
11. Aging interventions and therapies
12. Aging of cells in and outside the body
13. Aging of the genome
14. Aging: Oxidative Stress and Dietary Antioxidants
15. Aging, Risk and Globalization
16. Aging: the paradox of life
17. A means to an end: the biological basis
18. Animal models of human cognitive aging
19. Apoptosis, senescence and cancer
20. Are Chronic Degenerative Diseases Part of the Ageing Process?
21. Autophagy
22. Biology of Aging
23. Behavioral Neurobiology of Aging
24. Biogerontology: mechanisms and interventions
25. Biological aging: methods and protocols
26. Biological Aging: Methods and Protocols (2nd Ed.)
27. Biology of aging: observations and principles
28. Biology of aging
29. Cell Aging
30. Cell Aging: Molecular Mechanisms and Implications for Disease
31. Cell growth, differentiation and senescence
32. Cell Senescence: Methods and Protocols
33. Cells, aging, and human disease
34. Cellular aging and cell death
35. Challenging Aging
36. Cheating Time: Science, Sex, and Aging
37. Controversial issues in Aging
38. Current Directions in Adulthood and Aging
39. Decoding Longevity
40. Diet-brain connection
41. Endocrine aspects of successful aging
42. Epidemiology in Old Age
43. Epigenetics of aging
44. Fundamentals of Geriatric Psychiatry
45. Gender, Social Inequalities, and Aging
46. Genes and aging
47. Gerontological aspects of genome peptide regulation
48. Handbook of gerontology: evidence-based approaches
49. Handbook on the Neuropsychology of Aging and Dementia
50. How and Why We Age
51. How we live and why we die
52. Human chromosomes and aging: from 80 to 114 years
53. Immunity, Tumors and Aging: The Role of HSP70
54. Immunology of Aging
55. Inflammation and Oxidative Stress in Neurological Disorders
56. Introduction to Aging: A Positive, Interdisciplinary Approach
57. Life-span extension: single-cell organisms to man
58. Longevity and quality of life
59. Longevity records: life spans
60. Longevity, senescence, and the genome
61. Longevity: the biology and demography of life span
62. Mapping the progress of Alzheimer‘s and Parkinson‘s disease
63. Molecular Aspects of Aging: Understanding Lung Aging
64. Molecular biology of aging
65. Molecular mechanisms of Werner‘s syndrome
66. New Horizons in Geriatric Medicine
67. Oxidative stress and age-related neurodegeneration
68. Oxidative stress and neurodegenerative disorders
69. Parkinson‘s Disease: Behavioural and Cognitive Aspects
70. Pathogenesis of neurodegenerative disorders
71. Perspectives on Alzheimer‘s Disease
72. Population aging: the transformation of societies
73. Protein misfolding and disease
74. Protein Oxidation and Aging
75. Reversing human aging
76. Senescence: Dominant or Recessive in Somatic Cell Crosses?
77. Sexuality and aging: clinical perspectives
78. Stem Cell Aging: Mechanisms, Consequences, Rejuvenation
79. Studies on Alzheimer‘s Disease
80. Successful Aging: Asian Perspectives
81. Telomeres and telomerase in aging, disease, and cancer
82. Telomeres: biological functions, sequencing and aging
83. The aging mind: opportunities in cognitive research
84. The biology of human longevity
85. The Biostatistics of Aging
86. The Encyclopedia of aging - Volume I+II
87. The evolution of aging
88. The evolution of human life history
89. The late life legacy of very early life
90. The Practical Handbook of Clinical Gerontology
91. The realities of aging: an introduction to gerontology
92. The role of mitochondria in human aging and disease
93. The SAGE Handbook of Aging, Work and Society
94. The science of aging: theories and potential therapies
95. The scientific conquest of death
96. The Telomere Effect
97. Trends in Alzheimer‘s disease research
98. Understanding ageing
99. Understanding aging and diversity: theories and concepts
100. World Population Ageing: 2013

Ageing Populations in Post-Industrial Democracies: Comparative Studies of Policies and Politics



Author: Vanhuysse, Pieter & Goerres, Achim

Published: 2014

Publisher: Routledge

Website: http://www.routledge.com/books/details/9781138803473/

Description:

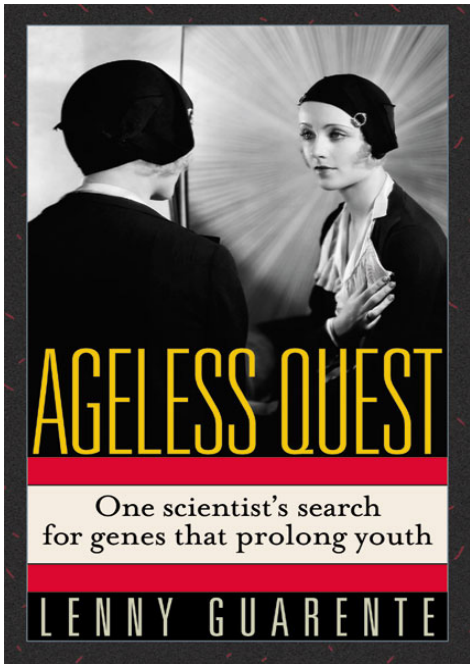
Most advanced democracies are currently experiencing accelerated population ageing, which fundamentally changes not just their demographic composition; it can also be expected to have far-reaching political and policy consequences.

This volume brings together an expert set of scholars from Europe and North America to investigate generational politics and public policies within an approach explicitly focusing on comparative political science. This theoretically unified text examines changing electoral policy demands due to demographic ageing, and features analysis of USA, UK, Japan, Germany, Italy and all major EU countries.

As the first sustained political science analysis of population ageing, this monograph examines both sides of the debate. It examines the actions of the state against the interests of a growing elderly voting bloc to safeguard fiscal viability, and looks at highly-topical responses such as pension cuts and increasing retirement age. It also examines the rise of 'grey parties', and asks what, if anything, makes such pensioner parties persist over time, in the first ever analysis of the emergence of pensioner parties in Europe.

Ageing Populations in Post-Industrial Democracies will be of interest to students and scholars of European politics, and to those studying electoral and social policy reform.

Ageless quest: one scientist‘s search for the genes that prolong youth



Author: Guarente, Lenny

Published: 2002

Publisher: Cold Spring Harbor Laboratory Press

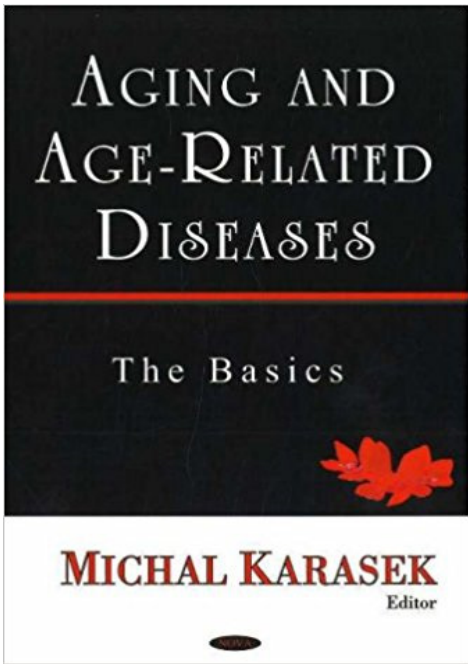
Website: http://www.cshlpress.com/default.tpl?cart=1282915625119450353&fromlink=T&linkaction=full&linksortby=oop_title&--eqSKUdatarq=427

Description:

Ageless Quest is a personal, sometimes controversial, account of the pursuit of a genetic ‘cure’ for aging by an expert in the field.

The author is the Novartis Professor of Biology at the Massachusetts Institute of Technology. Aging has always been regarded as a highly complex process with many degenerative changes leading to the cessation of life. But recent research has identified a relatively simple mechanism that governs the pace of aging. Lenny Guarente’s Ageless Quest is a scientific detective story for the baby boom generation. It offers an insider’s view of an area of potentially astonishing high reward—and equally high risk.

Aging and age-related diseases: the basics



Author: Karasek, Micha

Published: 2006

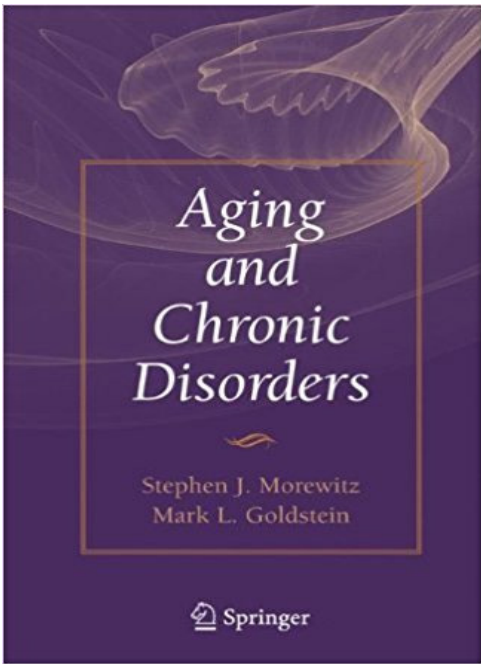
Publisher: Nova Biomedical Books

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=2645

Description:

Aging has become a great problem for many countries. Due to worldwide life prolongation the number of people over 6o years old has grown rapidly into a ten percent piece of the world population. The growing age of the world population raises many social, economical, and medical problems. The proportion of people in the economically active age groups to those who are over 65 is constantly decreasing. A major consequence of the increasing numbers of individuals in advanced age groups is increasing numbers of patients suffering from age-related diseases. The aim of this book is to present the basic data on human aging as well as on age-related diseases.

Aging and chronic disorders



Author: Morewitz, Stephen & Goldstein, Mark L.

Published: 2007 (H,E)2009 (P)

Publisher: Springer

Website: http://www.springer.com/public+health/book/978-0-387-70856-0

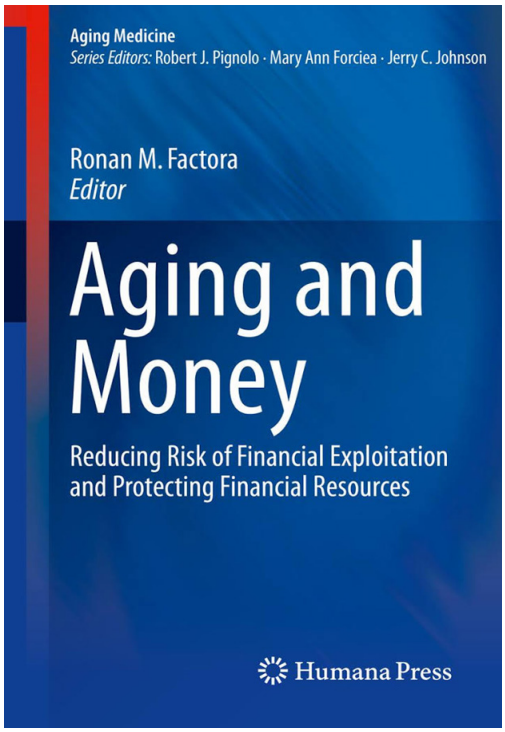
Description:

Aging and Chronic Disorders brings the most up-to-date answers into clear, readable focus. Focusing on the most prevalent conditions affecting older adults (diabetes, cardiovascular disease, cancer, osteoporosis, osteoarthritis, rheumatoid arthritis, low back pain, and fibromyalgia), Morewitz and Goldstein analyze disabilities and risk factors, stressors and coping strategies, treatment and rehabilitation methods, and patient education and self-management. Separate chapters are devoted to cognitive changes, psychological problems, and trends in health care utilization among seniors, and all chapters are amplified by current research findings and instructive case studies. As in their recent work, Chronic Diseases and Health Care, the authors have geared their coverage to reflect the field's most pressing goals:

- Provide health care that is both clinically effective and cost-effective.
- Help elders be more proactive and self-sufficient.
- Reduce the burden on caregivers.
- Improve patients' access to health resources and social support.
- Improve older adults' quality of life.

With its wide range of issues, Aging and Chronic Disorders is a major resource for clinicians and students in primary care, gerontology, nursing, rehabilitation, epidemiology, public health, and mental health. Public health administrators and policymakers should find important insights here as well.

Aging and Money: Reducing Risk of Financial Exploitation and Protecting Financial Resources



Author: Factora, Ronan M. (Ed.)

Published: 2014

Publisher: Humana Press

Website: http://www.springer.com/gp/book/9781493913190

Description:

Increasingly, we hear of more and more elders falling victim to financial exploitation. Although this form of elder abuse has been recognized for years, its incidence, prevalence, and impact on the common individual has been only more recently brought to the spotlight. Despite these circumstances, recognition of risk factors and indicators of financial exploitation are not widely disseminated. Additionally, once situations are identified and confronted, the knowledge of what to do next is lacking. These gaps are present within the medical community, law-enforcement, and the finance community – areas where opportunities for recognition and intervention are common. Our elders often have no idea of what to do when they see their own risk or when they fall victim. Aging and Money: Reducing Risk of Financial Exploitation and Protecting Financial Resources helps clinicians to integrate identification of such indicators of abuse into their geriatric assessment as well as guide them in performing an assessment of an individuals' financial decision making capacity when appropriate. Aging and Money: Reducing Risk of Financial Exploitation and Protecting Financial Resources is an essential new text that provides the practicing clinician with information on identifying risk factors and clinical clues associated with financial exploitation and how to incorporate these steps into their practice.

Aging and the heart: a post-genomic view

Author: Marín-García, José; Goldenthal, M.J. & Moe, G.W.

Published: 2007

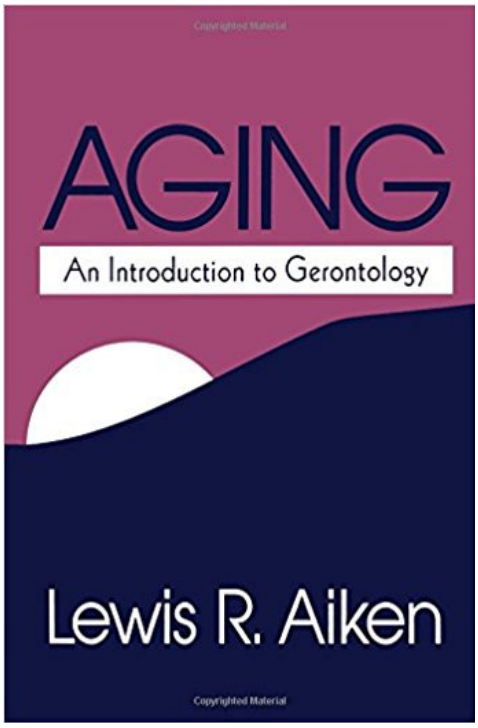
Publisher: Springer

Website: http://www.springer.com/medicine/cardiology/book/978-0-387-74071-3

Description:

Cardiac aging, like aging in general, is a complex process. Numerous cellular and molecular changes contribute to the expression of the multiple phenotypes of aging, «the different faces» of cardiac aging. In this book, the genetic and molecular basis of cardiovascular aging will be discussed. In addition, a comprehensive assessment of the bioenergetic changes that occur in human and animal models of cardiac aging as well as current diagnostic and future therapeutic modalities will be undertaken.

Aging: an introduction to gerontology



Author: Aiken, Lewis R.

Published: 1995

Publisher: Sage Publications Inc.

Website: http://www.sagepub.com/booksProdDesc.nav?prodId=Book4475&

Description:

The aging process is a complex, sometimes mysterious evolution we will all experience: In this interdisciplinary text, author Lewis R. Aiken acquaints you with the elements and effects influencing people in the later stages of life. Beginning with an historical overview of gerontology, Aiken discusses both pragmatic and philosophical concerns within the field. Factors impacting the process and results of aging are carefully outlined and explicated; these address such areas as biology, psychology, sociology, economics, and politics. The interpersonal variability of the older population is stressed throughout the book, recognizing gender, ethnic, racial, and cultural differences. Each chapter concludes with a thorough review of the material covered, a series of questions and activities designed to enhance the learning experience, and a list of suggested readings that expand on the topics being discussed. Clearly written, authoritative, rich in information and integration of research material in a wide range of disciplines, Aging: An Introduction to Gerontology is valuable for undergraduate, certificate, and community college programs in gerontology as well as graduate courses in applied professional disciplines.

Aging, Biotechnology and the Future

Author: Read, Catherine Y.;
Green, Robert C. & Smyer, Michael A.

Published: 2008

Publisher: The Johns Hopkins University Press

Website: http://jhupbooks.press.jhu.edu/ecom/MasterServlet/GetItemDetailsHandler?iN=9780801887888&qty=1&source=2&viewMode=3&loggedIN=false&JavaScript=y

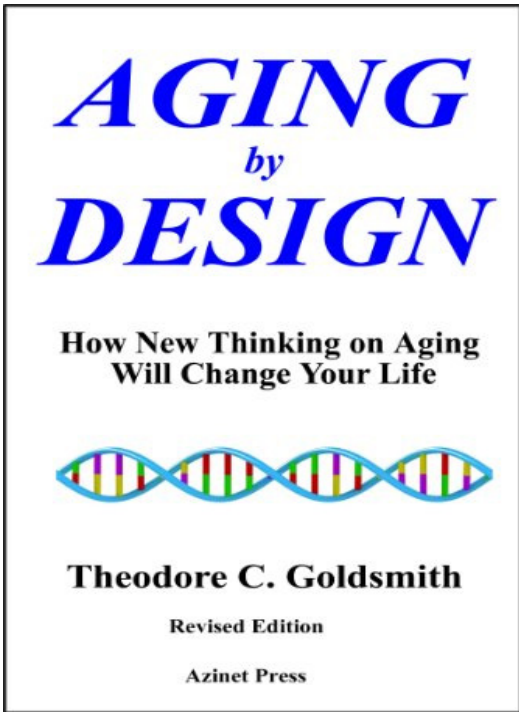
Description:

This wide-ranging, multidisciplinary collection examines how advances in medicine and technology are affecting the aging process and the lives of elderly persons.

In analyzing the state of biotechnology, these essays applaud the positive—extended longevity and the potential for greater quality of life—while probing such ethical quandaries as presymptomatic genetic testing, therapeutic cloning, antiaging technologies, and the transhumanist movement. The volume includes discussions about the respective roles of health care professionals, government, and individuals in shaping a workable regulatory framework and unifying multiple perspectives to make the biotechnology revolution beneficial to all.

Featuring contributions from renowned scholars of religion, ethics, philosophy, psychology, law, medicine and nursing, and gerontology, Aging, Biotechnology, and the Future illuminates the promises and perils of growing old in the biomedical age.

Aging by Design: How New Thinking on Aging Will Change Your Life



Author: Goldsmith, Theodore

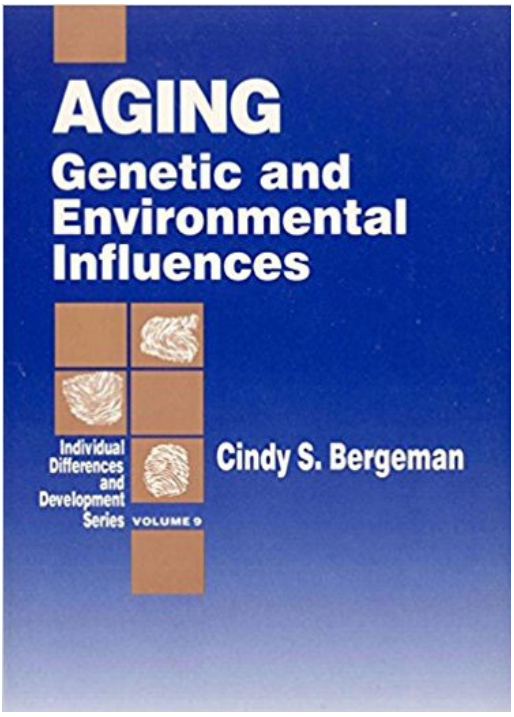
Published: 2014

Publisher: Azinet Press

Website: http://www.azinet.com/aging/aging_by_design.pdf

Description:

Why do we age? How do we age? These questions have baffled scientists for centuries and remain unresolved. The answer to the "how" question is critical to our ability to successfully prevent and treat age-related diseases like cancer and heart disease that now cause the majority of all deaths in the developed world. Because of major difficulties in directly experimentally determining causes of aging, the answer to the "why" question is critical to guiding research efforts directed toward identifying and altering processes involved in age-related diseases. Evolution theory plays a critical role in the "why" issue because it attempts to explain why each living organism has its particular design and therefore why different species display different aging characteristics and different life spans. This short book describes the history and current status of attempts to explain why we age extending from Darwin's 1859 theory to the present day. The author provides colorful and interesting descriptions of the theorists, their theories, the discoveries and the controversies that have led us to the current situation: Although there is very wide scientific agreement about most aspects of evolution theory, four different theories now exist concerning the fine details that apply to aging. These four theories lead to radically different concepts regarding the actual biological mechanisms behind the aging process and consequently the mechanisms behind age-related diseases. The book goes on to discuss observations and experiments that offer clues as to the nature of biological aging mechanisms. These include apparently non-aging animals, worm experiments, rat blood-exchange experiments, caloric restriction experiments, octopus experiments, and the discovery of genes that cause aging. Goldsmith then leads us through an analysis that concludes, based on the direct evidence and current status of the evolution theories, that programmed aging is the aging theory that best matches all of the evidence. We age because we are designed to age. We are designed to age because a limited life span conveys an evolutionary benefit. Most current medical researchers believe in non-programmed aging and much of the evidence for programmed aging comes from non-human sources. If the programmed theory of biological aging, first proposed in 1882, is indeed correct, it has major implications regarding the way we think about and seek to prevent or treat age-related diseases. It also suggests that it may well be possible in the relatively near term to generally delay the aging process. Which theory is correct could therefore greatly affect many people now alive! The book describes some current programmed aging researchers, research activities, and results. A final question is discussed: How could we be living in the twenty-first century and still not have scientific agreement on even the fundamental nature of aging? The author suggests that several "non-science factors" including the sequence in which various theories were developed and the perception that the issue was "academic" have influenced thinking and delayed the development of scientific agreement.



Aging: genetic and environmental influences

Author: Bergemann, Cindy S.

Published: 1997 (H,P)

Publisher: Sage Publications Inc.

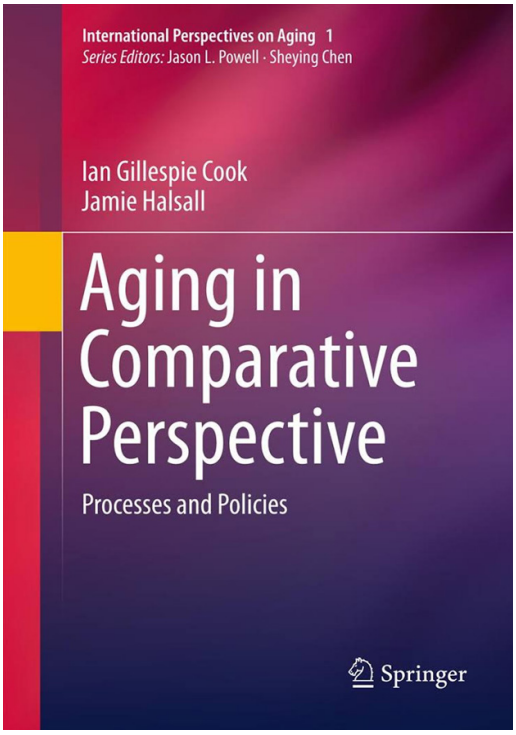
Website: http://www.amazon.de/Aging-Environmental-Influences-Differences-Development/dp/0803973772/ref=sr_1_1?ie=UTF8&s=books-intl-de&qid=1282029107&sr=1-1

Description:

Why do people age differently? Gerontological research has indicated that there are large individual differences in personality, cognitive functioning, physical health, psychological well-being and quality of life in old age. This book explores this variability.

Following an overview of family, adoption and twin studies of genetic and environmental influences on ageing, the author examines such topics as: longevity and health research; cognitive functioning, personality and psychopathology; and social support, life events and family environment measures. The book concludes with a summary of finding from gerontological behavioural genetics.

Aging in Comparative Perspective: Processes and Policies



Author: Cook, Ian Gillespie, Halsall, Jamie

Published: 2014

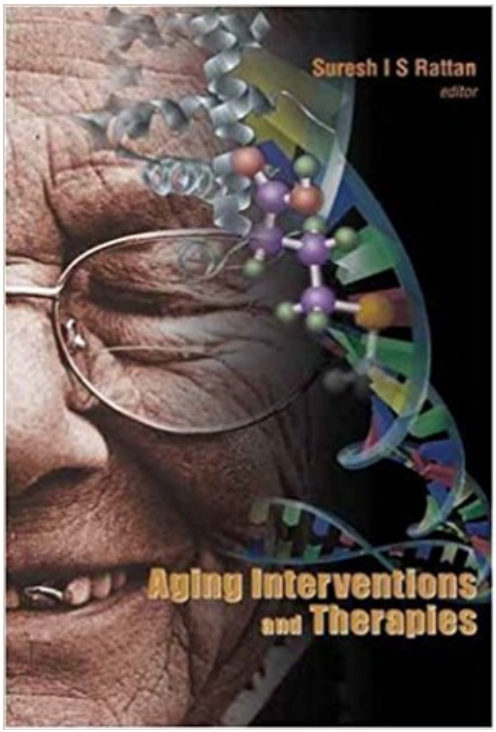
Publisher: Springer

Website: http://www.springer.com/gp/book/9781461419778

Description:

This book examines the key aging processes in seven countries (United States, United Kingdom, Sweden, Japan, China, Nepal, and South Africa) and the main policies that have been, and are being, developed to deal with this rapid change in the demographic profile. It addresses the problems that are identified as well as the positive aspects of aging within each of these contrasting societies. Thus it makes a significant contribution to the major debates about growing old across the globe.

Aging interventions and therapies



Author: Rattan, Suresh I.S.

Published: 2005

Publisher: World Scientific Publishing Company

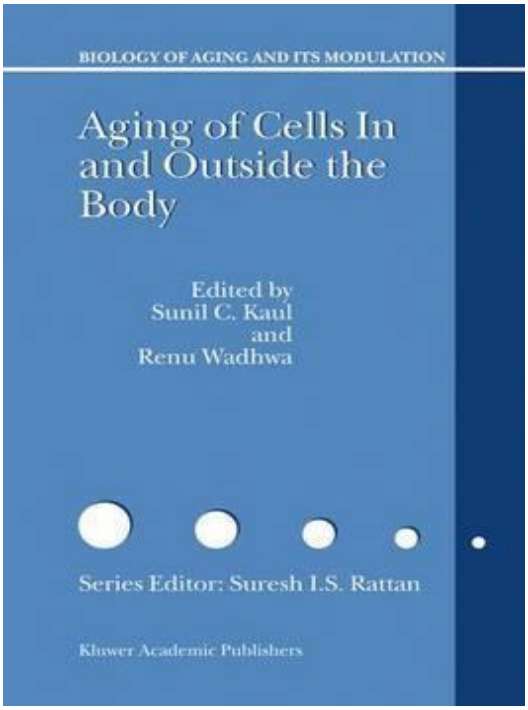
Website: http://www.worldscientific.com/worldscibooks/10.1142/5690

Description:

This comprehensive volume surveys the molecular, cellular, hormonal, nutritional, medical and lifestyle strategies being tested and applied for the prevention, intervention and treatment of age-related diseases. With authoritative contributions not just from researchers in academic institutions and pharmaceutical and cosmeceutical industries, but also practicing clinicians of both mainstream and alternative medicine, demographers and bioethicists, this book provides unique scientific, ethical and social perspectives on the discussion of aging intervention. In addition, the latest technologies in development, which will have serious bearings on future aging interventions, are reviewed.

Aging Interventions and Therapies is ideal for graduates and undergraduates in universities and medical and nursing colleges, as well as post-graduates researching different aspects of aging and anti-aging. The topics covered are also highly relevant for professionals in the pharmaceutical, cosmeceutical, nutrition and healthcare industries, and practicing clinicians looking for a reliable and up-to-date resource on aging intervention and therapy.

Aging of cells in and outside the body



Author: Kaul, S. & Wadwha, Renu

Published: 2003

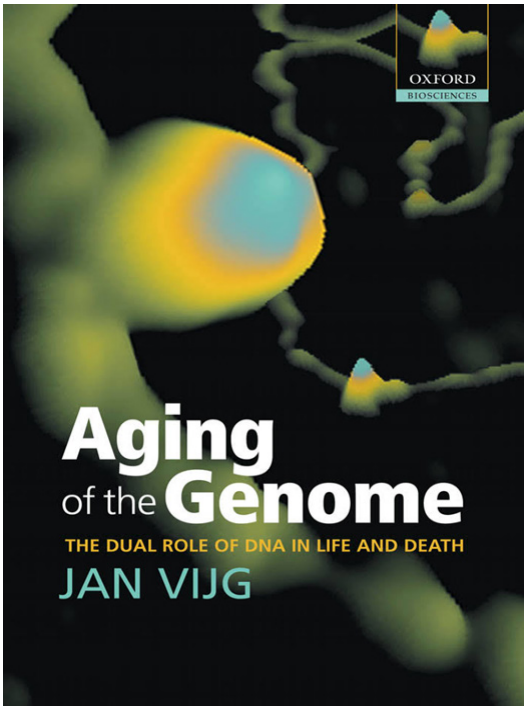
Publisher: Springer

Website: http://www.springer.com/life+sciences/cell+biology/book/978-1-4020-1375-1

Description:

This book provides updated knowledge on the basic features and mechanisms of cellular aging established since its first manifestation at cellular level 40 years ago. Contributions of genetic and environmental factors, failure of genetic and cellular repair mechanisms, and the epigenetic modifications determine the final lifespan of cells. This book also provides an understanding on how aging mechanisms in mice, a most frequently used model, differ with that of humans who receive better tumor surveillance because of stringent controls on aging mechanisms. It also appraises the use of modern technology for aging studies and its intervention. This book serves as an excellent reading on cellular aging for undergraduate students, researchers and experts of this area.

Aging of the genome: the dual role of DNA in life and death



Author: Vijg, Jan

Published: 2007

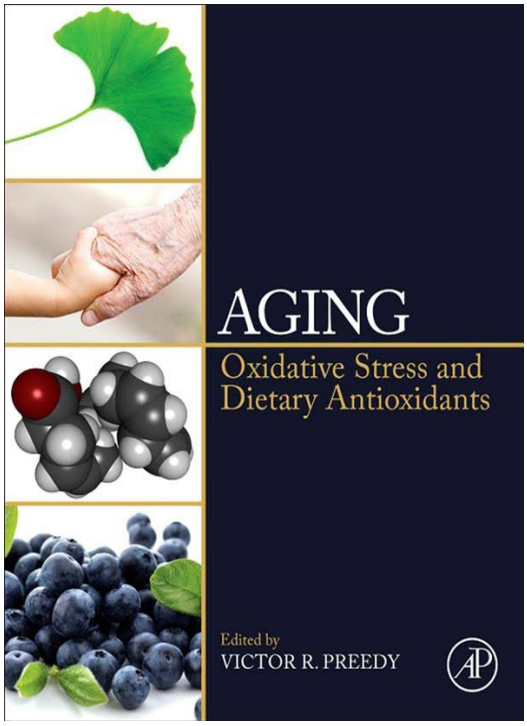
Publisher: Oxford University Press, USA

Website: http://ukcatalogue.oup.com/product/9780198569220.do?keyword=aging&sortby=bestMatches

Description:

Authored by a world-renowned specialist in the field. Describes the mechanisms of aging in a clear and accessible manner. Emphasises the role of DNA damage and genomic instability in aging and aging-related disease, integrating theoretical and empirical evidence. Discusses the design of strategies to retard or reverse the deleterious effects of aging. Ideal graduate seminar course material

Aging: Oxidative Stress and Dietary Antioxidants



Author: Preedy Victor R.

Published: 2014

Publisher: Academic Press

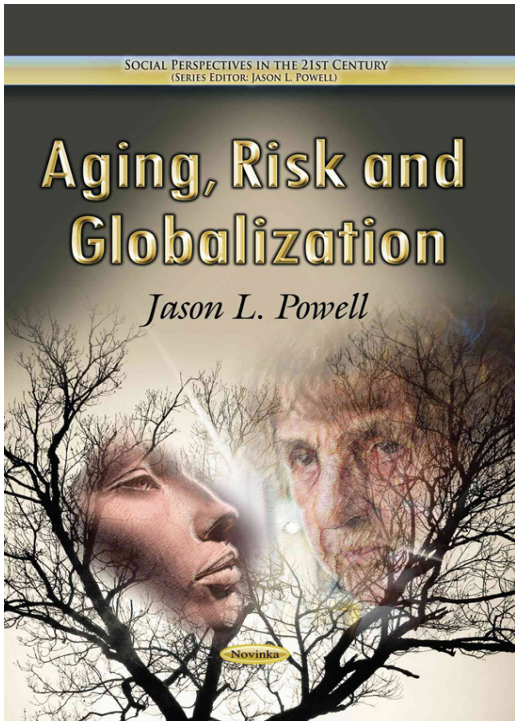
Website: http://store.elsevier.com/product.jsp?isbn=9780124059337&_requestid=465826

Description:

Aging: Oxidative Stress and Dietary Antioxidants bridges the trans-disciplinary divide and covers in a single volume the science of oxidative stress in aging and the potentially therapeutic use of natural antioxidants in the diet or food matrix. The processes within the science of oxidative stress are described in concert with other processes, such as apoptosis, cell signaling, and receptor mediated responses. This approach recognizes that diseases are often multifactorial, and oxidative stress is a single component of this.

Gerontologists, geriatricians, nutritionists, and dieticians are separated by divergent skills and professional disciplines that need to be bridged in order to advance preventative as well as treatment strategies. While gerontologists and geriatricians may study the underlying processes of aging, they are less likely to be conversant in the science of nutrition and dietetics. On the other hand, nutritionists and dietitians are less conversant with the detailed clinical background and science of gerontology. This book addresses this gap and brings each of these disciplines to bear on the processes inherent in the oxidative stress of aging.

Aging, Risk and Globalization



Author: Powell, Jason L.

Published: 2013

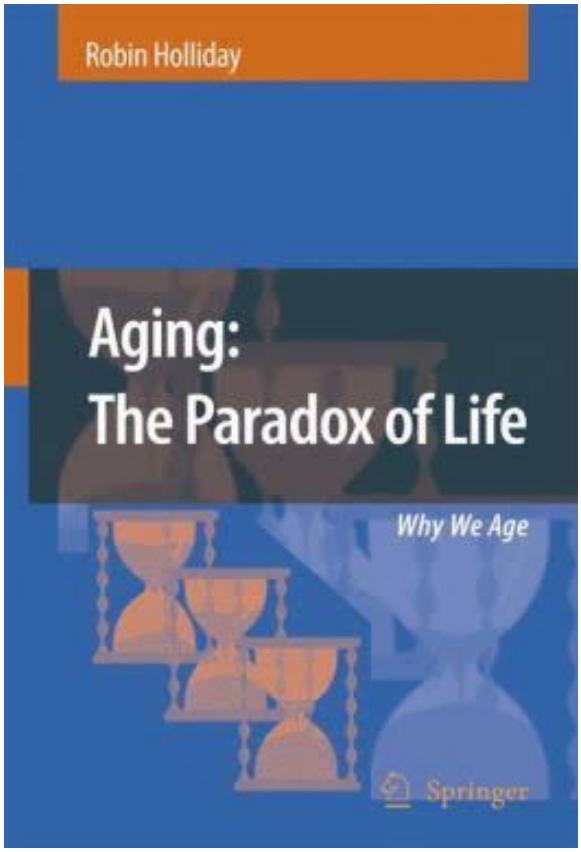
Publisher: Nova Science Pub Inc

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=45189

Description:

This book examines the concept of aging. It interrogates how it has been co-opted and absorbed by bio-medical approaches to gerontology. The book explores how the concept of risk is a major feature of how aging has been constructed and positioned by bio-medical experts, a transition to a «risk society» and the implications of populational aging in global society.

Aging: the paradox of life: why we age



Author: Holliday, Robin

Published: 2007 (H,E)2009 (P)

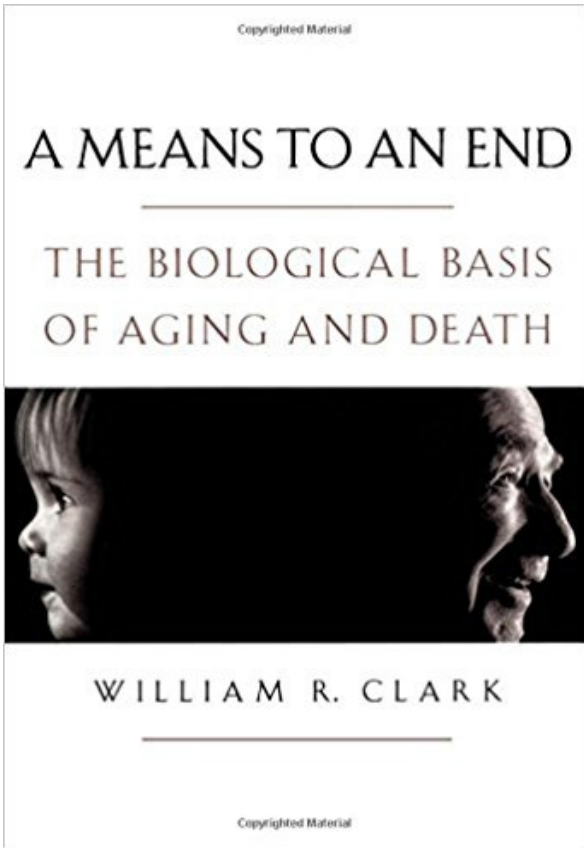
Publisher: Springer

Website: http://www.springer.com/medicine/family/book/978-1-4020-5640-6

Description:

For centuries people have been puzzled by the inevitability of human aging. For most of the second half of the twentieth century aging remained a mystery, or an unsolved biological problem. At the end of the 20th century a remarkable scientific discovery emerged. It was not a single discovery in the usual sense, because it was based on a series of important interconnected insights over quite a long period of time. These insights made it possible for the very first time to understand the biological reasons for aging in animals and man. It can already be said, however, that the many observations and insights that explain aging will not be accepted as established knowledge for a long time. The field is still full of scientists, and non-scientists, who are just happy to go on speculating about the «mystery» of aging. The aim of this book is to dispel ignorance by explaining in non-technical language what are the reasons for aging and the myth of excessive prolongation of life.

A means to an end: the biological basis of aging and death



Author: Clark, William R.

Published: 1999 (H)2002 (P)

Publisher: Oxford University Press, USA

Website: http://ukcatalogue.oup.com/product/9780195153750.do?keyword=A+means+to+an+end50&sortby=bestMatches

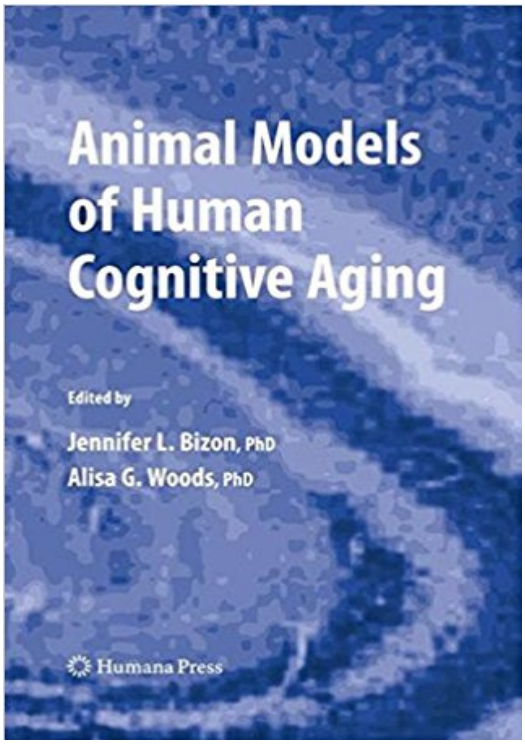
Description:

Why do we age? Is aging inevitable? Will advances in medical knowledge allow us to extend the human lifespan beyond its present limits? Because growing old has long been the one irreducible reality of human existence, these intriguing questions arise more often in the context of science fiction than science fact. But recent discoveries in the fields of cell biology and molecular genetics are seriously challenging the assumption that human lifespans are beyond our control.

With such discoveries in mind, noted cell biologist William R. Clark clearly and skillfully describes how senescence begins at the level of individual cells and how cellular replication may be bound up with aging of the entire organism. He explores the evolutionary origin and function of aging, the cellular connections between aging and cancer, the parallels between cellular senescence and Alzheimer's disease, and the insights gained through studying human genetic disorders—such as Werner's syndrome—that mimic the symptoms of aging. Clark also explains how reduction in caloric intake may actually help increase lifespan, and how the destructive effects of oxidative elements in the body may be limited by the consumption of antioxidants found in fruits and vegetables. In a final chapter, Clark considers the social and economic aspects of living longer, the implications of gene therapy on senescence, and what we might learn about aging from experiments in cloning.

This is a highly readable, provocative account of some of the most far-reaching and controversial questions we are likely to ask in the next century.

Animal models of human cognitive aging



Author: TBizon, Jennifer L. & Woods, Alisa

Published: 2008

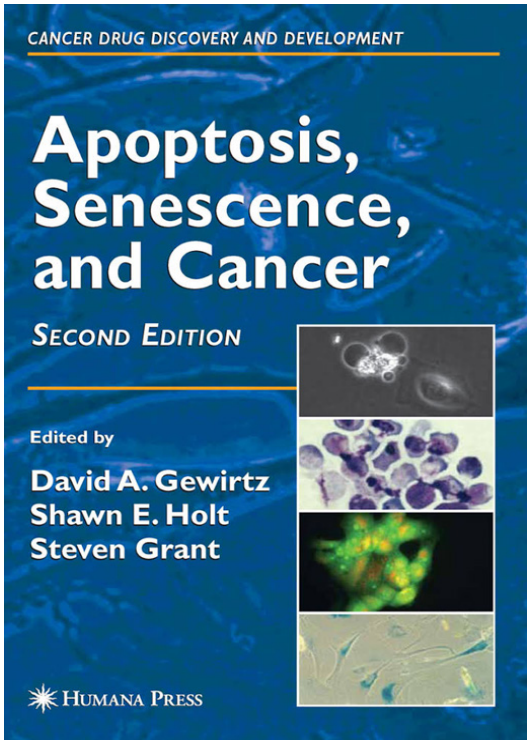
Publisher: Springer

Website: http://www.springer.com/biomed/neuroscience/book/978-1-58829-996-3

Description:

Significant improvements in lifestyle and medical science are leading to an ever increasing elderly population in the United States and other developed nations. The U.S. census bureau estimates the number of people over 65 will nearly double by 2030, and that the elderly population will comprise nearly one-fifth of the world's entire population within the next twenty years. In Animal Models of Human Cognitive Aging, Jennifer Bizon, Alisa Woods, and a panel of international authorities comprehensively discuss the use of animal models as a tool for understanding cognitive changes associated with the aging process. The book provides substantive background on the newest and most widely used animal models in studies of cognition and aging, while detailing the normal and pathological processes of brain aging of humans in relation to those models. Additional chapters comprehensively review frontal cortical deficits and executive function in primates as related to humans, and the use of transgenic modulation in mice to model Alzheimer's and other age-related diseases. Groundbreaking and authoritative, Animal Models of Human Cognitive Aging provides a valuable resource for Neuroscientists, Gerontological Scientists, and all aging medicine researchers, while serving as a primer for understanding current brain aging studies.

Apoptosis, senescence and cancer



Author: Gewirtz, David A.; Shawn E. Holt, Shawn E. & Grant, Steven

Published: 2007

Publisher: Humana Press

Website: http://www.springer.com/medicine/radiology/book/978-1-58829-527-9

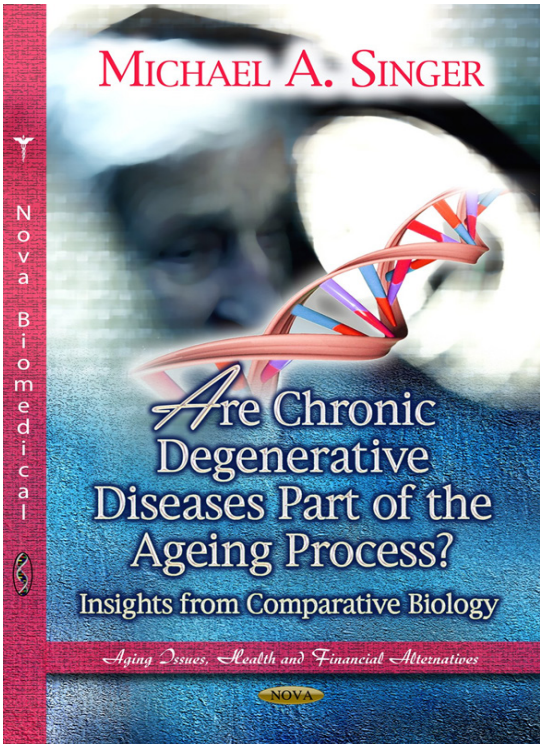
Description:

Apoptosis, Senescence and Cancer provides insight into established practices and research into apoptosis and senescence by thoroughly examining novel and emerging techniques and research in the fields of cell death pathways, senescence growth arrest, drugs and resistance, DNA damage response, and other topics which still hold mysteries for researchers.

The volume is divided into six easy to follow sections. The first is Apoptosis and Alternative Modes of Cell Death, followed by chapters on Telomeres and Telomerase, Senescence, Genomic Instability and Tumorigenesis. The third part covers DNA Damage Response, Signaling Pathways and Tumorigenesis, while the fourth delves into Resistance and Sensitization. The book concludes with Established Cancer Therapies and a section which looks toward the future with Recent and Developing Cancer Therapies.

In total, this volume provides basic scientists and clinicians with a deeper and more complete understanding of the cellular responses of malignancies which may determine the effectiveness of treatment, both in the initial stages of the disease as well as in disease recurrence.

Are Chronic Degenerative Diseases Part of the Ageing Process?: Insights from Comparative Biology



Author: Singer, Michael A.

Published: 2013

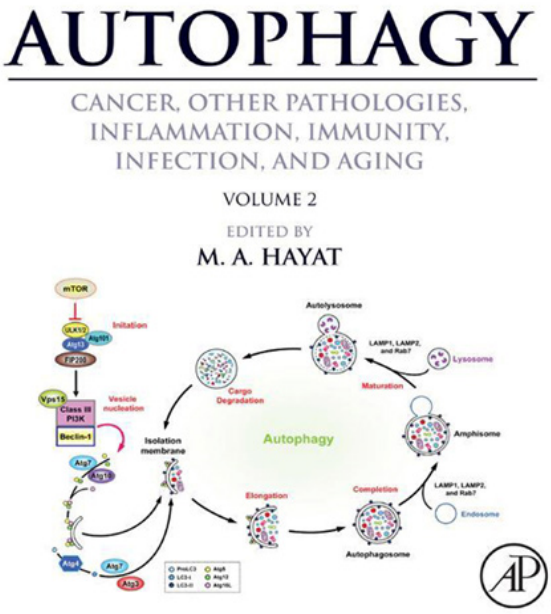
Publisher: Nova Science Pub Inc

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=39550

Description:

Most of the DNA in the human genome does not encode proteins but is involved in regulatory functions. In addition, the human genome is characterized by an extensive array of structural DNA variants arising from de novo mutations plus accumulated structural variants transmitted through an individual's lineage. The result is that each person has a unique genome which is expressed as that person's unique phenotype. Ageing can be understood on both the species and individual level. Each species has a programmed ageing and mortality pattern, but within those broad species-specific boundaries there is considerable individual variation. At the individual level, ageing reflects the integrated effects of that individual's unique mix of DNA structural variants, unique experience-specific epigenetic marks and imperfectly repaired genomic and cellular damage. This book examines human "chronic degenerative" diseases which are not diseases, but rather variations of the ageing process across individuals.

Autophagy: Cancer, Other Pathologies, Inflammation, Immunity, Infection, and Aging: Volume 2 - Role in General Diseases



Author: Hayat, M.A.

Published: 2013

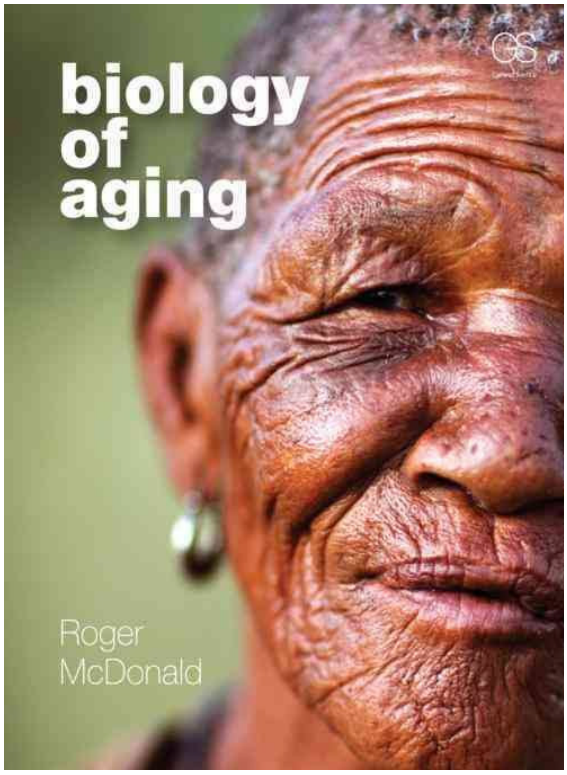
Publisher: Academic Press

Website: http://store.elsevier.com/product.jsp?isbn=9780124058774&_requestid=168771

Description:

Autophagy: Cancer, Other Pathologies, Inflammation, Immunity, Infection, and Aging is a complete, authoritative examination of the role of autophagy in health and disease. Understanding this phenomenon is vital for the studies of cancer, aging, neurodegeneration, immunology, and infectious diseases. Comprehensive and forward thinking, this four-volume work offers a valuable guide to cellular processes while encouraging researchers to explore their potentially important connections.
Understanding the role of autophagy is critical, considering its association with numerous biological processes, including cellular development and differentiation, cancer (both antitumor and protumor functions), immunity, infectious diseases, inflammation, maintenance of homeostasis, response to cellular stress, and degenerative diseases such as Alzheimer's, Parkinson's, Huntington's, amyotrophic lateral sclerosis, and prion diseases. Cell homeostasis is achieved by balancing biosynthesis and cellular turnover. In spite of the increasing importance of autophagy in various pathophysiological conditions mentioned above, this process remains underestimated and overlooked. As a consequence, its role in the initiation, stability, maintenance, and progression of these and other diseases (e.g., autoimmune disease) remains poorly understood.

Biology of Aging



Author: McDonald, Roger B.

Published: 2013

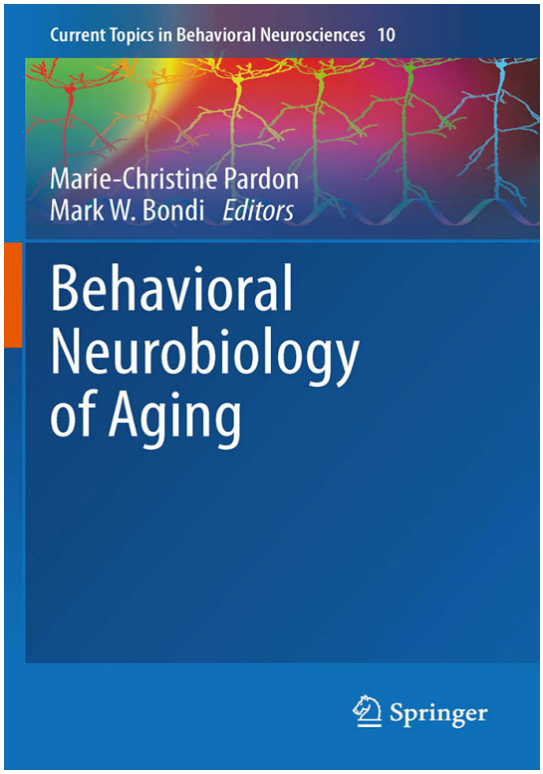
Publisher: Garland Science

Website: http://www.garlandscience.com/product/isbn/9780815342137?fromSearchResults=fromAlphaSearchResults

Description:

Biology of Aging presents the biological principles that have led to a new understanding of the causes of aging and describes how these basic principles help one to understand the human experience of biological aging, longevity, and age-related disease. Intended for undergraduate biology students, it describes how the rate of biological aging is measured; explores the mechanisms underlying cellular aging; discusses the genetic pathways that affect longevity in various organisms; outlines the normal age-related changes and the functional decline that occurs in physiological systems over the lifespan; and considers the implications of modulating the rate of aging and longevity. The book also includes end-of-chapter discussion questions to help students assess their knowledge of the material.

Behavioral Neurobiology of Aging



Author: Pardon, Marie-Christine & Bondi, Mark W.

Published: 2012

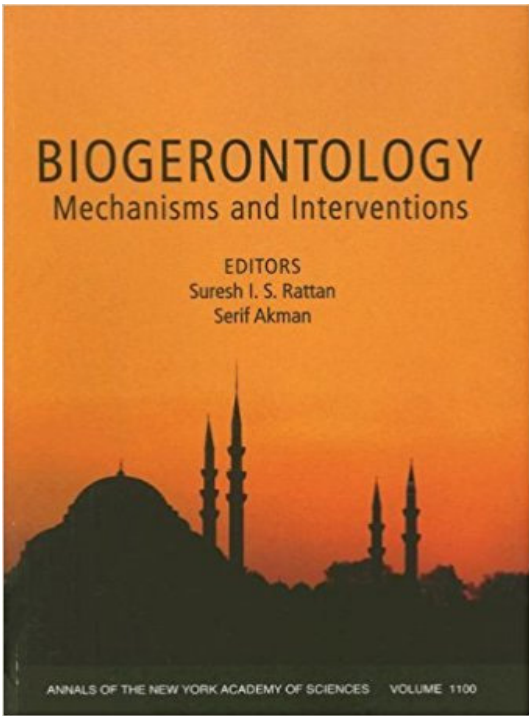
Publisher: Springer

Website: http://www.springer.com/biomed/neuroscience/book/978-3-642-23874-1

Description:

This volume discusses the current state of research findings related to healthy brain aging by integrating human clinical studies and translational research in animal models. Several chapters offer a unique overview of successful aging, age-related cognitive decline and its associated structural and functional brain changes, as well as how these changes are influenced by reproductive aging. Insights provided by preclinical studies in mouse models and advanced neuroimaging techniques in humans are also presented.

Biogerontology: mechanisms and interventions



Author: Rattan, Suresh I.S. & Akman, Serif

Published: 2007

Publisher: Wiley-Blackwell

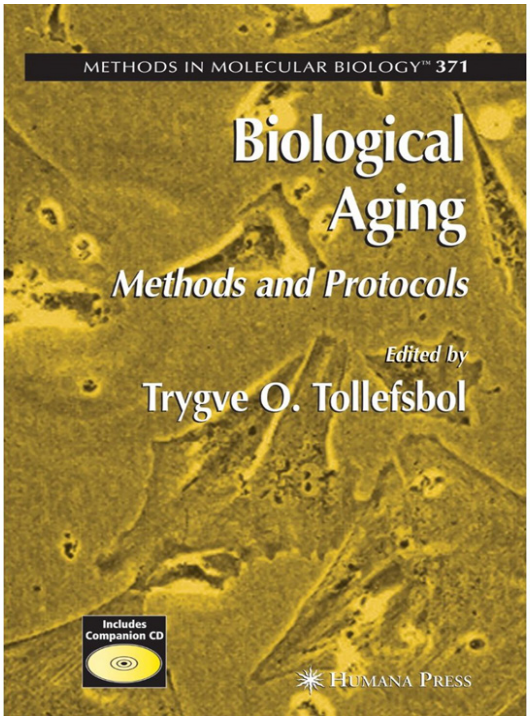
Website: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1573316792.html

Description:

Biological aging and interventionary strategies are investigated with the eventual goal of extending healthy human lifespan and minimizing the incidence of diseases associated with aging.
Biogerontologists, evolutionary biologists, biodemographers, scientists in related basic research, clinicians, and dieticians came together in Istanbul, Turkey, to share their research and discuss the latest developments in this rapidly advancing field.

This volume presents chapters representative of the highlights of the meeting, including contributions in the following areas: (1) biological and nonbiological factors affecting lifespan and the quality of life; (2) ethical and social issues related to lifespan and health-span extension; (3) novel areas of understanding aging -- physiological, cellular, and molecular aspects; (4) new technologies to understand and modulate aging; (5) the latest successful approaches in the prevention and treatment of age-related diseases; and (6) aging intervention, prevention, and modulation by genes, natural and synthetic molecules, and lifestyle modifications.

Biological aging: methods and protocols



Author: Tollefsbol, Trygve O.

Published: 2007

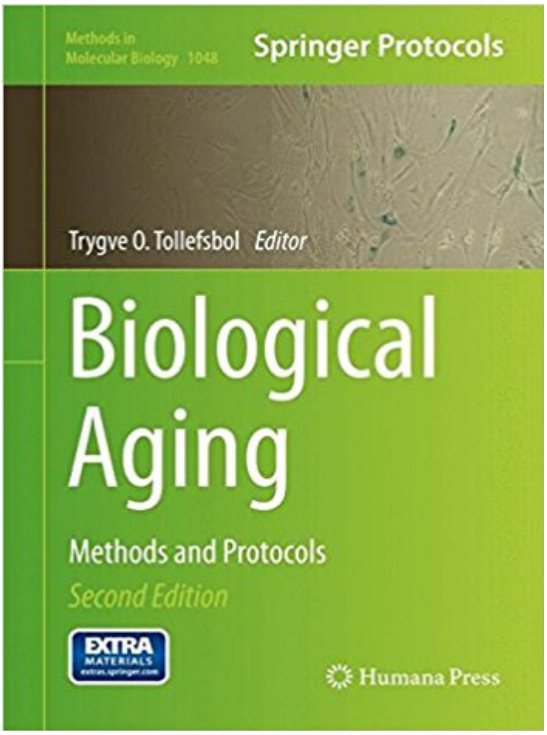
Publisher: Humana Press

Website: http://www.springer.com/medicine/family/book/978-1-58829-658-0

Description:

Biological Aging: Methods and Protocols investigates the various processes that are affected by the age of an organism. Several new tools for the analysis of biological aging have been introduced recently, and this volume provides methods and protocols for these new techniques in addition to its coverage of established procedures. The editors have carefully selected only those topics that are considered mainstays of the field or are showing promise in revolutionizing this relatively new science. The three main areas of focus in this cutting-edge compendium of biological aging research are: methods that are basic to understanding the fundamental mechanisms of cellular aging; techniques used to intervene in the aging process; and approaches to analyzing the many molecular processes of biological aging. Researchers seeking new technology and techniques will find this volume of tremendous benefit as they move towards new directions in the exciting and expanding field of biological aging.

Biological Aging: Methods and Protocols (2nd Ed.)



Author: Tollefsbol, Trygve O.

Published: 2013

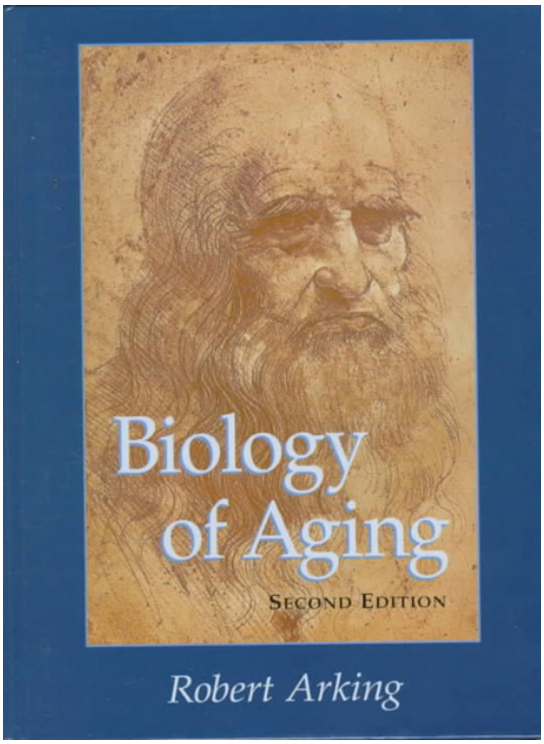
Publisher: Human Press

Website: http://www.springer.com/life+sciences/cell+biology/book/978-1-62703-555-2

Description:

The second edition of Biological Aging: Methods and Protocols expands upon the previous edition with current, detailed, useful and promising methods currently available to study aging. With new chapters on protocols that detail aging cell culture as well as many more contemporary approaches such as nuclear transfer, microarray and proteomics technologies. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and key tips on troubleshooting and avoiding known pitfalls.

Biology of aging: observations and principles



Author: Arking, Robert

Published: 2006

Publisher: Oxford University Press, USA

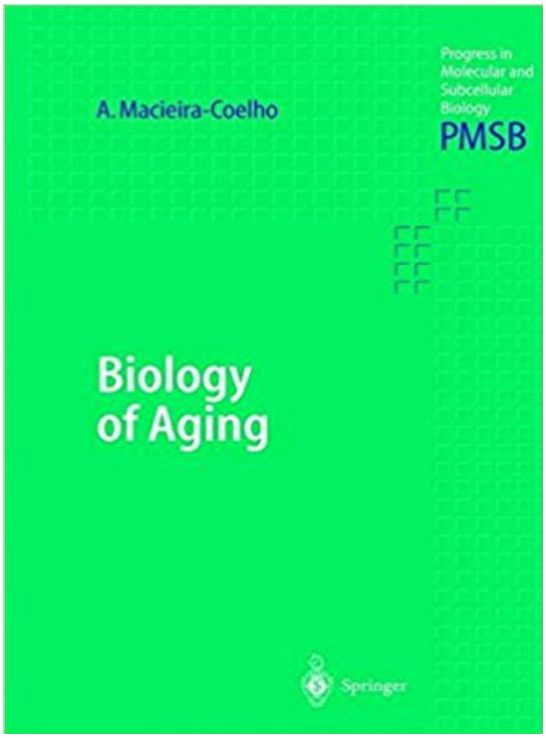
Website: http://ukcatalogue.oup.com/product/9780195167399.do?keyword=aging&sortby=bestMatches

Description:

Clarified distinctions between the biological mechanisms involved in longevity determination and those involved in senescent processes. · A new conceptual framework around which we can organize all the new facts about aging. This will assist readers to make sense of the information and use the data to form their own ideas. · Increased knowledge of aging cells has lead to new ideas on how a cell transits from a healthy state to a senescent state, while still allowing for high levels of intra- and inter-specific variability. · Discussion of senescent mechanisms assists the reader to understand that aging is a non-programmatic loss of function, likely arising from the loss of regulatory signals, and so is modifiable in the laboratory. · Because the standard evolutionary story does not fully explain the evolution of social organisms, this edition also includes recent work dealing with intergenerational resource transfers. · Lastly, if aging mechanisms are plastic, then the demand to move these anti-aging interventions into the human arena will inevitably grow. A discussion of the biological and ethical arguments on both sides of the question frames the question in an appropriate manner.

The mass of data related to aging is summarized into fifteen focused chapters, each dealing with some particular aspect of the problem. The last two chapters integrate all this material into a coherent view of how the relevant biological processes change over the life span. This view is expressed in two non-technical figures (you might say that the whole book exists to fully support Figs 9-4 & 14-9), whose meanings are elucidated as the reader progresses through the book.

Biology of aging



Author: Macieira-Coelho, Alvaro

Published: 2003

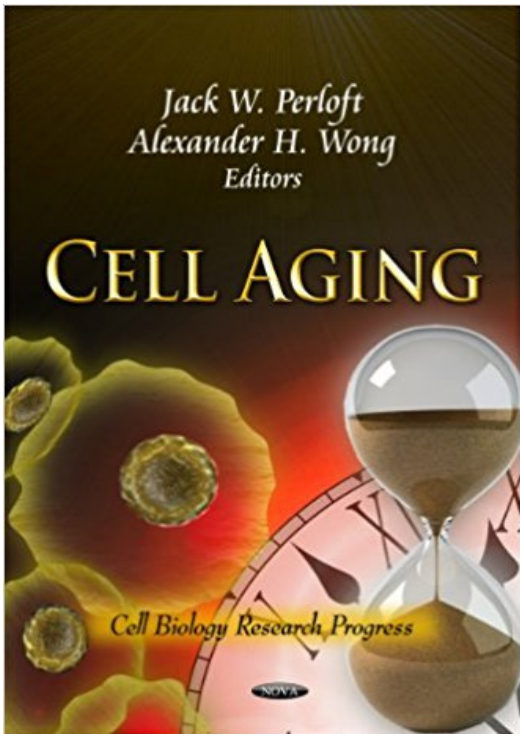
Publisher: Springer

Website: http://www.springer.com/medicine/family/book/978-3-540-43827-4

Description:

This volume gives the reader a comprehensive overview of the fundamental and biological aspects of aging. First, the field is described from a historical perspective. Then, the author analyzes the three fundamental mechanisms of survival: energy utilization, molecular and cellular redundancy, and the organization of information. The genetics of aging is reviewed rejecting some simple-minded interpretations. A bridge is established between the molecular, cellular, and tissue modifications that have been reported in the literature, and the clinical manifestations of the aging syndrome. Special relevance is given to the problem of the supposed association between cancers and aging, giving a new interpretation of that relationship.

Cell Aging



Author: Perloft, Jack W. & Wong, Alexander H.

Published: 2012

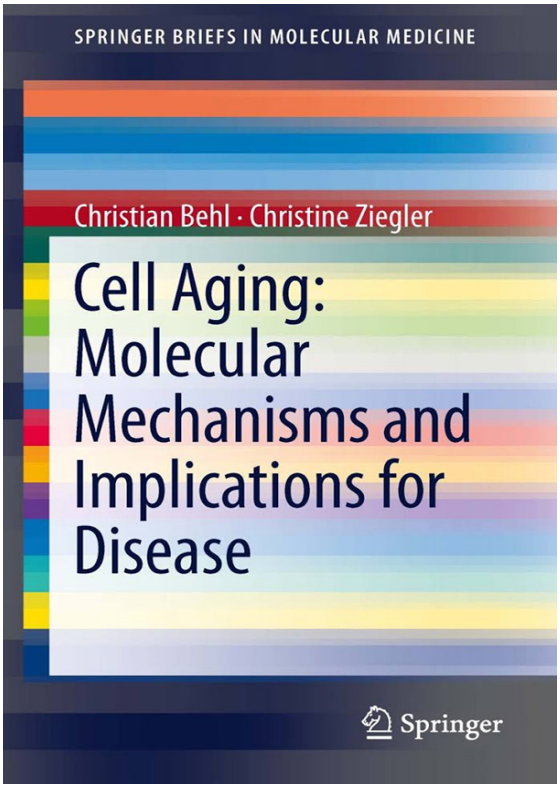
Publisher: Nova Science Pub Inc.

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=20685&osCsid=99c5df767f009847223d03ff2240a926

Description:

This book studies the cell aging of individual animals as observed by light and electron microscopic radioautography. Also discussed in this compilation is sarcopenia, which is the age-related loss of skeletal muscle mass, as well as recent advances in basic molecular mechanisms that underlie aging with findings that are shedding light on the pathogenesis of Alzheimer's disease. The authors also study Akt/protein kinase B (PKB), which plays a prominent role in the regulation of cellular homeostasis including cell survival, cell growth and gene expression; and understanding the process and mechanisms involved in erythrocyte senescence.

Cell Aging: Molecular Mechanisms and Implications for Disease



Author: Christian Behl, Christine Ziegler

Published: 2014

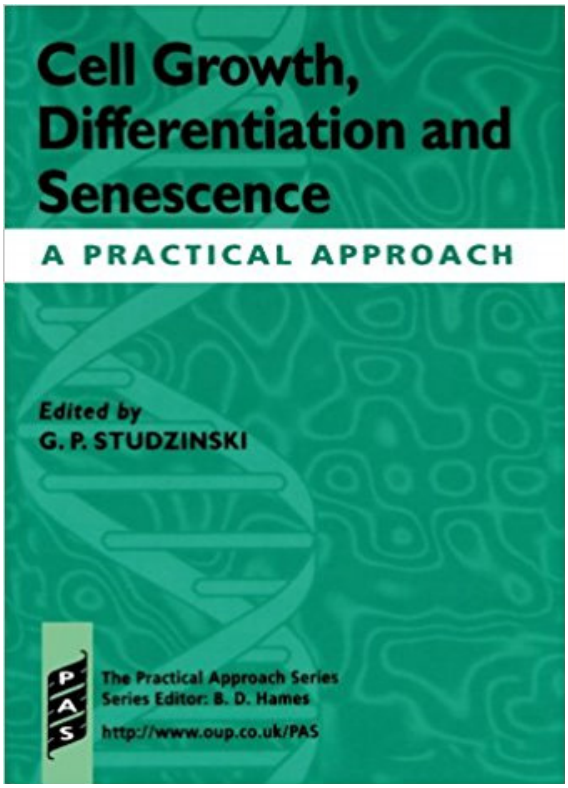
Publisher: Springer

Website: https://link.springer.com/book/10.1007/978-3-642-45179-9

Description:

Aging represents a physiological and per se non-pathological and multifactorial process involving a set of key genes and mechanisms being triggered by different endogenous and exogenous factors. Since aging is a major risk factor in connection with a variety of human disorders, it is increasingly becoming a central topic in biochemical and medical research. The plethora of theories on aging – some of which have been discussed for decades – are neither isolated nor contradictory but instead can be connected in a network of pathways and processes at the cellular and molecular levels. This book summarizes the most prominent and important approaches, focusing on telomeres, DNA damage and oxidative stress as well as on the possible role of nutrition, the interplay between genes and environment (epigenetics) and intracellular protein homeostasis and introduces some genes that have actually extended life spans in animal models. Linking these different determinants of aging with disease, this volume aims to reveal their multiple interdependencies. We see that there is no single "perfect" theory of aging and that instead it is possible to define what the authors call the molecular aging matrix of the cell. A better knowledge of its key mechanisms and the mutual connections between its components will lead to a better understanding of age-associated disorders such as Alzheimer's disease.

Cell growth, differentiation and senescence: a practical approach



Author: Studzinski, George P.

Published: 2000 (H) 1999 (P)

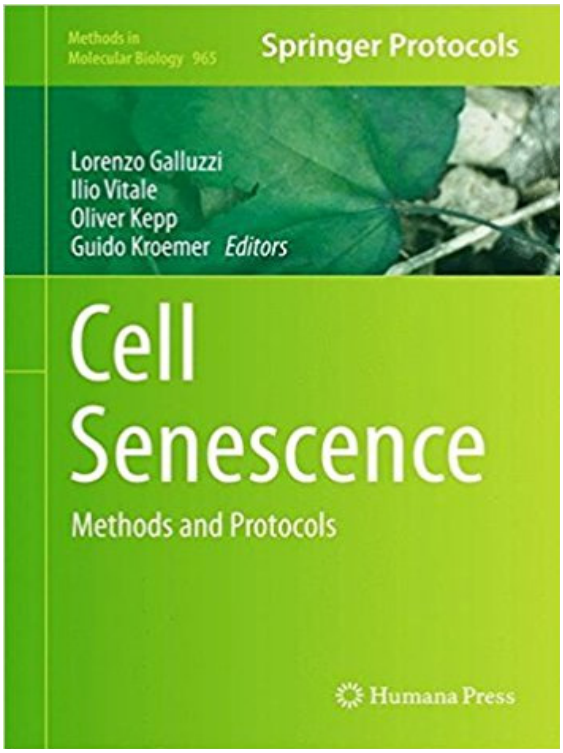
Publisher: Oxford University Press, USA

Website: http://ukcatalogue.oup.com/product/9780199637690.do

Description:

There are three main themes running through this volume. First, basic methods for measurement of cell proliferation are introduced and explained with reference to various systems, primarily in vitro, but in vivo procedures are also illustrated. The second theme is growth signalling, and is exemplified by methods for the analysis of transduction pathways for growth, beginning at the cell membrane and leading to the cell nucleus. The last theme presented here is growth cessation, illustrated by several systems for induction of cell differentiation, and of cell senescence. The emphasis throughout the book is on human cell systems, making it particularly relevant to scientists interested in human disease, especially cancer. Importantly, well proved methods for studying cell growth are supplemented by some novel approaches, e.g., studies of cell cycle checkpoints, cell spheroids, and nuclear architecture. Only two chapters have been retained, in an updated form from Cell Growth and Apoptosis, the predecessor volume. The book is written by a team of scientists highly experienced in procedures they describe, and offer details and hints found valuable in their own laboratories; thus, variants of the same general methods can be found in different chapters. These should be helpful to beginning as well as experienced investigators, and are designed to stimulate new approaches to old and new questions.

Cell Senescence: Methods and Protocols



Author: Galluzzi, Lorenzo; Vitale, Ilio; Kepp, Oliver & Kroemer, Guido

Published: 2014

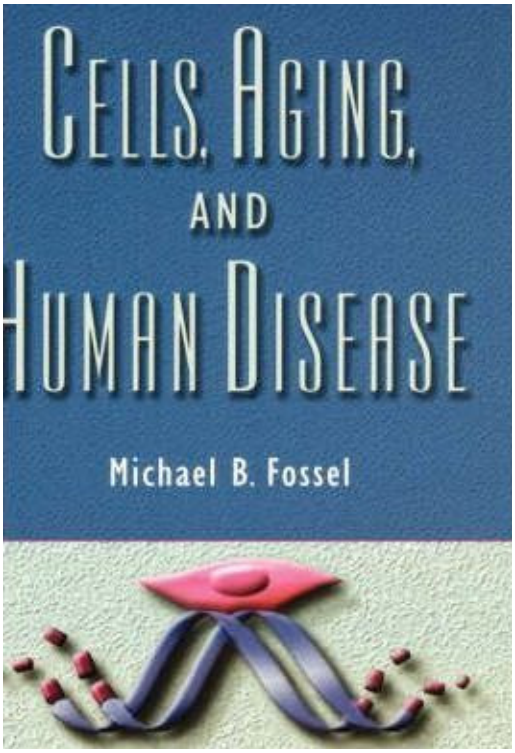
Publisher: Humana Press, Springer

Website: http://www.springer.com/life+sciences/cell+biology/book/978-1-62703-238-4

Description:

Cell senescence is the process whereby cells permanently lose the possibility to proliferate without undergoing cell death, and occurs in a plethora of distinct model organisms. In Cell Senescence: Methods and Protocols, expert researchers in the field detail the methods that are now commonly used to study cell senescence, in model organisms encompassing bacteria, fungi, worms, flies, zebrafish, and mammalian cells. These techniques cover the study of all the morphological,biochemical and functional manifestations of senescence at the cellular level and include protocols for population analyses and high-throughput approaches in suitable model organisms. Written in the highly successful Methods in Molecular Biology™ series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and key tips on troubleshooting and avoiding known pitfalls.

Cells, aging, and human disease



Author: Fossel, Michael B.

Published: 2004

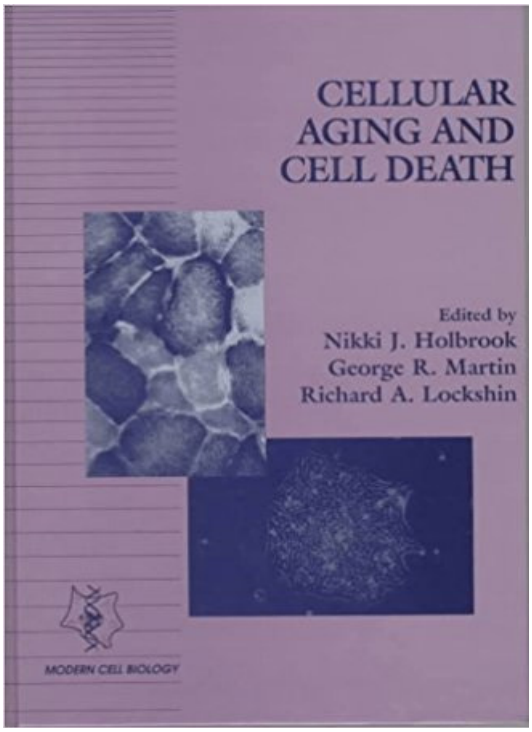
Publisher: Oxford University Press, USA

Website: http://ukcatalogue.oup.com/product/9780195140354.do?keyword=aging&sortby=bestMatches

Description:

This is the first textbook to explain human aging from genes to clinical disease. With over 4,000 references, it explores both the fundamental processes of aging and the resultant tissue-by-tissue clinical pathology, detailing both breaking research and current state-of-the art clinical interventions in aging and age-related disease. It is the only book on the market to emphasize the theory of aging as caused by cell senescence rather than the traditionally held wear-and-tear theory.

Cellular aging and cell death



Author: Holbrook, Nikki J.; Martin, George R. & Lockshin, Richard A.

Published: 1995

Publisher: Wiley-Liss

Website: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0471121231.html

Description:

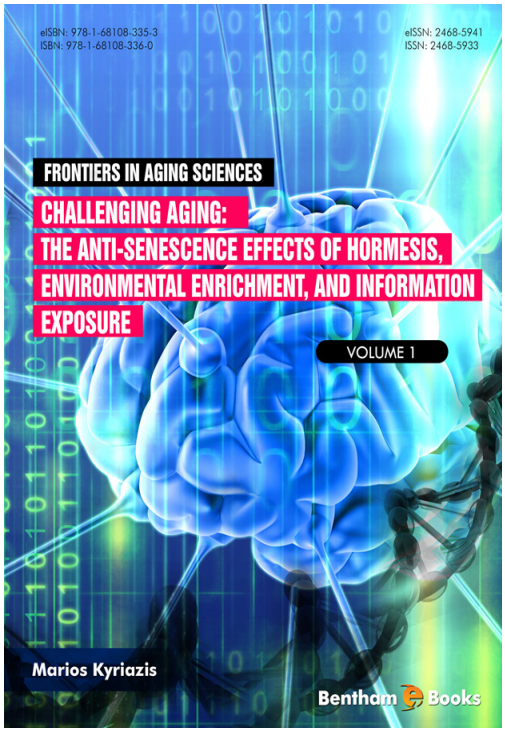
Cellular Aging and Cell Death provides a thorough understanding of the mechanisms responsible for cellular aging, covering the recent research on programmed cell death and senescence, and describing their role in the control of cell proliferation and the aging process. This one-of-a-kind book is the first to combine the two hottest research areas of cell biology into one comprehensive text. Leading experts contribute to give readers an authoritative overview of the distinct fields of cellular aging and programmed cell death, as well as to demonstrate how both fields are critical to understanding the aging process. They address the large and growing interest in apoptosis, especially with regard to the molecular signals that induce and regulate programmed cell death, and the role of apoptosis in a variety of age-associated diseases and disabilities. Throughout the book, a strong emphasis is placed on the interrelationship of the molecular, cellular, and physiological aspects of senescence.

Individual chapters discuss such topics as the role and regulation of apoptosis in development, the potential impact of cell death on such postmitotic tissues as nerve and muscle, and suggest that programmed cell death plays an important role in both pathological and nonpathological aspects of aging, including neurodegenerative diseases.

One important chapter focuses on the most recent research involving the study of telomeres, whose reduction in length with age and cell division may underlie cellular senescence. The subject of neuronal cell death is also put into the perspective of aging.

Cellular Aging and Cell Death bridges the rapidly growing fields of cellular aging and programmed cell death. This thorough, yet concise book will be of particular interest to graduate students and researchers within the fields of cell and developmental biology, neurobiology, immunology, and physiology. Physicians and medical students involved in the fields of gerontology and pathology will also find this an informative reference.

Challenging Aging: The Anti-senescence Effects of Hormesis, Environmental Enrichment, and Information Exposure



Author: Marios Kyriazis

Published: 2016

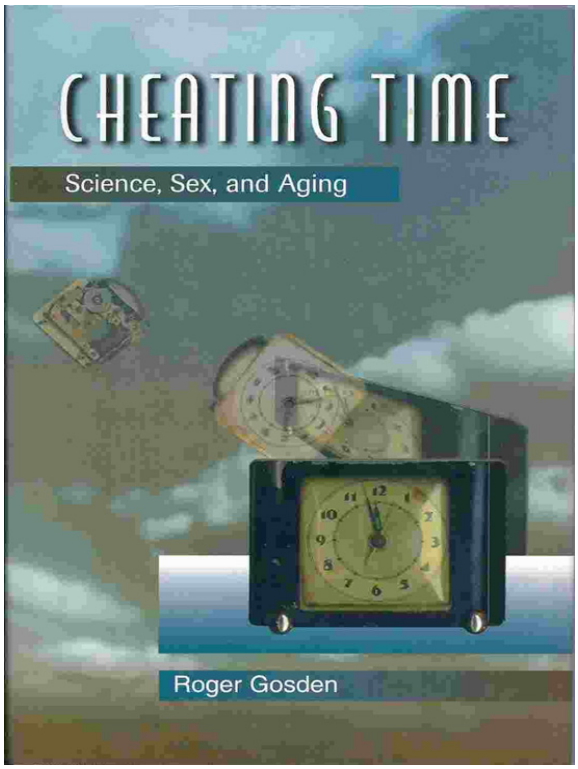
Publisher: Bentham Science

Website: https://ebooks.benthamscience.com/book/9781681083353/

Description:

Age-related degeneration may be reduced or even eliminated, by positively challenging the human being, physically or cognitively, to up-regulate somatic repair functions. Exposure to meaningful information and a challenging environment act as hormetic stressors which, in the context of an increasingly technological setting, may invoke evolutionary mechanisms that lead to a persistent maintenance of homeostasis. Thus, there is a strong link between environmental factors and ongoing health, leading to an individual's ability to continually adapt to age related challenges. Challenging Aging: The Anti-senescence Effects of Hormesis, Environmental Enrichment, and Information Exposure explains the role of hormesis in anti-aging processes followed by information on vitagenes, epigenetics, environmental enrichment and germlines. The monograph also brings newer concepts and theories to the fore, such as 'environmental enrichment' and 'technoculture.' Medical professionals and general readers, alike, will gain a a new perspective on the processes that counter aging processes in the human being.

Cheating Time: Science, Sex, and Aging



Author: Gosden, Roger G.

Published: 1996

Publisher: W.H.Freeman & Co Ltd

Website: https://www.amazon.de/Cheating-Time-Science-Sex-Aging/dp/0716730596

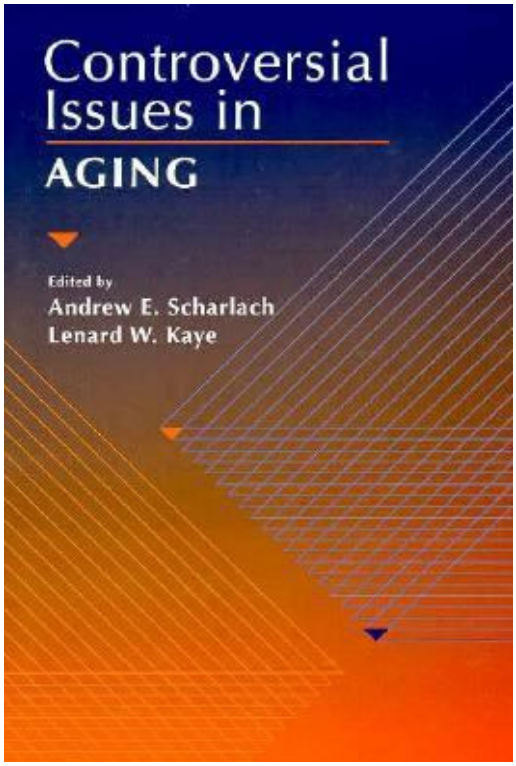
Description:

The quest to prolong our youth has spurred numerous quack remedies and fraudulent claims, but it has also inspired serious scientific investigation, yielding important clues about the aging process and what might realistically be done to arrest it.

In Cheating Time, the acclaimed researcher Roger Gosden tells us what scientists have learned so far, particularly in the investigation of hormones and the paramount role they play in the aging process. As we discover, there may be a tradeoff between reproductive capacity and longevity; the hormones that govern our reproductive lives can turn on us in later years, when, paradoxically, we may suffer from a drop in hormone levels or from the cumulative effects of overexposure to these same hormones.

Drawing on his medical expertise, historical knowledge, and good humor, Gosden shares amusing anecdotes as he discusses fascinating theories and current research efforts that are giving us some good reasons to be optimistic. The trajectory of human life need not be one of inexorable decay and decline. While we cannot hope to attain eternal youth, we are in the process of discovering how to live longer lives in good health, how to extend our biological clocks a bit further, and how to cheat time.

Controversial issues in Aging



Author: Scharlach, Andrew E. & Kaye, Lenard W.

Published: 1996

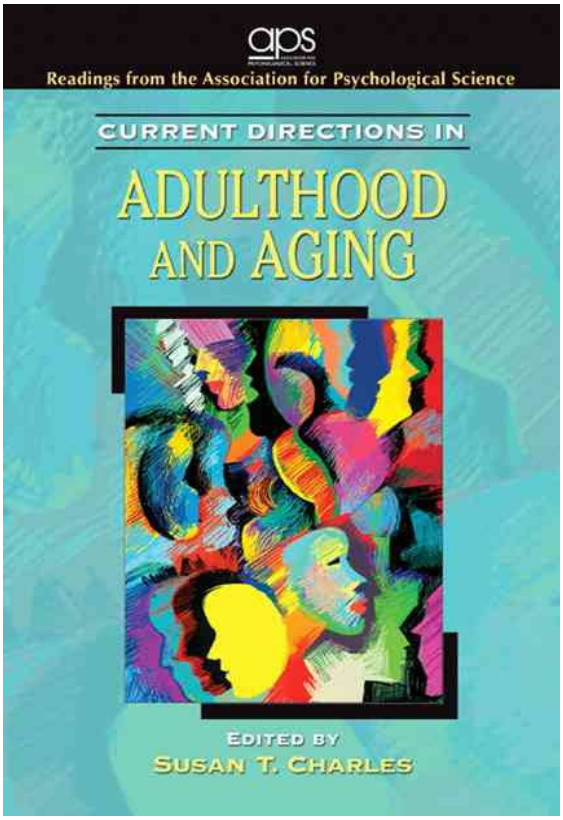
Publisher: Pearson Education

Website: http://www.pearson.ch/1471/9780205193813/Controversial-Issues-in-Aging.aspx

Description:

Part of the Controversial Issues series, this text presents a series of clear and lively debates on current issues in gerontology, authored by leading academic authorities in the field. The text presents a broad overview of issues and questions facing the field, including areas of policy/programs, health, social services, professional and family life, and more. The debates are current and very readable; the text is "user-friendly," and was designed to stimulate student discussion, debate, as well as critical thinking. The text is a "must" for students considering careers in the field of gerontology. The non-technical, brief and lively format of the debates makes them accessible to all students. Issues covered include whether or not to legalize suicide; whether to reduce Social Security benefits; whether to institute means-testing for Medicare; whether affirmative action programs should be instituted for older persons; and the potential dismantling of the aging services network.

Current Directions in Adulthood and Aging



Author: APS (Association for Psychological Science) & Charles, Susan T.

Published: 2008

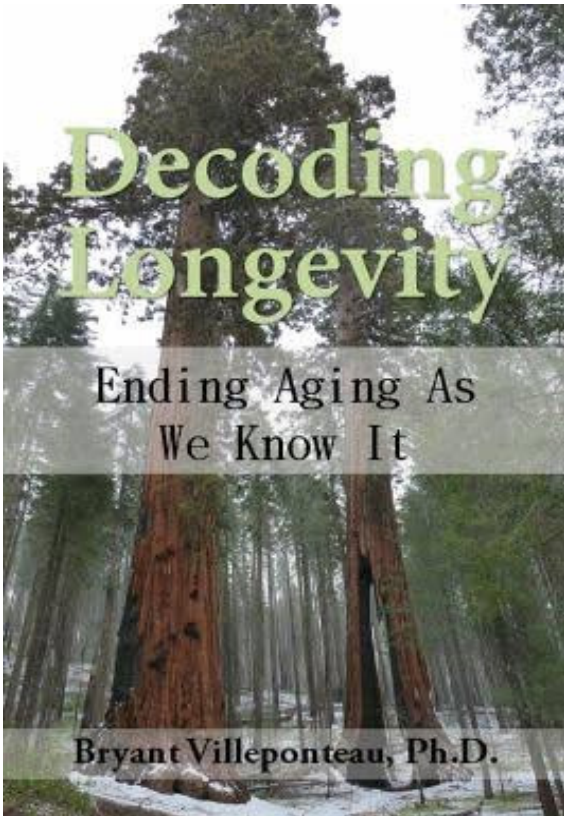
Publisher: Pearson

Website: http://www.pearsonhighered.com/educator/product/Current-Directions-in-Adulthood-and-Aging/9780205597499.page

Description:

This new and exciting reader includes over 25 articles that have been carefully selected for the undergraduate audience, and taken from the very accessible Current Directions in Psychological Science journal. These timely, cutting-edge articles allow instructors to bring their students real-world perspective–from a reliable source–about today's most current and pressing issues in adulthood and aging.

Decoding Longevity



Author: Villeponteau, Bryant

Published: 2014

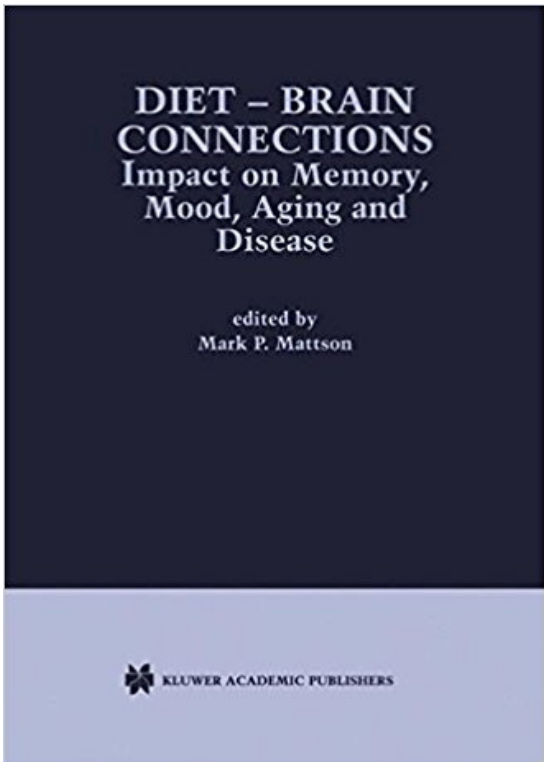
Publisher: CreateSpace

Website: https://www.createspace.com/4379564

Description:

Have you ever wondered why we age and if you could slow its progression? In DECODING LONGEVITY, aging expert Dr. Bryant Villeponteau offers a full spectrum biological and genetic analysis of the aging process. He condenses a wealth of practical information for those interested in extending their health and longevity, including dietary, exercise, and supplement recommendations that could add decades to your healthspan. Dr. Villeponteau looks in detail at the last 20 years of aging research, and explores future developments, including the exponential increases in technologies that will provide powerful tools for extending healthy longevity over the next 20 to 40 years.

Diet-brain connection: impact on memory, mood, aging and disease



Author: Mattson, M.P.

Published: 2002

Publisher: Springer

Website: http://www.springer.com/biomed/neuroscience/book/978-1-4020-7129-4

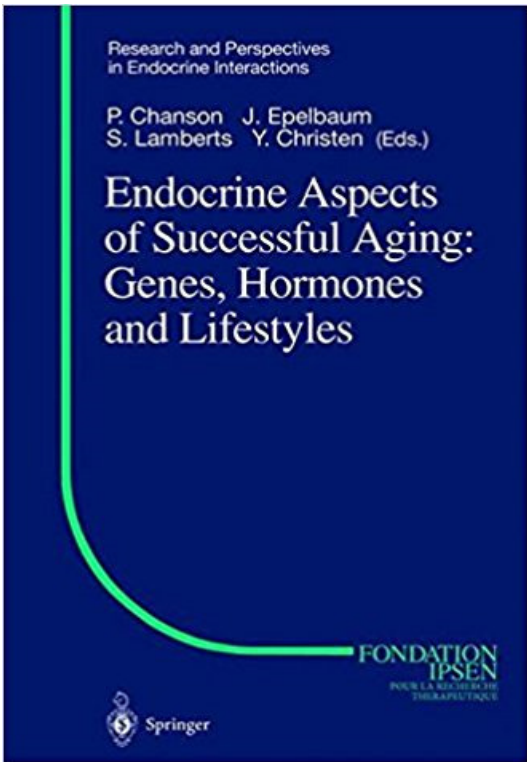
Description:

Diet-Brain Connections fills a void between the fields of nutrition, behavior and cellular and molecular neurosciences by providing an integrated collection of articles that critically dissect the link between what we eat and how the brain develops and functions in health and disease.

Key topics covered in depth include:

- caloric restriction benefit the brain and retard aging;
- effects of dietary antioxidants on brain function and aging;
- developmental and function consequences of different dietary fatty acids;
- biochemical links between dietary folic acid and psychiatric and neurodegenerative disorders;
- effects of nutritional deficit during early development and behavior disorders later in life; -neurochemical basis of the benefits of widely used dietary supplements including creatine and Gingko biloba;
- contribution of dietary toxins such as metals and pesticides to neurological disorders.

Endocrine aspects of successful aging: genes, hormones and lifestyles



Author: Chanson, Philippe; Epelbaum, Jacques; Lamberts, Steven & Christen, Yves

Published: 2004 (H,E)2010 (P)

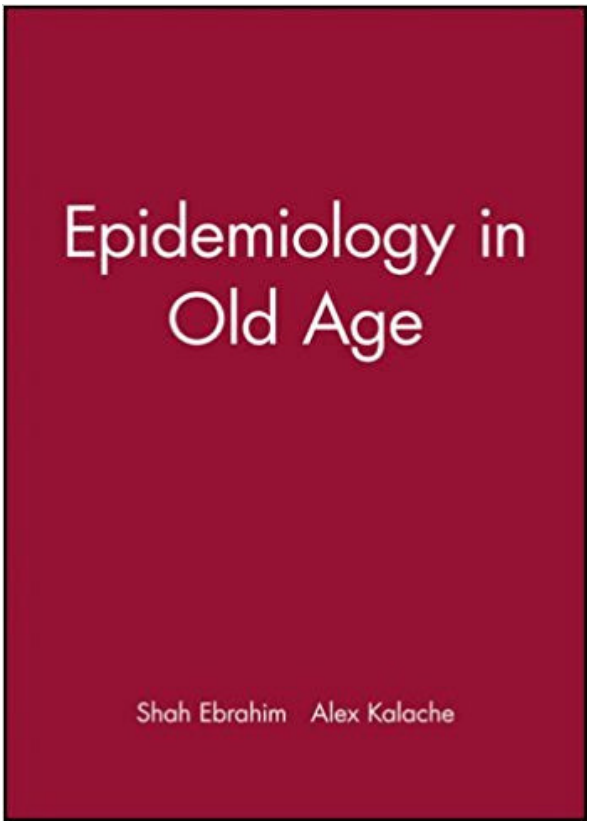
Publisher: Springer

Website: http://www.springer.com/biomed/book/978-3-540-40573-3

Description:

At the beginning of the 20th century, life expectancy at birth in North America and Western Europe was around 50 years of age. Nowadays, women have gained more than 30 years of age and men are trailing closer. However, according to several scientists and sociologists, such as Louis Chauvel, the notion of a «greying society» is not entirely adequate since aging people are physically and socially younger and more active for a longer time. Of course, the other side of the medal is to tackle the challenge of preventing age-associated chronic diseases. In this book the extensive field of research on neuroendocrine aging has been reviewed, including data from molecular biology and on simple organisms as well as on the hormonal substitution strategies in humans. Aging is one of the most complex biological processes determined by the interactions between genetic and environmental factors.

Epidemiology in Old Age



Author: Ebrahim, Shah & Kalache, Alex

Published: 1996

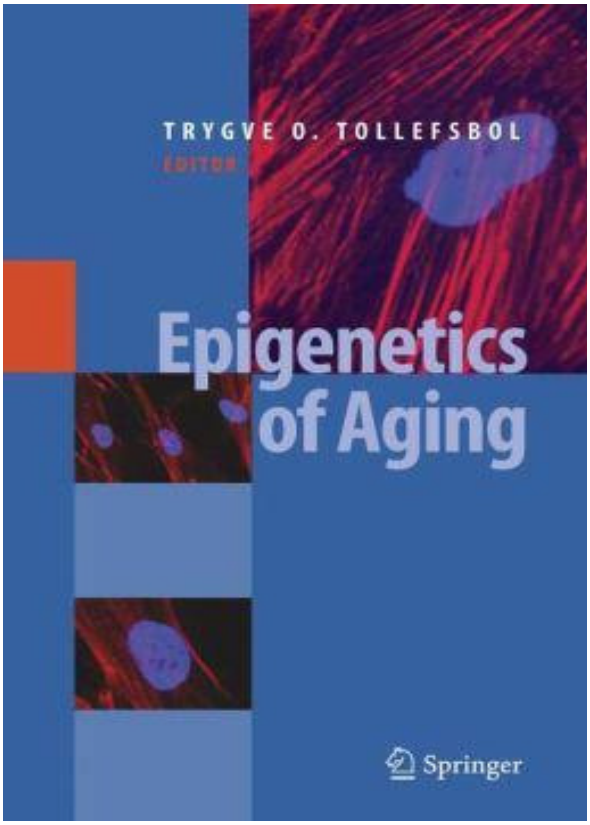
Publisher: BMJ Books

Website: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0727909487.html

Description:

This major work with an internationally famous list of contributors deals with the ways in which needs assessment, service, evaluation, and public health and social policy may improve the care of elderly people in all societies. It discusses the methodology of epidemiological studies, risk factors, and the most common problems and diseases in old age.

Epigenetics of aging



Author: Tollefsbol, Trygve O.

Published: 2009

Publisher: Springer

Website: http://www.springer.com/biomed/human+genetics/book/978-1-4419-0638-0

Description:

Revealing the molecular basis of aging has been one of the most challenging aspects of medical science, and now the epigenetics of aging is in a Renaissance phase. This seminal work covers the fascinating role of epigenetics in aging, ranging from basic epigenetic processes of aging to epigenetic drugs that may intervene in allow aging and age-related diseases.

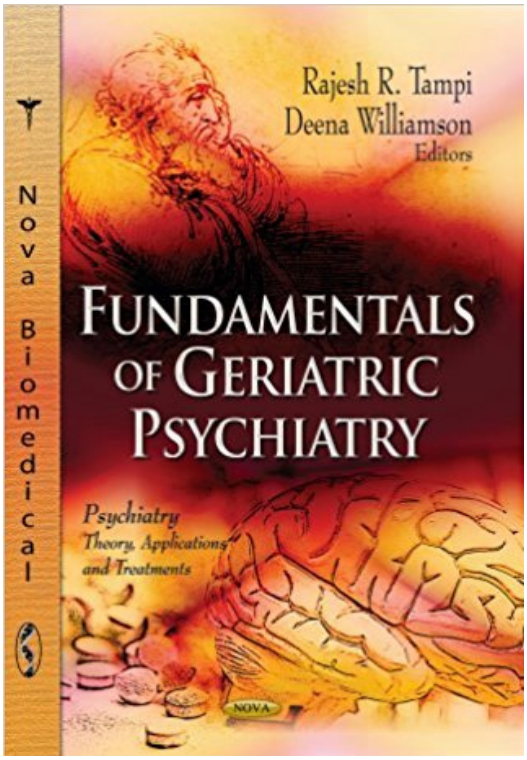
Epigenetics of Aging presents in-depth analyses of DNA methylation, histone modifications, RNA alterations, and chromosomal defects that impact the aging process. It also includes detailed essays describing the impact of epigenetics on aging, the epigenetics of age-related diseases, and future directions and perspectives on the epigenetics of aging.

With chapters authored by leading researchers in the field, this seminal book on the epigenetics of aging:

- Ranges from basic science to clinical practice
- Describes the importance of epigenetics in numerous diseases of aging such as cancer, Alzheimer's disease, immune defects, and osteoporosis
- Includes the role of epigenetics in premature aging diseases such as progeria
- Highlights emerging aspects of epigenetics in aging, such as polycomb group genes and noncoding RNAs
- Covers sirtuins, chromatin alterations, and the role of epigenetic drift in aging
- Describes the impact of the environment and diet in modulating epigenetic processes during aging

Epigenetics of Aging is the first book in this exponentially expanding field, and will be an indispensable source of information for those with interests in epigenetics and/or aging. This authoritative core textbook for advanced students or medical scientists and practitioners details the fascinating and revolutionary field of the epigenetics of aging and covers the most recent advances that impact the longevity of living organisms.

Fundamentals of Geriatric Psychiatry



Author: Tampi, Rajesh R & Williamson, Deena

Published: 2013

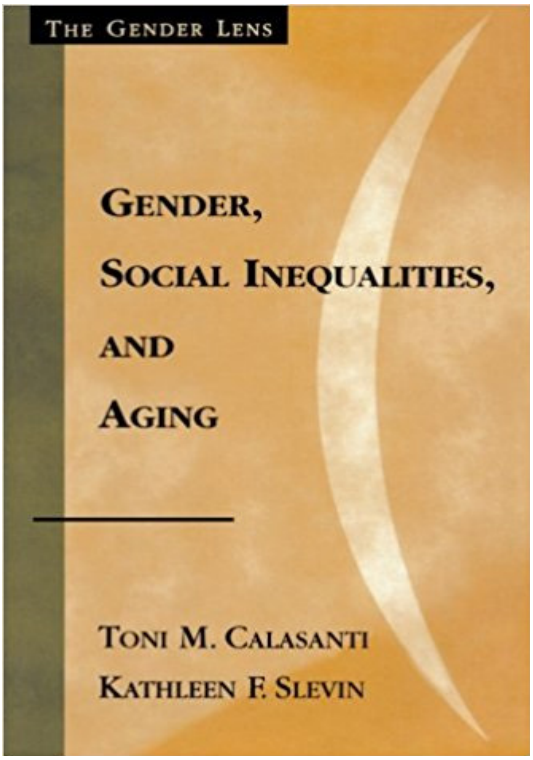
Publisher: Nova Science Pub Inc

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=41022

Description:

The number of people over the age of 65 years in the United States is growing steadily. Currently, they constitute thirteen percent of the population of the United States. This number will double over the next thirty years. Psychiatric disorders are not uncommon in older adults. Dementia, depression, anxiety, psychotic disorders and substance abuse disorders are often encountered in this population. Substantial increase in the number of older adults with mental health issues and a sluggish economic climate has resulted in our healthcare system being overburdened. Adding to this critical situation is the fact that the growth in the number of trained clinicians caring for older adults with psychiatric disorders has not kept pace with the healthcare needs of this population. Available evidence indicates that although there has been an increase in the research database on psychiatric disorders in older adults, the translation of this latest research data into clinical practice occurs less frequently than desired. Keeping these issues in mind, the authors have written a concise textbook on geriatric psychiatry which encompasses the latest information on psychiatric disorders in late-life. It is written by experienced professionals who specialize in the care of older adults with psychiatric disorders. This book has the latest data in geriatric psychiatry interpreted and translated in an easy to read manner. There is also a practice test at the end of this book for clinicians taking certification examinations in geriatric psychiatry. This book is a must have for anyone who cares for older adults with mental illness, be it a caregiver, a student, a trainee, a novice clinician or a seasoned academic.

Gender, Social Inequalities, and Aging



Author: Calasanti, Toni M. & Slevin, Kathleen F.

Published: 2001

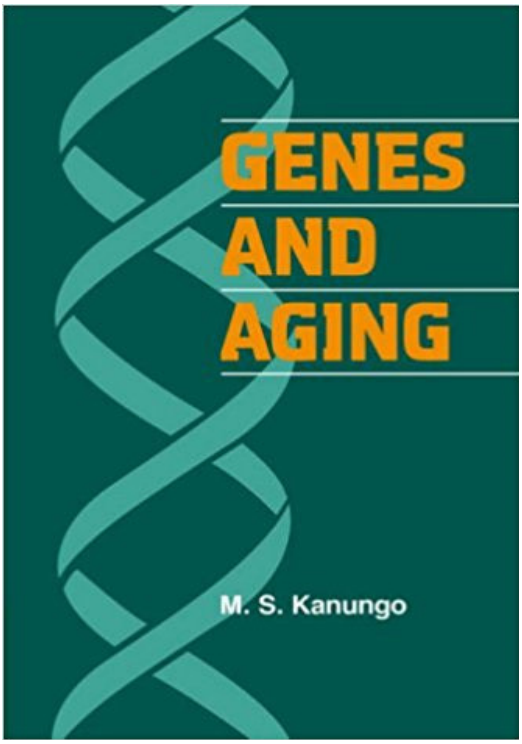
Publisher: AltaMira Press

Website: https://rowman.com/ISBN/9780759101869

Description:

The experience of men and women in later life varies enormously, not only along lines of gender but also due to ethnicity, class, sexual orientation, and race. In this text on gender issues among the aging, Calasanti and Slevin explore these differences, their genesis, their meaning to men and women, and their treatment in the policy arena. The authors also take to task traditional research on aging and how it ignores these issues. The authors cover topics of work and retirement, body image, sexuality, health, family relationships, and informal care, among many others. The current research and nuanced theoretical approach presented in this brief book makes it the ideal text to correct the stereotypic and monolithic views of the elderly for courses in gender or aging

Genes and aging



Author: Kanungo, M.S.

Published: 2004 (H) 2005 (P)

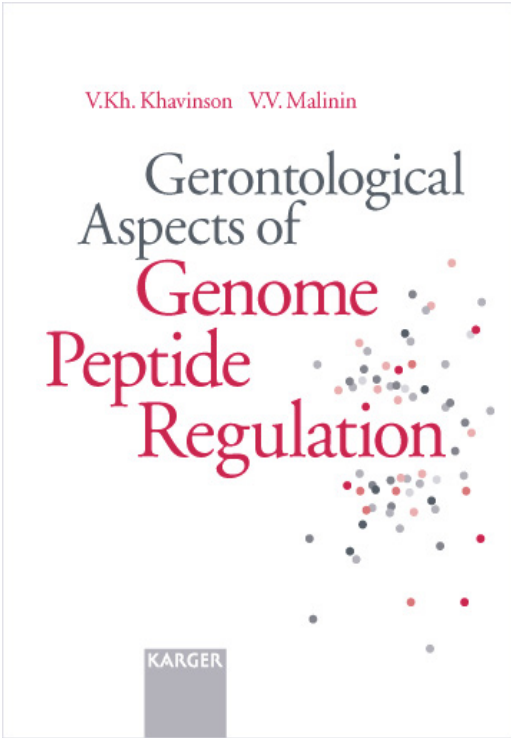
Publisher: Cambridge University Press

Website: http://www.cambridge.org/gb/knowledge/isbn/item1115324/?site_locale=en_GB

Description:

The maximum life span of multicellular organisms varies greatly: for a fruitfly it is about 30 days, for a dog about 20 years, and for a human about 100 years. Despite these differences, all animals show a similar pattern of their life spans - growth, adulthood, and aging, followed by death. The basic cause of aging in multicellular organisms (eukaryotes) lies at the level of the genes, although nutrition and various types of stresses do influence the rate and pattern of aging. This book reviews the molecular biology of the gene in relation to aging. Until about a decade ago it was not possible to probe into the types of changes that occur in eukaryotic genes, due to their enormous complexity. The use of genetic engineering techniques, however, is beginning to unravel the changes that occur in the genes as an organism ages: such as the changing expression of specific genes under normal conditions and under various types of stress, the changes in the regulatory roles of the sequences in the promotor regions of genes, conformational changes that may occur in genes during aging, and the protein factors that are involved in the aging process. The author presents basic information on eukaryotic genes and follows this with details of the changes that occur in their structure and function during aging. He reviews the latest studies being carried out in various laboratories, outlines the gaps and deficiencies in our present knowledge and suggests the most profitable future areas of research. Genes and Aging is for all students and researchers interested in the molecular biology of aging.

Gerontological aspects of genome peptide regulation



Author: Goldsmith, Theodore

Published: 2005

Publisher: S Karger AG

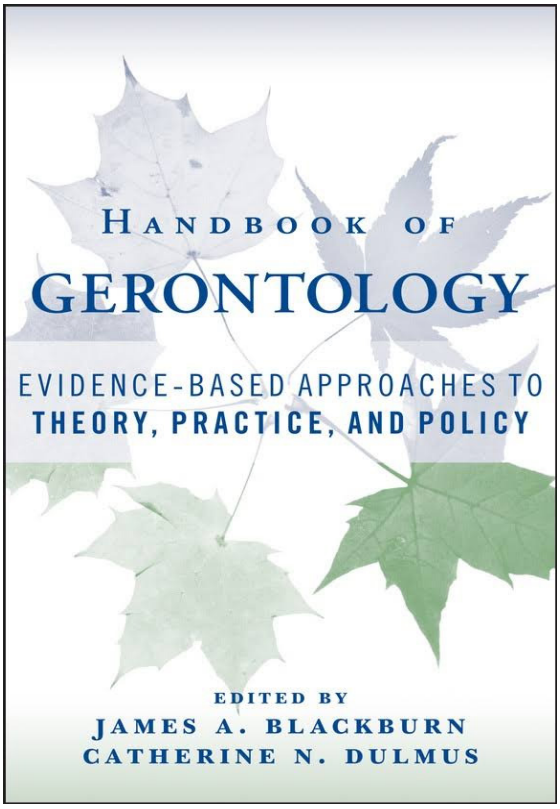
Website: http://content.karger.com/ProdukteDB/produkte.asp?Aktion=showproducts&searchWhat=books&ProduktNr=230596

Description:

This monograph highlights the gerontological aspects of the peptide regulation of gene expression. It focuses on the mechanisms of the geroprotective action of peptides related to chromatin activation, increase in telomerase enzyme activity, and elongation of telomeres in different cells. A key role in the initiation of the biological activity of peptide is its interaction with DNA which provides genetic stability and a normalization of the age-related metabolic shifts. Study of the genetic mechanisms of peptide action suggests a new concept which most comprehensively reflects on the evolutionary biological role peptide plays in the organism. The impact of peptides on the expression and structure of genes opens a new gate for the prevention of premature aging and age-related pathology which appears to be most promising in pharmacogenomics.

This monograph narrates not only the theoretical aspects and experimental data, but also outlines new approaches to the prevention of aging and age-related pathology, thus addressing a wide readership of gerontologists, geneticists, molecular biologists, biochemists, and pharmacologists alike.

Handbook of gerontology: evidence-based approaches to theory, practice, and policy



Author: Blackburn, James A. & Dulmus, Catherine N.

Published: 2007

Publisher: Wiley

Website: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0471771708.html

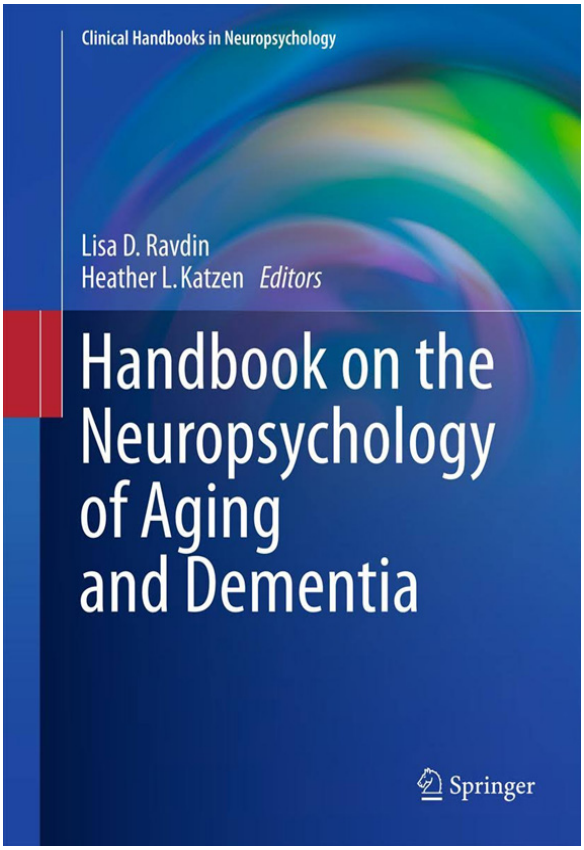
Description:

The Handbook of Gerontology: Evidence-Based Approaches to Theory, Practice, and Policy provides an essential source of important theoretical and applied information on gerontology for all mental health professionals interested in optimizing the health and well-being of older adults. Interdisciplinary and incorporating the most current evidence-based practices in its focus, this timely book considers the many factors that affect the way this growing population experiences the world-and provides a positive and proactive guide to administering care.

Integrating the latest research findings with important practice implications for working with an older client population, the Handbook of Gerontology draws on a multidisciplinary team of expert contributors who provide coverage and insight into a diverse range of topics, including:

- A global perspective on aging
- Elder abuse
- Family caregiving
- Parenting grandchildren
- Depression
- Substance abuse
- Alzheimer's disease
- Successful aging and personality

Handbook on the Neuropsychology of Aging and Dementia



Author: Ravdin, Lisa D. & Katzen, Heather L.

Published: 2012

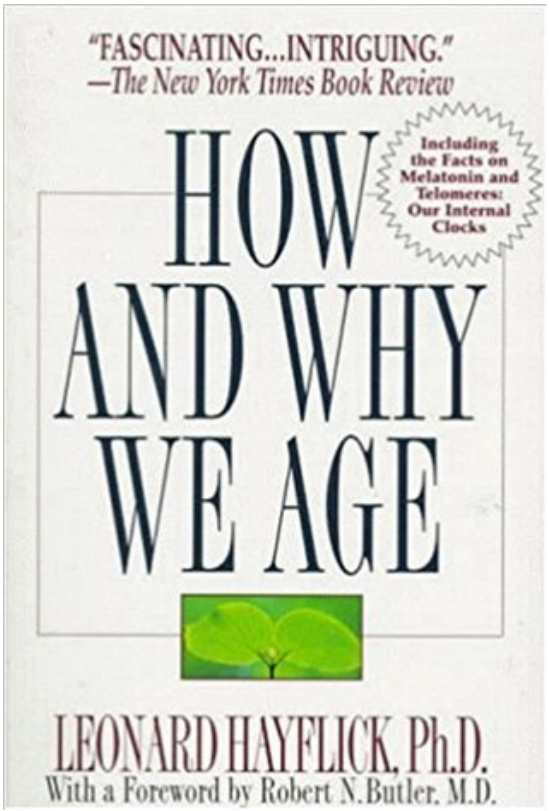
Publisher: Springer

Website: http://www.springer.com/psychology/neuropsychology/book/978-1-4614-3105-3

Description:

With the aging of the baby boomers and medical advances that promote longevity, older adults are rapidly becoming the fastest growing segment of the population. As the population ages, so does the incidence of age related disorders. Many predict that 15% - 20% of the baby-boomer generation will develop some form of cognitive decline over the course of their lifetime, with estimates escalating to up to 50% in those achieving advanced age. Although much attention has been directed at Alzheimer's disease, the most common form of dementia, it is estimated that nearly one third of those cases of cognitive decline result from other neuropathological mechanisms. In fact, many patients diagnosed with Alzheimer's disease likely have co-morbid disorders that can also influence cognition (i.e., vascular cognitive impairment), suggesting mixed dementias are grossly under diagnosed. The Clinical Handbook on the Neuropsychology of Aging and Dementia is a unique work that provides clinicians with expert guidance and a hands-on approach to neuropsychological practice with older adults. The book will be divided into two sections, the first addressing special considerations for the evaluation of older adults, and the second half focusing on common referral questions likely to be encountered when working with this age group. The authors of the chapters are experts and are recognized by their peers as opinion leaders in their chosen chapter topics. The field of neuropsychology has played a critical role in developing methods for early identification of late life cognitive disorders as well as the differential diagnosis of dementia. Neuropsychological assessment provides valuable clinical information regarding the nature and severity of cognitive symptoms associated with dementia. Each chapter will reinforce the notion that neuropsychological measures provide the clinician with sensitive tools to differentiate normal age-related cognitive decline from disease-associated impairment, aid in differential diagnosis of cognitive dysfunction in older adults, as well as identify cognitive deficits most likely to translate into functional impairments in everyday life.

How and Why We Age



Author: Hayflick, Leonard

Published: 1996

Publisher: Ballantine Books

Website: https://www.amazon.de/How-Why-Leonard-Hayflick-Ph-D/dp/0345401557

Description:

Here, at last, preeminent cell biologist Leonard Hayflick presents the truth about human aging. Based on more than thirty years of pioneering research in the field, How and Why We Age explores not only how our major biological systems change as we grow older, but also examines the intangible alterations in our modes of thinking and feeling, our moods and sexual desires, our personality traits and our memories.

With the immediacy of the latest scientific discoveries, Dr. Hayflick explains how aging affects every part of the body, and dispels many of the most persistent aging myths, to show that:
Hearts do not naturally get weaker with age.

Regular exercise and a low-fat diet won't slow aging.

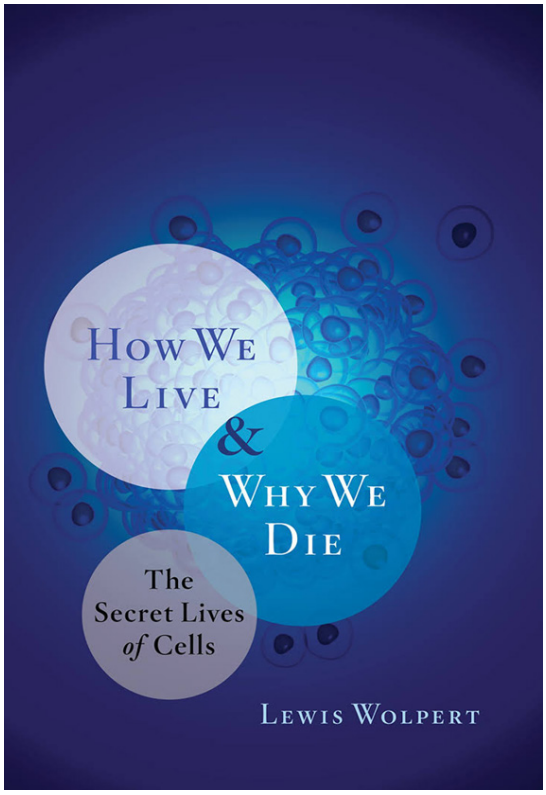
Curing cancer would only add two years to the average sixty-five-year-old American life. Curing heart disease, however would add fourteen years.

Only five percent of people over the age of sixty-five are in nursing homes

No human has lived--or probably can live--past 120 years.

Gracefully written, clearly organized, and packed with essential facts and statistics, How and Why We Age is a landmark study of the aging process for readers of all ages.

How we live and why we die: the secret lives of cells



Author: Wolpert, Lewis

Published: 2009

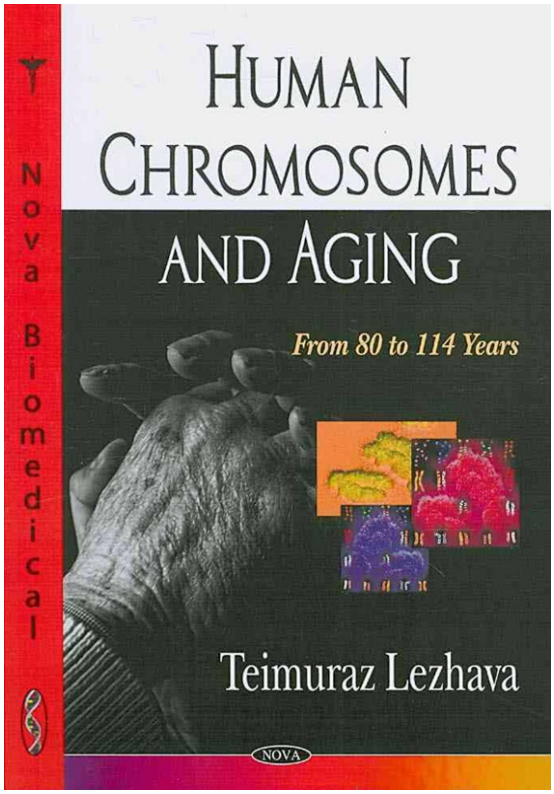
Publisher: W.W. Norton & Company

Website: http://books.wwnorton.com/books/detail.aspx?ID=12244

Description:

Everything about our existence—movement and memory, imagination and reproduction, birth and, ultimately, death—is governed by our cells. They are the basis of all life in the universe, from the tiniest bacteria to the most complex animals. In the tradition of the classic Lives of a Cell, but with the benefit of the latest research, internationally acclaimed embryologist Lewis Wolpert demonstrates how human life derives from a single cell and then grows into a body, an incredibly complex society made up of billions of them. When we age, our cells cannot repair the damage they have undergone; when we get ill, it is because cells are so damaged they stop working and die. Wolpert examines the science behind topics that are much discussed but rarely understood—stem cell research, cloning, DNA, mutating cancer cells—and explains how all life evolved from just one cell. Lively and passionate, this is an accessible guide to understanding the human body and life itself.

Human chromosomes and aging: from 80 to 114 years



Author: Lezhava, Teimuraz

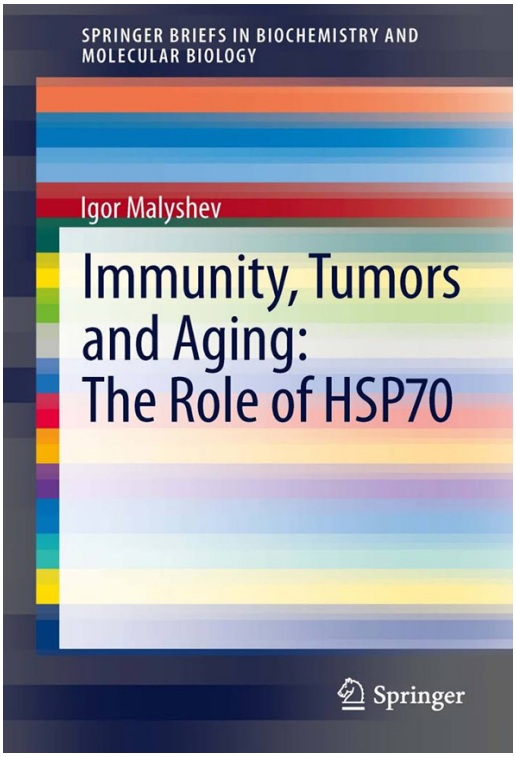
Published: 2006

Publisher: Nova Biomedical Book

Website: https://www.novapublishers.com/catalog/product_info.php?cPath=23_131_146&products_id=4284&osCsid=b

Description:

This book presents a comprehensive review of the morphology and function of chromosomes in elderly people. The wide range of topics includes cyclical chromosome properties, mutations, repair, progressive chromosome heterochromatinization with increasing age, roles of nucleolar organizer regions, sister chromatid exchanges, homolog relationships, heterochromatin regions and other chromosomal features in very old age. This ground-breaking book focuses on heterochromatinization as a key determinant of the genetic apparatus function during senescence and an area to seek life-prolonging interventions. The book illustrates and updates progress in the field of cytogenetics of aging. The book contains 16 tables and 25 figures.



Immunity, Tumors and Aging: The Role of HSP70 (SpringerBriefs in Biochemistry and Molecular Biology)

Author: Malyshev, Igor

Published: 2013

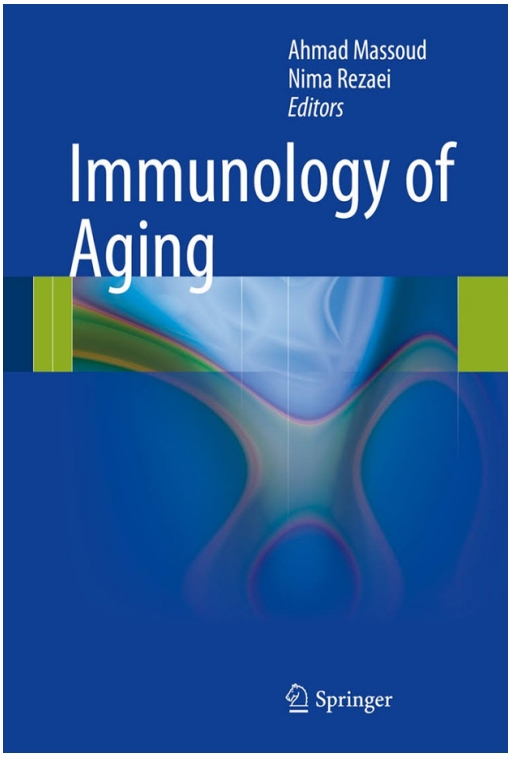
Publisher: Springer

Website: http://link.springer.com/book/10.1007/978-94-007-5943-5

Description:

The book is dedicated to the topical area of biology and medicine and the role of stress proteins HSP70 in the regulation of intracellular protein homeostasis, signaling transduction and cell protection. The book is divided into chapters, which describe the discovery of HSP70 and its molecular structure, the mechanism of the synthesis and function in normal and damaged cells, examine the role of HSP70 in immunity, cancerogenesis, aging, Alzheimer's disease and cardiosurgery. In this book, the author looks at HSP70 as a factor which prevents the transformation of homeostasis mechanisms of intracellular proteins into a link in the pathogenesis of a disease.

Immunology of Aging



Author: Massoud, Ahmad & Rezaei, Nima

Published: 2014

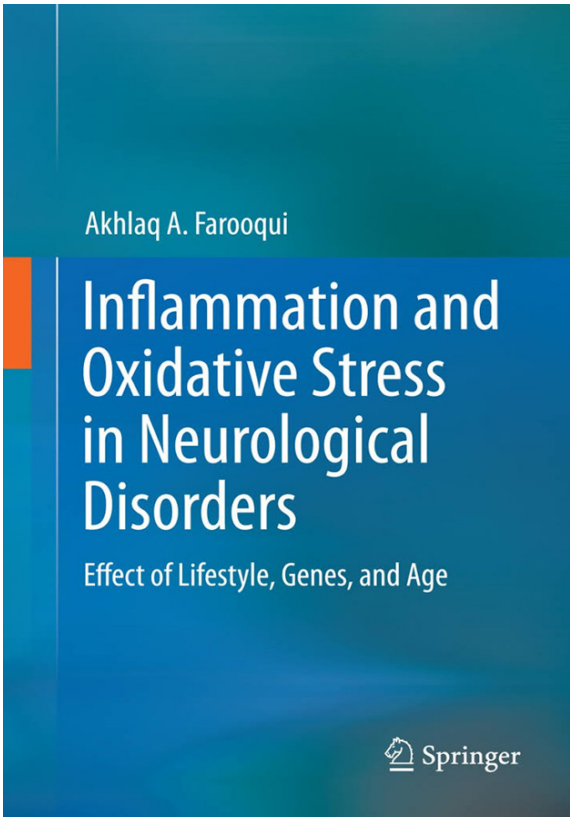
Publisher: Springer

Website: http://www.springer.com/medicine/internal/book/978-3-642-39494-2

Description:

The rapidity of scientific progress over the last few years guarantees the utility of this new collection of state-of-the-art reviews on the immunology of aging, which is the result of extensive collaboration of more than sixty of the greatest thinkers and scholars in the field, in cooperation with a number of junior colleagues. The book summarizes current knowledge on the cellular and molecular aspects of the aging immune system and their clinical relevance, providing insights into the effects of the aging process on susceptibilities to those diseases most common among elders. The retrieval strategies used to slow down the decline in the immune system in the elderly are another subject detailed extensively. By providing a broad overview of immunosenescence and its consequences, as well as their potential modulation, this book will fill a gap in a timely manner. It will be of value to all immunologists, whether novice or experienced, as well as geriatricians and epidemiologists.

Inflammation and Oxidative Stress in Neurological Disorders: Effect of Lifestyle, Genes, and Age



Author: Akhlaq A. Farooqui

Published: 2014

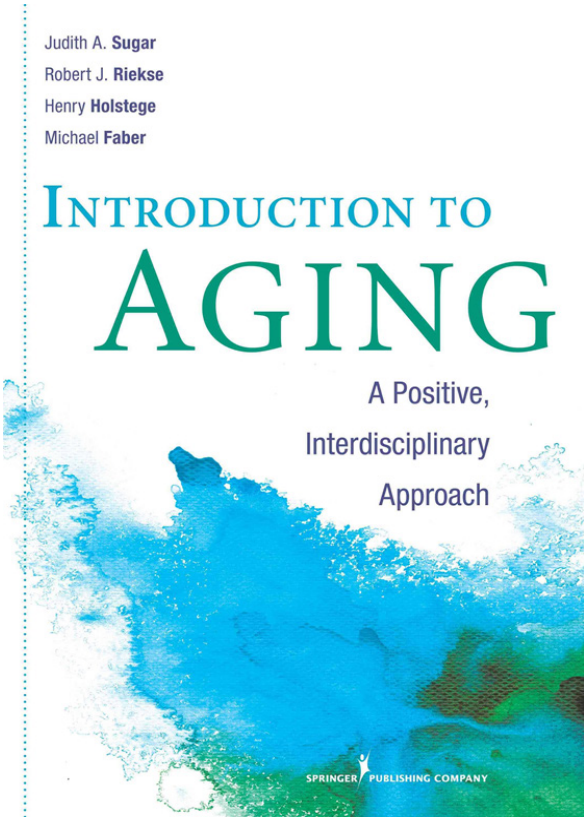
Publisher: Springer

Website: https://link.springer.com/book/10.1007/978-3-319-04111-7

Description:

Consumption of healthy balanced diet (colored and green vegetables, fresh fruits, lean meats, fish, and whole grain) along with moderate exercise (30-45 min/day), and 6-7 hours of sleep results in a healthier blood pressure pattern and low cholesterol levels leading into a reduced risk of obesity related diseases, such as diabetes, and metabolic syndrome. Both these pathological conditions are not only the risk factors for heart disease, but also contribute and promote the risk for stroke, Alzheimer disease, and depression. A healthy lifestyle -- which includes a healthy diet with plenty of fruits and vegetables, moderate exercise for maintaining a healthy body weight, and optimal sleep may help in preventing not only diabetes, and metabolic syndrome, but delaying the pathogenesis of stroke, Alzheimer disease, and depression. Information on diet, exercise, and sleep is scattered throughout the literature in the form of original papers, reviews, and some books, which deal with the effects of diet, exercise, and sleep on viscera. This monograph is the first to describe the effect of neuroinflammation and oxidative stress in relation to diet, exercise, and sleep on brain. It describes the contribution of dietary carbohydrates, fats, protein, and nucleic acids in neuroinflammation and oxidative stress in the normal aged brain and in the brains of patients with neurological disorders. Inflammation and Oxidative Stress in the Brain presents readers with cutting edge and comprehensive information on the effect of diet, exercise, and sleep on neuroinflammation and oxidative stress in normal brains and brains from patients with neurological disorders. It is hoped that this monograph will be useful to postgraduate students, faculty, research scientists, nutritionists, exercise physiologists, and physicians, who are curious about the molecular mechanisms that link neuroinflammation and oxidative stress with the pathogenesis of neurotraumatic, neurodegenerative, and neuropsychiatric disorders.

Introduction to Aging: A Positive, Interdisciplinary Approach



Author: Sugar, Judith A.; Riekse, Robert; Holstege, Henry & Faber, Michael

Published: 2013

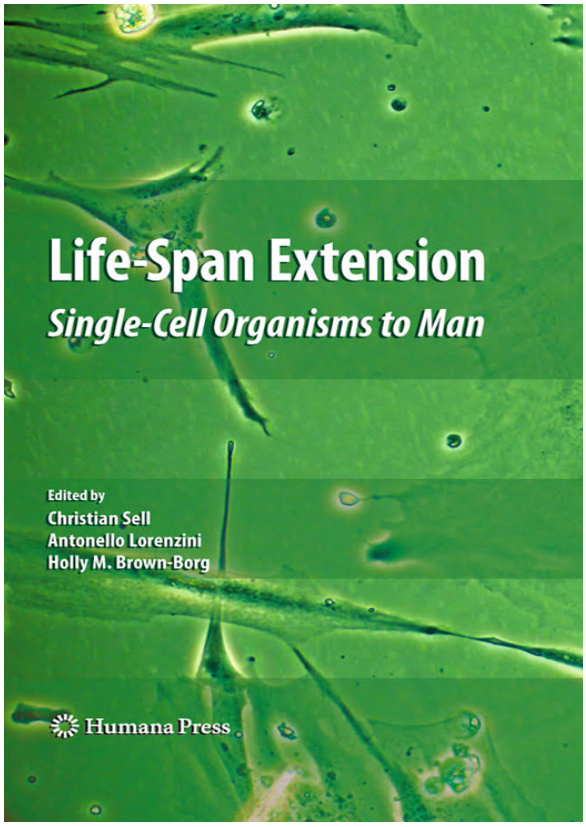
Publisher: Springer Publishing Company

Website: http://www.springerpub.com/product/9780826108807#.Uqmx-CeO6wd

Description:

This new textbook creates a paradigm shift with a very practical approach to problem solving. Aging is an asset. Its focus on well care rather than just sick care by understanding physical fitness, sexual fitness, consumer fitness, nutritional fitness and social fitness among others, all point to aging as an asset leading to civic fitness and the potential for intergenerational support. This text may help springboard Gerontology into the 21st Century as the field creating excitement and hope for students and teachers alike.

Life-span extension: single-cell organisms to man



Author: Sell, Christian; Lorenzini, Antonello & Brown-Borg, Holly M.

Published: 2009

Publisher: Humana Press

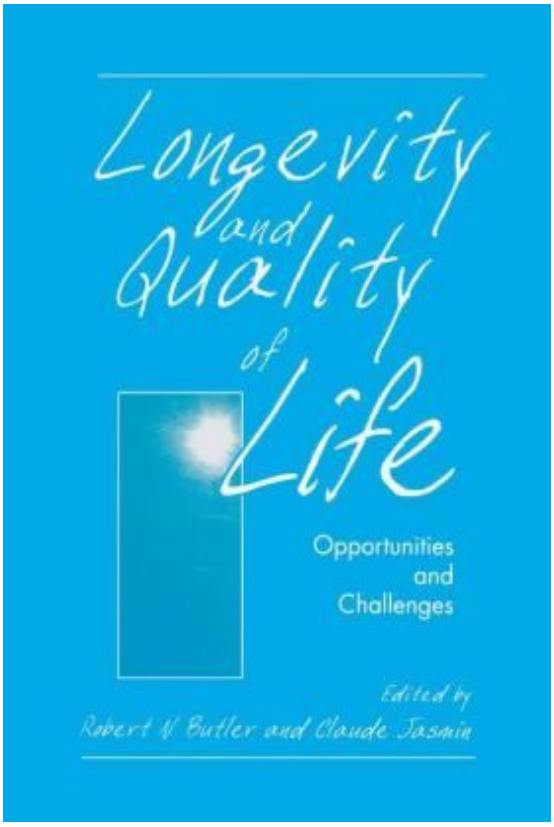
Website: http://www.springer.com/medicine/family/book/978-1-60327-506-4

Description:

In recent years, remarkable discoveries have been made concerning the underlying mechanisms of aging. In Life-Span Extension: Single-Cell Organisms to Man, the editors bring together a range of illuminating perspectives from researchers investigating the aging process in a variety of species. This novel work addresses the aging process in species ranging from yeast to man and, among other subjects, features detailed discussions of the naked mole-rat, an exceptionally long-lived rodent; the relationship between dietary factors/food restriction and aging; and an evolutionary view of the human aging process.

Single mutations that extend life span have been identified in yeast, worms, flies, and mice, whereas studies in humans have identified potentially important markers for successful aging. At the same time, it has been discovered that the genes and pathways identified in these studies involve a surprisingly small set of conserved functions, most of which have been the focus of aging research for some time. For example, the mTOR pathway, a regulator of translation and protein synthesis, has been identified as a common longevity pathway in yeast and Caenorhabditis elegans. In mammals, this pathway intersects with neuroendocrine pathways and with the insulin/insulin-like growth factor pathways, which have been identified as major modulators of life span and aging in both invertebrates and mice. Novel, emerging technologies and the increasingly wide variety of systems that are now used to study aging and the mechanisms of aging provide enormous opportunities for the identification of common pathways that modulate longevity. It is these common pathways that are the focus of this important volume.

Longevity and quality of life: opportunities and challenges



Author: Butler, Robert N. & Jasmin, Claude

Published: 2001

Publisher: Springer

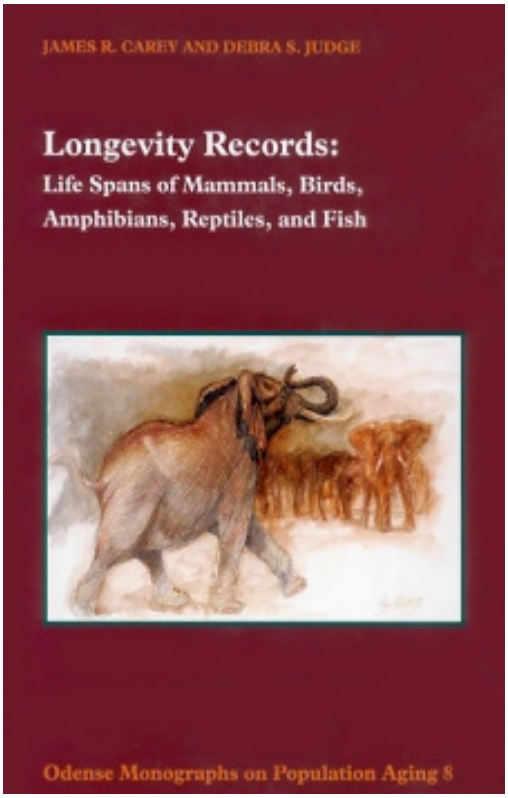
Website: http://www.springer.com/medicine/book/978-0-306-46315-0

Description:

Nations around the world are experiencing a spectacular increase in longevity. Society as a whole is being challenged by issues arising from this revolution in longevity. Although the specter of the loneliness and existential suffering of older citizens is such that some people under the age of 65 find it difficult to conceive of a long-term future, persons over 85 have proven that aging does not necessarily preclude a healthy and productive life. Extraordinary progress in both curative and preventive medicine justifies optimism about the quality of life and state of well-being that can be enjoyed even in great old age. We should look to professionals in diverse fields to develop creative solutions to the inevitable issues that will arise with aging. Governments must prepare for the future health of their citizens by making long-term investments to educate all sectors of society in the value of good nutrition, exercise, and lifestyles that enhance well-being throughout life. Also, governments should realize that the main cause of health care expenditure is serious illness which occurs in persons of all ages, and not predominantly in older people. Early detection can help save lives, as well.

Health and longevity of life will ultimately end as a political issue. What is needed is long-term government investments necessary for a viable health policy. The question arises: will world leaders be able to commit to such a policy? Two major socioeconomic phenomena may have a regulating effect on this issue. The first is the emergence of pressure groups that have come into being in response to a particular health issue, such as AIDS. The second is the emergence of ethics committees in developed nations that deal solely with health issues.

Longevity records: life spans of mammals,birds, amphibians, reptiles and fish



Author: Carey, James R. & Judge, Debra S.

Published: 2001

Publisher: University Press of Southern Denmark

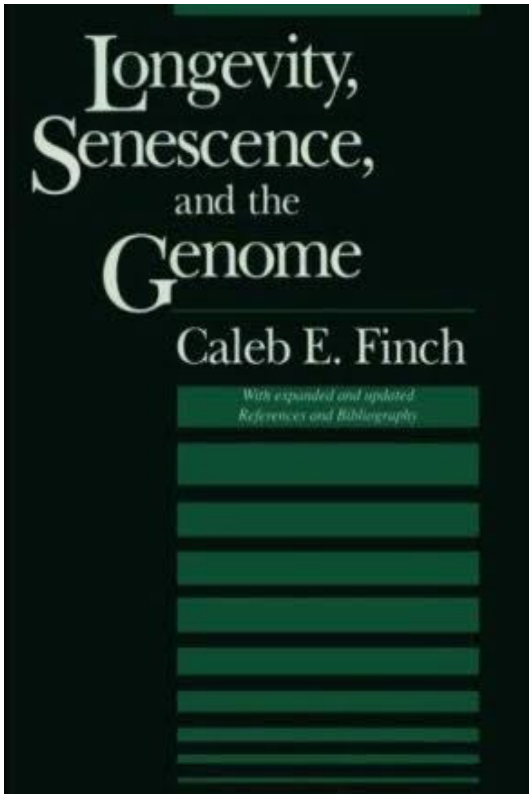
Website: http://www.universitypress.dk/shop/odense-monographs-on-1016p.html

Description:

This book is the world's largest compendium of documented life spans in vertebrates. Record life spans for over 3000 species of mammals, birds, amphibians, reptiles, and fish indicate wild or captive status, sex (where available) and are linked to source references. A brief introduction addresses the concept of life span, summarizes methods for data gathering, criteria for inclusion, and provides a graphic summarization of within and among group variation in record life spans. The data is organized into four main tables: mammals, birds, reptiles and amphibians, and fishes. Each data table is preceded by a brief introduction summarizing important aspects of the life history of important subgroups (e.g. orders). Tables of life spans are organized alphabetically by order, family and genus. Scientific and common name indices facilitate finding record life spans for particular organisms.

The book is useful in demography, fisheries and wildlife biology, ecology, population and evolutionary biology, and gerontology.

Longevity, senescence, and the genome



Author: Finch, Caleb E.

Published: 1991 (H)1994 (P)

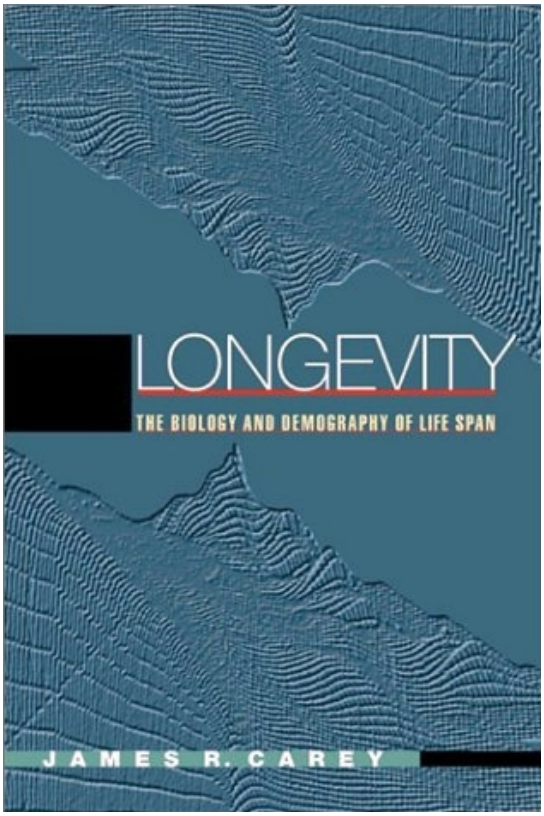
Publisher: University of Chicago Press

Website: http://www.press.uchicago.edu/ucp/books/book/chicago/L/bo3684707.html

Description:

To enhance gerontology's focus on human age-related dysfunctions, Caleb E. Finch provides a comparative review of all the phyla of organisms, broadening gerontology to intersect with behavioral, developmental, evolutionary, and molecular biology. By comparing species that have different developmental and life spans, Finch proposes an original typology of senescence from rapid to gradual to negligible, and he provides the first multiphyletic calculations of mortality rate constants.

Longevity: the biology and demography of life span



Author: Carey, James R.

Published: 2003

Publisher: Princeton University Press

Website: http://press.princeton.edu/titles/7568.html

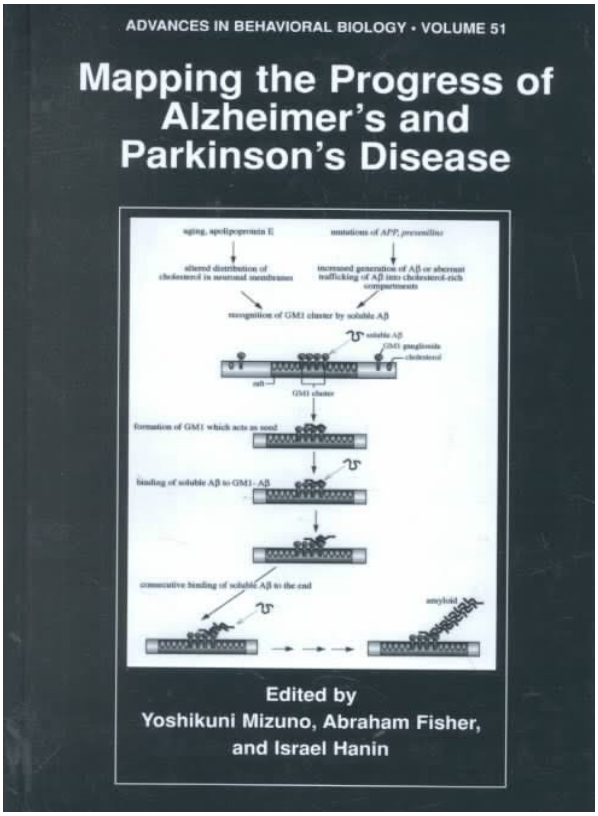
Description:

Despite our deep interest in mortality, little is known about why some individuals live to middle age and others to extreme old age. Life span, mortality, and aging present some of the most profound mysteries in biology. In Longevity, James Carey draws on unprecedented data to develop a biological and demographic framework for identifying the key factors that govern aging, life span, and mortality in humans and other animals.

Carey presents the results of a monumental, twelve-year, National Institute on Aging-funded research project on the determinants of longevity using data from the life tables of five million Mediterranean fruit flies, the most comprehensive set of life table studies ever on the mortality dynamics of a single species. He interprets the fruit fly data within the context of human aging and the aging process in general to identify the determinants of mortality. Three key themes emerge: the absence of species-specific life span limits, the context-specific nature of the mortality rate, and biodemographic linkages between longevity and reproduction.

A powerful foundation for the emerging field of biodemography and a rich framework for considering the future of human life span, Longevity will be an indispensable resource for readers from a range of fields including population biology, demography, gerontology, ecology, evolutionary biology, and medical research.

Mapping the progress of Alzheimer‘s and Parkinson‘s disease



Author: Mizuno, Yoshikuni; Fisher, Abraham & Hanin, Israel

Published: 2002

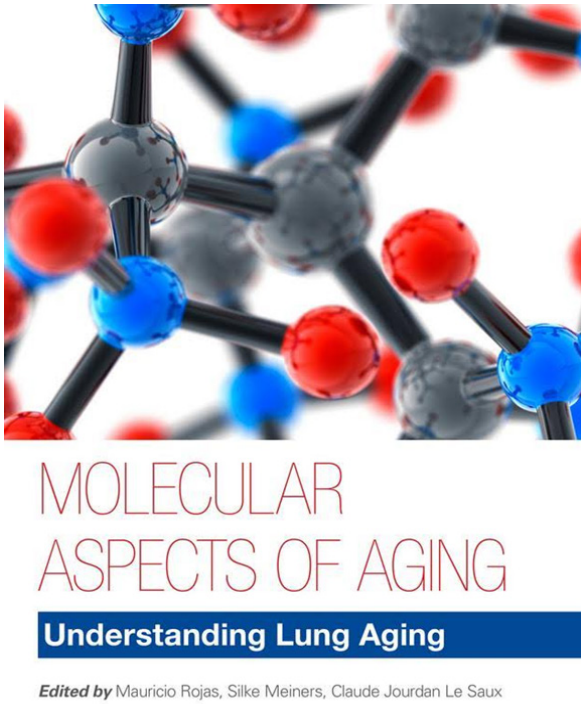
Publisher: Springer

Website: http://www.springer.com/biomed/neuroscience/book/978-0-306-46763-9

Description:

1h The 5 International Conference on the Progress in Alzheimer’s Disease and Parkinson’s 51 1 Disease took place from March 31 to April 5 \ 2001 in Kroto, Japan. This international 1 conference was organized as a joint Congress with the 9 International Catecholamine Symposium. A total of 1258 clinicians and researchers participated in this joint congress 1h from 38 countries in the world. This book represents the proceedings of the 5 Conference on Alzheimer’s and Parkinson’s disease. The International Conference on the Progress in Alzheimer’s and Parkinson’s disease was first launched by Professor Abraham Fisher of Israel and Professor Israel Hanin of USA. The first conference was held in Eilat, Israel in 1985. The second conference was organized in Kyoto, Japan in 1989; the third one in Chicago, USA, in 1993, and the fourth one in Eilat, Israel in 1997. The International Catecholamine Symposium (ICS) is an international meeting devoted to the development of basic as well as clinical research on catecholamines. The first Catecholamine Symposium was held in Bethesda, USA in 1958. Since then this symposium has occurred every 5 years. Professor Toshiharu Nagatsu was appointed as 1h the president of the 9 International Catecholamine Symposium, which was to be held in 200 I also in Japan. Therefore, we decided to organize a joint congress of the two meetings, because there is much overlap in research between Alzheimer’s disease, Parkinson’s disease, and catecholamines. We thank Professor Nagatsu very much for agreeing to organizing this joint congress.

Molecular Aspects of Aging: Understanding Lung Aging



Author: Rojas, Mauricio; Meiners, Silke & Jourdan Le Saux, Claude

Published: 2014

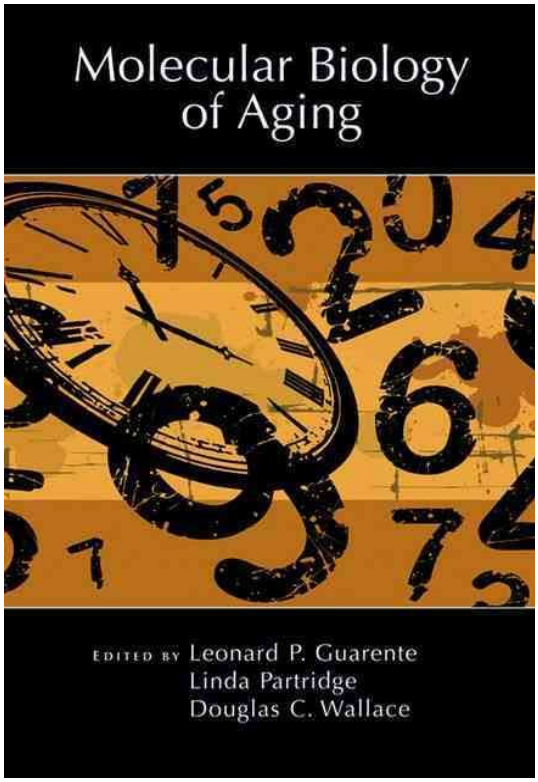
Publisher: Wiley Blackwell

Website: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1118396243.html

Description:

A Molecular Aspects of Aging: Understanding Lung Aging covers recent research in the mechanisms that contribute to cellular senescence. Covering universal themes in aging, such as the exhaustion of stem cells and subsequent loss of the regenerative refueling of organs as well as immunosenescence, this text illuminates new directions for research not yet explored in the still poorly investigated area of molecular mechanisms of lung aging. The molecular nature of general aging processes is explored with targeted coverage on how to analyze lung aging through experimental approaches.

Molecular biology of aging



Author: Guarente, Leonard P.; Partridge, Linda & Wallace, Douglas C.

Published: 2007

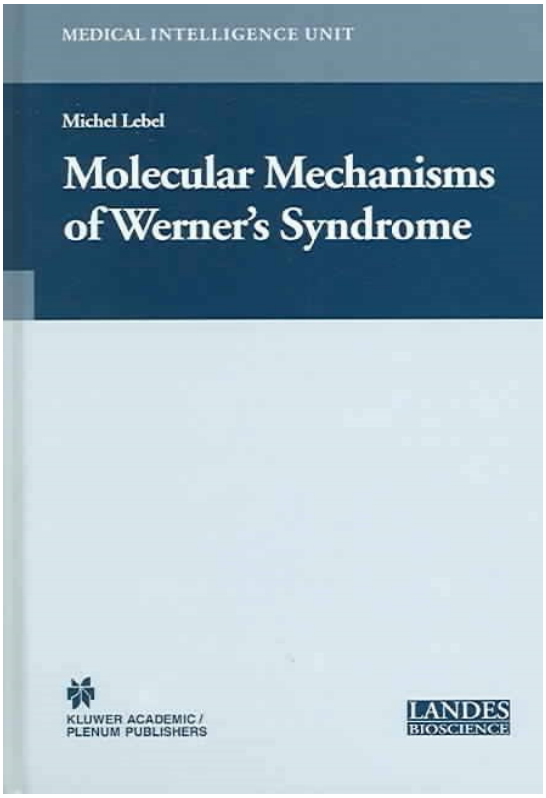
Publisher: Cold Spring Harbor Laboratory Press

Website: http://www.cshlpress.com/default.tpl?cart=12765073518040273 3&fromlink=T&linkaction=full&linksortby=oop_title&--eqSKUdatarq=638

Description:

Research into the causes of aging, and strategies to delay that process, have gained much ground and attention in recent years. This collection from Cold Spring Harbor Perspectives in Biology covers the major threads in the molecular genetics of aging, including genes that regulate aging, causes of aging, evolutionary theories of aging, and the relationship between diet and aging. Among specific topics covered are calorie restriction, mitochondria, sirtuins, telomeres, stem cells, and cancer. Each chapter is written by one or more leaders in the field, and the book presents the current status of this exciting research area and provides an invaluable source of information in a single volume.

Molecular mechanisms of Werner's syndrome



Author: Lebel, Michel

Published: 2004

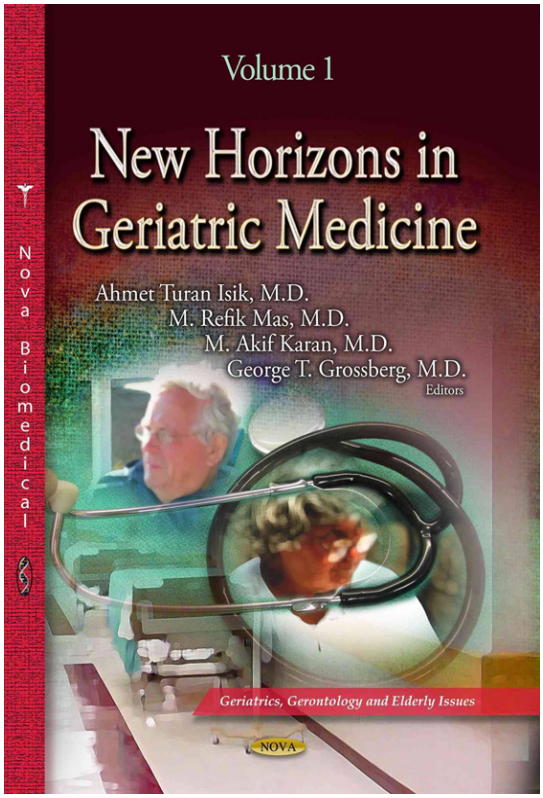
Publisher: Springer

Website: http://www.springer.com/medicine/family/book/978-0-306-48233-5

Description:

During our short time on earth, we all undergo the highly complex process of aging, and with it, we experience the many physiological symptoms. Studies of premature aging have produced a great deal of information that gives some aspects of aging a better understanding. This book explores Werner's syndrome. To some, Werner's syndrome is considered a caricature of aging, but others will find it fascinating that only one mutated human gene (WRN) can bring about a multitude of complicated phenotypes that are usually associated with aging.

New Horizons in Geriatric Medicine



Author: Isik, Ahmet Turan; Mas, M. Refik; Karan, M. Akif & Grossberg, George T.

Published: 2014

Publisher: Nova Science Pub Inc

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=45406&osCsid=6163ca4b905f9cdeffa7359c8dddc1e3

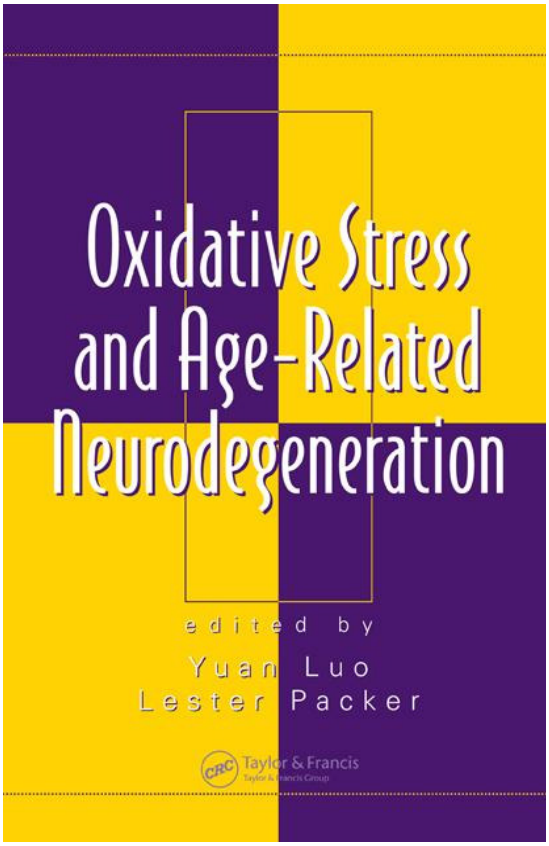
Description:

Old age is associated with a number of medico-social problems such as: hypertension, diabetes mellitus, thyroid disorders, osteoarthritis, tremor, pain, gait and balance impairment, incontinence, urinary tract infection, sarcopenia, osteoporosis, polypharmacy, pressure ulcers, sleeping problems, cardiocerebrovascular disorders, fluid and electrolyte disturbance, nutritional disorders, immunization and disease prevention rehabilitation and care. The management of these problems differs significantly between younger and older adults.

All of these problems are evaluated in this book in two parts with the contributions of experienced clinicians and researchers. In addition, cellular aging, comprehensive geriatric assessments, and medicolegal and ethical principles in geriatric medicine are also evaluated.

This book will be a valuable tool for all clinicians involved in the management of elderly people. (Imprint: Nova Biomedical)

Oxidative stress and age-related neurodegeneration



Author: Luo, Yuan & Packer, Lester

Published: 2005

Publisher: CRC

Website: http://www.crcpress.com/product/isbn/9780849337253

Description:

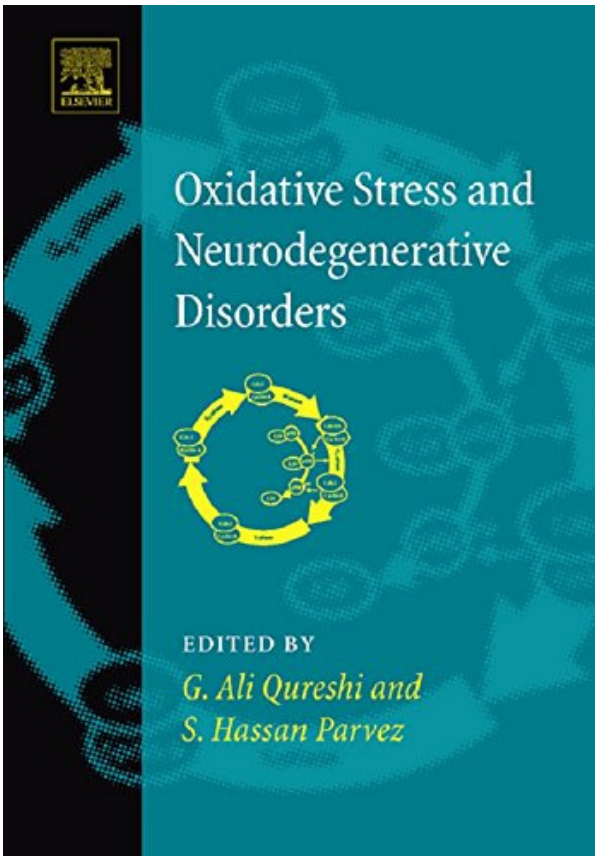
Despite the progress being made by researchers, Alzheimer's disease, along with other age-related neurodegenerative disorders, continues to exact a tremendous toll on our society. However, we are beginning to see a relationship that ties degenerative disorders to oxidative stress and lifestyle, suggesting the possibility for prevention and intervention through changes of individual habits, especially with regard to diet.

Oxidative Stress and Age-Related Neurodegeneration brings together expert researchers involved with recent developments across a variety of fields. In looking at causation, prevention, and therapy, they offer contributions addressing these questions:
What similarities and differences exist between normal aging and disease-related neurodegeneration in terms of susceptibility to and effects of oxidative stress?
How can oxidative stress or its effects be attenuated?
Do antioxidants prevent or slow the progress of the disease?
Is there any role for natural micronutrients in the attenuation of oxidative stress and prevention of age-related neurodegeneration?

Some chapters look at the various ways research is getting to the core of neurodegenerative disease, including the use of proteomics, comparisons to related diseases, and examinations at the cellular and molecular levels. Other chapters focus on specific antioxidants and nutrients cited as being impactful, such as those found in Gingko biloba, green tea, blueberries, and grape seed extract.

Researchers in academia, industry, and clinical medicine, as well as students and scholars will find use for this timely collection, either as an introduction to our current understanding of neurodegeneration or as a reference for further research. Clinicians will also benefit, as this book explains the basis for many of the latest approaches to prevention and therapy.

Oxidative stress and neurodegenerative disorders



Author: Qureshi, G. Ali & Parvez, S. Hasan

Published: 2007

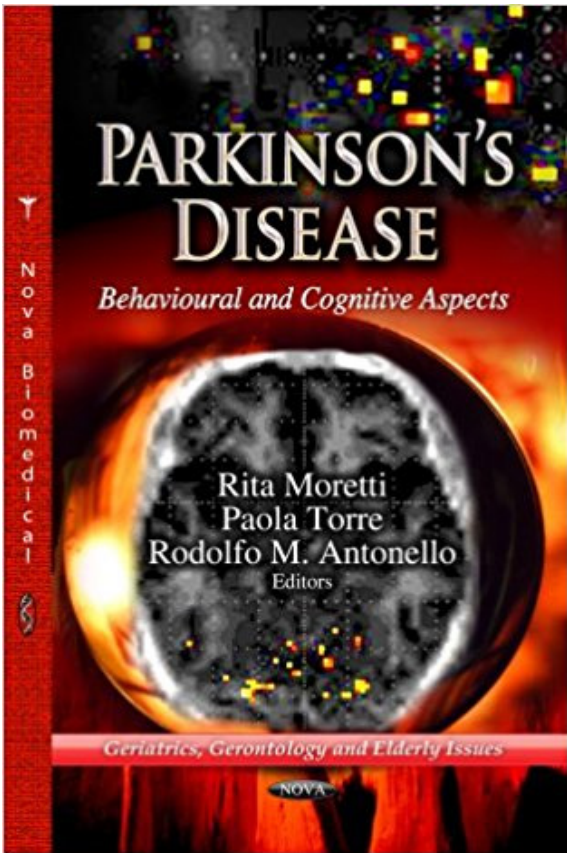
Publisher: Elsevier Science

Website: http://www.elsevier.com/wps/find/bookdescription.authors/710776/description

Description:

Oxidative stress is the result of an imbalance in pro-oxidant/antioxidant homeostasis that leads to the generation of toxic reactive oxygen species. Brain cells are continuously exposed to reactive oxygen species generated by oxidative metabolism, and in certain pathological conditions defense mechanisms against oxygen radicals may be weakened and/or overwhelmed. DNA is a potential target for oxidative damage, and genomic damage can contribute to neuropathogenesis. It is important therefore to identify tools for the quantitative analysis of DNA damage in models on neurological disorders. This book presents detailed information on various neurodegenerative disorders and their connection with oxidative stress. This information will provide clinicians with directions to treat these disorders with appropriate therapy and is also of vital importance for the drug industries for the design of new drugs for treatment of degenerative disorders.

Parkinson‘s Disease: Behavioural and Cognitive Aspects (Geriatrics, Gerontology and Elderly Issues: Aging Issues, Health and Financial Alternatives)



Author: Moretti, Rita; Torre, Paola & Antonello, Rodolfo

Published: 2014

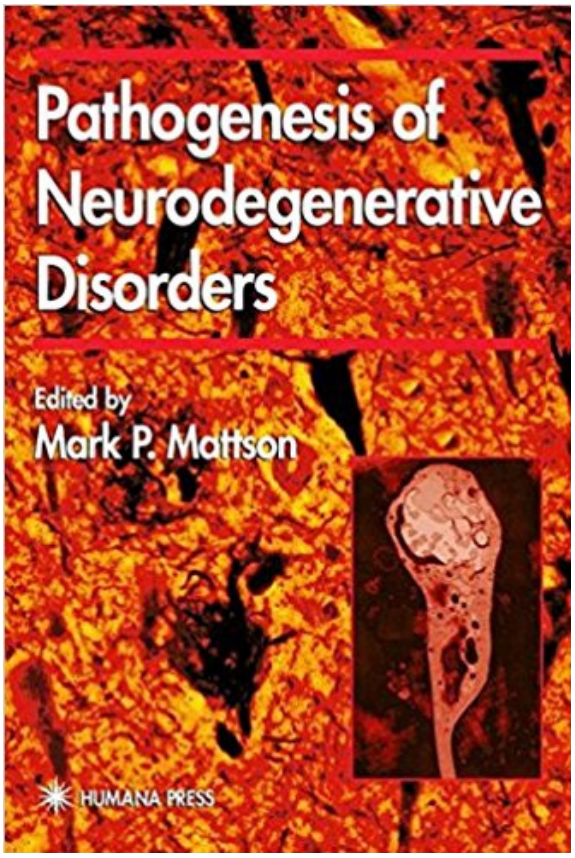
Publisher: Azinet Press

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=37083&osCsid=2a9023ac714bcf95fd3f32f939785dcd

Description:

Parkinson’s disease is a progressive disorder of the nervous system that affects movement. It develops gradually, often starting with a barely noticeable tremor in just one hand. But, while tremors may be the most well-known sign of Parkinson’s disease, the disorder also commonly causes a slowing or freezing of movement. The authors aim to reflect on different features of a poliedric structure, like Parkinson’s disease, and try to help clinicians and students to reflect on these aspects that mainly interfere with the daily life experience of patients and caregivers. (Imprint: Nova Biomedical)

Pathogenesis of neurodegenerative disorders



Author: Mattson, M.P.

Published: 2001 (H,E)2010 (P)

Publisher: Humana Press

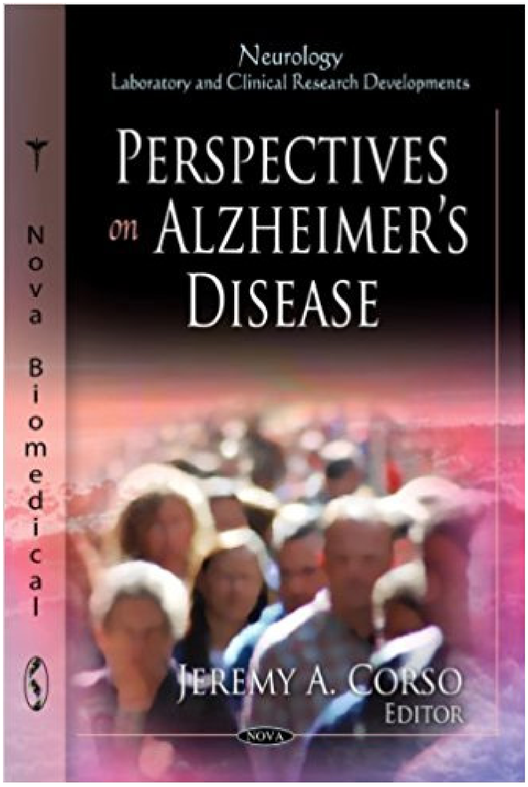
Website: http://www.springer.com/biomed/neuroscience/book/978-0-89603-838-7

Description:

Recent scientific advances have dramatically expanded our understanding of the molecular, genetic, and environmental factors that either cause or contribute to a wide variety of age-related neurodegenerative disorders. In Pathogenesis of Neurodegenerative Disorders, leading experts detail the cellular and molecular cascades that cause selective degeneration of neuronal populations, and illuminate those factors that are critical to the facilitation or suppression of these neuropathologic processes. Working from studies of human patients, as well as from cell culture and animal models, the authors demonstrate a heretofore unrecognized convergence of the causative pathogenetic mechanisms for many clinically distinct neurological disorders. At center stage are the biochemical and molecular cascades that will ultimately lead to neuronal death-cascades involving oxyradical production, aberrant regulation of cellular ion homeostasis, activation of specific proteases, and activation of a stereotyped sequence of events involving mitochondrial dysfunction. Individual chapters examine how these mechanisms-along with genetic and environmental factors-operate in Alzheimer's and Parkinson's diseases, Down's syndrome, amyotropic lateral sclerosis, ischemic stroke, spinal cord injury, and Duchenne muscular dystrophy.

Pioneering and richly insightful, Pathogenesis of Neurodegenerative Disorders offers a critical and integrative summary of the cutting-edge research findings that illuminate the common genetic, cellular, and molecular bases of many neurological disorders today that promise powerful new preventive and treatment approaches in future.

Perspectives on Alzheimer's Disease (Neurology- Laboratory and Clinical Research Developments)



Author: Corso, Jeremy A.

Published: 2013

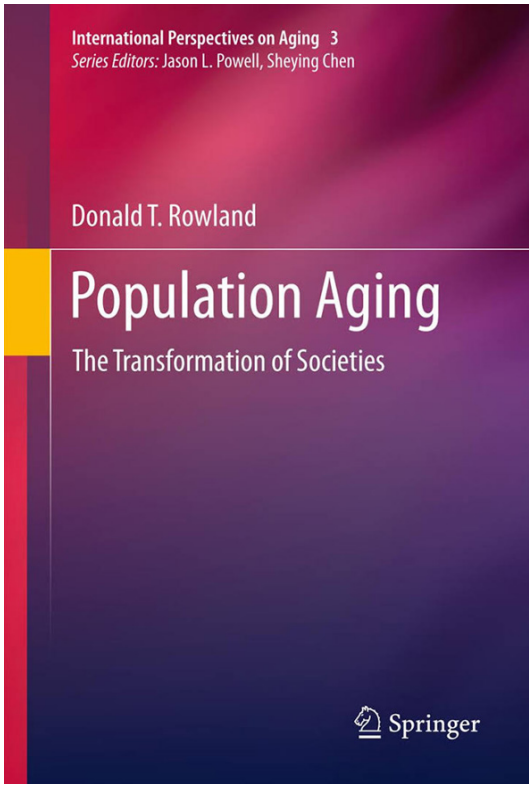
Publisher: Nova Science Publishers

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=21619&osCsid=2a9023ac714bcf95fd3f32f939785dcd

Description:

This new book presents and discusses current research in the study of Alzheimer's disease. Topics discussed include Alzheimer's disease in adults with Down Syndrome; semantic memory deficits assessment in Alzheimer's disease; mild cognitive impairment; cognitive rehabilitation in middle-aged Alzheimer patients; career and family issues in early-onset Alzheimer's disease and alterations to the working memory network in normal aging and Alzheimer's disease. (Imprint: Nova Biomedical Press)

Population aging: the transformation of societies



Author: Rowland, Donald T.

Published: 2012

Publisher: Springer

Website: http://www.springer.com/social+sciences/population+studies/book/978-94-007-4049-5

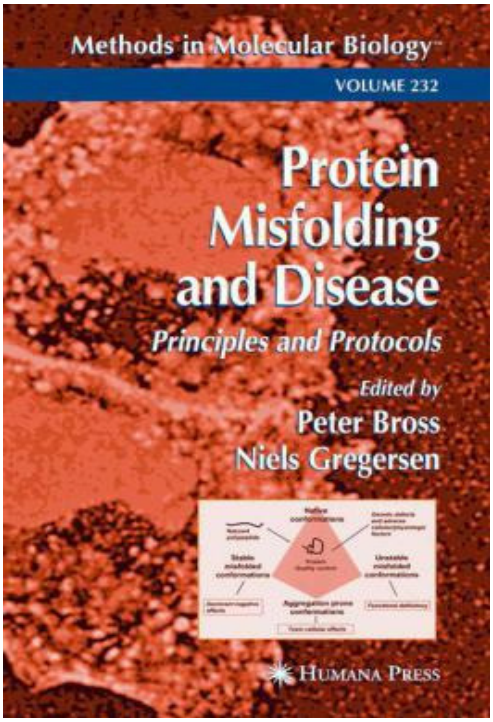
Description:

Population Aging: The Transformation of Societies presents an overview and international comparison of the causes, consequences and policy implications of one of the major processes of change in contemporary societies. It provides a foundation for understanding and reflecting on keydemographic and social trends, together with related theoretical and policy frameworks that are important in explaining changes and designing informed responses. With particular reference to countries that have the oldest or largest aged populations, the book presents a synthesis of research on population aging, new analyses of trends and a discussion of the major social policy strategies.

Key topics include the new demography of aging, population health, family change, the Third Age, international policy concepts and strategies, and comparisons of countries – such as in terms of the relative risks they face from population aging and their resilience as changes occur. Overall, the book presents a broad interdisciplinary perspective on the determinants and consequences of population aging.

The book is written for an international audience of policy makers, educators and practitioners in health and welfare, together with students in the social sciences and health sciences. It provides an accessible and academically informed exposition of the field for people engaging with issues arising from population aging in their own country.

Protein misfolding and disease



Author: Bross, Peter & Gregersen, Niels

Published: 2003 (H)2010 (P)

Publisher: Humana Press

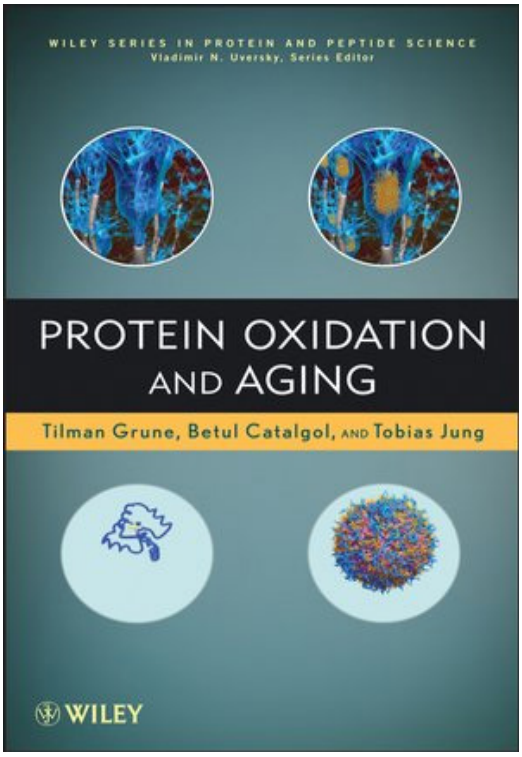
Website: http://www.springer.com/life+sciences/biochemistry+&+biophysics/book/978-1-58829-065-6

Description:

It has now become clear that a large number of diseases with very different pathologies share a common framework of protein misfolding, accompanied by degradation and/or aggregation of the misfolded proteins. In Protein Misfolding and Disease: Principles and Protocols, notable experts in conformational disease review the latest thinking about the molecular processes underlying these diseases and describe cutting-edge biochemical, genomic, cellular, and chemical laboratory techniques for studying their genesis and pathologies. The authors apply their carefully refined methods to a variety of metabolic and neurodegenerative disorders, as well as to the aging process. The techniques presented are broadly applicable in many diverse disease contexts and may be used in both diagnosis and detailed research on new treatment strategies. Each tried and proven protocol includes insightful background notes, lists of required equipment and reagents, step-by-step instructions, and tips on troubleshooting and on how to avoid known pitfalls.

Comprehensive and cutting-edge, Protein Misfolding and Disease: Principles and Protocols offers both novice and experienced researchers a solid theoretical grounding in conformational disease and a remarkable set of analytical methodologies for uncovering its characteristics and generating new therapeutic approaches.

Protein Oxidation and Aging (Wiley Series in Protein and Peptide Science)



Author: Grune, Tilman; Catalgol, Betul; Jung, Tobias & Uversky, Vladimir

Published: 2013

Publisher: Wiley

Website: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0470878282.html

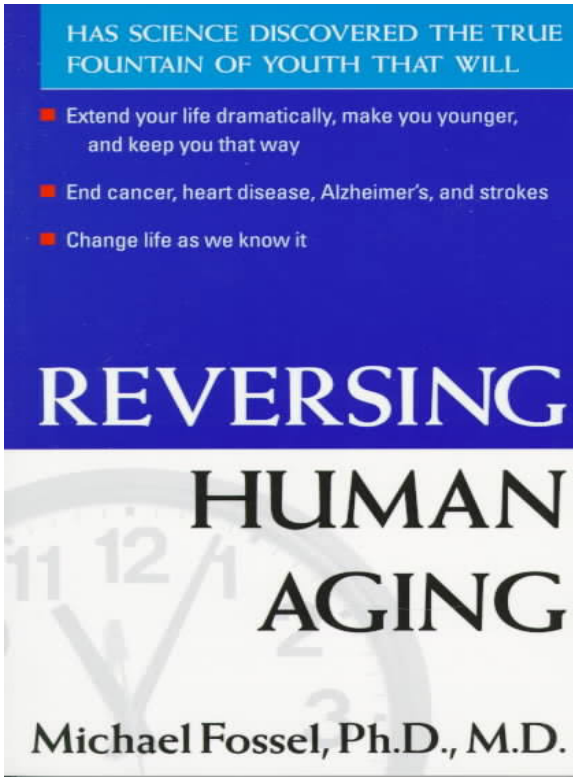
Description:

Protein oxidation is at the core of the aging process. Setting forth a variety of new methods and approaches, this book helps researchers conveniently by exploring the aging process and developing more effective therapies to prevent or treat age-related diseases. There have been many studies dedicated to the relationship between protein oxidation and age-related pathology; now it is possible for researchers and readers to learn new techniques as utilizing protein oxidation products as biomarkers for aging.

Protein Oxidation and Aging begins with a description of the tremendous variety of protein oxidation products. Furthermore, it covers:

- Major aspects of the protein oxidation process
- Cellular mechanisms for managing oxidized proteins
- Role of protein oxidation in aging
- Influence of genetic and environmental factors on protein oxidation
- Measuring protein oxidation in the aging process
- Protein oxidation in age-related diseases
- References at the end of each chapter serve as a gateway to the growing body of original research studies and reviews in the field.

Reversing human aging



Author: Fossel, Michael

Published: 1997

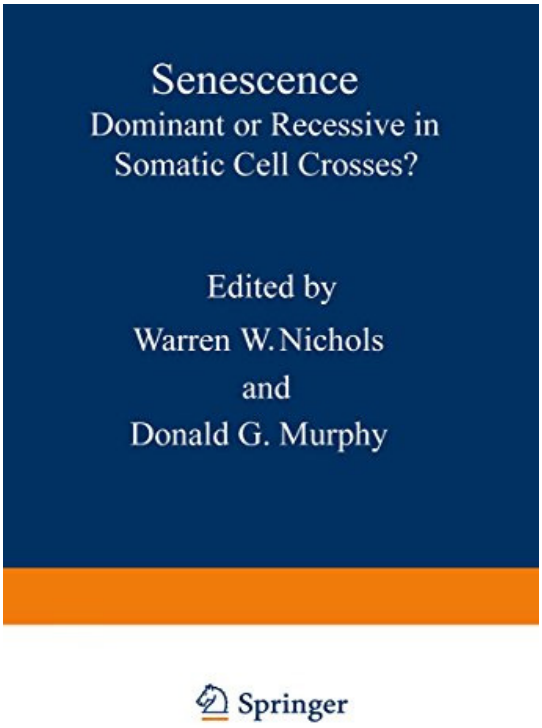
Publisher: Quill

Website: http://www.amazon.com/Reversing-Human-Aging-Michael-Fossel/dp/0688153844

Description:

Explains the effects of aging on the human body and describes groundbreaking medical advances in age reversal, citing their potential cures for cancer, heart disease, Alzheimer's, and stroke

Senescence: Dominant or Recessive in Somatic Cell Crosses?



Author: Nichols, Warren

Published: 2012

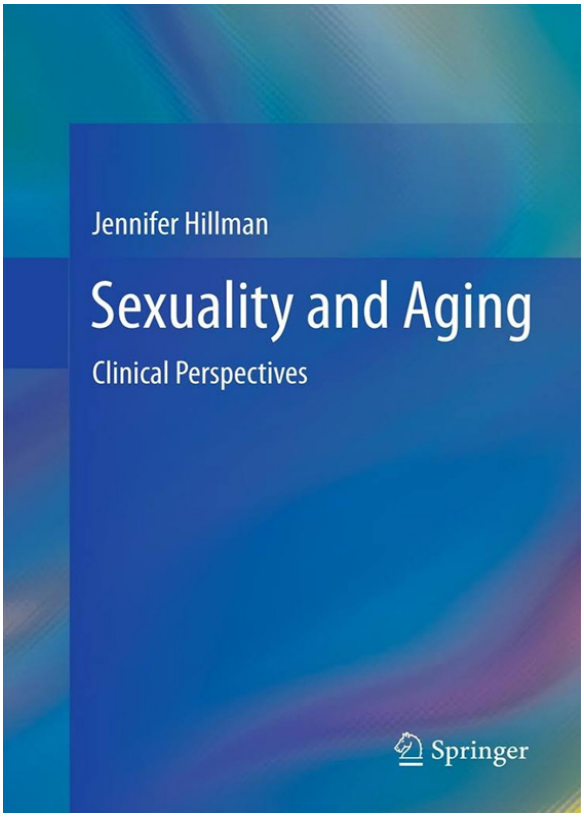
Publisher: Springer

Website: http://www.springer.com/medicine/internal/book/978-1-4684-2510-9

Description:

This monograph, Senescence; Dominant or Recessive In Somatic Cell Crosses? represents the second annual workshop to promote theory and concept development in aging research. These workshops are part of a resource to bank cultured cells of special interest to aging research that was established at the Institute for Medical Research in Camden. New Jersey. by the National Institute on Aging in 1974. The underlying theme of the workshops is the use of cultured cells in a variety of somatic cell genetic systems designed to define mechanisms of in vitra cellular scen escence and the possible insights that this may provide to the problems of in viva aging. The concept also includes bringing together workers from a variety of disciplines to stimulate new and innovative thoughts and work in the area. The current work shop focuses on the relative role of nucleus and cytoplasm on determining the in vitra lifespan of human diploid cells as well as the relative influence of old and young cells when combined within a single cell structure. The techniques and procedures discussed should make significant contributions to understanding in vitra senescence and may lead to the mapping of an area or areas of the genome linked to senescence as is being accomplished with viral transformation of normal cells.

Sexuality and aging: clinical perspectives



Author: Hillman, Jennifer

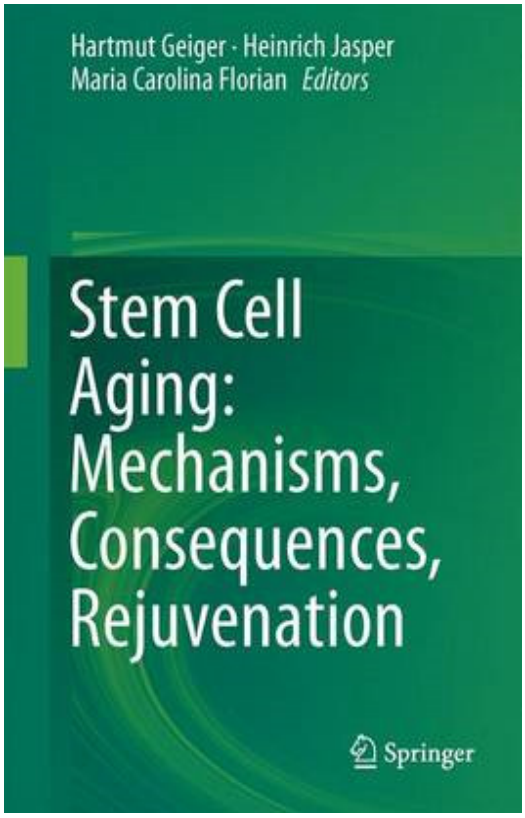
Published: 2012

Publisher: Springer

Website: http://www.springer.com/psychology/personality+&+social+psychology/book/978-1-4614-3398-9

Description:

Despite continuing ageist beliefs that sexuality is a privilege designed only for the young and physically healthy, research continues to indicate that the majority of older adults maintain interest in sexuality and may engage in fulfilling sexual behavior well into their last decade of life. Unfortunately, many professionals remain unaware of general knowledge of elderly sexuality, including the expected and normal physiological changes that can occur within the context of both male and female aging. The presence of chronic illness and other medical problems certainly can influence the expression of an aging adult's sexuality, and emergent research suggests that there are effective ways to cope with menopause, heart disease, arthritis, incontinence, diabetes, sleep disorders, breast cancer, prostate cancer, and erectile dysfunction (ED), among others. Dramatic changes have taken place within the last decade alone in terms of non-surgical treatment for incontinence and ED, with forms of sex therapy, biofeedback, and PDE-5 inhibitors. Regrettably, many aging adults and their care providers remain unaware of their increased risk factors for STDs, including HIV infection via lack of knowledge, changes in the vaginal lining, and typical declines in immune function. Estimates suggest that by the year 2020, more than half of all individuals living with HIV will be over the age of 50. Although some high quality professional books are available for clinicians, they tend to be disjointed research bibliographies, edited volumes on a narrowly focused aspect of elderly sexuality, or texts that are more than 10 years old. With the extent of new information available regarding sexuality and aging, an up to date, empirically based text is necessary.



Stem Cell Aging: Mechanisms, Consequences, Rejuvenation

Author: Geiger, Hartmut, Jasper, Heinrich, Florian, Maria Carolina (Eds.)

Published: 2015

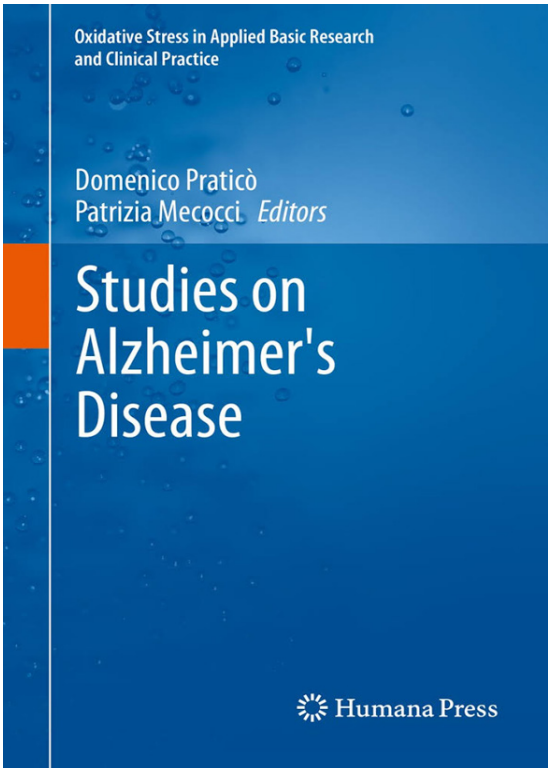
Publisher: Springer

Website: http://www.springer.com/gp/book/9783709112311

Description:

Aging of somatic stem cells reduces cell function and results in dysfunctional organs and tissues, making it an underlying cause of diseases associated with aging. It might even be the primary cause for age-associated attrition of tissue function in organs that heavily rely on stem cells for maintaining homeostasis, like the skin, blood and intestines. Understanding the molecular and cellular mechanisms involved is critical for developing approaches to attenuate stem cell aging and could pave the way for improved quality of life among the elderly. Written by highly prominent experts in the field, this book presents the current state of knowledge on these mechanisms. It offers insights into stem cell function, explains in detail the mechanisms of stem cell aging in model organisms as well as mammalian systems and describes related diseases and approaches to attenuating stem cell aging or achieving rejuvenation. The book is intended for all scientists and clinicians working with stem cells, aging mechanisms or age-related diseases.

Studies on Alzheimer‘s Disease (Oxidative Stress in Applied Basic Research and Clinical Practice)



Author: Pratic, Domenico & Mecocci, Patrizia

Published: 2013

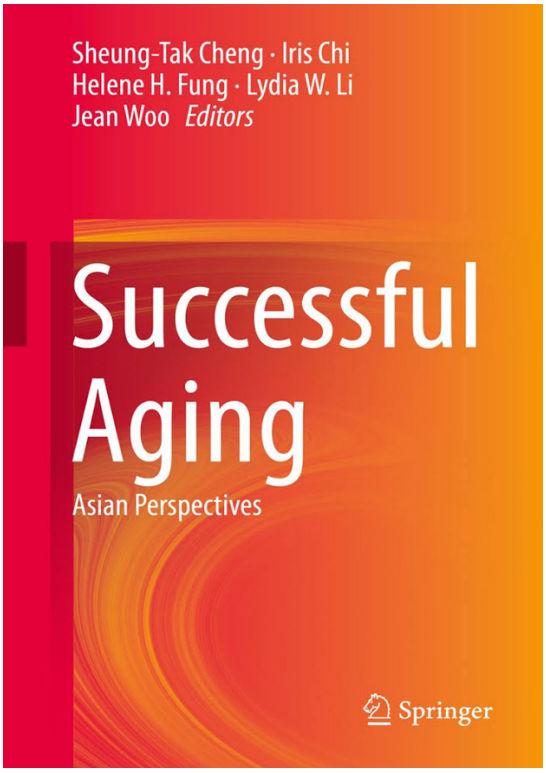
Publisher: Humana Press

Website: http://www.springer.com/life+sciences/cell+biology/book/978-1-62703-597-2

Description:

This volume systematically reviews the basic science and clinical knowledge of the role of free radicals and antioxidants, collectively known as “oxidative stress,” in the pathology of Alzheimer’s disease. It describes the most current diagnostic tools, laboratory methods and technology, and suggests ways of prevention and treatment to emphasize the concept of the bench-to-bedside approach. Studies on Alzheimer’s Disease provides thorough coverage of emerging technology and medical applications including discussions of biomarkers and antioxidants as therapeutic agents, and several more relevant aspects. In addition, this book promotes the concept of using biomarkers representative of oxidative stress reactions and free-radical damageand describes the effects of antioxidants in treating disease in clinical trials. This content is invaluable to both researchers and clinicians studying the development of and treating patients with Alzheimer’s Disease.

Successful Aging: Asian Perspectives



Author: Cheng, S.-T., Chi, I., Fung, H.H., Li, L.W., Woo, J. (Eds.)

Published: 2014

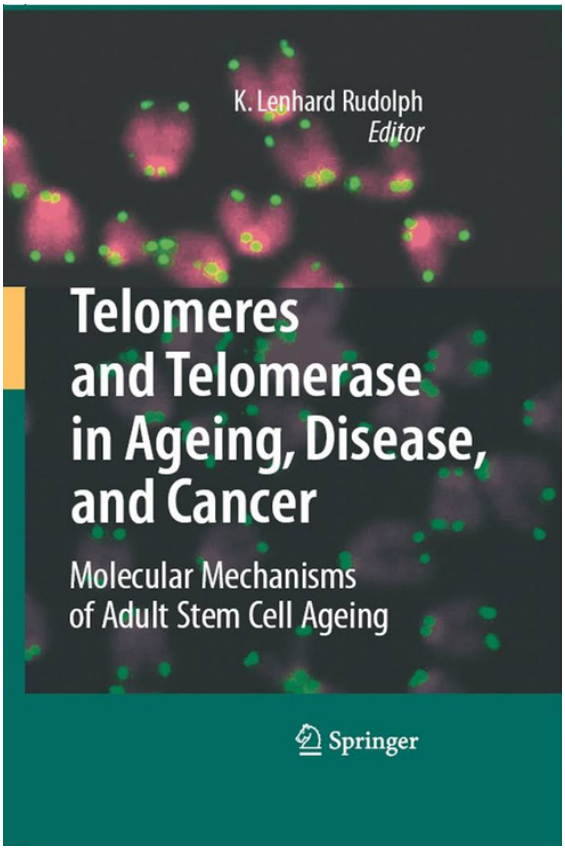
Publisher: Springer

Website: http://www.springer.com/gp/book/9789401793308

Description:

This book brings together state-of-the-art research on successful aging in Asian populations and highlights how the factors that contribute to successful aging differ from those in the West. It examines the differences between the Asian and Western contexts in which the aging process unfolds, including cultural values, lifestyles, physical environments and family structures. In addition, it examines the question of how to add quality to longer years of life. Specifically, it looks at ways to promote health, preserve cognition, maximize functioning with social support and maintain emotional well-being despite inevitable declines and losses. Compared to other parts of the world, Asia will age more quickly as a result of the rapid socioeconomic developments leading to rising longevity and historically low fertility rates in some countries. These demographic forces in vast populations such as China are expected to make Asia the main driver of global aging in the coming decades. As a result, researchers, professionals, policymakers, as well as the commercial sector, in both East and West, are increasingly interested in gaining a deeper understanding of aging in Asia.

Telomeres and telomerase in aging, disease, and cancer: molecular mechanisms of adult stem cell ageing



Author: Rudolph, K. Lenhard

Published: 2007

Publisher: Springer

Website: http://www.springer.com/biomed/human+genetics/book/978-3-540-73708-7

Description:

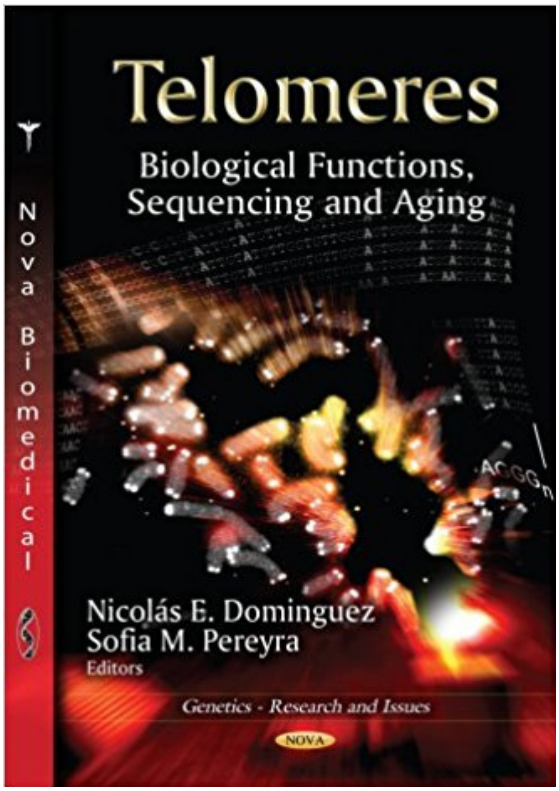
The understanding of the molecular mechanisms underlying the ageing process is essential to improve quality of life and 'health span' in the growing populations of the elderly.

Telomere shortening represents one of the basic aspects of ageing and telomere dysfunction could contribute to the accumulation of DNA damage during ageing. This book summarizes experimental evidence and clinical data indicating that telomere dysfunction influences human ageing, diseases and cancer. In addition, the book describes our current knowledge on checkpoints that limit cellular lifespan (senescence) and survival (apoptosis, crisis) in response to telomere dysfunction.

A special focus of the book is on adult stem cells. There is emerging evidence that adult stem cell ageing impairs organismal fitness and survival and contributes to cancer formation (cancer stem cells). The book summarizes basic mechanisms of adult stem cell ageing. Moreover, the authors describe evidence that telomere dysfunction impairs stem cell function by inducing cell intrinsic checkpoints as well as environmental alterations.

All of these subjects are of great interest for ageing researchers, physicians and students and should provide a rational basis for beginning to identify molecular targets for novel therapies that aim to improve quality of life during ageing.

Telomeres: biological functions, sequencing and aging



Author: Dominguez, Nicolas E. & Pereyra, Sofia M.

Published: 2012

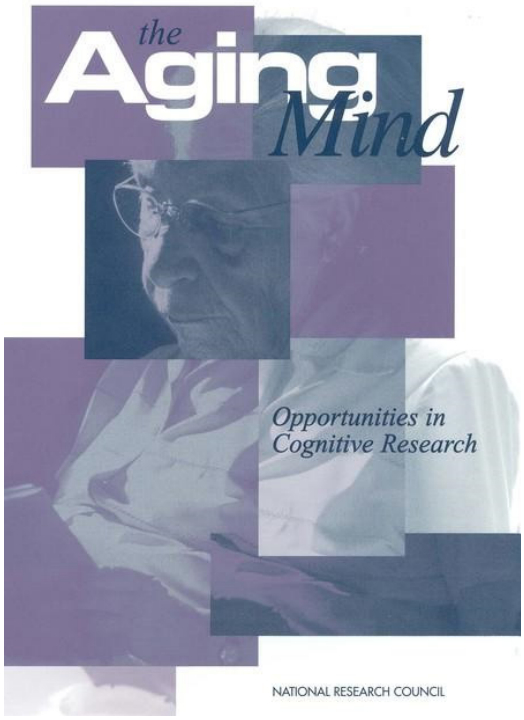
Publisher: Nova Science Publishers Inc

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=31315

Description:

Telomere is the nucleoprotein complex located at the endmost chromosomal terminus and one of the essential cis-acting structural elements of chromosomes. Telomeres are composed of DNA, proteins, and RNA. In this book, the authors present current research in the study of the biological functions, sequencing and aging of telomeres. Topics discussed include the biology of telomeres in multipotential stromal cells; telomere maintenance in the blight fungus ustilago maydis; telomere length in lymphoid malignancies; unraveling the genetic basis of the alternative lengthening of telomeres and the adjustment of telomeres by cell-matrix interaction.

The aging mind: opportunities in cognitive research



Author: Stern, Paul C. & Carstensen, Laura L.

Published: 2000

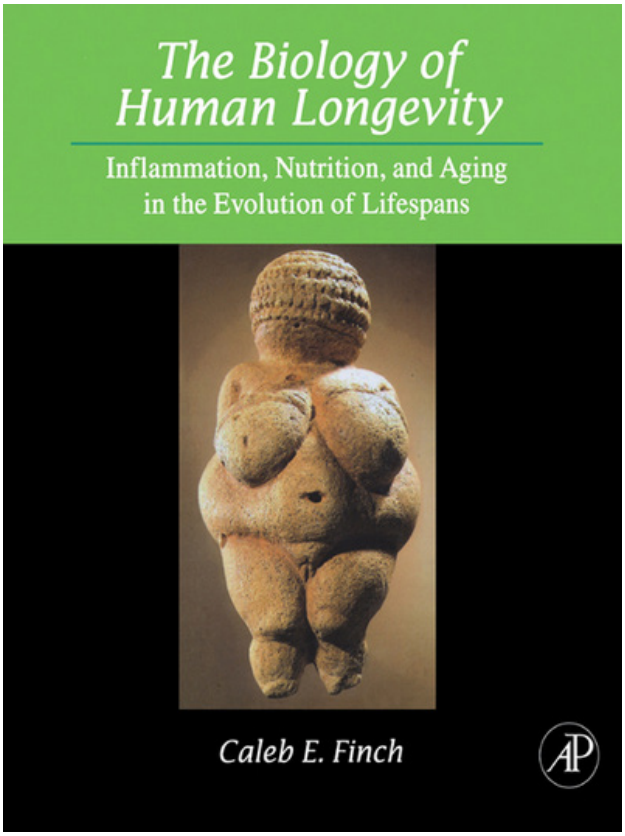
Publisher: National Academies Press

Website: http://www.nap.edu/catalog.php?record_id=9783

Description:

Possible new breakthroughs in understanding the aging mind that can be used to benefit older people are now emerging from research. This volume identifies the key scientific advances and the opportunities they bring. For example, science has learned that among older adults who do not suffer from Alzheimer's disease or other dementias, cognitive decline may depend less on loss of brain cells than on changes in the health of neurons and neural networks. Research on the processes that maintain neural health shows promise of revealing new ways to promote cognitive functioning in older people. Research is also showing how cognitive functioning depends on the conjunction of biology and culture. The ways older people adapt to changes in their nervous systems, and perhaps the changes themselves, are shaped by past life experiences, present living situations, changing motives, cultural expectations, and emerging technology, as well as by their physical health status and sensory-motor capabilities. Improved understanding of how physical and contextual factors interact can help explain why some cognitive functions are impaired in aging while others are spared and why cognitive capability is impaired in some older adults and spared in others. On the basis of these exciting findings, the report makes specific recommends that the U.S. government support three major new initiatives as the next steps for research.

The biology of human longevity



Author: Finch, Caleb E.

Published: 2007

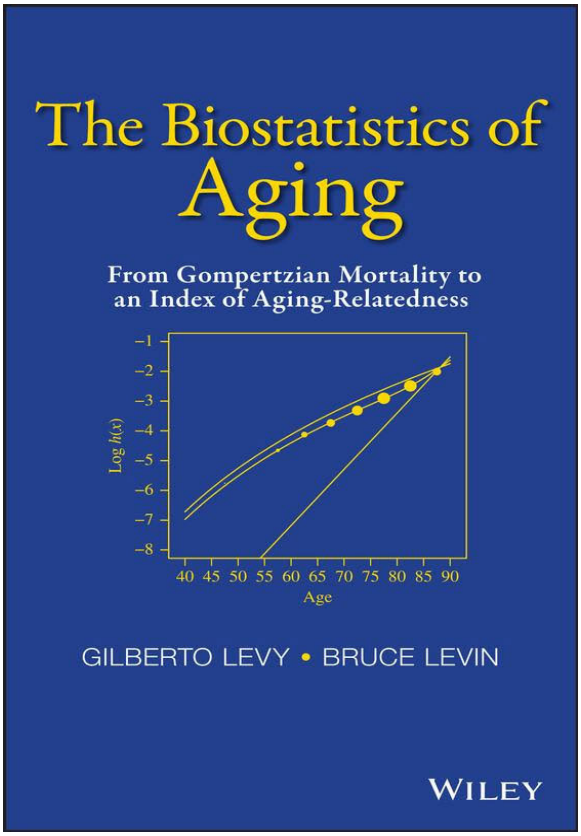
Publisher: Academic Press

Website: http://www.elsevierdirect.com/product.jsp?isbn=9780123736574

Description:

Written by Caleb Finch, one of the leading scientists of our time, The Biology of Human Longevity: Inflammation, Nutrition, and Aging in the Evolution of Lifespans synthesizes several decades of top research on the topic of human aging and longevity particularly on the recent theories of inflammation and its effects on human health. The book expands a number of existing major theories, including the Barker theory of fetal origins of adult disease to consider the role of inflammation and Harmon's free radical theory of aging to include inflammatory damage. Future increases in lifespan are challenged by the obesity epidemic and spreading global infections which may reverse the gains made in lowering inflammatory exposure. This timely and topical book will be of interest to anyone studying aging from any scientific angle.

The Biostatistics of Aging: From Gompertzian Mortality to an Index of Aging-Relatedness



Author: Levy, Gilberto & Levin, Bruce

Published: 2014

Publisher: Wiley

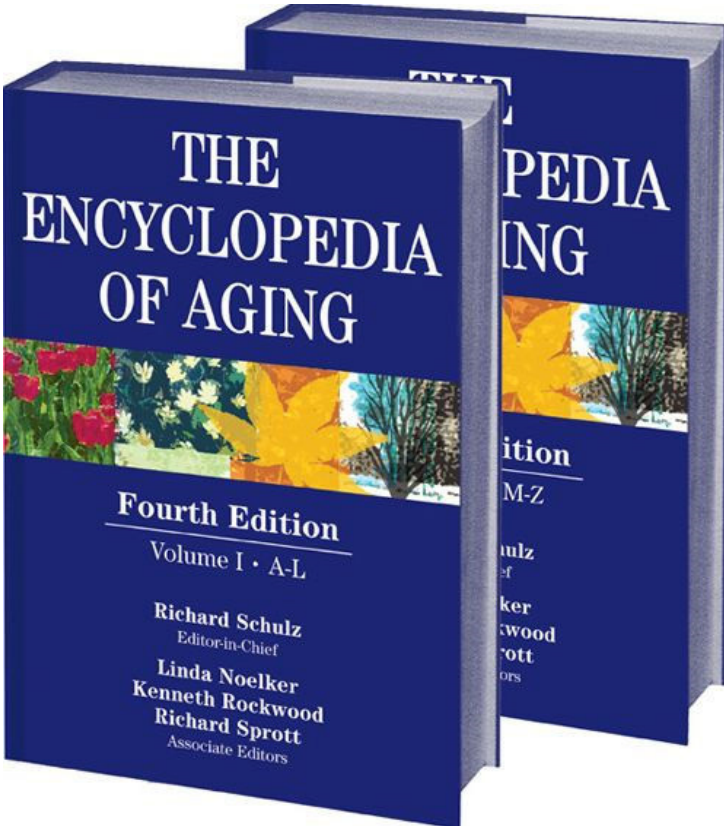
Website: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1118645855.html

Description:

Providing a thorough and extensive theoretical framework, The Biostatistics of Aging: From Gompertzian Mortality to an Index of Aging-Relatedness addresses the surprisingly subtlenotion—with consequential biomedical and public health relevance—of what it means for acondition to be related to aging. In this pursuit, the book presents a new quantitative methodto examine the relative contributions of genetic and environmental factors to mortality anddisease incidence in a population. With input from evolutionary biology, population genetics, demography, and epidemiology, this medically motivated book describes an index of aging-relatedness and also features:

- Original results on the asymptotic behavior of the minimum of time-to-event random variables, which extends those of the classical statistical theory of extreme values
- A comprehensive and satisfactory explanation based on biological principles of the Gompertz pattern of mortality in human populations
- The development of an evolution-based model of causation relevant to mortality and aging-related diseases of complex etiology
- An explanation of how and why the description of human mortality by the Gompertz distribution can be improved upon from first principles
- The amply illustrated analysis of real-world data, including a program for conducting the analysis written in the freely available R statistical software
- Technical appendices including mathematical material as well as an extensive and multidisciplinary bibliography on aging and aging-related diseases
- The Biostatistics of Aging: From Gompertzian Mortality to an Index of Aging-Relatedness is an excellent resource for practitioners and researchers with an interest in aging and aging-related diseases from the fields of medicine, biology, gerontology, biostatistics, epidemiology, demography, and public health.

The Encyclopedia of aging - Volume I+II



Author: Schulz, Richard; Noelker, Linda S.; Rockwood, Kenneth & Sprott, Richard L.

Published: 2006

Publisher: Springer Publishing Company

Website: http://www.springerpub.com/product/9780826148438

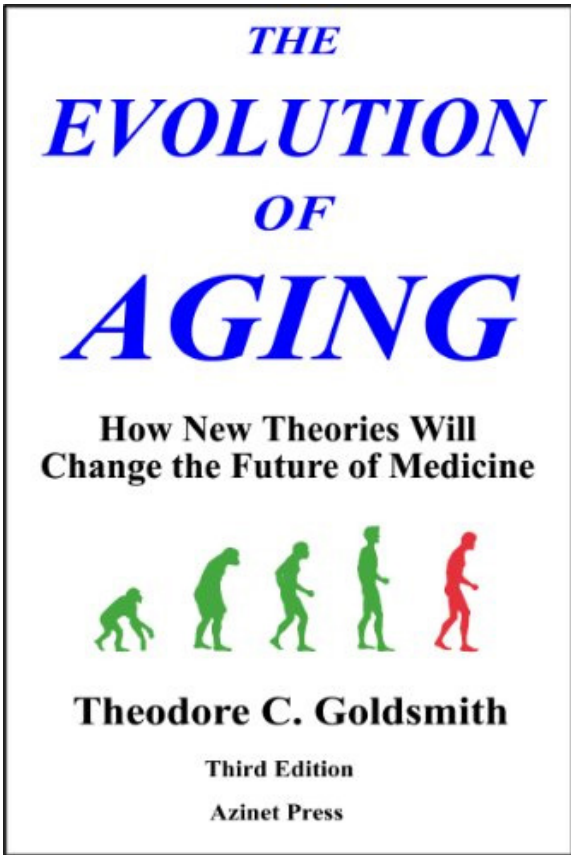
Description:

Since its inception in 1987, The Encyclopedia of Aging has proven to be the definitive resource for scholars and students across the burgeoning and increasingly interdisciplinary fields of gerontology and geriatrics. Like its three esteemed predecessors, the fourth edition contains concise, readable explorations of hundreds of terms, concepts, and issues related to the lives of older adults, as well as timely coverage of the many new programs and services for the elderly.

Updated, under the distinguished stewardship of editor-in-chief Richard Schulz to reflect the infusion of new information across the scientific disciplines, this new edition brings readers up-to-the-moment significant advances in biology, physiology, genetics, medicine, psychology, nursing, social services, sociology, economics, technology, and political science.

While retaining the format and standard of excellence that marked the first three editions, the fourth edition encompasses a wealth of new information from the social and health sciences. It contains the most current bibliography of an expanding literature, an exhaustive index, and extensive cross references. This much anticipated update of the field's most authoritative resource will take its place as an indispensable reference for specialists and non-specialists across a broad range of disciplines that now comprise the field of aging.

The evolution of aging



Author: Goldsmith, Theodore C.

Published: 2006

Publisher: Azinet LLC

Website: http://www.azinet.com/aging/Aging_Book.html

Description:

The book covers various theories of aging, summaries of evolution theories, the impact of evolution theory on aging theories, effect of theories and attitudes on anti-aging research, and summaries of many scientific observations that influence thinking on the subject of aging.

The evolution of human life history

Author: Hawkes, Kristen & Paine, Richard R.

Published: 2006

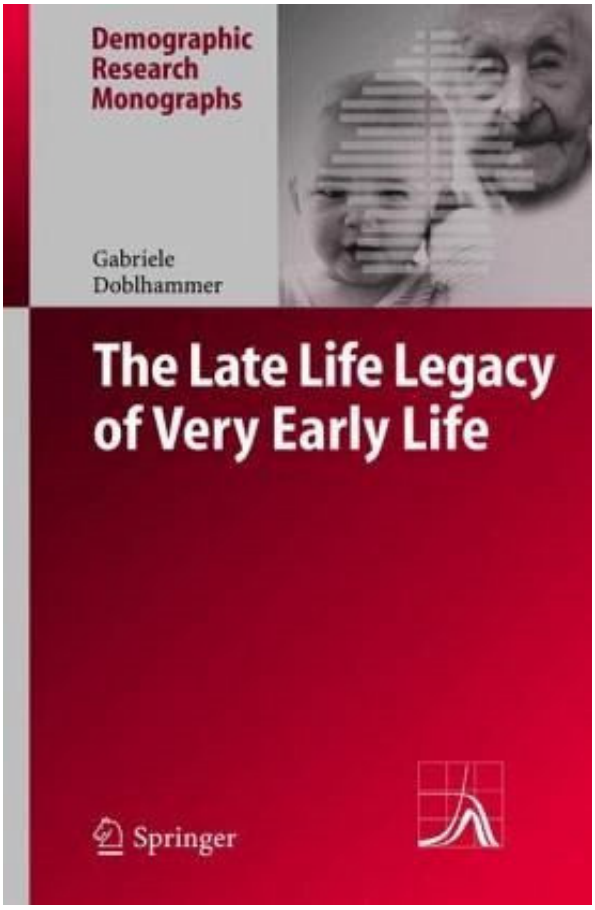
Publisher: School of American Research Press

Website: http://sarweb.org/index.php?sar_press_evolution_of_human_life_history

Description:

Human beings may share 98 percent of their genetic makeup with their nonhuman primate cousins, but they have distinctive life histories. When and why did these uniquely human patterns evolve? To answer that question, this volume brings together specialists in hunter-gatherer behavioral ecology and demography, human growth, development, and nutrition, paleodemography, human paleontology, primatology, and the genomics of aging. The contributors identify and explain the peculiar features of human life histories, such as the rate and timing of processes that directly influence survival and reproduction. Drawing on new evidence from paleoanthropology, they question existing arguments that link humans' extended childhood dependency and long "post-reproductive" lives to brain development, learning, and distinctively human social structures. The volume reviews alternative explanations for the distinctiveness of human life history and incorporates multiple lines of evidence in order to test them.

The late life legacy of very early life



Author: Doblhammer, Gabriele

Published: 2004 (H,E)2010 (P)

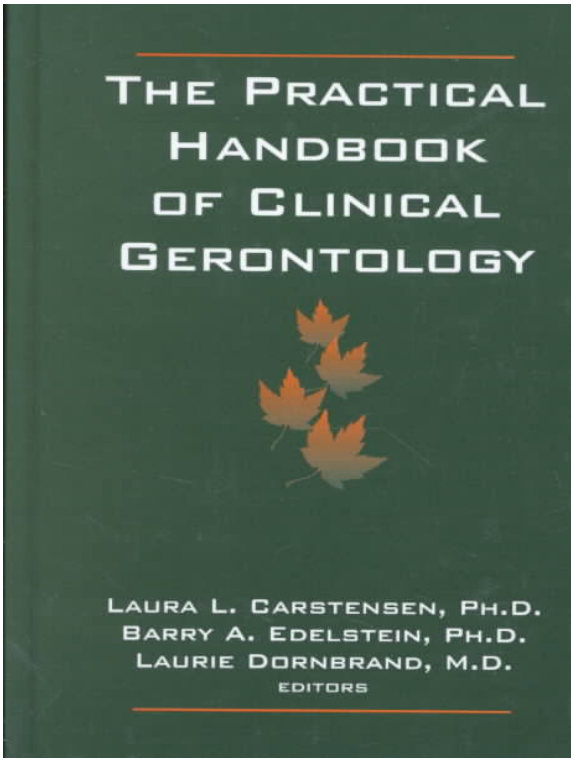
Publisher: Springer.

Website: http://www.springer.com/economics/population/book/978-3-540-22105-0

Description:

The monograph demonstrates the widespread existence of differences in life span by month of birth in the elderly populations of contemporary societies. It provides evidence that the pattern is linked to the seasons of the year, by comparing the Northern and the Southern Hemisphere. It formulates and tests a series of explanations for the month-of-birth effect and rejects many of the most frequently offered explanations. In particular, it rejects those that attribute the month-of-birth effect to social or statistical confounding. It establishes a link between the month-of-birth pattern in the life span and the month-of-birth pattern in survival during the first year of life. It provides evidence that nutrition and infectious disease early in life play an important role in adult health and survival later in life and that the differences in life span by month of birth still exist in cohorts born today.

The Practical Handbook of Clinical Gerontology



Author: Carstensen, Laura L.; Edelstein, Barry A. & Dornbrand Laurie

Published: 1997

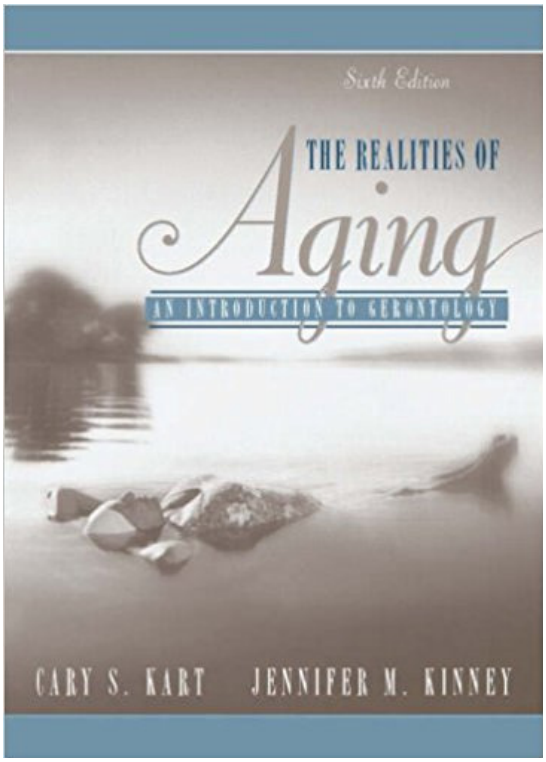
Publisher: Sage Publications Inc

Website: http://www.sagepub.com/books/Book4961?bookType=%22Reference%20Books%22&subject=100&sortBy=defaultPubDate%20desc&fs=1

Description:

Applied gerontology and geriatrics always entail a multidisciplinary perspective and usually demand an interdisciplinary treatment approach. Providing a unique combination of perspectives, treatment approaches, and expertise, The Practical Handbook of Clinical Gerontology explores issues relevant to practitioners who work with the elderly. A leading cast of contributors--representing the fields of psychology, medicine, neuropsychology, nursing, and law--examines what is known about specific disorders and discusses treatment techniques and the development of intervention plans. This comprehensive volume begins with an overview of several broad topics pertinent to the treatment of older adults and discusses special considerations in assessment. It then presents up-to-date information on treatment of specific psychological and behavioral disorders of older adults. The final section covers interdisciplinary issues, including information about common medical problems, rehabilitation, and the psychopharmacological treatment of mental health problems. Written in a language that is accessible to a general health care audience, this extensive volume will be a valuable resource for mental health care providers, medical students, researchers, and graduate students in such fields as geriatrics, gerontology, nursing, psychology, and social work.

The realities of aging: an introduction to gerontology



Author: Kart, Cary S. & Kinney, Jennifer M.

Published: 2000

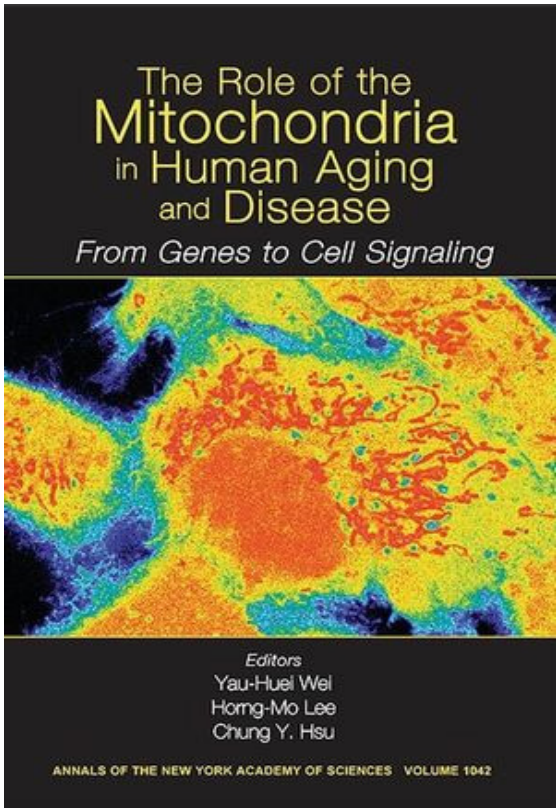
Publisher: Allyn & Bacon

Website: http://www.abebooks.de/9780205318025/Realities-Aging-Introduction-Gerontology-Kart-0205318029/plp

Description:

A comprehensive, interdisciplinary introduction to the rapidly growing field of gerontology, this book provides the psychological, sociological, and biological aspects of aging. This respected book provides comprehensive coverage of gerontological issues while capturing the complexity inherent in the processes of aging. Emphasizes diversity in the experience of aging as a function of cultural, social, racial/ethnic, and individual variability. Takes a multidisciplinary approach. Provides many examples of aging in other cultures. Includes strong coverage of theories of aging. Contains classic research in gerontology as well as emerging conceptualizations and areas of research. For anyone interested in the study of aging or gerontology.

The role of mitochondria in human aging and disease: from genes to cell signaling



Author: Wei, Yau-Huei; Lee, Horng-Mo & Hsu, Chung Y.

Published: 2005

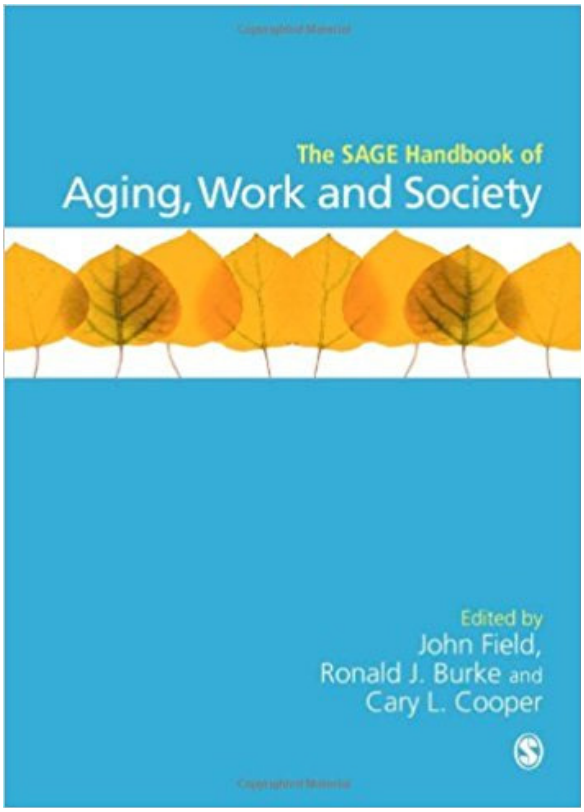
Publisher: Wiley-Blackwell

Website: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1573315427,descCd-tableOfContents.html

Description:

Virtually every aspect of mitochondrial research and medicine is addressed in this volume, including mitochondrial function and dysfunction, free radical biology relevant to mitochondrial dysfunction, the role of mitochondria in apoptosis, and abnormal signaling processes and disease mechanisms associated with aging, mtDNA mutations, or mitochondrial damage

The SAGE Handbook of Aging, Work and Society



Author: Field, John; Burke, Ronald J. & Cooper, Cary L.

Published: 2013

Publisher: Sage Publication Inc

Website: https://us.sagepub.com/en-us/nam/the-sage-handbook-of-aging-work-and-society/book237162

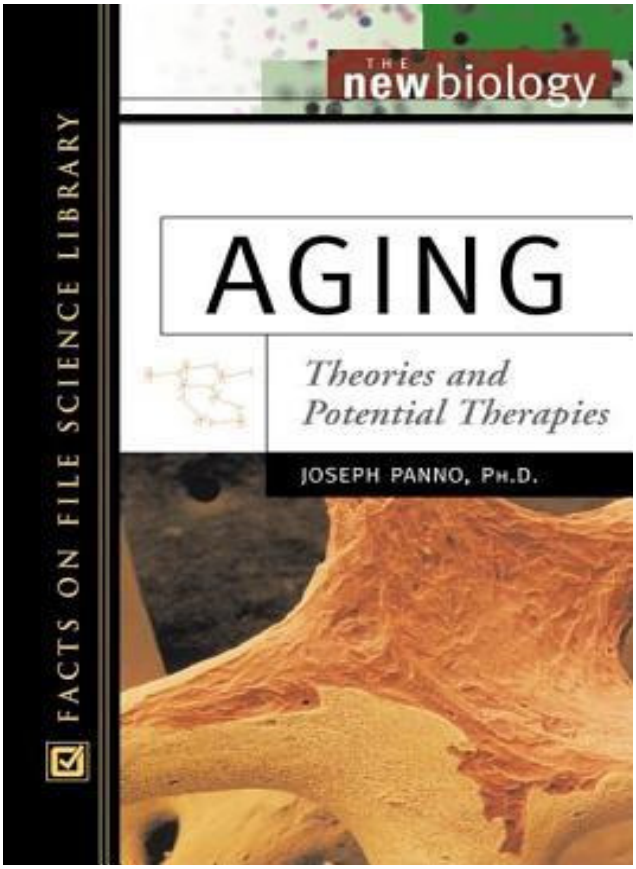
Description:

Aging has emerged as a major and urgent issue for individuals, organisations and governments of our time.

In this well-timed and comprehensive handbook, key international contributors to the field of study come together to create a definitive map of the subject. Framed by an authoritative introductory chapter, the SAGE Handbook of Aging, Work and Society offers a critical overview of the most significant themes and topics, with discussions of current research, theoretical controversies and emerging issues, divided into sections covering:

- Key Issues and Challenges
- The Aging Workforce
- Managing an Aging Workforce
- Living in an Aging Society
- Developing Public Policy

The science of aging: theories and potential therapies



Author: Panno, Joseph

Published: 2006

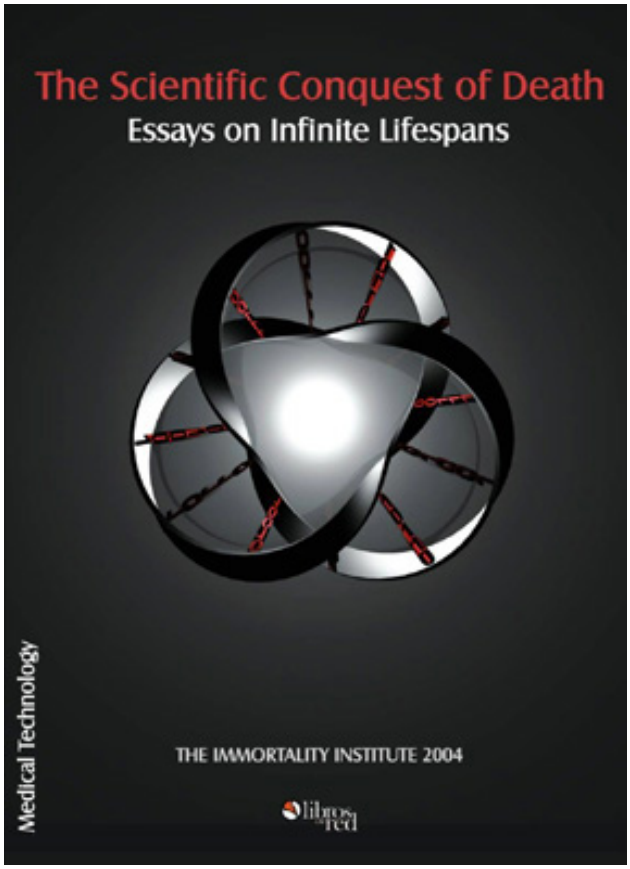
Publisher: Checkmark Books

Website: http://www.amazon.com/Science-Aging-Theories-Potential-Therapies/dp/0816069301/ref=sr_1_35?s=STORE&ie=UTF8&qid=1283457409&sr=1-35

Description:

This work takes an inside look at the natural processes of aging and the technological developments in this field. There are almost as many theories about the aging process as there are researchers working in the field. This stems from the fact that scientists do not know why animals grow old and thus examine every aspect of an animal's physiology, biochemistry, and molecular biology in attempting to answer this important question. The current trend among biologists studying the way animals age is to keep the theories in mind, but to focus their attention on dominant age-related diseases, such as Alzheimer's or cardiovascular disease. The Science of Aging tackles this fascinating subject, from natural processes to technological developments, and describes past and present research on extending the human life span. Different theories about aging and the studies of the fruit fly and housefly, which have provided a basis of knowledge in this field, are presented in a clear and concise manner. effects of aging, the use of antioxidants is discussed as another area being pursued by scientists, and possible side effects and monetary expenses are also examined. This volume presents the full story about the hopes, efforts, progress, and realities of this timeless topic.

The scientific conquest of death



Author: Immortality Institute

Published: 2004

Publisher: Libros en Red

Website: http://www.imminst.org/book

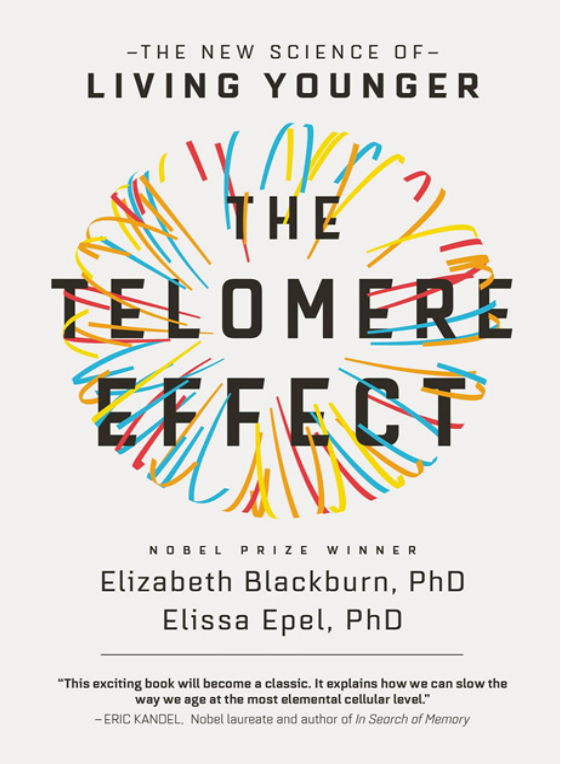
Description:

This book is divided into two sections: science, (including biology, biomedicine, nanotechnology, digitalization and cryonics) and perspectives (including literature, history, philosophy, sociology and ethics).

This is not a strict division, as scientific possibilities are the starting point for all philosophy, and, in turn, the scientists in this book are not blind to the philosophical implications of their work.All essays are followed by their relevant citations.

All web hyperlinks are valid as of April 2004. Please do not hesitate to call the Institute if a link is out of date, as we might be able to help chase it down. Please also note that the Institute provides additional graphics, charts, and other relevant material online and free of charge to all purchasers of this book. This book concludes with remarks, an extensive bibliography for further reading, information on the contributing authors, and a few words of thanks. But – as we shall soon learn – there is no time to waste: Follow us into an exploration of the scientific conquest of death.The road to immortality is just the turn of a page away.

The Telomere Effect : A Revolutionary Approach to Living Younger, Healthier, Longer



Author: Dr. Elizabeth Blackburn, Dr. Elissa Epel

Published: Jan. 3, 2017

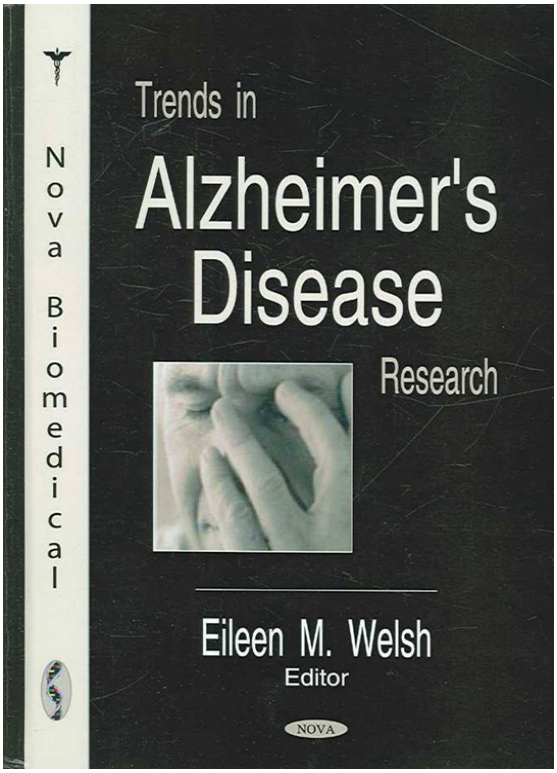
Publisher: Grand Central Publishing

Website: https://www.hachettebookgroup.biz/titles/dr-elizabeth-blackburn/the-telomere-effect/9781455587971/

Description:

The New York Times bestselling book coauthored by the Nobel Prize winner who discovered telomerase and telomeres' role in the aging process and the health psychologist who has done original research into how specific lifestyle and psychological habits can protect telomeres, slowing disease and improving life.

Trends in Alzheimer‘s disease research



Author: Welsh, Eileen M

Published: 2006

Publisher: Nova Science Publishers

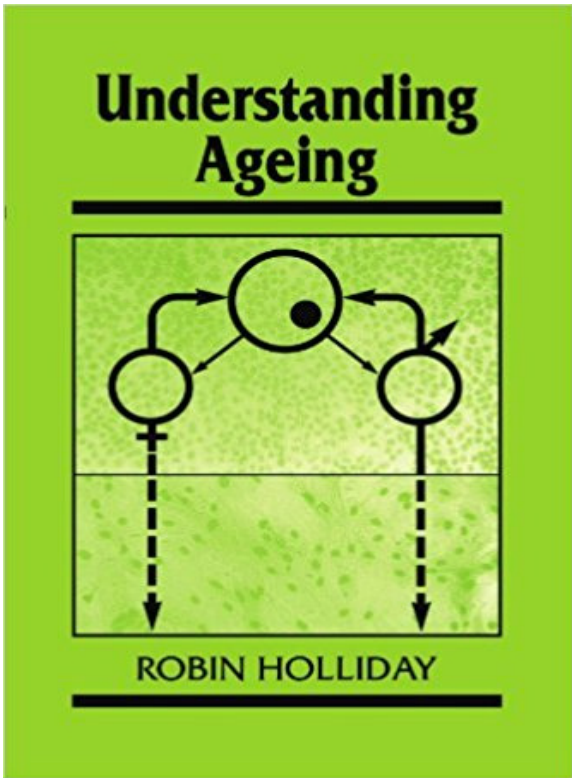
Website: https://www.novapublishers.com/catalog/product_info.php?products_id=4174

Description:

Dementia is a brain disorder that seriously affects a person’s ability to carry out daily activities. The most common form of dementia among older people is Alzheimer’s Disease (AD), which involves the parts of the brain that contol memory, thought and language. Age is the most important known risk factor for AD. The number of people with the disease doubles every 5 years beyond age 65. AD is a slow disease, starting with mild memory loss and ending with severe brain damage. The course the disease takes and how fast changes occur vary from person to person. On average, AD patients live from 8 to 10 years after they are diagnosed, though the disease can last for as many as 20 years.

Current research is aimed at understanding why AD occurs and who is at greatest risk for developing it, improving the accuracy of diagnosis and ability to identify who is at risk, developing, discovering and testing new treatments for behavioral problems in patients with AD. This new book gathers state-of-the-art research from leading scientists throughout the world which offers important information on understanding the underlying causes and discovering the most effective treatments for Alzheimer’s Disease.

Understanding ageing



Author: Holliday, Robin

Published: 1995

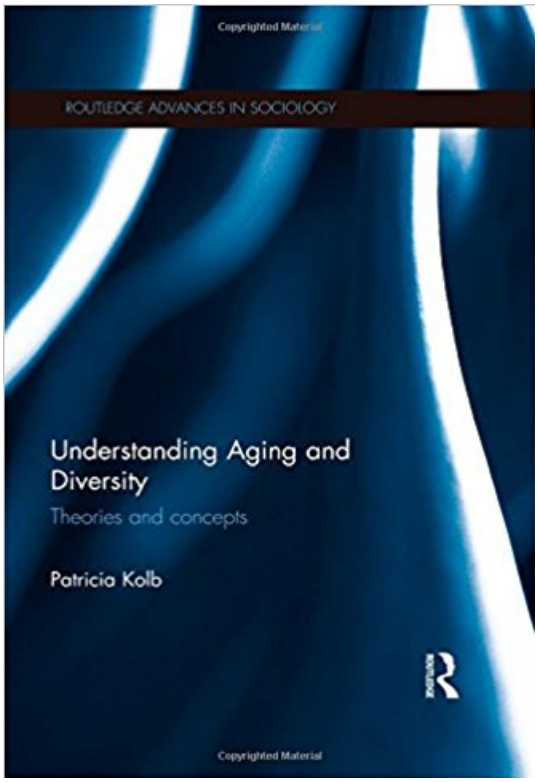
Publisher: Cambridge University Press

Website: http://www.cambridge.org/de/academic/subjects/life-sciences/cell-biology-and-developmental-biology/understanding-ageing?format=PB

Description:

This book presents a completely novel approach to the understanding of ageing, which many believe is an unsolved problem in biology. It explains why ageing exists in animals, and reviews our understanding of it at the biological level. This includes a discussion of the origins and evolution of ageing. The book is not a review of research on ageing, but instead draws on material from a wide range of disciplines, including the very extensive biomedical information about age-related diseases in humans. Understanding Ageing argues that much research needs to be done on the cellular and molecular aspects of ageing, if the origins of these diseases are to be understood, and their prevention made possible. This thought-provoking book will appeal to all students and researchers who are interested in ageing, whether they are working in the clinical or basic research sphere.

Understanding aging and diversity: theories and concepts



Author: Kolb, Patricia

Published: 2012

Publisher: Routledge

Website: http://www.routledge.com/books/details/9780415678810/

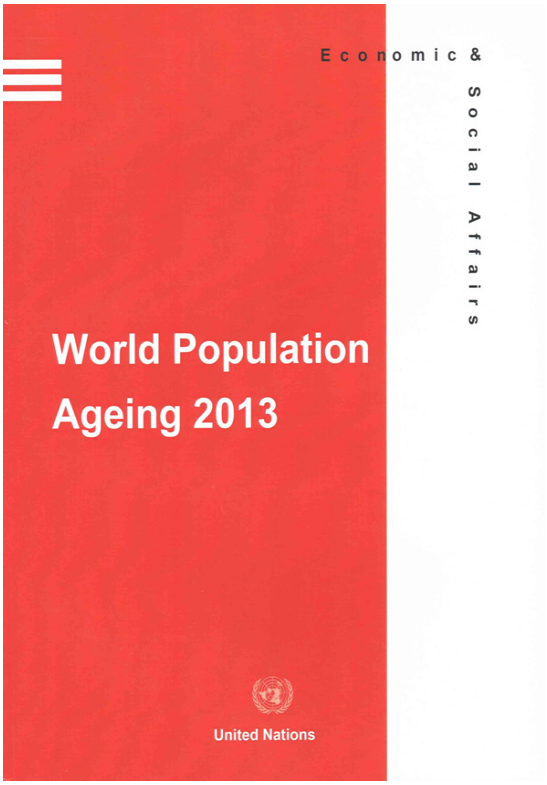
Description:

The demographic phenomena of increased life expectancy, increasing global population of older adults, and a larger number of older people as a proportion of the total population in nations throughout the world will affect our lives and the life of each person we know. The changes will result in challenges and benefits for societies and people of all ages. These events need to be understood, explained, and their consequences addressed; sociological theories about aging are an essential part of this process.

In Understanding Aging and Diversity: Theories and Concepts, Patricia Kolb presents important sociological theories and concepts for understanding experiences of older people and their families in a rapidly changing world. She explores concepts from phenomenology, critical theory, feminist theory, life course theory and gerotranscendence theory to explain important issues in the lives of older people. This book investigates similarities and differences in aging experiences, focusing in particular on the effects of inequality. Kolb examines the relationship of ethnicity, race, gender, sexual orientation and social class to international aging experiences.

This book explores the relationships between older people and social systems in different ways, and informs thinking about policy development and other strategies for enhancing the wellbeing of older adults. It will be useful for students and scholars of sociology, gerontology, social work, anthropology, economics, demography and global studies.

World Population Ageing: 2013



Author: United Nations

Published: 2014

Publisher: United Nations

Website: http://www.un.org/en/development/desa/population/publications/ageing/WorldPopulationAgeingReport2013.shtml

Description:

The World Population Ageing 2013 report is the fourth in a series. The first report was released in 2002 in conjunction with the Second World Assembly on Ageing. The present report, which updates the 2007 and 2009 editions, provides a description of global trends in population ageing and includes new features on the socio-economic and health aspects of ageing. This report is accompanied by an interactive database on the Profiles of Ageing 2013.

Part IX

Top 100 Geroscientists

Analytical Report 2017

AGING ANALYTICS AGENCY
Invest for life

Biogerontology Research Foundation
Prevent. Restore. Preserve.

DEEP KNOWLEDGE
LIFE SCIENCES

Top 100 Geroscientists

1. James Adjayes
2. Bruce Ames
3. Julie K. Andersen
4. Adam Antebi
5. William Bains
6. Andrzej Bartke]
7. Nir Barzilai
8. Chris Benz
9. Mark Birch-Machin
10. Elizabeth Blackburn
11. Maria Blasco
12. David Botstein
13. Eric Le Bourg
14. Martin Bran
15. Rachel Brem
16. William Burhans
17. David Burke
18. Dale Bredesen
19. Anne Brunet
20. Rafael de Cabo
21. Judith Campisi
22. Richard Cawthon
23. Brian Charlesworth
24. George Church
25. Jose Cibelli
26. Irina Conboy
27. Antonei Csoka
28. Ana Maria Cuervo
29. Lloyd Demetrius
30. Jan van Deursen
31. Andrew Dillin
32. Larry Donehower
33. Monica Driscoll
34. Lisa Ellerby
35. Preston Estep
36. Gregory Fahy
37. Richard Faragher
38. Miguel Ferreira
39. Caleb Finch
40. Toren Finkel
41. Michael Fossel
42. John D. Furber
43. Vadim Fraifeld
44. Claudio Franceschi
45. Robert Freitas
46. Steven Garan
47. Steven Garan
48. George Garinis
49. Jennifer L. Garrison
50. Leonid Gavrilov
51. David Gems
52. Vincent C. Giampapa
53. Bradford W. Gibson
54. Vadim Gladyshev
55. Allan Goldstein
56. Aubrey de Grey
57. Leonard Guarente
58. Pejmun Haghighi
59. Leonard Hayflick
60. Heinrich Jasper
61. Matt Kaeberlein
62. Pankaj Kapahi
63. Brian Kennedy
64. Cynthia Kenyon
65. James Kirkland
66. Don Kleinsek
67. Makoto Kuro-O
68. Marios Kyriazis
69. Deepak A. Lamba
70. Peter Lansdorp
71. Robert Lanza
72. Pamela Larsen
73. Virginia Lee
74. Christiaan Leeuwenburgh
75. Rodney Levine
76. Gordon Lithgow
77. Valter Longo
78. Carlos Lopez-Otin
79. Janet M. Lord
80. Alvaro Macieira-Coelho
81. Joao Pedro de Magalhaes
82. Mark Mattson
83. Anne McArdle
84. Simon Melov
85. S. Jay Olshansky
86. Alexandre Quintanilha
87. Arvind Ramanathan
88. Thomas Rando
89. Suresh Rattan
90. Holly Van Remmen
91. Michael R. Rose
92. David Sinclair
93. Olivier Toussaint
94. John Trojanowski
95. James Vaupel
96. J. Craig Venter
97. Jan Vijg
98. Bryant Villeponteau
99. Stephen Welle
100. Michael West
101. Xianmin Zeng
102. Alexander Zhavoronkov

James Adjayes

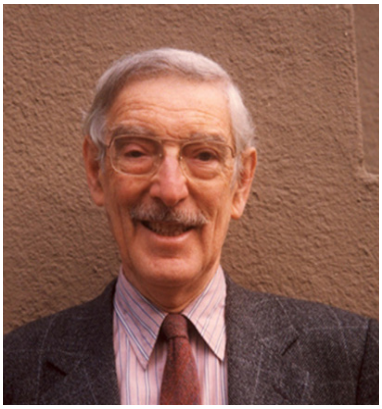
Title: Director of the Institute for Stem Cell Research and Regenerative Medicine

Bio:

Prof. James Adjaye's was appointed as Director of the newly established Institute for Stem Cell Research and Regenerative Medicine (ISRM) in May 2012. In addition, he is a group leader of the Molecular Embryology and Aging Group at the Max Planck Institute for Molecular Genetics (Berlin). He is the co-ordinator of livSYSiPS - The systems biology of network stress based on data generated from in vitro differentiated hepatocytes derived from individual-specific human iPS cells (ERASysBio Plus).

This multi-national (Germany, UK, Italy USA and Austria) project which uses a systems biology approach to investigate the etiology of non-alcoholic fatty liver disease which comprises a broad spectrum of disease states ranging from manageable stress as in simple steatosis to excessive stress, as in steatohepatitis.

Bruce Ames



Title: Senior Scientist at Children Hospital Oakland Research Institute (CHORI)
Professor, University of California, Berkeley

Bio:

Dr. Ames is a Senior Scientist at Children Hospital Oakland Research Institute (CHORI), director of their Nutrition & Metabolism Center, and a Professor Emeritus of Biochemistry and Molecular Biology, University of California, Berkeley.

He is a member of the National Academy of Sciences and he was on their Commission on Life Sciences. He was a member of the board of directors of the National Cancer Institute, the National Cancer Advisory Board, from 1976 to 1982. He was the recipient of the General Motors Cancer Research Foundation Prize (1983), the Tyler Environmental Prize (1985), the Gold Medal Award of the American Institute of Chemists (1991), the Glenn Foundation Award of the Gerontological Society of America (1992), the Lovelace Institutes Award for Excellence in Environmental Health Research (1995), the Honda Prize of the Honda Foundation, Japan (1996), the Japan Prize, (1997), the Kehoe Award, American College of Occup. and Environ. Med. (1997), the Medal of the City of Paris (1998), the U.S. National Medal of Science (1998), The Linus Pauling Institute Prize for Health Research (2001), and the American Society for Microbiology Lifetime Achievement Award (2001).

His over 555 publications have resulted in his being among the few hundred most-cited scientists (in all fields).

Julie K. Andersen

Title: Professor at Buck Institute for Research on Aging

Bio:

As a renowned expert on age-related neurodegenerative disease, Dr. Andersen is pursuing a wide array of leads toward treatments for complex disorders including Alzheimer's and Parkinson's disease. Recently, the laboratory has joined efforts with the Lithgow laboratory at the Buck institute as part of a collaborative project aimed at identifying novel drugs that eliminate neurotoxic protein deposits in patients diagnosed with these devastating disorders. This would fill critical unmet need for drugs that can block disease progression in the brains of patients already impacted by these conditions.

Lysosomes are organelles that serve as the garbage disposal of the cell. Damaged proteins and other cellular components are broken down by lysosomes in a process known as autophagy. Autophagy has recently been found to be a crucial factor in the removal of damaged neurotoxic proteins associated with several age-related neurodegenerative diseases including Alzheimer's and Parkinson's. Joint research from the Andersen-Lithgow laboratory has recently identified a factor called TFEB as being critical to this process. A recent drug screen performed by their laboratories has identified a novel series of potent, structurally-related compounds that activate TFEB and prevent neurodegenerative phenotypes in C. elegans models of Alzheimer's and Parkinson's disease. Independent bioinformatic analysis suggests that these compounds have favorable characteristics for CNS-acting drugs in humans including high brain availability and low toxicity. They propose that these drugs have the wide-ranging potential to impact on all patients diagnosed with age-related neurodegenerative disease. Current efforts are towards pre-clinical studies in order to provide appropriate proof-of-principle to move forward into human phase I trials. A recent independent study from the Andersen laboratory has also identified lysosomal dysfunction as a prime driver of elevated toxic iron levels which occur in these disorders and suggests that thes drugs may provide additional benefit by preventing associated brain metal toxicity.

In a recent collaborative effort with the Campisi lab, the Andersen lab has shown that a process known as cellular senescence, previously associated primarily with aging in peripheral tissues, may also play an important role in age-related brain pathologies. The laboratory is working to identify novel 'senolytics', compounds which preent age-related brain senescence, as a novel potential cure.

The Andersen lab is also involved in identifying potential biomarkers for Parkinson's that may allow early interventional therapy.

Adam Antebi

Title: Director at the Max Planck Institute for Biology of Ageing in Cologne

Bio:

Prof. Adam Antebi did his undergraduate studies at Swarthmore College (Swarthmore, PA) from 1979-83, where he received a Bachelors degree with distinction in Biochemistry. He performed his Ph.D. research at Massachusetts Institute of Technology (Cambridge, MA) from 1985-92 in yeast genetics, and went on with his post-doctoral studies at the Johns Hopkins University (Baltimore, MD) from 1992-97 in C. elegans (worm) development. He was an independent group leader at the Max Planck Institute for Molecular Genetics (Berlin) from 1997-2004, where he began studies on worm ageing.In 2004, Antebi returned to the USA where he was promoted to associate professor at the Huffington Center on Ageing, Baylor College of Medicine (Houston, TX). During this time, he also won the prestigious American Federation for Ageing Research Breakthrough in Gerontology Award and the Ellison Medical Foundation Senior Scholar Award in Ageing Research. Since 2008, he has served as a Director at th e newly founded Max Planck Institute for Biology of Ageing (Cologne), continuing work on endocrine regulation of life span using worm as the model system.

William Bains

Title: CSO/Founder at Five Alarm Bio Ltd,
Researcher in Cambridge

Bio:

William is an academic and entrepreneur. After an academic career in the UK and the USA, he joined PA Consulting Group in 1988, and Merlin Ventures in 1996. In 1999 William founded Amedis Pharmaceuticals Ltd, (which was later acquired by Paradigm Therapeutics). He has since founded four other biotech companies, has helped create over 10 others, helping to raise over £60M in earlystage funding for UK biotech start-ups, as well as sitting on the Advisory Boards of the SULIS Fund, Iceni Fund and Bath Ventures. William also runs Rufus Scientific, helping entrepreneurs, Universities and start-ups identify how to generate value from visionary science and technology. William continues to be engaged in research at MIT, where he is a visiting scientist researching astrobiology, and as founder and CSO of Five Alarm Bio Ltd.. He is author of over 100 papers on subjects as diverse as drug chemistry, company law and extraterrestrial life, and four books, including Venture Capital and the European Biotechnology Industry (2008), and teaches company creation and entrepreneurship in postgraduate courses at Cambridge University and the University of Warwick.

Andrzej Bartke]

Title: Distinguished Scholar and Professor of Internal Medicine and Physiology at Southern Illinois University (SIU)

Bio:

Andrzej Bartke, Ph.D., Distinguished Scholar and Professor of Internal Medicine and Physiology at Southern Illinois University (SIU) School of Medicine in Springfield, Illinois, USA. The focus of his research is on the genetic and hormonal control of aging in mammals. Current work is aimed at identifying mechanisms that link reduced growth hormone action with delayed aging and extended longevity. For this work, he is using mutant mice that live longer than normal mice and show various symptoms of delayed aging, including retention of cognitive function and protection from age-related disease.

His career includes work at the Jagiellonian University in Krakow, Poland, Worcester Foundation for Experimental Biology in Shrewsbury, Massachusetts, the University of Texas Health Science Center at San Antonio, and at SIU-Carbondale. He is a past president of the Society for the Study of Reproduction, the American Society of Andrology and the American Aging Association. Dr. Bartke has published more than 750 research papers, review articles and book chapters dealing with reproductive endocrinology, prolactin, growth hormone and aging, and has received numerous awards, in addition to 45 years of continuous NIH funding.

His laboratory was the first to show that mutation of a single gene can extend mammalian longevity and to suggest that the remarkable increase in the lifespan of Ames dwarf mice is due to growth hormone (GH) deficiency. During the last 20 years his lab has extensively characterized phenotypic characteristics of long-lived hypopituitary and GH-resistant mice. This included studies of behavioral, metabolic, molecular and morphological parameters. Contributions of his group to reproductive endocrinology and to the hormonal and genetic control of aging include nearly 600 peer reviewed publications and more than 150 book chapters and review articles. According to the Web of Science Cite Alert, his work has been cited an average of 490 times per year since 1975 and more than 774 times per year since 2004.

Currently Professor Emeritus and Director of Geriatric Medicine in the Departments of Internal Medicine and Physiology at Southern Illinois University School of Medicine in Springfield, IL, Bartke has been contributing to the field for more than five decades. After devoting his early career to the reproductive role of growth hormone and prolactin on testicular physiology, he has become a leader in the field of mammalian aging. His laboratory was the first to show that growth hormone and insulin-like growth factor 1 (IGF1) are major players in the regulation of lifespan in the mammal. He served as President of the American Society of Andrology and the Society for the Study of Reproduction. Bartke has written more than 700 publications and has had continuous National Institutes of Health funding for his research since 1972.

Nir Barzilai

Title: Professor, Department of Medicine (Endocrinology)
Professor, Department of Genetics
Ingeborg and Ira Leon Rennert Chair in Aging Research
Director, Institute for Aging Research

Bio:

Dr. Nir Barzilai is the director of the Institute for Aging Research at the Albert Einstein College of Medicine and the Director of the Paul F. Glenn Center for the Biology of Human Aging Research and of the National Institutes of Health's (NIH) Nathan Shock Centers of Excellence in the Basic Biology of Aging. He is the Ingeborg and Ira Leon Rennert Chair of Aging Research, professor in the Departments of Medicine and Genetics, and member of the Diabetes Research Center and of the Divisions of Endocrinology & Diabetes and Geriatrics.

Dr. Barzilai's research interests are in the biology and genetics of aging. One focuses on the genetic of exceptional longevity, where we hypothesize and demonstrated that centenarians have protective genes, which allows the delay of aging or for the protection against age-related diseases. In a Program he is leading we take full advantage of phenotypes, DNA, and cells from the Ashkenazi Jewish families with exceptional longevity and the appropriate controls and his group have established at Einstein (over 2600 samples of which ~670 are centenarians) and discovered underling genomic differences associated with longevity. Longevity Genes Project (LGP) is a cross-sectional, on-going collection of blood and phenotype from families with centenarian proband. LonGenity is a longitudinal study of 1400 subjects, half offspring of parents with exceptional longevity, validating and following their aging in relationship to their genome. The second direction, for which Dr. Barzilai is holding an NIH Merit award that focuses on the metabolic decline of aging, and his team hypothesize that the brain leads this decline. His lab has identified several central pathways that specifically alter body fat distribution and insulin action and secretion by intraventricular or hypothalamic administration of several peptides that are modulated by aging including: Leptin, IGF-1, IGFBP3 and resveratrol.

He has received numerous grants, among them ones from the National Institute on Aging (NIA), American Federation for Aging Research, the Ellison Medical Foundation and The Glenn Medical foundation. He has published over 230 peer-reviewed papers, reviews, and textbook chapters. He is an advisor to the NIH on several projects and serves on several editorial boards and is a reviewer for numerous other journals. Dr. Barzilai is in the board of the American Federation for Aging Research, is its co-scientific director, and has served on several NIA study section. He is also a founder of CohBar Inc., a biotech that develops mitochondrial derived peptides as therapy for aging and its diseases. He is co-PI on the R24 Geroscience (Apollo) grant that is an effort to move the field of aging to translation. Dr. Barzilai has been the recipient of numerous prestigious awards, including the Beeson Fellow for Aging Research, the Ellison Medical Foundation Senior Scholar in Aging Award, the Paul F. Glenn Foundation Award, the NIA Nathan Shock Award, and the 2010 Irving S. Wright Award of Distinction in Aging Research.

He is currently leading an international effort to approve drugs that can target aging. Targeting Aging with METformin (TAME) is a specific study designed to prove the concept that multi-morbidities of

aging can be delayed by metformin, working with the FDA to approve this approach which will serve as a template for future efforts to delay aging and its diseases in humans.

Born in Israel, Dr. Barzilai served as chief medic and physician in the Israel Defense Forces. He graduated from The Ruth and Bruce Rappaport Faculty of Medicine at the Technion-Israel Institute of Technology in Haifa and completed his residency in internal medicine at Hadassah Medical Center in Jerusalem. He served in a refugee camp during the war in Cambodia (1979-1980) and built a nutritional village in the homeland of the Zulu (1983 – Kwazulu). He has completed 2 fellowships at Yale (metabolism) and Corenell (Endocrinoology and molecular Medicine). He was an invited speaker to the 4th Israeli President Conference (2012) and a Vatican conference on efforts to enhance cures (2013, 2016). He has also taken part in Global initiatives and spoke at The Milken Global Institute, Asian Megatrends and is an advisor for the Prime Minister of Singapore on Aging. Dr. Barzilai has been on the 'Forward 50, top 50 influence Jews in the US (2011). His work has been profiled by major outlets, including the New York Times, the BBC and PBS' NOVA science now, TEDx talk Science and is the leading feature on the Ron Howard/Jonathan Silberberg/National Geographic film about the Age of Aging.

Chris Benz

Title: Professor of Cancer and Developmental Therapeutics at the Buck Institute for Research on Aging

Bio:

Dr. Benz is a practicing oncologist and researcher seeking improved treatments for breast cancer. He obtained his MD from the University of Michigan at Ann Arbor, and took advanced postdoctoral training at Yale University School of Medicine after his internship and residency. He has held faculty positions at Yale and the University of California San Francisco. Dr. Benz joined the Buck Institute in 2000 as a founding faculty member. He continues his oncology practice at UCSF's Carol Franc Buck Breast Care Center, and is a senior member of the UCSF Cancer Center's Breast Oncology Program. Dr. Benz is also the co-principal investigator of the Buck Institute-UCSC Genome Data Analysis Center, one of seven national centers in The Cancer Genome Atlas (TCGA) program. In this effort he works closely with distinguished UC Professor of Biomolecular Engineering, Dr. David Haussler, deciphering TCGA cancer genomes in order to move us closer to personalized cancer care. Both men appear in this video.

Dr. Benz recently spoke at a TEDx conference in Madagascar. The conference was sponsored by the Akbaraly Foundation, which fights against breast and gynecological cancers among women in the African nation.

The Benz lab was among the first to study why age is such an important determinant for the onset and development of breast cancer. In a search for personalized treatments targeted to each patient's individual breast cancer subtype, he explores the genetic and structural differences among different breast cancers. Using model breast cancer cell systems, Dr. Benz looks for these individual variations primarily in the two major pathways linked to breast cancer. In the activated pathway most commonly causing breast cancers after age 50, the tumor cells make excess amounts of the estrogen receptor (ER) protein. Breast cancer can also develop in women at any age via another activated pathway, caused by a genetic abnormality that results in excess production of the ErbB2/HER2 receptor protein. Both the ER and ErbB2/HER2 receptor pathways in breast tumors can vary from one patient to another. Over a decade ago Dr. Benz designed and developed a novel treatment that specifically targets ErbB2/HER2 activated breast cancers, and that therapeutic is finally entering clinical trials this year (MM-302; Merrimack Pharmaceuticals). Dr. Benz predicts that newly discovered differences in the ER and ErbB2/HER2 will yield many more novel therapeutics, and a variety of new companion diagnostics.

Mark Birch-Machin

Quote: «There is now a possibility of finding anti-ageing treatments which can be tailored to differently aged and differently pigmented skin, and with the additional possibility to address the ageing process elsewhere in our bodies.» - Mark Birch-Machin, 2016 https://www.eurekalert.org/pub_releases/2016-02/nu-sms022516.php

Title: Professor of Molecular Dermatology and Associate Dean, Newcastle University Institute of Cellular Medicine

Bio:

Mark Birch-Machin, Ph.D., is Professor of Molecular Dermatology and Associate Dean (Business Development and Commercial Interface) at the Newcastle University Institute of Cellular Medicine. Prof. Birch-Machin pursued his Post-Doctoral career at the University of Oregon (USA), INSERM Paris, University of Toronto as well as Clinical Neuroscience and Biochemistry, Newcastle University (1986-1995) where he held several academic positions in the Department of Dermatology (1996-current). During this time, he was elected Treasurer of the British Society of Investigative Dermatology (BSID) and co-editor of Experimental Dermatology. He advanced to the position of Professor of Molecular Dermatology at Newcastle University in 2005 and Associate Dean in 2014.

Prof. Birch-Machin's research group focuses on the response of human skin to ultraviolet radiation particularly within the context of skin ageing and cancer, particularly involving the role of mitochondria and has published extensively including 3 different Nature journals. He also has interest in understanding the role of mitochondrial DNA in UV-induced oxidative stress, cancer and the relationship between oxidative stress, nutritional status and skin aging as well as the science and use of sunscreens.

Elizabeth Blackburn

Quote: "Telomeres listen to you, they listen to your behaviors, they listen to your state of mind." - Blackburn suggesting that individuals have more control over their lives than may be perceived, 2017 https://www.statnews.com/2017/01/03/aging-control-telomere-effect/

Title: Nobel Laureate and Morris Herzstein Professor of Biology and Physiology, Department of Biochemistry and Biophysics, University of California San Francisco

Bio:

Born in Australia, Professor Blackburn earned her B.Sc. (1970) and M.Sc. (1972) degrees from the University of Melbourne, and her Ph.D. (1975) from the University of Cambridge in England. She did her postdoctoral work in Molecular and Cellular Biology at Yale University from 1975 to 1977.

In 1978, Professor Blackburn joined the faculty at the University of California Berkeley (UCB), in the Department of Molecular Biology. In 1990, she joined the Department of Microbiology and Immunology at UCSF, where she served as Department Chair from 1993 to 1999. Professor Blackburn is currently a faculty member in the Department of Biochemistry and Biophysics at UCSF. She is also a Non-Resident Fellow of the Salk Institute.

Professor Blackburn has won many prestigious awards throughout her career. She was elected Fellow of the American Academy of Arts and Sciences (1991) and the Royal Society of London (1992). She was elected Foreign Associate of the National Academy of Sciences (1993) and Member of the Institute of Medicine (2000). She served on the President's Council on Bioethics from 2002 to 2004, and has been awarded honorary degrees by 11 Universities. She received the Albert Lasker Medical Research Award for Basic Medical Research in 2006, and in 2007 was named one of TIME Magazine's 100 Most Influential People. In 2008 she was the North American Laureate for L'Oreal-UNESCO For Women in Science.

In 2009, Professor Blackburn was awarded the Nobel Prize in Physiology or Medicine.

Maria Blasco

Quote:
The next step that the CNIO Telomeres and Telomerase Group is already working on will be to «generate a new species of mice in which the telomeres of all the cells are twice as long as those in normal mice,» explain Blasco and Varela. «Then, we will be able to address some of the important questions that remain unanswered: would a mouse species with telomeres that are double in length live longer? Is this the mechanism that is used by nature to determine different longevities in genetically similar species? Would this new species present a higher or lower incidence of cancer?" - Maria Blasco 2016 https://www.sciencedaily.com/releases/2016/06/160602083248.htm

Title: Director, Centro Nacional de Investigaciones Oncológicas (Spanish National Cancer Research Centre)

Bio:

Maria A. Blasco (Alicante, 1965) obtained her PhD in 1993 for her research at the Centro de Biología Molecular «Severo Ochoa» under the supervision of M. Salas. That same year, Blasco joined the Cold Spring Harbor Laboratory in New York (USA) as a Postdoctoral Fellow under the leadership of C. W. Greider. In 1997 she returned to Spain to start her own research Group at the Centro Nacional de Biotecnología in Madrid. She joined the CNIO in 2003 as Director of the Molecular Oncology Programme and Leader of the Telomeres and Telomerase Group. In 2005 she was also assigned as Vice-Director of Basic Research and in 2011 she was appointed as CNIO Director.

David Botstein

Title: CSO, Google Calico

Bio:

David Botstein was educated at Harvard (A.B. 1963) and the University of Michigan (Ph.D. 1967). He joined the faculty of the Massachusetts Institute of Technology, rising through the ranks from instructor to professor of genetics. In 1987, he moved to Genentech, Inc. as vice president–science, and, in 1990, he joined Stanford University's School of Medicine, where he was chairman of the Department of Genetics. In July, 2003 he became director of the Lewis-Sigler Institute for Integrative Genomics and the Anthony B. Evnin '62 Professor of Genomics at Princeton University.

David's research has centered on genetics, especially the use of genetic methods to understand biological functions. His early work in bacterial genetics contributed to the discovery of transposable elements in bacteria and an understanding of their physical structures and genetic properties. In the early 1970s, he turned to budding yeast (Saccharomyces cerevisiae) and devised novel genetic methods to study the functions of the actin and tubulin cytoskeletons. In 1980, he began his theoretical contributions on linkage mapping of the human genome by suggesting, with collaborators, that restriction fragment length polymorphisms (RFLPs) could be used to produce a linkage map of the human genome and to map the genes that cause disease in humans. Linkage mapping of human disease genes became one of the foundations of the Human Genome Project. David also participated in the sequencing the genome of Saccharomyces cerevisiae, the first eukaryotic genome to be sequenced.

In the 1990s, David's research focused on the emerging science of genomics. With J. Michael Cherry, he founded the Saccharomyces Genome Database, which continues to be a major international resource that connects genomic sequences with biological functions; in this role he contributed to the founding of the Gene Ontology Consortium. With Patrick O. Brown, he contributed to the development of DNA microarray technology, notably analysis methods that connect gene expression data with the biological functions of genes. Together they adapted microarray technology to classify and study human tumors, resulting in discoveries of tumor subtypes with distinct biology and clinical consequences.
As director of the Lewis-Sigler Institute, David led a team of faculty to develop the innovative new Integrated Science Curriculum (ISC), where the basic ideas of physics, chemistry, computer science, and biology, along with the relevant mathematics, are taught together. David also directed one of the national Centers for Systems Biology established by the National Institute of General Medical Sciences (NIGMS). Under his leadership, a new graduate program, the Program in Quantitative and Computational Biology, was established, as well as the Lewis-Sigler Fellows program for early career scientists. David is now the chief scientific officer of Calico, a startup that aims to take innovative, interdisciplinary approaches toward anti-aging and increased lifespan.

Eric Le Bourg

Title: CNRS Researcher, University Paul-Sabatier (UT3, Toulouse, France),

Bio:

Eric Le Bourg is a French biogerontologist working mainly on Drosophila melanogaster. His research interests include learning, effects of mild stress, behavior, demography of human aging and so on. He obtained his “doctorat d’Etat” in 1990 and has published many papers in academic journals, edited books, newspapers, and so on. He has written four books on aging in the French language for the lay public (biology, demographic and social matters, and so on) and academics/students and edited three books, two of them with another editor.

Martin Bran

Title: Professor at the Buck Institute for Research on Aging

Bio:

Martin Brand is an authority on mitochondria, the energy-converting unit of cells and their influence on aging and disease. After receiving his PhD in Biochemistry at the University of Bristol in the UK, he was a postdoctoral fellow at Johns Hopkins University in Baltimore, Maryland, a faculty member at the University of Cambridge and then a group leader at the Medical Research Council. At Cambridge, he began collaborative studies with Buck faculty and joined the Buck Institute in 2008.

The Brand Lab is studying mitochondria, which extract energy from nutrients and distribute it to drive the machinery of life, in a process that also releases free radicals. Believed to be one of the primary actors in the aging process, free radicals are also implicated in numerous age-related diseases, including cancer, heart disease, stroke, and many neurological disorders. Dr. Brand's lab envisions treatments that would minimize the release of free radicals without inhibiting mitochondrial energy metabolism. His lab is collaborating with other Buck labs to evaluate the role of the mitochondria in aging and in such diseases of aging as cancer, diabetes, Parkinson's, Alzheimer's and Huntington's. This research has already opened up new potential drug targets for the control or treatment of these conditions.

Rachel Brem

Title: Ph.D., Associate Professor at the Buck Institute for Research on Aging

Bio:

Longevity, susceptibility to age-associated diseases, and many other attributes relevant for aging vary from one person to another. These differences are due in part to DNA sequence variants somewhere in our genomes—though exactly where is still a mystery in most cases. Worms, flies, and single-celled microbes can serve as powerful models for the study of the principles of genetic variation. Research in the Brem lab uses these model organisms to discover genetic changes that impact aging behaviors and other traits, as well as their evolutionary histories. The Brem lab approach uses large-scale analyses of thousands of genes at once, both computational and experimental, with ongoing work in the following areas:

The genetics of alternative polyadenylation. Most genes contain instructions for the production of a protein—a molecular machine that does work for the cell—including information that regulates the amount and timing of protein production. The regulatory sequence included at the end of a gene is defined by a process called polyadenylation. Cancer cells have dramatic changes in polyadenylation positions across the genomes, and in a few cases, other human diseases have been associated with naturally occurring genetic variants at gene ends. In general, how polyadenylation differs among genetically distinct individuals is almost completely unknown. The Brem lab is dissecting the genetic basis of naturally occurring variation in gene ends and its impact on protein production. The ultimate goal is to understand sequence signals that drive alternative polyadenylation in individual genes as well as the master regulatory factors that carry out processing at many gene ends in parallel. Current work involves cancer samples and wild single-celled brewers' yeast.

Natural variation in yeast and fly aging phenotypes. Longevity, and its dependence on diet, can vary dramatically between genetically distinct individuals and between species. In the vast majority of cases, the genetic basis of these differences is uncharacterized. The Brem lab is mapping genes that underlie naturally occurring differences in lifespan in two model organism systems: wild isolates of single-celled yeast cultured in different growth media, and wild-caught Drosophila flies reared on different food sources. The ultimate goal is to identify genes whose role in metabolism and aging is conserved between these simple organisms and humans.

Dr. Brem's Ph.D. thesis work was in the lab of Ken Dill at the University of California, San Francisco, where she developed computational methods to model the forces that drive protein molecules to assemble. As a postdoctoral fellow in the lab of Leonid Kruglyak at the Fred Hutchinson Cancer Research Center in Seattle, she pioneered large-scale experimental strategies to discover variants that underlie differences in gene regulation between genetically distinct individuals, using single-celled yeast as a model. She began her independent research career as an assistant professor at the University of California, Berkeley before joining the Buck Institute in 2014. She was a recipient of the Burroughs-Wellcome Career Award at the Scientific Interface and the Ellison Medical Foundation New Scholar Award in Aging.

William Burhans

Title: Associate Member at Roswell Park Cancer Institute

Bio:

William Burhans is working as an Associate Member in the Department of Molecular and Cellular Biology at Roswell Park Cancer Institute. His research interest include: Oncogenic activation of RAS, AKT and other growth signaling pathways induces reactive oxygen species (ROS) and DNA replication stress, both of which cause DNA damage and senescence at early stages of cancer. In cultured human cells, high concentrations of glucose that mimic the effects of hyperglycemia also activate AKT signaling and induce ROS, DNA damage and senescence. Chronic hyperglycemia associated with diabetes and high carbohydrate diets is a risk factor for cancer and likely contributes to aging in humans.

David Burke

Title: Professor, University of Michigan

Bio:

The Burke Laboratory research effort is concentrated in three main areas: (1) quantitative trait analysis of complex, multigenic traits in synthetic populations of the laboratory mouse, (2) the development of engineering systems for microfluidic analysis, and (3) low cost technology systems for health care delivery.

The first research area is a collaborative effort with other investigators at the University of Michigan to identify regions of the mouse genome correlated with inter-individual variation in complex adult phenotypes. Several phenotypic measures are examined in parallel, including body mass, T-cell populations, circulating hormones, bone structure, late-life hearing loss, and cancer incidence. We have identified gene locations associated with several late-life phenotypes, using a reproducible, genetically heterogeneous laboratory mouse «synthetic» population. The second project is a collaborative effort with Dr. Mark Burns (University of Michigan, Department of Chemical Engineering), and is developing a high-throughput DNA genotype analysis systems that can be provided to researchers and clinicians at low cost. The microfluidic devices: a) require human interaction only for initial loading of samples, b) provide consistent experimental processing and quality control, c) decrease sample processing time and human labor, d) reduce reagent costs by reducing the genotyping biochemistry to nanoliter volumes, and e) be fully controlled by integrated circuitry. The third area of work is a newly established cross-disciplinary research effort that will attempt to bring low cost technologies to clinics and clinical researchers. The focus is on developing advanced technologies that are readily manufactured, robust, and distributed.

Dale Bredesen

Title: CEO, Buck Institute for Research on Aging

Bio:

Dr. Bredesen is internationally recognized as an expert in the mechanisms of neurodegenerative diseases such as Alzheimer's disease. He graduated from Caltech, then earned his MD from Duke University Medical Center in Durham, NC. He served as Chief Resident in Neurology at the University of California, San Francisco (UCSF) before joining Nobel laureate Stanley Prusiner's laboratory at UCSF as an NIH Postdoctoral Fellow. He held faculty positions at UCSF, UCLA and the University of California, San Diego. Dr. Bredesen directed the Program on Aging at the Burnham Institute before coming to the Buck Institute in 1998 as its founding President and CEO.

The uniform failure of recent drug trials in Alzheimer's disease has highlighted the critical need for a more accurate understanding of the fundamental nature of Alzheimer's disease. Dr. Bredesen's research has led to new insight that explains the erosion of memory seen in Alzheimer's disease, and has opened the door to a new therapeutic approach. He has found evidence that Alzheimer's disease stems from an imbalance in nerve cell signaling: in the normal brain, specific signals foster nerve connections and memory making, while balancing signals support memory breaking, allowing irrelevant information to be forgotten. But in Alzheimer's disease, the balance of these opposing signals is disturbed, nerve connections are suppressed, and memories are lost. This model is contrary to popular dogma that Alzheimer's is a disease of toxicity, caused by the accumulation of sticky plaques in the brain. Bredesen believes the amyloid beta peptide, the source of the plaques, has a normal function in the brain — promoting signals that allow some of the nerve connections to lapse. Thus the increase in the peptide that occurs in Alzheimer's disease shifts the memory-making vs. memory-breaking balance in favor of memory loss. This work has led to the identification of several new therapeutic candidates that are currently in pre-clinical trials.

Dr. Bredesen's novel insights into the fundamental nature of Alzheimer's disease recently attracted an investment of $3.5 million toward a $10 million goal for initial clinical trials of these new therapeutics. This generous support came from the private venture capitalist Douglas Rosenberg, who is helping to fund the Alzheimer's Drug Discovery Network, centered at the Buck Institute. The unit is screening drug candidates to find those that can preserve a healthy balance in the signaling pathways that support memory. Dr. Bredesen's work on nerve cell signaling is also the focus of a collaboration between the Buck Institute and BioMarin Pharmaceuticals, Inc., which is seeking treatments for a rare form of Alzheimer's disease, early onset Familial Alzheimer's Disease (eFAD), which may develop in people as young as 30 years of age.

Anne Brunet

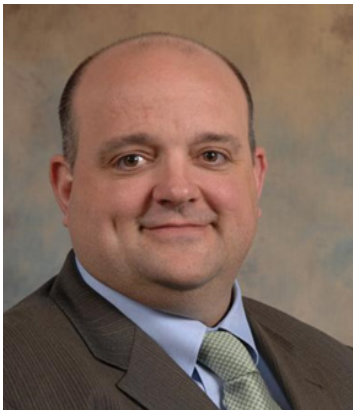
Quote: ""The range of life spans seen in nature is truly astonishing, and really we have very little insight into how this has evolved or how this works... By having the genome of this fish (the killfish) and comparing it to other species, we start seeing differences that could underlie life span differences both between species and also within a species." - Anne Brunet, 2015, https://med.stanford.edu/news/all-news/2015/12/killifish-project-explores-the-genetic-foundation-of-longevity.html

Title: Professor of Genetics, Stanford University

Bio:

Anne Brunet is a Professor of Genetics at Stanford University. At Stanford, she is also a member of Bio-X, the Cardiovascular Institute, the Cancer Institute, and the Neurosciences Institute. She has received numerous honors and awards throughout her career including the following: Glenn Award, The Glenn Foundation for Medical Research (2007); Alfred P. Sloan Fellow, Sloan Foundation (2006-2008); Klingenstein Fellow, The Esther A. and Joseph Klingenstein Fund (2005-2008); Innovation in Aging Research Award, Pfizer/American Association for Aging Research (2005-2007); Junior Investigator Award, California Institute for Regenerative Medicine (CIRM) (2008-2013); Senior Scholar Award, Ellison Medical Foundation (2009-2013). In 1992, Brunet received her B.Sc. from Ecole Normale Superieure, Paris, in Molecular Biology. In 1997, she received her Ph.D. from University of Nice, France, in Cell Biology (1997). In 2013, Brunet was a Postdoctoral fellow, Harvard Medical School in Neuroscience.

Rafael de Cabo



Title: Head of Aging, Metabolism, and Nutrition Unit, Laboratory of Experimental Gerontology

Bio:

After receiving his B.S. and M.S. from the University of Cordoba, Spain, Dr. de Cabo earned his Ph.D. in 2000 from the Department of Foods and Nutrition at Purdue University. Upon completion of his graduate education, he received a postdoctoral position in the Laboratory of Neurosciences at the National Institute on Aging in Baltimore, Maryland. In 2004, he was appointed as a tenure track investigator in the Laboratory of Experimental Gerontology, where he now heads the Aging, Metabolism, and Nutrition Unit (AMNU). The AMNU applies both physiological and tissue-specific molecular approaches to investigate effects of nutritional interventions on basic mechanisms of aging and age-related diseases. Research within his unit strives to identify protective mechanisms invoked by caloric restriction and to evaluate the consequences of dietary interventions on lifespan, pathology, and behavioral function. The AMNU balances the exploration of in vivo rodent, as well as in vitro, paradigms of caloric restriction. Dr. de Cabo is an active member of the Board of the American Aging Association.

Judith Campisi

Quote: "The challenge of keeping older adults healthy throughout their lifespan is going to break the budgets of many countries, that's why geroscience research is so important in extending healthspan." - Judith Campisi, 2015 http://healthspancampaign.org/2015/10/22/dr-judith-campisi-on-the-changes-in-aging-research/

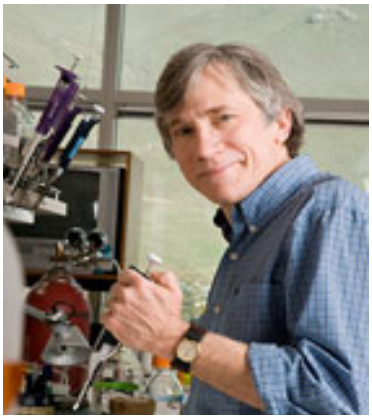
Title: Professor, Buck Institute for Research on Aging

Bio:

Judith Campisi has received international recognition for her contributions to understanding why age is the largest single risk factor for developing a panoply of diseases, ranging from neurodegeneration to cancer. Her highly acclaimed research integrates the genetic, environmental and evolutionary forces that result in aging and age-related diseases, and identifies pathways that can be modified to mitigate basic aging processes.

Dr. Campisi received a PhD in Biochemistry from the State University New York at Stony Brook and completed postdoctoral training at the Harvard Medical School. As an assistant professor at the Boston University Medical School, she became interested in the control of cellular senescence and its role in tumor suppression and aging. She joined the Lawrence Berkeley National Laboratory as a Senior Scientist in 1991. She established a second laboratory at the Buck Institute in 2002. At both institutions, she established a broad program to understand various aspects of aging, with an emphasis on the interface between cancer and aging. The Campisi laboratory has made several pioneering discoveries in these areas, and her research continues to challenge and alter existing paradigms. In recognition of the quality of her research and leadership in the field, she has received numerous awards, including two MERIT awards from the US National Institute on Aging, and awards from the AlliedSignal Corporation, Gerontological Society of America, American Federation for Aging Research, and, most recently, the Longevity prize from the IPSEN Foundation. She currently serves on numerous national and international editorial and advisory boards.

Richard Cawthon

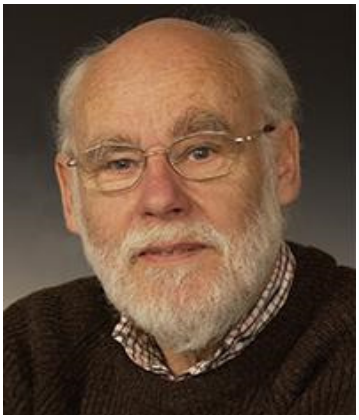


Title: Research Associate Professor, University of Utah

Bio:

A nutraceutical supplement called TA-65, already on the market, is purported to activate telomerase in hopes of producing similar effects. Its active ingredient is a root extract of Astragalus membranaceus, a plant often used in traditional Chinese medicine. In a 2010 study, adults averaging age 63 who took the supplement had proportionally fewer short telomeres after a year. Despite lacking a control group, «it was a good paper,» says Richard Cawthon, MD, PhD, a research associate professor of human genetics at the University of Utah whose innovations in telomere testing have helped spur a flurry of recent research. «But whether taking a telomerase activator will help humans stay healthy or live longer is not yet known.» In fact, it may be dangerous. Though the study found no adverse side effects, «I would be certain to be very safe about cancer risks,» Dr. Cawthon says. «If telomerase activators raise the risk of cancer [a theoretical but unproven possibility], then, in principle, a therapeutic regimen that combines telomerase activators and interventions to lower cancer risk may prove optimal for health and longevity.»

Brian Charlesworth



THE UNIVERSITY of EDINBURGH

Title: Professor at the University of Edinburgh'

Bio:

Brian Charlesworth has been at the forefront of evolutionary genetics research for the last four decades. Using theoretical ideas to design experiments and experimental data as a stimulant for the development of theory, Charlesworth investigates fundamental life processes. His work has contributed to improved understanding of molecular evolution and variation, the evolution of genetic and sexual systems, and the evolutionary genetics of life history traits. In 2010, Charlesworth retired from his faculty position as professor at the University of Edinburgh' Institute of Evolutionary Biology but actively continues to inspire students and conduct research.

George Church

Quote: “One of our biggest economic disasters right now is our aging population. If all those gray hairs could go back to work and feel healthy and young, then we’ve averted one of the greatest economic disasters in history.”
“[Imagine] a scenario [in which] everyone takes gene therapy—not just curing rare diseases like cystic fibrosis, but diseases that everyone has, like aging.” - George Church, Washington Post 2015

Title: Professor of Genetics, Harvard

Bio:

George Church is Professor at Harvard and MIT, co-author of 425 papers, 95 patent publications and the book Regenesis. He developed methods used for the first genome sequence (1994) and genome recoding and million-fold cost reductions since. He co-initiated the BRAIN Initiative (2011) and Genome Projects (1984, 2005) to provide and interpret the world’s only open-access personal precision medicine datasets.

George Church is Professor of Genetics at Harvard Medical School and Director of PersonalGenomes.org, which provides the world’s only open-access information on human Genomic, Environmental and Trait data (GET). His 1984 Harvard PhD included the first methods for direct genome sequencing, molecular multiplexing and barcoding. These led to the first genome sequence (pathogen, Helicobacter pylori) in 1994 . His innovations have contributed to nearly all «next generation» DNA sequencing methods and companies (CGI-BGI, Life, Illumina, Nanopore). This plus his lab’s work on chip-DNA-synthesis, gene editing and stem cell engineering resulted in founding additional application-based companies spanning fields of medical diagnostics (Knome/PierianDx, Alacris, AbVitro/Juno, Genos, Veritas Genetics) and synthetic biology / therapeutics (Joule, Gen9, Editas, Egenesis, enEvolv,WarpDrive). He has also pioneered new privacy, biosafety, ELSI, environmental and biosecurity policies. He is director of an IARPA BRAIN Project and NIH Center for Excellence in Genomic Science. His honors include election to NAS and NAE and Franklin Bower Laureate for Achievement in Science. He has coauthored 425 papers, 95 patent publications and one book (Regenesis).

Jose Cibelli

Title: Professor of Animal Biotechnology at Michigan State University

Bio:

Dr. Jose Cibelli is internationally recognized as one of the pioneers in the area of cellular reprogramming using oocyte-driven protocols. Dr. Cibelli together with his colleagues, were responsible for the generation of the world's first transgenic cloned calves, the first stem cells by nuclear transfer in bovine, the first embryonic stem cells by parthenogenesis in primates and the generation of the first line of iPSCs using oocyte factors alone. His work has been published un numerous scientific journals including Science, Nature Biotechnology, Nature Medicine, Nature Methods, PNAS and JAMA. He has testified about his work in public forums sponsored by the US Food and Drug administration, the USA National Academy of Sciences, Canadian House of Commons, the USA Department of Agriculture, the United Nations Commission for Human Rights and the British Royal Society.

Irina Conboy

Quote: "«Aging is a synonym with diseases... When we are young, we don't have these diseases. But when we are old, it doesn't matter what background or gender or culture, we all have them. If we can better understand the aging process, then we don't need to have different hospitals, departments, and institutes that deal with each disease.» - Irina Conboy, 2015 https://motherboard.vice.com/en_us/article/engineering-the-end-of-aging

Title: Associate Professor in Bioengineering, University of California, Berkeley
Institution

Bio:

Irina Conboy's education includes a PhD from Stanford University in Molecular and Cellular Immunology (1998). Professional experience throughout her career includes the following: 2006-present Reviewer for CIRM Training Grant Program at UC Berkeley; 2006-2007 Faculty Mentor of CIRM training grant T1-00007; 2005-Present Faculty Mentor for UC Berkeley Chapter of Student Society for Stem Cell Research; 2004-present Assistant Professor of Bioengineering and QB3 Investigator, UC Berkeley; 1999-2004 Postdoc and Instructor, Neurology, Stanford University School of Medicine.

Antonei Csoka

Title: Director in Epigenetics Laboratory, Howard University, Washington DC, USA

Bio:

Antonei B. Csoka, Ph.D. is an Assistant Professor in the Department of Anatomy at Howard University, Washington DC, where he directs the Epigenetics Laboratory. Dr. Csoka received his B.S. in Genetics from the University of Newcastle, U.K., his M.S. in Molecular Pathology from the University of Leicester, U.K., and his Ph.D. in Cell and Molecular Biology from the University of Debrecen, Hungary. He performed postdoctoral research at the University of California, San Francisco, where he cloned the human hyaluronidase genes, which are involved in fertilization, embryonic development, and cancer. As a postdoctoral research associate at Brown University, Dr. Csoka was a member of team that identified the causative gene for Hutchinson-Gilford Progeria Syndrome (Progeria), a disease with many features of “accelerated aging.” The identification of the gene for Progeria is providing many insights into the mechanisms of normal aging. At Howard, Dr. Csoka is developing animal models of progeria, studying the role of cellular senescence in human aging, and investigating the potential of stem cells, cellular reprogramming and epigenetic rejuv enation for the treatment of age-related diseases

Ana Maria Cuervo

Title: Co-director of the Einstein Institute for Aging Research, Israel

Bio:

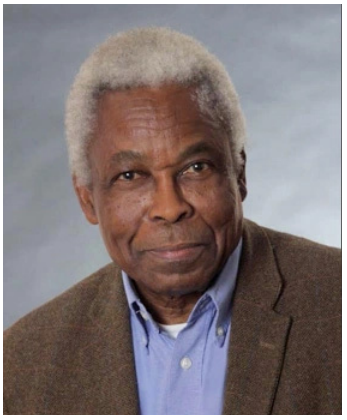
Dr. Cuervo is co-director of the Einstein Institute for Aging Research, and a member of the Einstein Liver Research Center and Cancer Center. In 2001 she started her laboratory at Einstein, where she studies the role of protein-degradation in aging and age-related disorders, with emphasis in neurodegeneration and metabolic disorders.

Dr. Cuervo's group is interested in understanding how altered proteins can be eliminated from the cells and their components recycled. Her group has linked alterations in lysosomal protein degradation (autophagy) with different neurodegenerative diseases including Parkinson's, Alzheimer's and Huntington's disease. They have also proven that restoration of normal lysosomal function prevents accumulation of damaged proteins with age, demonstrating this way that removal of these toxic products is possible. Her lab has also pionered studies demonstrating a tight link between autophagy and cellular metabolism. They described how autophagy coordinates glucose and lipid metabolism and how failure of different autophagic pathways with age contribute to important metabolic disorders such as diabetes or obesity.

Dr. Cuervo is considered a leader in the field of protein degradation in relation to biology of aging and has been invited to present her work in numerous national and international institutions, including name lectures as the Robert R. Konh Memorial Lecture, the NIH Director's, the Roy Walford, the Feodor Lynen, the Margaret Pittman, the IUBMB Award, the David H. Murdoxk, the Gerry Aurbach and the Harvey Society Lecture. She has organized and chaired international conferences on protein degradation and on aging, belongs to the editorial board of scientific journals in this topic, and is currently co-editor-in-chief of Aging Cell.

Dr. Cuervo has served in NIH advisory panels, special emphasis panels, and study sections, the NIA Scientific Council and the NIH Council of Councils and has been recently elected member of the NIA Board of Scientific Counselors. She has been elected member to the Royal Academy of Sciences of Spain and has received numerous awards for the pioneerign work of her team such as the 2005 P. Benson Award in Cell Biology, the 2005/8 Keith Porter Fellow in Cell Biology, the 2006 Nathan Shock Memorial Lecture Award, the 2008 Vincent Cristofalo Rising Start in Aging Award, the 2010 Bennett J. Cohen Award in Aging Biology, the 2012 Marshall S. Horwitz, MD Faculty Prize for Research Excellence and the 2015 Saul Korey Prize in Translational Medicine Science.

Lloyd Demetrius



Title: Scientist at Department of Organismic and Evolutionary biology, Harvard University, USA and Max Planck Institute for Molecular Genetics at Berlin, Germany

Bio:

Lloyd A. Demetrius is a mathematician and theoretical biologist at the Max Planck Institute for Molecular Genetics at Berlin, Germany, and the Department of Organismic and Evolutionary biology, Harvard University. He is best known for the discovery of the concept, evolutionary entropy, a statistical parameter that characterizes Darwinian fitness in models of evolutionary processes at various levels of biological organization - molecular, organismic and cultural. Evolutionary entropy, an analogue of the Gibbs entropy in statistical physics, is the cornerstone of directionality theory, an analytical study of evolution by variation and selection. The theory has applications to: a) the development of aging and the evolution of longevity; b) the origin and progression of age related diseases such as cancer, and neurodegenerative disorders such as Alzheimer's disease and Parkinson's disease; c) the evolution of cooperation and the spread of inequality

Jan van Deursen

Title: Lab Director, Department of Pediatric and Adolescent Medicine at Mayo Clinic

Bio:

Jan van Deursen, Ph.D., received his Bachelor of Science in biology from the University of Nijmegen in the Netherlands, and continued at that institution to earn his master's degree and doctorate in molecular and cellular biology.

In 1994, Dr. van Deursen started his independent research career as a faculty member at the St. Jude Children's Research Hospital in Memphis, Tennessee. During the next five years, he conducted research in his laboratory, elucidating the mechanisms that underlie nuclear-cytoplasmic transport and how regulation of this process contributes to leukemia. He also developed a mouse gene knockout core facility.

In 1999, Dr. van Deursen was recruited to the Department of Pediatric and Adolescent Medicine at Mayo Clinic, where he again developed and continues to direct an effective mouse gene knockout core facility. His research program investigates far-ranging topics such as the role of aneuploidy in development of cancer and the molecular mechanisms that contribute to aging. His work has been published in top journals, including Nature, Science and Cell, and is widely cited.

One of Dr. van Deursen's notable discoveries originated from work published in 2004, when his group generated a new mouse strain defective in chromosome replication due to reduced cellular levels of the spindle assembly checkpoint protein BubR1. Dr. van Deursen's lab found that these mice aged much more quickly than normal, dying of old age before they were one year old. Normal mice live 2.5 to three years.

In studying these mice, Dr. van Deursen's lab discovered that the animals showed rapid development of prematurely senescent cells — that is, cells that had turned on the p16 cell cycle inhibitor gene (INK4A), which made them stop dividing and begin to secrete inflammatory cytokines. To determine whether the senescent cells were not just indicators that the mice were aging rapidly but might actually be causing the rapid aging, fast-aging mice were crossed to mice that lacked the p16 gene.

The lab found that the cross-bred mice no longer suffered from the rapid development of age-associated syndromes, including poor vision from cataracts and loss of muscle and fat. This finding verified the hypothesis that the relatively rare senescent cells in tissues were somehow causing the surrounding normal cells to decay and develop problems associated with old age.

Next, in collaboration with the research group of James L. Kirkland, M.D., Ph.D., Dr. van Deursen's lab developed a different strategy to specifically remove the problematic senescent cells from mice. They generated a special transgenic strain of mice that would delete senescent cells if they were exposed to a specific drug. Dr. van Deursen's and Dr. Kirkland's labs found that this treatment not only removed the senescent cells but also prevented the rapid aging in these mice.

The team's work was published in Nature in November 2011 and captured the imagination of many in the scientific community as well as the public. Here, for the first time, was a clear demonstration of an intervention that dramatically delayed the deleterious effects of aging on multiple organs in a mouse model, in a way that, at least conceptually, could eventually be applied to humans.

In addition to generating a large number of exciting new projects in Dr. van Deursen's laboratory, this discovery has also prompted other scientists to begin studying the role of p16 and cellular senescence in mouse and human aging. As a concrete demonstration of the importance of this discovery, the journal Science selected the lab's Nature paper as one of the top 10 discoveries of the year in 2011. In addition to Dr. van Deursen's scientific accomplishments, he is very active as an educator, having mentored more than 60 students, residents, postdoctoral fellows and junior faculty members. He has a strong commitment to supporting the successful careers of young upcoming scientists.

Dr. van Deursen has been recognized by numerous awards. He is the Vita Valley Professor of Cellular Senescence and was Mayo Clinic Investigator of the Year for 2012. He hopes that one day centenarians will be qualifying for the Boston Marathon.

Andrew Dillin

Quote: «It is ... looking increasingly likely that pharmacological manipulation of these ... pathways could form the basis of new preventative medicines for diseases aging, and aging itself." - Andrew Dillin, 2010 http://www.reuters.com/article/us-ageing-disease-idUSTRE64I6HV20100520

Title:

University of California, Berkeley
Thomas and Stacey Siebel Distinguished Chair in Stem Cell Research
Howard Hughes Medical Investigator
Professor, Department of Molecular and Cell Biology

Bio:

Andrew Dillin is a Howard Hughes Medical Investigator and the Thomas and Stacey Siebel Distinguished Chair in Stem Cell Research at the Department of Molecular and Cell Biology at Berkeley . His lab studies the loss of protein homeostasis in aging, particularly in C. elegans.

His lab specifically looks at the manipulation of stress response pathways within a single cell type or subcomponents within specific cell types. In particular, his lab found a cell non-autonomous mitochondrial stress response that can be transmitted to very distal cells.

Larry Donehower

Title: Professor, Baylor College of Medicine

Bio:

Lawrence A. Donehower, Ph.D., received the award for his research on the function of a gene, p53, that is critical for protecting humans from early cancers. Dr. Donehower generated mice with an altered p53 tumor suppressor gene that confers cancer resistance and accelerated aging. This p53 mutant mouse suggests that not only is the p53 gene important in preventing cancers, but that it may also play a major role in influencing the aging process. Thus, cancer protection can be augmented but perhaps at the risk of accelerating various aspects of aging. Dr. Donehower is now studying these p53 mutant mice to better understand the molecular, cellular, and hormonal bases of normal aging processes.

Monica Driscoll

Title: Professor, Dept.of Molecular Biology and Biochemistry. Rutgers University

Bio:

Professor Monica Driscoll, is interested in developmental neurogenetics, molecular genetics of neuronal cell death, mechanosensory transduction in touch and feeling, molecular mechanisms of aging. One of the looming mysteries in signal transduction is the question of how mechanical signals such as pressure or force delivered to a cell are interpreted to direct biological responses. A long-standing problem in the mechanotransduction field has been that genes encoding mechanically-gated channels eluded cloning efforts resulting in a large gap in our understanding of their function. A new family of ion channels (the degenerin channels) are hypothesized to function as the central mediators of touch transduction and proprioception (how the body maintains coordinated movement) in C. elegans. Her lab combines genetic molecular and electrophysiological approaches to determine and compare the composition/regulation of mechanosensitive complexes in an effort to contribute to the understanding of the function of this newly discovered channel class.

Lisa Ellerby

Title: PhD, Professor at the Buck Institute for Research on Aging

Bio:

Dr. Ellerby is an expert on cell death in neurodegenerative disorders such as Huntington's disease, a progressive inherited disorder that attacks both motor coordination and thinking ability. Dr. Ellerby and her Buck colleague Dr. Robert Hughes recently discovered a new lead to potential drug therapies for Huntington's disease by focusing on a mysterious protein linked to the illness, the huntingtin protein (Htt). Huntington's disease stems from a gene mutation that produces an abnormal form of the huntingtin protein, which breaks down into toxic fragments. These fragments accumulate in neurons, which malfunction and eventually die. Dr. Ellerby and her team identified a set of enzymes that help split up Htt into fragments, and whose activity contributed to nerve toxicity. In a novel discovery, the lab found this harmful activity in a class of enzymes already implicated in stroke, cancer, and other disorders. Drug researchers have already developed experimental compounds to inhibit these enzymes, called the matrix metalloproteinases (MMPs). Dr. Ellerby's work suggests that inhibiting the MMPs may lessen symptoms of Huntington's disease and prevent nerve cell death. In a 2010 article about this research, Dr. Ellerby was one of the lead authors of the cover story in the prestigious scientific journal Neuron.

The Ellerby lab is also exploring possible methods to stimulate the growth of new nerve cells to replace those lost in Huntington's disease sufferers.

Dr. Ellerby received her PhD in Chemistry from the University of California, Santa Cruz. She took postdoctoral training in the Department of Biochemistry and Chemistry at the University of California, Los Angeles. She was a Senior Research Associate in Neurodegenerative Disease and Apoptosis and a Co-Investigator with the Program on Aging at the Burnham Institute in La Jolla, CA before she joined the Buck Institute in 2000.

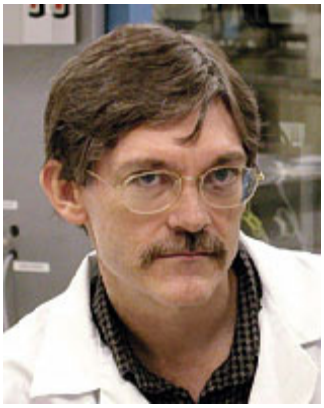
Preston Estep

Title: Director of Gerontology at Harvard Medical School
Co-founder and Chief Scientific Officer of Veritas Genetics

Bio:

Preston Estep, Ph.D. is Director of Gerontology and manages genome sequencing as part of the senior management team of the PGP at Harvard Medical School. He is also a co-founder and Chief Scientific Officer of Veritas Genetics, the company that first broke the $1000 barrier for whole genome sequencing and interpretation. He is a co-founder and adviser to multiple startup companies and non-profit organizations. Dr. Estep is Chairman of the Mind First Foundation, which he co-founded with thought leaders at Harvard Medical School and in the healthcare industry. The foundation is dedicated to scientific mind research and the development of better diagnoses and therapies for braindisorders. In 2016 Dr. Estep published The Mindspan Diet, a comprehensive synthesis of scientific evidence on the causes of Alzheimer's disease and cognitive decline.

Gregory Fahy



Title: Vice President and Chief Scientific Officer at Twenty-First Century Medicine
Editor-in-Chief of «*The Future of Aging: Pathways to Human Life Extension*»

Bio:

Greg earned his B.S. from the University of California at Irvine in 1972 and his Ph.D. from the Medical College of Georgia in 1977 for work on basic aspects of cryobiology. He spent the next 18 years developing methods for preserving whole organs at cryogenic temperatures at the American Red Cross in Maryland. In 1980, he conceived of preserving organs by vitrification. He published the first proof of principle of this concept in Nature in 1985 using mouse embryos as a model system, an event that led to the wide use of vitrification in academic and commercial animal husbandry as well as in human assisted reproduction

In 1995, he won the Grand Prize for Medicine from INPEX for his invention of the first effective computer-operated equipment for perfusing organs with cryoprotective agents. The same year, he left the Red Cross to become Chief Scientist of two biotechnology companies and the Head of the Tissue Cryopreservation Section of the Transfusion and Cryopreservation Research Program at the Naval Medical Research Institute in Bethesda, Maryland. In 1998 he became the Chief Scientific Officer and Vice President of 21st Century Medicine, where he invented several new principles in cryopreservation that have been extraordinarily effective in practical applications ranging from tissues to whole organs.

Greg's efforts have recently raised the question of whether human suspended animation might be an attainable goal that might allow the human species to survive in deep time as a result of enabling migration from the earth to other habitats in the cosmos.

Greg is a sought-after speaker and problem-solver. He is on the Board of Directors of several organizations concerned with cryopreservation or aging, serves on the Editorial Board of Cell Preservation Technologyand of Rejuvenation Research, and has served as a reviewer for numerous journals and granting bodies. He has over 20 patents in fields related to cryopreservation, aging, transplantation, metabolic protection, and the reversal of autoimmunity and immunosenescence, and has many publications in the fields of cryobiology, aging, and nanotechnology.

Richard Faragher

University of Brighton

Title: Professor of Biogerontology at the University of Brighton

Bio:

Richard Faragher is Professor of Biogerontology at the University of Brighton and is past Chair of both the British Society for Research on Ageing and the International Association of Biomedical Gerontology. He is the first British citizen to be elected to the Board of Directors of the American Federation for Aging Research (AFAR), the leading US non-profit organisation supporting and advancing healthy aging through biomedical research.

His primary research interest is in uncovering the causal mechanisms driving the human ageing process and in translating that knowledge into effective interventions which will improve the wellbeing of older people. His particular interest is the phenotype of “senescent” cells. These are cells which can no longer divide, frequently as a result of tissue turnover through life, and which accumulate in mammalian tissue. It has been shown that the deletion of these cells in animal models improves multiple markers of health, opening radical prospects for the improvement of human health in the future.

In July 2016, Richard received the highest honour of the British Society for Research on Ageing (BSRA) - the Lord Cohen of Birkenhead Medal for services to gerontology. The BSRA is the oldest scientific society in the world devoted to researching the biology of ageing.

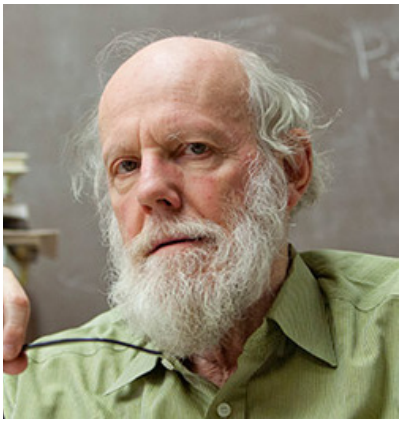
Miguel Ferreira

Title: Professor at Instituto Gulbenkian de Ciência

Bio:

Miguel Ferreira have expertise in telomere biology, DNA repair both in fission yeast and zebrafish. His research focused on the molecular mechanisms of cell division and how damaged DNA (stemming DNA replication and telomeres) signals to block cell division in normal cells and how this process is deregulated in cancer cells. This work resulted in a series of studies in chromosome biology and DNA repair (Ferreira et al. Mol Cell Biol 1999; Ferreira & Cooper Mol Cell, 2001; Ferreira & Cooper Genes & Dev, 2004). Since 2006, as an independent group leader, he focused on the molecular mechanisms underlying genome protection and their consequences (Carneiro et al. Nature 2010; Reis et al. EMBO J 2012; Avelar et al. Nat Comm 2013; Hentges et al. CellReports 2014). ~ In 2009, he decided to incorporate cancer research in our laboratory. Two events impelled him to take on this challenge using zebrafish as a model system: 1- the advent of zebrafish as a cancer model and 2- they showed that zebrafish telomerase mutants anticipate spontaneous cancer to early age similar to further old age phenotypes (Henriques et al. PLoS Genetics 2013; Carneiro et al. PLoS Genetics 2016). His goal is to use the knowledge acquired on the molecular nature of telomere protection to understand the consequences of its failure at the organism level. Their base hypothesis implies that telomere dysfunction signals a cascade of events that triggers cellular senescence and organism aging (described in Henriques & Ferreira Curr Opion in Cell Biology 2012). He plans to test this idea by manipulating telomere dysfunction (in a time- and tissue-specific manner), using transgenic zebrafish. His vision is that enabling timely telomere protection in a few key tissues will enhance organism tissue regeneration and, as a consequence, reduce the frequency of age-associated diseases, namely, cancer.

Caleb Finch



Quote: "We are born dying." - Caleb Finch, 2016 https://www.sciencenews.org/article/brain-blueprint-aging-set-early-life?mode=magazineandcontext=192078

Title: ARCO/William F. Kieschnick Professor in the Neurobiology of Aging and University Professor, USC Leonard Davis School of Gerontology

Bio:

Caleb Ellicott Finch (born July 4, 1939) is a professor at the University of Southern California's Leonard Davis School of Gerontology who studies aging in humans, with expertise in cell biology and Alzheimer's disease.

He was the founding Director of USC's NIH funded Alzheimer Disease Research Center in 1984, and is currently co-Director. In 1989, the university made him one of its twelve «University Distinguished Professors». He is a full professor in Gerontology and Biological Sciences, and an adjunct professor in departments of Anthropology, Psychology, Physiology, and Neurology. He was the Chair of the National Research Council Committee on Biodemography of Aging. He is co-author of 520 scientific papers and four books, most recently The Biology of Human Longevity (Academic Press, 2007). He currently serves on the Scientific Advisory Board for Cure Alzheimer's Fund.

Finch and his colleague at the USC Davis School of Gerontology Eileen Crimmins have developed a unique interdisciplinary upper division course (Health, Stress, and Aging), which combines biomedical, demographic, and psychosocial perspectives of the human lifespan.

Toren Finkel

Title: Director of the University of Pittsburgh Aging Institute

Bio:

Toren Finkel, MD, PhD, a physician-scientist renowned for his research on the basic science of aging, has been named Director of the UPMC-University of Pittsburgh Aging Institute and a Professor of Medicine in the Pitt Department of Medicine's Division of Cardiology.

Currently, Finkel is Chief of the Center for Molecular Medicine in the National Heart, Lung, and Blood Institute (NHLBI). He will begin his position in Pittsburgh later this summer.

After earning a bachelor's degree in physics from the University of Maryland, Finkel obtained his MD and PhD degrees from Harvard Medical School in 1986. He completed residency training in internal medicine at Massachusetts General Hospital in Boston, and followed it with a fellowship in cardiology at Johns Hopkins Medical School.

Finkel began his 25-year career with the National Institutes of Health in 1992 when he joined the National Heart, Lung, and Blood Institute as an investigator in its Cardiology Branch. He eventually became Chief of that branch, and later, chief of the NHLBI's Translational Medicine Branch.

His lab's research focuses on the role of cellular metabolism and oxidative stress in aging and age-related diseases. In his new role at the Aging Institute, Finkel will direct and support research to identify signaling pathways and therapies that target the process of aging.

He is the author or coauthor of more than 200 publications. According to Google Scholar, Finkel ranks as the 12th most highly cited author in aging and the 11th most cited in cardiovascular disease. Among his many recognitions is his 2013 induction as a Fellow of the American Association for the Advancement of Science.

Michael Fossel

Quote: "«Ageing is dynamic, not static. Never mind the low-hanging fruit. [...] Go for the important one! The reason to [reverse aging] is not to double somebody's lifespan. The reason to do this is because people out there are hurting. They are frightened. They are terrified by the things that happen to them when they get disease. The reason to do this is because we are human and we should be working at this. It's not playing God, it is working at being human. It's compassion. It's not a matter of living longer, it is a matter of making people healthy again.» - Michael Fossel, 2014 https://www.fightaging.org/archives/2014/11/an-interview-with-michael-fossel/

Title: Founder/President, Telocyte

Bio:

Michael Fossel graduated cum laude from Phillips Exeter Academy, received a joint BA and MA in psychology in four years from Wesleyan University in Connecticut, and, after completing a PhD in neurobiology at Stanford University in 1978, went on to finish his MD at Stanford Medical School in two and a half years. He was awarded a National Science Foundation Fellowship and taught at Stanford University, where he began studying aging, emphasizing premature aging syndromes. Dr. Fossel was a Clinical Professor of Medicine at Michigan State University for almost three decades and taught the Biology of Aging at Grand Valley State University.

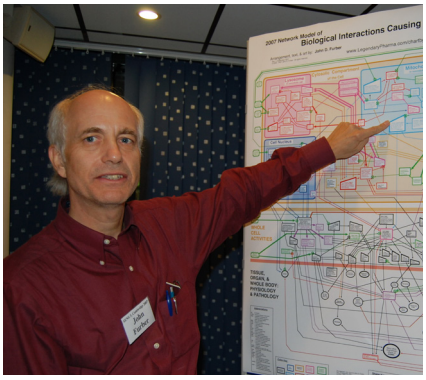
He has personal experience with a number of biotech companies, both as an inside or angel investor (Geron, Sierra Sciences), an advisor (Geron, Sierra Sciences, Phoenix Biomolecular, Betterhumans, Androcyte, PhysioAge, BioViva), and an executive (Cerner, Double Helix). He is the medical advisor for the Dementia Society of America, and has been a member of numerous scientific organizations including the American Association for the Advancement of Science, the American Aging Association, the American Gerontological Society, the American Society on Aging, the American Geriatrics Society, and the Alzheimer's Association ISTAART, among others.

He has lectured at the National Institute for Health and the Smithsonian Institute, and still lectures at universities, institutes, and conferences internationally. He is frequently interviewed regarding aging by major media in the US and worldwide. He was founding editor of Rejuvenation Research.

John D. Furber

LEGENDARY PHARMACEUTICALS

www.LegendaryPharma.com



Title: CEO/Founder of Legendary Pharmaceuticals

Bio:

John D. Furber is the CEO and founder of Legendary Pharmaceuticals. He is an entrepreneur and scientist who has been studying the biology of aging and regeneration for more than 20 years. He earned a Bachelor of Arts degree in Physics and Mathematics from the University of California at Santa Cruz in 1975, and a Master of Science degree in Biological Sciences from the University of California at Irvine in 1990. Between degrees, he served the United States Congress as a Technology Policy Analyst in the Congressional Office of Technology Assessment.

Mr. Furber was a principal in starting five companies during the 1980s and 90s. Currently, he is running a biotechnology company, Legendary Pharmaceuticals, which is engaged in the discovery of pharmaceutical drugs and gene therapies able to repair and reverse accumulating molecular damage to subcellular mitochondria, lysosomes, nuclei, and extracellular proteins in order to prevent and treat serious, late-onset diseases commonly associated with aging. Legendary Pharmaceuticals is a privately-held small business.

Teaching: During the 1990's, he taught Human Biology at Skyline College, near San Francisco, and taught Management Decision Making at Menlo College, near Stanford. During the 1980's he taught Biology laboratory courses at the University of Kentucky and the University of California. He also started and ran a successful private tutoring service during the 1990's, which helped many students to learn Physics, Mathematics, Statistics, Chemistry, Biology, and Computers. Currently, he frequently lectures on topics related to analyzing the Systems Biology of Aging to find effective therapeutic targets to prevent or treat diseases of aging.

Early career: Mr. Furber served four years on Capitol Hill at the Office of Technology Assessment of the United States Congress. In 1979, he joined Solar Electric International, which set up photovoltaic-powered irrigation systems for World Bank projects in developing countries. He also started Pleasant Valley Software Corporation (1984) with a consortium of investors from Europe, India, Canada, and the US.

Laboratory training: In the mid-1980's he changed careers and began graduate school to study the biology of aging and regeneration, first at the University of Kentucky, and then at UC Irvine. During graduate school, his studies emphasized Developmental and Molecular Biology.

Currently, at Legendary Pharmaceuticals, he is engaged in pharmacological research involving therapeutic target identification, screening and optimizing candidate therapies, organic synthesis, purification, and testing, as well as ensuring regulatory compliance.
International: Mr. Furber has made multiple trips to Europe, China, India, the Middle East, Southeast Asia, Africa, and the Caribbean to consult, lecture, and study. These have given him an appreciation of other cultures, and advanced possibilities for foreign collaborations.

Professional affiliation: His professional memberships include:

- American Aging Association (former Vice President & Board of Directors)
- Gerontological Society of America
- International Aging Research Portfolio (IARP) (Scientific Advisory Board)
- Aging Intervention Foundation (Scientific Advisory Board)
- Alzheimer Research Forum
- Federation of American Scientists
- The Lifeboat Foundation (Advisory Board)
- Mitochondria Interest Group at the U.S. National Institutes of Health.
- Oxygen Club of California

He is a frequent contributor at meetings in the fields of aging, mitochondria, autophagy, and oxidative stress. He served on the Board of Directors of the American Aging Association from 2000 to 2011, and was Vice President in 2008-2009.

John has created several web pages which provide useful links for researchers and the lay public interested in Aging, Nutrition, Bioinformatics, Genomics, and Molecular Cell Biology. For further details, please see http://www.LegendaryPharma.com/jdf/.

Vadim Fraifeld

Title: Senior Researcher, Ben-Gurion University of the Negev, Israel.

Bio:

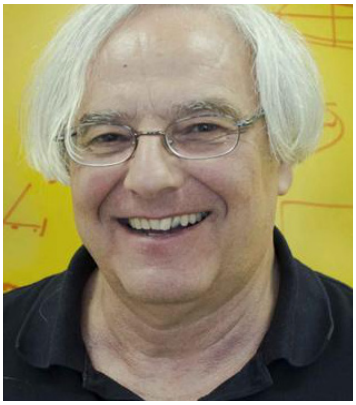
Vadim Fraifeld, Ph.D., M.D. is Senior Researcher, Department of Microbiology and Immunology, Center for Multidisciplinary Research in Aging, Ben-Gurion University of the Negev, Beer-Sheva, Israel.

Vadim's research interests are biology of aging and longevity and thermoregulation. His research projects are genomic and proteomic analyses of exeptional longevity, analysis of protein profile in aging muscle using MALDI-TOF mass spectrometry: implications in sarcopenia, mechanisms of anti-tumor activity of polyphenolic compounds, and alternative pathways of arachidonate metabolism, fever, and aging.

He coauthored Evidence supporting involvement of leukotrienes in LPS-induced hypothermia in mice, p66ShcA and aging: modulation by longevity-promoting agent aurintricarboxylic acid, Superoxide dismutase, catalase and glutathione peroxidase activities in the liver of young and old mice: linear regression and correlation, Dietary restriction modifies fever response in aging rats, Glutathione S-transferase hGSTM3 and ageing-associated neurodegeneration: relationship to Alzheimer's disease, Mitochondrial Genome Anatomy and Species-Specific Lifespan, and From Disease-Oriented to Aging/Longevity-Oriented Studies.

Vadim earned his M.D. at the Lvov Medical Institute, Lvov, Ukraine in 1974 and his Ph.D. at the Institute of Gerontology, Kiev, Ukraine, in 1989. Watch his SENS 3 presentation Do mitochondrial DNA and metabolic rate complement each other in determination of the mammalian maximal life span?

Claudio Franceschi



Quote: "Within this perspective, healthy aging and longevity are likely the result not only of a lower propensity to mount inflammatory responses but also of efficient anti-inflammatory networks, which in normal aging fail to fully neutralize the inflammatory processes consequent to the lifelong antigenic burden and exposure to damaging agents. Such a global imbalance can be a major driving force for frailty and common age-related pathologies, and should be addressed and studied within an evolutionary-based systems biology perspective." - Claudio Franceschi, 2007 http://www.sciencedirect.com/science/article/pii/S0047637406002491

Title: Full Professor of Immunology, School of Medicine, University of Bologna

Bio:

Prof. Claudio Franceschi (M) is Full Professor of Immunology at the School of Medicine where he leads the LoI. He is the founder and Director of Interdepartmental Center "L. Galvani" for studies on Bioinformatics and Biocomplexity and former Scientific Director of the Italian National Research Center on Aging, INRCA, Ancona, Italy, the largest Italian Institution of the Ministry of Health on research and care of the elderly (1,500 employees, 300 researchers and MD). He has published more than 550 papers in peer-reviewed journals (h-index = 80, 26,413 citations; h-index in the last 10 years = 48, 11,015 citations). He coordinates the large EU projects GEHA (GEnetics of Healthy Ageing, 204-2010) and NU-AGE (Nutrition and Ageing, 2011-2016) and is a partner in (MARK-AGE, biomarkers of ageing, 2008-2013; MYOAGE, sarcopenia, 2009-2013; IDEAL, epigenetics and ageing, 2010-2015; MISSION T2D immune system model of type 2 diabetes, 2013-2016). He is a member of the editorial board of several journals (Aging Res Review, Aging, Exp Gerontology, Mechanisms of Ageing and Development). He pioneered the field of the biological basis behind human longevity by proposing centenarians as models of successful aging and by conceptualising theories on human aging ("remodelling"; "inflamm-ageing").

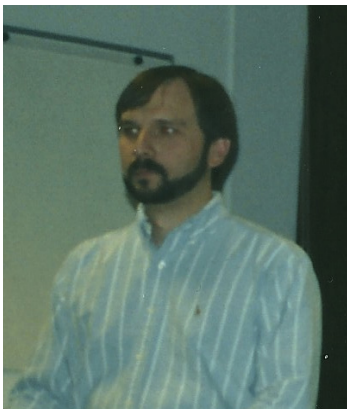
Robert Freitas

Title: Senior Research Fellow, Institute for Molecular Manufacturing

Bio:

Robert A. Freitas Jr., J.D., published the first detailed technical design study of a medical nanorobot ever published in a peer-reviewed mainstream biomedical journal and is the author of Nanomedicine, the first book-length technical discussion of the medical applications of nanotechnology and medical nanorobotics. Volume I was published in October 1999 by Landes Bioscience while Freitas was a Research Fellow at the Institute for Molecular Manufacturing (IMM) in Palo Alto, California. Freitas published Volume IIA in October 2003 with Landes Bioscience while serving as a Research Scientist at Zyvex Corp., a nanotechnology company headquartered in Richardson, Texas during 2000-2004. Freitas is now completing Nanomedicine Volumes IIB and III and is also consulting on diamond mechanosynthesis, molecular assembler design, and nanofactory implementation as Senior Research Fellow at IMM. He won the 2009 Feynman Prize in nanotechnology for theory, the 2007 Foresight Prize in Communication, and the 2006 Guardian Award from Lifeboat Foundation, and was awarded the first patent on diamond mechanosynthesis on 30 March 2010.

Steven Garan



Title: Director of Bioinformatics at CREA, UC Berkeley, USA

Bio:

Steven A. Garan is the Director of Bioinformatics at CREA and serves on it's Advisory Board, he is also a researcher at the Lawrence Berkeley National Laboratory. While at the University of California, Berkeley, he played a major role in the invention and the development of the Automated Imaging Microscope System (AIMS). While at UC Berkeley, Garan collaborated for many years with a group from Paola S. Timiras's lab, on the role that caloric restriction plays in maintaining estrogen receptor-alpha and IGH-1 receptor immunoreactivity in various nuclei of the mouse hypothalamus. Garan was also the director of the Aging Research Centre, and is a leading scientist in the field of aging research. His numerous publications, include articles on systems biology, the effects of caloric restriction on the mouse hypothalamus and on the Automated Imaging Microscope System (AIMS). He is best known for the coining of word «Phenomics», which was defined in an abstract titled: «Phenomics: a new direction for the study of neuroendocrine aging», that was published in the journal Experimental Gerontology.Steven A. Garan, was the lead scientists that developed the AIMS system along with Warren Freitag, Jason Neudorf and members of the UC Berkeley lab where AIMS was developed and utilized. Many journals articles have been published about the system and the results that it produced. Since the completion of the first version in 1998, newer versions were developed, with the final version being completed in 2007. Empowering investigators to accurately count specific cell populations is essential to all fields of neurobiology. While computer assisted counting technology has been in use for over a decade, advances in an Automated Imaging Microscope System (AIMS), now insure 97% accuracy when comparing computer counts to human counts for both nuclear and cytoplasmic stained tissue. More importantly, regional analysis can now be customized so that only cell populations within specified anatomic regions will be targeted for counting, thus reducing the background noise of non-immunoreactive cells when characterizing specific cell populations. This application was recently used to successfully map the density and distribution of both nuclear expressed estrogen receptor-alpha and cytoplasmicly expressed IGF-1 receptor in specific hypothalamic nuclei. Furthermore, AIMS can now detect intra-hypothalamic differences in receptor expression and measure phenomenon such as lateralization. By using this technology, the evaluation of tissue-level biology can be used to establish neuroendocrine biomarkers of aging, and analyze the neuroendocrine effects of caloric restriction and gene knockout models that extend the lifespan.

Steven Garan

Title: Professor of Biobehavior Health at the Genetics Center, Penn State University, USA

Bio:

Dr. Roger McCarter is Professor of Biobehavior Health at the Genetics Center, Penn State University, University Park, Pensylvania. He is currently President of the International Biogerontology Resources Institute (Cividale, Italy) and co-chair-elect of the Gordon Conference on the Biology of Aging. He is past Chair of Biological Sciences and a Fellow of the Gerontological Society of America (2002), past President of the American Aging Association (1997) and past President of the Pan American Congress on Gerontology and Geriatrics (1995-1999). He serves on the Advisory Council of the American Federation for Aging Research and is Executive Editor of the journal Aging Clinical and Experimental Research.

Dr. McCarter has directed courses in physiology and aging for Medical, Dental, Graduate, Nursing and Physical Therapy students as well as serving as a mentor for numerous post-doctoral fellows, doctoral and masters degree students over a 30-year period. His teaching activities have been recognized by many awards, including a Presidential Award for Excellence in Teaching (1986) from the University of Texas Health Science Center at San Antonio where he was Deputy Chair of the Department of Physiology and Associate Director of the Aging Research and Education Center. His research activities are focused on skeletal muscle function, metabolism and theories of aging. These activities have been continuously funded by grants from the National Institutes of Health and private agencies for the past 25 years, have been published in major peer reviewed journals and have been recognized by awards such as the Associate Editor's Award for the Best Paper Published in 1992/1993 in the Journal of Gerontology: Basic Sciences. His research has also been presented in numerous invited presentations in the USA, Europe and South America. Dr. McCarter's many community activities have included being President of the Oak Hills, San Antonio Rotary Club (1990), Chair of the Advisory Board of the Warms Springs Rehabilitation Hospital (2000-2002) and Coach of the Health Science Center Rugby Club, 1980.

George Garinis

Title: Professor, University of Crete, Greece

Bio:

Research in his laboratory is focused on:
a. The impact of genome instability on pathways associated with longevity, aging and age-related pathology: We aim to identify common genome-wide expression patterns between a number of TCR-defective, progeroid mice and mice that carry (tissue-specific) constitutive defects in transcription. We are using a number of advanced molecular, genomics and imaging approaches to investigate the role of transcriptional instability in progeria and age-related pathology.
b. The impact of progeroid mutations on tumour development: we aim at investigating the fine balance between cancer protection and accelerated aging. This approach might provide us both with mechanistic insight into the complex process of tumorigenesis as well as gene targets for its experimental modulation in the future.
c. Genome instability and tissue-specific progeria: we are focusing at investigating age-related processes driven by genome instability in a tissue-specific manner using the loxP/ Cre recombinase technology to restrict DNA repair deficiency in a single type of tissue while leaving the remaining part of the organism intact.
d. Development of advanced bioinformatics approaches to integrate functional genomics data with and biological endpoints in cancer and aging.

Jennifer L. Garrison

Title: Ph.D., Assistant Professor at the Buck Institute for Research on Aging

Bio:

Dr. Jennifer Garrison is interested in understanding how neuropeptides control behavior at both the cell biological and neural circuit level. Neuropeptides comprise a large class of signaling molecules which are secreted from neurons and transmit messages within the brain and across the nervous system.

Dr. Garrison received her PhD from the University of California San Francisco in the laboratory of Dr. Jack Taunton, where she discovered the molecular target of a natural product and elucidated a novel mechanism by which small molecules can regulate protein biogenesis. As a postdoctoral fellow in Dr. Cori Bargmann's lab at the Rockefeller University, she showed that the nematode C. elegans produces a neuropeptide that is an evolutionary precursor of the mammalian peptides vasopressin and oxytocin, and mapped a neural circuit by which this molecule, nematocin, modulates mating behavior.

Dr. Garrison was named an Alfred P. Sloan Research Fellow and received a Glenn Foundation Award for Research in Biological Mechanisms of Aging in 2014, and a Next Generation Leader at the Allen Institute for Brain Science in 2015. Her work is funded by the NIH National Institute of General Medical Sciences, the Glenn Foundation for Medical Research, the Alfred P. Sloan Foundation, and the Larry L. Hillblom Foundation.

Leonid Gavrilov

NORC at the UNIVERSITY of CHICAGO

Title: Principal Investigator, Center on Aging, NORC at the University of Chicago

Bio:

Leonid A. Gavrilov is a Senior Research Scientist for the Center on the Demography and Economics of Aging with NORC at the University of Chicago. He also is a faculty member in the Center for East European and Russian/Eurasion Studies at the University of Chicago.

Gavrilov specializes in the biodemography of aging and longevity, mathematical modeling of aging and mortality, population aging and the demography of the Former Soviet Union.

Gavrilov is currently the principal investigator for Biodemography of Exceptional Longevity in the United States, a study funded by the National Institute on Ageing (NIA) in which he is investigating biological and social correlates for people that live over 100. Other studies funded by the NIA include Middle-Life Physical Markers, Socioeconomic Status and Exceptional Longevity: An Exploratory Study of a New Data Resource, and the Biodemography of Human Longevity - Training Program. Both projects focused on aging and acted as pre-cursors to Gavrilov's current work with Biodemography of Exceptional Longevity in the United States.

Before coming to the United States, Gavrilov held senior research positions in Moscow (Russia) at the A.N. Belozersky Institute, Moscow State University and at the Institute for Systems Analysis, Russian Academy of Sciences.

In demand as a speaker at conferences, meetings, and workshops internationally, Gavrilov's work has been featured in a variety of publications, such as Population Research and Policy Review, North American Actuarial Journal, Social Biology, Journal of Theoretical Biology, Population, Demographic Research,Perspectives in Biology and Medicine, Human Biology, Handbook of the Biology of Aging (Sixth Edition), and many more. He serves on several editorial boards, including Experimental Gerontology (Elsevier Science, Inc.), Gerontology (Karger), Rejuvenation Research (Mary Ann Libert Inc. Publishers), Advanced Science Letters (American Scientific Publishers) and Theoretical Biology and Medical Modelling (BioMed Central).

The Moscow Society of Naturalists, the International Science Foundation, the European Union and others have honored and recognized Gavrilov for his ongoing contributions to research in aging. He is a member of the Population Association of America and a Fellow of the Gerontological Society of America, where he has served on the Executive Committee on Biological Sciences and the Task Force on Organizational Technology and Computers. He is currently a Convener for the Gerontological Society of America Interest Group «Societal Implications of Delayed Aging.»

David Gems

Title: Assistant Director of the Institute of Healthy Ageing

Bio:

Professor David Gems is the Assistant Director of the Institute of Healthy Ageing within which his own laboratory studies ageing using the model organism c.elegans.

Professor David Gems is the Assistant Director of the Institute of Healthy Ageing within which his own laboratory studies ageing using the model organism c.elegans.

Background:

- 2012- Professor of Biogerontology, Institute of Healthy Ageing, UCL
- 2005-2011 Reader in the Biology of Ageing, Department of Biology, UCL
- 1997-2004 Royal Society University Research Fellow, Department of Biology, University College London, U.K. Genetics of aging in C. elegans and other model organisms
- 1993-1996 Postdoctoral fellow, Molecular Biology Program, University of Missouri, with Prof. Don Riddle. Genetics of aging in Caenorhabditis elegans
- 1991-1993 Postdoc, Department of Biology, Imperial College, London, with Prof. Rick Maizels. Biology of infective larvae of the ascarid nematode parasite Toxocara canis
- 1987-1990 Ph.D., Institute of Genetics, University of Glasgow, U.K. Aspergillus nidulans genetics. With A.J. Clutterbuck
- 1984-1986 Various work in Costa Rica, Nicaragua (Sandinista regime), Mexico, USA
- 1980-1983 School of Biological Sciences, University of Sussex, U.K. B.Sc. Biochemistry
- 1974-1978 Dartington Hall School

Vincent C. Giampapa

Quote: "The key to longevity and a quality life span is to address the factors which impact aging in their early stages." - Vincent C. Giampapa, N/A http://www.newliving.com/issues/apr_2004/articles/aging%20code.html

Title: Assistant Clinical Professor of Plastic and Reconstructive Surgery, University of Medicine and Dentistry of New Jersey

Bio:

Dr. Giampapa is Assistant Clinical Professor of Plastic and Reconstructive Surgery at the University of Medicine and Dentistry of New Jersey. He was one of the first board-certified anti aging physicians. Dr. Giampapa was founder and Chief Science Officer of Optigenex Inc., a publicly traded company focusing on development of naturally sourced compounds for DNA repair in humans. He was also the founder and Chief Science Officer of Suracell, Inc., a company focusing on genetic testing to create the world's first personalized genetic health program to mimic calorie restriction in an intracellular capacity.

Dr. Giampapa has filed over 20 U.S. patents and is presently focusing his research on stem cell therapy (VSEL) technology for regenerative medicine and age-management protocols, as well as developing the Echelon Biomatrix™ - an advanced AI software program to analyze multiple biomarkers of aging for his Executiv Health Program Patients. This software may also be used as a means of evaluating age management protocols and individual product effectiveness on human aging. Dr. Giampapa has published his most recent theory of aging - the MULTIPLE DNA DAMAGE THEORY - asserting that changes in DNA damage levels cause decline in gene expression, as well as stem cell function, as humans' age. Dr. Giampapa recently received a nomination for the Nobel Prize for his groundbreaking stem cell research related to the new science of Epigenetics, which studies science's ability to help optimize human cell function so that people age better

Dr. Giampapa received his MD and general surgery training from Mount Sinai Medical School and Hospital. He completed his postdoctoral training in Microsurgery and Transplantation Surgery at NYU Medical Center and Columbia Presbyterian Medical Center. He received his BA in Molecular Biology, Physiology and Psychology at Butler University in Indianapolis, Indiana.

Bradford W. Gibson

Title: PhD, Professor,Director of the Buck Institute Chemistry and Mass Spectrometry Core

Bio:

Dr. Gibson's work is focused on understanding the biological and chemical processes that are common to both age-related diseases and aging. The Gibson laboratory employs mass spectrometry, chemistry, and structural biology techniques to define the molecular details of processes that are important to aging and age-related diseases. In the fall of 2000, Dr. Gibson established the Chemistry and Mass Spectrometry Core at the Buck Institute to support research in his laboratory as well as those of his colleagues. He deploys a wide array of specialized chemistry and structural techniques to delve into the functions of mitochondria, subcellular organelles which provide the major energy needs of cells as well as critical metabolic and regulatory roles. He tracks the changing structures of mitochondrial proteins and lipids in aging cells, and in age-related conditions, such as diabetes, cancer and Parkinson's disease. The Gibson lab developed methods that are now being used to examine the role of mitochondrial dysfunction in a broader range of illnesses with the ultimate goals of finding opportunities for novel drug intervention strategies. He was interviewed for the January 2013 issue of Nature Methods for an article focusing on «Method of the Year -- Targeted Proteomics.»

Dr. Gibson supports the work of other Buck faculty through his expertise in chemistry and mass spectrometry, which can be used together to identify structure and functional changes of biological molecules such as proteins, glycoconjugates and lipids. Proteins and other biomolecules have complex chemical structures that determine their overall function, shape, location, and interacting partners. Dr. Gibson developed chemical and mass spectrometry-based methods to capture these events with precise and quantitative measurements.

The Gibson lab is also part of a national consortium that is identifying early protein biomarkers of cancer in human plasma using mass spectrometry and other technologies. These "cancer biomarkers" may yield early diagnostic tests for specific cancers. Ultimately, it is Dr. Gibson's goal to leverage these studies to develop the tools needed to identify biomarkers of aging that could be used to assess drugs and other therapies designed to influence the aging process itself.

Dr. Gibson received his PhD in Analytical Chemistry from the Massachusetts Institute of Technology in 1983, and then took a postdoctoral fellowship in Chemistry at Cambridge University in England. He was a professor at the University of California, San Francisco (UCSF) before joining the Buck Institute in 2000, and currently holds a joint appointment as an Adjunct Professor of Chemistry and Pharmaceutical Chemistry at UCSF.

Vadim Gladyshev

Title: Professor, Medicine, Harvard Medical School
Director of Redox Medicine Lab, Brigham And Women's Hospital

Bio:

Gladyshev Laboratory - Brigham & Women's Hospital
The Gladyshev lab research interests focus on redox biology and trace elements as applied to cancer, aging and male reproduction. They are trying to understand the mechanisms of redox regulation of cellular processes by studying reactive oxygen species (ROS) and thiol oxidoreductase functions of cellular components. Little is known of what the specific targets of ROS are and how oxidant and antioxidant signals are transmitted in the cell. To understand mechanisms of redox control, the Gladysehv lab needs to know the identities and functions of most of the participants in the redox process. Thus, they are developing and employing various bioinformatics approaches and carrying out genome sequencing, proteomics and functional genomics studies, which are followed with in vitro and in vivo tests of the identified targets. They are particularly interested in the redox control that involves specific and stochastic oxidation of cysteine and methionine residues in proteins.

In mammals, major redox systems are dependent on the trace element selenium, which is an essential component of various redox enzymes in thioredoxin, glutathione and methionine sulfoxide reduction pathways. Selenium is present in proteins in the form of the 21st amino acid, selenocysteine, encoded by UGA codon. Selenocysteine can be viewed as redox super-cysteine because it is only used as the catalytic residue in oxidoreductases. Because UGA is also a stop signal, selenoprotein genes are typically misannotated in sequence databases. To overcome this problem, they identify these genes by genome-wide searches for structural and thermodynamic properties of specific RNA structures and independently by searches for selenocysteine/cysteine pairs in homologous sequences. Subsequently, the Gladyshev lab characterizes functions, regulation and specific targets of selenoproteins and other oxidoreductases to gain a system-wide view on selenium metabolism and redox regulation of cellular processes.

The Gladyshev lab is expanding their research on the basic mechanisms of aging, which they characterize using methods of biochemistry and bioinformatics and utilizing model organisms, primarily yeast and fruit flies. They also characterize the methionine sulfoxide reductase system, which is a protein and metabolite repair system. More generally, they think aging is the consequence of accumulation of damaged biomolecules in cells and organisms. Therefore, understanding the mechanisms by which organisms deal with damage accumulation and how these processes themselves deteriorate is crucial to an understanding of the aging process.

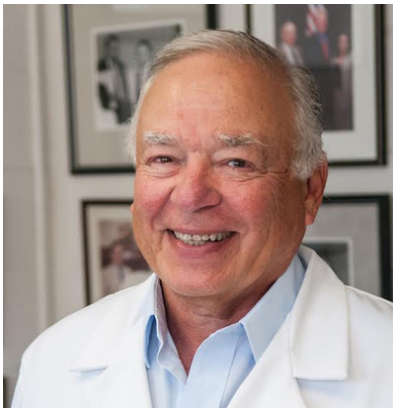
The lab also studies the 15 kDa selenoprotein (Sep15), which is involved in the quality control of protein folding in the endoplasmic reticulum. They identified Sep15 as a candidate protein that mediates the cancer chemopreventive effect of selenium. The lab is characterizing its function and role in cancer prevention to identify a mechanism by which dietary selenium decreases cancer incidence. Another project involves functional characterization of animal thioredoxin reductases. Mammals have three

(cytosolic, mitochondrial and spermatid-specific) thioredoxin reductases; each of them occurs in multiple forms generated by alternative first exon splicing. The Gladyshev lab identified one of them as thioredoxin-glutathione reductase, which is involved in male reproduction.

The Gladyshev lab hopes that their studies will provide a better understanding of the role of redox processes in physiological and pathophysiological states, particularly with regard to aging, cancer, and male reproduction, and will lead to new therapeutic and disease-preventive agents.

Allan Goldstein

School of Medicine & Health Sciences
THE GEORGE WASHINGTON UNIVERSITY



Title: Professor & Chairman, The George Washington University School of Medicine and Health Sciences

Bio:

Allan L. Goldstein is professor and Catharine B. & William McCormick Chair of the department of Biochemistry and Molecular Biology at The George Washington University School of Medicine and Health Sciences, where he has served since 1978. He is a world-renowned authority on the thymus gland and the workings of the immune system, and co-discoverer of the thymosins.

Dr. Goldstein is the author of over 400 scientific articles in professional journals, the inventor on more than 15 U.S. Patents, and the editor of several books in the fields of biochemistry, biomedicine, immunolog`y and neuroscience.

He is on the editorial boards of numerous scientific and medical journals and has been a consultant to many research organizations in industry and government; co-founder of The Institute for Advanced Studies in Aging and Geriatric Medicine, a non-profit research and educational institute; a member of the Board of Trustees of the Albert Sabin Vaccine Institute; and serves as the Chairman of the Board of RegeneRx Biopharmaceuticals.

Dr. Goldstein received his B.S. from Wagner College in 1959 and his M.S. and Ph.D. from Rutgers University in 1964. He served as a faculty member of the Albert Einstein College of Medicine from 1964 to 1972, and moved to the University of Texas Medical Branch in Galveston in 1972 as professor and director of the division of Biochemistry.

Aubrey de Grey

Quote: Aubrey de Grey 'argues that aging can be «cured» if it's approached as an «engineering problem.»' 2015 http://www.npr.org/2015/05/22/408025154/can-aging-be-cured

Title: Chief Science Officer, SENS Research Foundation

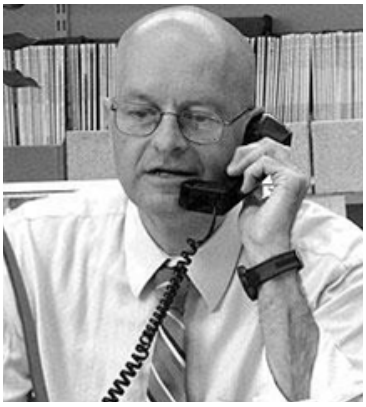
Bio:

Dr. de Grey is the biomedical gerontologist who researched the idea for and founded SENS Research Foundation. He received his BA in Computer Science and Ph.D. in Biology from the University of Cambridge in 1985 and 2000, respectively. Dr. de Grey is Editor-in-Chief of Rejuvenation Research, is a Fellow of both the Gerontological Society of America and the American Aging Association, and sits on the editorial and scientific advisory boards of numerous journals and organizations.

has also pioneered new privacy, biosafety, ELSI, environmental and biosecurity policies. He is director of an IARPA BRAIN Project and NIH Center for Excellence in Genomic Science. His honors include election to NAS and NAE and Franklin Bower Laureate for Achievement in Science. He has coauthored 425 papers, 95 patent publications and one book (Regenesis).

Leonard Guarente

ELYSIUM



Quote: “Aging is one of the great, unsolved mysteries in life sciences. I was captivated by the importance of the problem, both in terms of the complexity of the science and also the importance to society.” - Leonard Guarente, 2015 https://www.elysiumhealth.com/blog/qa-with-elysium-co-founder-and-chief-scientist-leonard-guarente

Title: Chief Scientist, Elysium Health, Inc.

Bio:

Dr. Leonard Guarente, Ph.D. served as Co-Chair of Scientific Advisory Board at Sirtris Pharmaceuticals, Inc. Dr. Guarente serves as the Novartis Professor of Biology at the Massachusetts Institute of Technology. Dr. Guarente’s lab identified SIR2 as the key gene regulating life span in yeast and C. elegans an extra copy of SIR2 significantly increases the life span of both organisms. Notably, his lab first discovered the novel biochemical activity of the SIR2 gene product NAD-dependent deacetylase. Dr. Guarente’s lab also studies the mammalian ortholog of SIR2 -- SIRT1. He trained as a postdoctoral fellow at Harvard with Mark Ptashne and has been on the faculty of MIT since 1981. He serves as a Member of Advisory Board of Segterra Inc. His book Ageless Quest (Cold Spring Harbor Press, 2003) describes the pathway of discovery of SIR2 as a key regulator of life span in response to diet. Dr. Guarente received his B.S. from the Massachusetts Institute of Technology and his Ph. D. at Harvard, under the supervision of Jon Beckwith

Pejmun Haghighi

Title: Ph.D., Professor at the Buck Institute for Research on Aging

Bio:

A growing consensus suggests that stability and homeostasis in synaptic growth and function may be key in maintaining the health of neural circuits, and as such, disruption in regulatory mechanisms that control synaptic homeostasis may lead to developmental and neurodegenerative nervous system diseases. His research program investigates the molecular mechanisms that underlie synaptic homeostasis. In particular, they are interested in learning how retrograde signaling cascades participate in this process.

His laboratory has been identifying and characterizing genes and mechanisms that participate in this regulation by exploiting the power of Drosophila genetics in combination with imaging and electrophysiology. In particular, his group's success in understanding the basic biology of synaptic function have led us to the identification of the target of rapamycin (TOR) as a critical regulator of synaptic homoeostasis. This finding is of particular interest, since TOR-dependent pathways play a highly conserved role in the regulation of life span in a wide range of organisms from yeast to mice. They believe that our work will generate important insight into how nervous system function and life span regulation may be mutually modulated.

Aging and synaptic function:
Based on their findings, they have hypothesized that abnormal synaptic function negatively influences life span in Drosophila. They are addressing this hypothesis by establishing that interference with synaptic transmission can influence life span, while restoring normal synaptic function in mutant combinations with shorter life span can restore normal life span. They are also investigating the role of human disease-related genes in this process.

Postsynaptic translation:
They are interested in identifying mRNAs that are under the control of TOR-dependent postsynaptic translational cascades. They have been using genetic screens as well as biochemical approaches for these studies.

The role of miRNAs:
Their recent findings suggest that miRNAs may be acting as negative regulators of synaptic strength by limiting the amount of presynaptic neurotransmitter release. They are pursuing this idea by combining genetic and optogenetic approaches to monitor miRNA activity in neurons while manipulating synaptic activity and/or signaling.

Dr. Haghighi received his PhD in Physiology from McGill University in Montreal, Canada, where he also served as an assistant, then associate professor. In 2010 he received the Ann Wechsler Award for Excellence in Teaching Physiology. Dr. Haghighi's research was funded in large part, by the Canadian Institute for Health Research. He was a postdoctoral fellow in the lab of Corey Goodman, PhD, at the University of California Berkeley.

Leonard Hayflick

Quote: "My interest in understanding the biology of aging is not only based on curiosity but on why the aging process makes old cells more vulnerable to age-associated diseases. The critical question is, 'What is the molecular constitution of old cells that makes them more vulnerable than young cells?'" - Leonard Hayflick, 2012 http://agemed.org/AMMGejournal/September2012/MorrisHayflickEtiologyOfAgingSept2012/tabid/753/language/en-US/Default.aspx

Title: Professor of Anatomy, University of California, San Francisco

Bio:

Leonard Hayflick received his Ph.D. at the University of Pennsylvania in 1956. After receiving a post-doctoral Fellowship for study at the University of Texas Medical Branch in Galveston, under the tutelage of the renowned cell culturist Prof. Charles M. Pomerat, he returned to Philadelphia, where he spent ten years as an Associate Member of the Wistar Institute and two years as an Assistant Professor of Research Medicine at the University of Pennsylvania.

In 1968 Hayflick was appointed Professor of Medical Microbiology at the Stanford University School of Medicine, Stanford, California. In 1982 he moved to the University of Florida, Gainesville, where he became Director of the Center for Gerontological Studies and Professor of Zoology in the College of Liberal Arts and Sciences and Professor of Microbiology and Immunology in the College of Medicine. In 1988 Hayflick joined the faculty of the University of California, San Francisco, where he is currently Professor of Anatomy. Hayflick was Editor-in-Chief of the international journal "Experimental Gerontology" for 13 years.

He was a founding member of the Council of the National Institute on Aging, NIH and Chairman of its Executive Committee. He was a consultant to the National Cancer Institute and the World Health Organization, and is now a member of several scientific advisory boards. He was Chairman of the Scientific Review Board of the American Federation for Aging Research where he was also a vice president and a Member of the Board of Directors. He was also recruited by Michael D. West, founder of Geron (NASDAQ: GERN) and current CEO of BioTime, to join the company's Scientific and Clinical Advisory Board, on which he served from 1991-2000.

Heinrich Jasper

Title: PhD, Professor at the Buck Institute for Research on Aging

Bio:

Dr. Jasper is interested in regulatory mechanisms that control stress tolerance, metabolism and aging in multi-cellular organisms. In particular, he has been recognized for making seminal discoveries about the effects of aging on stem cell behavior, and about the role of stress signaling in regulating stem cell function. Current projects in his lab focus on the control of tissue regeneration, metabolic homeostasis, and cell death by insulin and stress signaling pathways. Most of these studies are being performed using Drosophila melanogaster, taking advantage of the wide range of genetic, molecular, and genomic techniques available for this model organism. Current and future work is extending this research to stem cell systems in the mouse. It focuses on signaling mechanisms that influence critical physiological processes with relevance to aging:

Stem Cells and Regeneration
Regenerative processes are important for long-term tissue homeostasis in metazoans. Pluripotent stem cells are central to such regenerative processes. The Jasper lab is studying stem cells in the Drosophila midgut epithelium to ask how stress and aging influences their ability to self-renew, and whether optimizing stem cell activity can influence the aging process in metazoans. Current studies are extending this work to mouse tracheal stem cells, a mammalian stem cell population with striking functional and regulatory similarities to Drosophila intestinal stem cells.

Signaling networks controlling metabolic homeostasis and lifespan
Metabolic homeostasis is regulated by endocrine interactions between insulin producing and insulin target tissues. Stress signaling, in particular the Jun-N-terminal Kinase (JNK) pathway, antagonizes insulin signaling through various cell autonomous and endocrine mechanisms. Studies in the lab aim at establishing how these interactions control metabolic homeostasis and influence lifespan.

Stress-induced cell death
The Jasper lab uses the developing Drosophila retina as a model system in which to assess the regulation of cellular survival vs. death decisions, and to identify molecular and cellular mechanisms governing tissue recovery after genotoxic stress.

Dr. Jasper received his PhD from the University of Heidelberg and the European Molecular Biology Laboratory, where he studied transcriptional regulation of developmental processes in Drosophila. He became a Research Assistant Professor at the University of Rochester Medical Center in 2003, and an Assistant Professor of Biology at the University of Rochester in 2005. Dr. Jasper received a Senior Fellow Award of the Ellison Medical Foundation in 2008 and a Glenn Foundation Award for Research in Biological Mechanisms of Aging in 2010. His work was and is funded by the American Federation for Aging Research, National Institute of Aging, National Eye Institute, National Institute of General Medical Sciences, New York Stem Cell Initiative, and the Ellison Medical Foundation.

Matt Kaeberlein

UW Medicine
UNIVERSITY OF WASHINGTON
MEDICAL CENTER

Kaeberlein Lab

Title: Lab Hed, University of Washington Medical Center, Seattle

Bio:

The Kaeberlein Lab is located in the University of Washington Medical Center in Seattle. The lab has been in operation as part of the UW Pathology Department since March 1, 2006. Dr. Matt Kaeberlein is the primary investigator.

Matt Kaeberlein, Ph.D., is recognized globally for his research on the basic biology of aging. The premise of his research is that understanding the molecular mechanisms of aging will lead to interventions that slow the onset and progression of age-related chronic conditions, such as cancer, diabetes, kidney disease, heart disease, Alzheimer's and others. Dr. Kaeberlein received his Ph.D. from the Massachusetts Institute of Technology in 2002 and performed his post-doctoral research in the Department of Genome Sciences at the University of Washington. Dr. Kaeberlein was appointed as an Assistant Professor of Pathology in 2006 and was promoted to Associate Professor in 2011.
Dr. Kaeberlein has authored more than 140 publications in top scientific journals, including 19 published in Nature and Science, his work has also been featured in the popular press. Dr. Kaeberlein has been recognized with several awards, including a Breakthroughs in Gerontology Award from the Glenn Foundation, an Alzheimer's Association Young Investigator Award, an Ellison Medical Foundation New Scholar in Aging Award, an Undergraduate Research Mentor of the Year Award, and a Murdock Trust Award. In 2011, he was named the Vincent Cristofalo Rising Star in Aging Research by the American Federation for Aging Research and appointed as a Fellow of the Gerontological Society of America, and in 2012 he joined the Board of Directors of the American Aging Association. Dr. Kaeberlein currently serves on the editorial boards for Science, Aging Cell, Cell Cycle, PloS One, Frontiers in Genetics of Aging, BMC Longevity and Healthspan, F1000 Research, Ageing Research Reviews, and BioEsssays.

In addition to his primary appointment, Dr. Kaeberlein is the Director of the Dog Aging Project, co-Director of the University of Washington Nathan Shock Center of Excellence in the Basic Biology of Aging, the founding Director of the Healthy Aging and Longevity Research Institute, and the current President of the American Aging Association.

Pankaj Kapahi

Title: Ph.D., Professor at the Buck Institute for Research on Aging

Bio:

Overall Goals. The overall goal of the Kapahi laboratory is to understand how an organism responds to nutrient status to influence health and disease. They utilize worms, flies and mice as model systems to understand how nutrients influence age-related changes in physiology and disease processes. Using interdisciplinary approaches they are examining the mechanisms by which various organs and the microbiome communicate with each other to influence various physiological processes. They study how various physiological and molecular processes including physical activity, fat metabolism, circadian clocks, advanced glycation end products, calcification and intestinal permeability are influenced by nutrients to impact organismal health and survival. They work has relevance to a number of age-related human diseases including diabetes, kidney stone formation, intestinal diseases, cancer and obesity. Some of the projects currently being pursued in the lab are described below.

Lab philosophy. 'Creativity and Collaboration' they aim to utilize creative approaches to understand the mechanisms by which nutrients influence cellular homeostasis and disease processes. They also strive to develop models for various human diseases that are influenced by nutrient status using invertebrates.

Brian Kennedy

Quote: ""We are going to look back on this century. Will it be a time when we didn't address the problem of chronic disease and all of the consequences that went with it? Or did we decide to target chronic diseases of aging to ensure these people were healthy instead? I hope we chose healthspan." - Brian Kennedy, 2015 http://healthspancampaign.org/2015/02/23/buckinstitute/

Title: Professor, Buck Institute for Research on Aging

Bio:

Dr. Kennedy's innovative work in the biology of aging began when he was a doctoral student at MIT. Under the guidance of MIT Professor Leonard Guarente, he contributed to the first studies to show that a class of proteins called Sirtuins influence aging. Currently, he studies the pathways that modulate longevity in life forms ranging from yeast to mice. A major focus of his current research is to study the target of rapamycin (TOR) pathway. TOR generated excitement in the age research field when it was shown recently that the drug rapamycin can extend mouse lifespan. One of the goals of his research is to determine whether pathways like TOR can be regulated to treat the diseases of aging. Specifically, Dr. Kennedy's lab focuses on cardiovascular disease and metabolic syndromes like type II diabetes. Dr. Kennedy also studies the genetic mutations underlying diseases such as dilated cardiomyopathy, muscular dystrophy and Hutchinson-Gilford Progeria Syndrome, which resembles premature aging. The mutations being studied affect a class of molecules called A-type nuclear lamins, and the lab is exploring their roles in health and disease.

Dr. Kennedy earned his PhD in Biology at Massachusetts Institute of Technology, where he took part in groundbreaking studies on aging. He completed postdoctoral training at the Massachusetts General Hospital Cancer Center in Charlestown, Massachusetts. Dr. Kennedy was an associate professor in the biochemistry department at the University of Washington in Seattle when he was appointed president and chief executive officer of the Buck Institute in 2010.

Cynthia Kenyon

Quote: "«There are long- and short-lived insects, birds and mammals. During evolution, there must have been a first insect, a first bird, a first mammal, and probably all of them had a short life span... It's not like life span changed just once and that's it. It can happen again.» - Cynthia Kenyon, 2007 https://www.ucsf.edu/news/2007/01/3785/kenyon2

Title: Vice President, Aging Research, Calico

Bio:

Kenyon graduated valedictorian in chemistry from the University of Georgia in 1976. She received her Ph.D. from MIT in 1981 and was a postdoctoral fellow with Nobel laureate Sydney Brenner in Cambridge, England. In 1986 she joined the faculty of the University of California, San Francisco, where she became the Herb Boyer Distinguished Professor and an American Cancer Society Professor, before joining Calico in 2014. Kenyon is a member of the U.S. National Academy of Sciences, the National Academy of Medicine and the American Academy of Arts and Sciences, and she is a former president of the Genetics Society of America. She has received many scientific honors and awards.

James Kirkland

Quote: “Although considerable advances have been made in understanding the basic biology of aging, especially during the past five to 10 years, not enough attention has been paid to translating this research into practical solutions that address end-of-life issues and the wider societal implications of biomedical research.” - James Kirkland, N/A http://www.mayo.edu/research/centers-programs/robert-arlene-kogod-center-aging/about/message-from-director

Title: Director, Robert and Arlene Kogod Center on Aging, Mayo Clinic

Bio:

James Kirkland received both his MD and PhD from the University of Toronto. The major research focus of Dr. Kirkland is the impact of cellular aging (senescence) on age-related dysfunction and chronic diseases, especially developing methods for removing these cells and alleviating their effects. Senescent cells accumulate with aging and in such diseases as dementias, atherosclerosis, cancers, diabetes and arthritis.

The goal of Dr. Kirkland’s current work is to develop methods to remove these cells to delay, prevent, alleviate or partially reverse age-related chronic diseases as a group and extend health span, the period of life free of disability, pain, dependence and chronic disease.

Don Kleinsek

Title: CEO & Co-Founder, Cellagen Technology LLC.

Bio:

Dr. Kleinsek is a veteran of over 30 years in the field of gerontology, delineating the mechanism(s) of the human aging process and focusing on translational medicine – the development of aging research discoveries into clinical products that reach the commercial sector. Notably his fundamental breakthrough in cholesterol metabolism was an important advancement in medicine and into the $20 billion marketplace for the number one drug in sales today, the statins. Currently his patented cell therapy products are cures for a variety of age-related conditions and is being readied for commercialization. He is a pioneer in personalized medicine and cellular therapeutics. His expertise includes the field of cell culture and bioengineering.

Dr. Kleinsek is the CEO and co-founder of Cellagen, LLC. Seeking expedited and effective medical solutions for the marketplace, he was one of the very early entrepreneurs to enter into the dawn of the biotechnology era in the 1980s and founded GeriGene Medical Corporation. Prior to this approach, Dr. Kleinsek was a faculty member at Baylor College of Medicine and the University of Wisconsin as well as Director/President of the Bjorksten Research Foundation, a 40 plus year old non-profit organization.

Makoto Kuro-O

Title: Associate Professor of Pathology, University of Texas Southwestern Medical Center.

Bio:

Mr. Makoto Kuro-O, M.D., Ph.D. is an Associate Professor of Pathology from University of Texas Southwestern Medical Center. Since 1998, Mr. Kuro-O was an Assistant Professor of Pathology at the University of Texas Southwestern Medical Center at Dallas. Mr. Kuro-O serves as a Member of Anti-Aging Scientific Advisory Board at Nu Skin Enterprises, Inc. His laboratory focuses on understanding the molecular mechanism by which the klotho protein suppresses aging. Dr. Kuro-o received an M.D. in 1985 from the University of Tokyo, Japan. He completed his residency training at Tokyo Metropolitan Geriatric Hospital in 1988, after which he returned to the University of Tokyo as a clinical fellow in cardiology until 1998. He received a Ph.D. in 1991 from the University of Tokyo, following which he pursued postdoctoral training at the National Institute of Neuroscience in Japan. During his postdoctoral work, he identified the klotho gene—an aging suppressor gene in mammals.

Marios Kyriazis

Title: Co-director of the Einstein Institute for Aging Research, Israel

Bio:

Marios Kyriazis qualified as a medical doctor (MD) from the University of Rome, Italy, and after preclinical work in the USA he worked as a clinician in acute medicine in Cyprus, and the UK. He subsequently qualified as a Gerontologist with interest in the biology of aging and became a Chartered Member of the academic organisation 'Society of Biology' in the UK. He also has a post-graduate qualification in Geriatric Medicine from the Royal College of Physicians of London.

Other appointments include Member of the Board of Trustees at the Mediterranean Graduate School of Applied Social Cognition, and affiliate researcher at the Evolution, Complexity and Cognition Group, University of Brussels.

Currently, he works with the ELPIs Foundation for Indefinite Lifespans, a serious endeavour to study the elimination of age-related degeneration. The research is focused on transdisciplinary models and explores common principles between biology, complexity sciences, evolution, cybernetics, neurosciences, and techno-cultural elements. Areas of interest include robustness and degeneracy in organic systems, fragility and redundancy, repair processes (including self-repair) and immortalisation of somatic cells.

One particular project involves the concept that agents which are useful in the evolution and adaptation of any system, are retained by that system. This concept can be applied in the specific case of humans who are actors within a highly technological and hyper-connected society, forming part of a Global Brain. The rationale is that these humans are valuable in the evolution of the global society and are thus more likely to live and function for longer. Biological mechanisms involved in this process could include microRNA and epigenetic modifications, phase transitions in metabolic and repair signaling, and other, hitherto poorly studied processes

Deepak A. Lamba

Title: M.B.B.S., PhD, Associate Professor at the Buck Institute for Research on Aging
Bio:

Dr. Lamba's research is focused on identifying new methods to treat degenerative vision disorders, including macular degeneration and retinitis pigmentosa, using stem cell technology. He began this work as a graduate student developing methods of generating retinal cells from human embryonic stem cells. He has differentiated retinal neurons including photoreceptors, the cells in the eye that respond to light. His work is considered pioneering amongst those focused on developing efficient methods of making retinal cells in a laboratory dish. He has shown that these cells can be transplanted into the eyes of mice and rats. After testing vision in blind mice, the treated eyes are now responding to light. His lab is currently concentrating on long-term efficacy and safety studies which are essential before this form of therapy becomes available to patients.

Dr. Lamba is also interested in finding newer approaches of deriving patient-specific stem cells. Newer technologies are allowing scientists to reprogram skin cells into an embryonic stem cell counterpart called induced pluripotent stem cells (iPS) and then converting them to retinal cells. This will result in a better understanding of disease mechanism which in turn will provide an opportunity to discover treatments and drugs to halt photoreceptor cell death and either prevent or, at least, delay the degenerative process.

Dr. Lamba earned his medical degree from University of Mumbai, India and practiced as a physician in Mumbai, India before moving to the US to pursue full-time research. He received his Masters in Bioengineering from University of Illinois, Chicago where he worked on a chemically-stimulating retinal prosthesis device. He then moved to the University of Washington in Seattle where did his doctoral thesis and post-doctoral work on generating and transplanting retinal cells derived from human embryonic stem cells and iPS cells in the lab of Dr. Thomas Reh.

Peter Lansdorp

THE UNIVERSITY OF BRITISH COLUMBIA
Faculty of Medicine
Department of Medical Genetics

Title: Professor, Medical Genetics, University of British Columbia (UBC)

Bio:

Peter Lansdorp obtained his MD from the Erasmus University in Rotterdam before receiving a PhD in Experimental Hematology from the University of Amsterdam in 1985. During his graduate studies he discovered that selected monoclonal antibodies can be crosslinked into stable, bispecific tetrameric antibody complexes. These reagents have found numerous applications. In Amsterdam he became increasingly interested in growth factors such as IL-6 and the role of stem cells in blood cell formation. In 1985 he moved to the Terry Fox Laboratory at the BC Cancer Agency in Vancouver, where his work on the purification and culture of human and murine hematopoietic stem cells led him to studies of telomere biology. He developed quantitative fluorescence in situ hybridization (Q-FISH) techniques using peptide nucleic acid probes to measure the length of telomere repeats in chromosomes and cells. Most laboratories involved in telomere research have adopted these methods. Other current interests are related to the possibility that gene expression and cell fate is regulated in part by chromatin differences between sister chromatids (the “silent sister” hypothesis; Cell 129:1244, 2007) and to the role of telomere length and genome instability in cells of various tissues in ageing. For the latter his laboratory developed novel single cell DNA template strand sequencing techniques (Nature Methods, 2012). Peter Lansdorp is a Distinguished Scientist at the Terry Fox Laboratory and an affiliated Professor at the University of British Columbia. In 2010 he has been appointed to an Endowed Chair at the University Medical Center Groningen (UMCG). He was the first Scientific Director of the European Research Institute for the Biology of Ageing of the University of Groningen and the UMCG. In 2011 Peter Lansdorp received a €2.5 million Advanced Grant from the European Research Council for a research project on the role of telomeres and stem cells in ageing.

Robert Lanza

Title: Head of Astellas Global Regenerative Medicine
Chief Scientific Officer of the Astellas Institute for Regenerative Medicine
Adjunct Professor at Wake Forest University School of Medicine

Bio:

Dr. Lanza has hundreds of publications and inventions, and over 30 scientific books, including "Principles of Tissue Engineering" and "Essentials of Stem Cell Biology," which are considered the definitive references in the field. He received his BA and MD degrees from the University of Pennsylvania, where he was both a University Scholar and Benjamin Franklin Scholar. He was also a Fulbright Scholar, and was part of the team that cloned the world's first human embryo, as well as the first to successfully generate stem cells from adults using somatic-cell nuclear transfer (therapeutic cloning).

Lanza's work has been crucial to our understanding nuclear transfer and stem cell biology. In 2001 he was also the first to clone an endangered species (a Gaur), and in 2003, he cloned an endangered wild ox (a Banteng) from the frozen skin cells of an animal that had died at the San Diego Zoo nearly a quarter-of-a-century earlier. Lanza and his colleagues were also the first to demonstrate that nuclear transplantation could be used to reverse the aging process and to generate immune-compatible tissues, including the first organ tissue-engineered from cloned cells. One of his early achievements came from his demonstration that techniques used in preimplantation genetic diagnosis could be used to generate human embryonic stem cells (hESCs) without embryonic destruction.

He and colleagues have also succeeded in differentiating human pluripotent stem cells into retinal (RPE) cells, and has shown that they provide long-term benefit in animal models of vision loss. Using this technology some forms of blindness may be treatable, including macular degeneration and Stargardt disease, a currently untreatable form eye disease that causes blindness in teenagers and young adults. Lanza's company just completed two clinical trials in the United States using them to treat degenerative eye diseases. ACT carried out the only pluripotent stem cell trial in Europe.

In October 2014, Dr. Lanza and his colleagues published a paper in the journal The Lancet, providing the first evidence of the long-term safety and possible biologic activity of pluripotent stem cell progeny into humans with any disease. "For a nice two decades scientists have dreamt about using human embryonic stem cells to treat diseases," said Gautam Naik, Science Reporter at the Wall Street Journal "that day has finally come…scientists have used human embryonic stem cells to successfully treat patients suffering from severe vision loss." RPE cells derived from embryonic stem cells were injected into the eyes of 18 patients with either Stargardt's disease or dry-AMD. The patients were followed for more than three years, and half of them were able to read three more lines on the eye chart, which translated to critical improvements in their daily lives as well.

Lanza and his colleagues in South Korea also recently published the first report of the safety and potential efficacy of pluripotent stem cells in Asian patients. hESC-derived RPE were transplanted in

four Asian patients: two with dry age-related macular degeneration and two with Stargardt's macular dystrophy. There were no safety issues related to the transplanted cells. Visual acuity improved 9-19 letters in three patients, and remained stable (+1 letter) in one patient. The results confirm that hESC-derived cells could serve as a potentially safe new source of tissue for regenerative medicine.
Lanza has been a major player in the scientific revolution that has led to the documentation that nuclear transfer and reprogramming factors can restore developmental potential in a differentiated cell. One of his successes was showing that it is feasible to generate functional oxygen-carrying red blood cells from human pluripotent stem cells. The blood cells were comparable to normal transfusable blood and could serve as a potentially inexhaustible source of "universal" blood. His team also discovered how to generate functional hemangioblasts — a population of "ambulance" cells — from hESCs. In animals, these cells quickly repaired vascular damage, cutting the death rate after a heart attack in half and restoring the blood flow to ischemic limbs that might otherwise have to be amputated. He has recently published similar pre-clinical work showing hESC-derived cells can be used to treat a range of other diseases, including multiple sclerosis and lupus, among others.

In 2009, Lanza and a team lead by Kwang-Soo Kim at Harvard University reported a safe method for generating induced pluripotent stem (iPS) cells. Human iPS cells were created from skin cells by direct delivery of proteins, thus eliminating the harmful risks associated with genetic manipulation. This new method provides a potentially safe and non-controversial source of patient-specific stem cells for translation into the clinic. The Editors of the Nature selected Lanza and Kim's paper on protein reprogramming as one of five "Research Highlights" of the year. Discover magazine stated, "Lanza's single-minded quest to usher in this new age has paid dividends in scientific insights and groundbreaking discoveries."

Dr. Lanza has received numerous awards, including TIME Magazine's 2014 TIME 100 list of the "100 Most Influential People in the World," the Top 50 "World Thinkers" (2015), the 2013 Il Leone di San Marco award in Medicine; an NIH Director's Award (2010) for "Translating Basic Science Discoveries into New and Better Treatments"; the 2013 "TOP 50 Global Stem Cell Influencers" (voted Top 4 "Most Influential People on Stem Cells" along with James Thomson and Nobel laureate Shinya Yamanaka); the 2010 "Movers and Shakers" Who Will Shape Biotech Over the Next 20 Years (BioWorld, along with Craig Venter and President Barack Obama); the 2007 100 Most Inspiring People in the Life-Sciences Industry (PharmaVOICE, "For his discoveries 'behind the medicines making a significant impact on the pipelines of today and of the future'"; the 2007 Outstanding Contribution in Contemporary Biology Award (Brown University, "For his groundbreaking research and contributions in stem cell science and biology"; the 2006 All-Star Award for Biotechnology (MA High Tech, for "pushing stem cells' future"); the 2005 Rave Award for Medicine (Wired magazine, "For eye-opening work on embryonic stem cells"); Massachusetts Medical Society award; and The Boston Globe's William O. Taylor award, among others.

Dr. Lanza and his research have been featured in almost every media outlet in the world, including CNN, TIME, Newsweek, People, as well as the front pages of the New York Times, Wall Street Journal, Washington Post, among others. Lanza studied with some of the greatest thinkers of our time, including Nobel laureates Gerald Edelman and Rodney Porter, renowned Harvard psychologist B.F. Skinner (the "Father of modern behaviorism"), Jonas Salk (discoverer of the Polio vaccine), and heart transplant pioneer Christiaan Barnard.

In 2007, Lanza published a feature article, "A New Theory of the Universe" in The American Scholar, a leading intellectual journal which has previously published works by Albert Einstein, Margaret Mead, and Carl Sagan, among others. His theory places biology above the other sciences in an attempt to solve one of nature's biggest puzzles, the theory of everything that other disciplines have been pursuing for the last century. This new view has become known as Biocentrism. In 2009, he co-authored a book "Biocentrism: How Life and Consciousness are the Keys to Understanding the True Nature of the Universe" with leading astronomer Bob Berman. In biocentrism, space and time are

forms of animal sense perception, rather than external physical objects. Understanding this more fully yields answers to several major puzzles of mainstream science, and offers a new way of understanding everything from the microworld (for instance, the reason for Heisenberg's uncertainty principle and the double-slit experiment) to the forces, constants, and laws that shape the universe. Nobel laureate E. Donnall Thomas stated "Any short statement does not do justice to such a scholarly work. The work is a scholarly consideration of science and philosophy that brings biology into the central role in unifying the whole."

"Robert Lanza is the living embodiment of the character played by Matt Damon in the movie "Good Will Hunting." Growing up underprivileged in Stoughton, Mass., south of Boston, the young preteen caught the attention of Harvard Medical School researchers when he showed up on the university steps having successfully altered the genetics of chickens in his basement. Over the next decade, he was "discovered" and taken under the wing of scientific giants such as psychologist B.F. Skinner, immunologist Jonas Salk, and heart transplant pioneer Christiaan Barnard. His mentors described him as a "genius," a "renegade thinker," even likening him to Einstein." – U.S.News & World Report, cover story

Pamela Larsen

Title: Associate Professor, Department of Cell Systems and Anatomy, University of Texas Health Science Center at San Antonio

Bio:

What biological mechanisms govern adult health and life span? Genetic and environment components contribute to a long healthy life. The longevity manipulations we use in C. elegans are: 1) mutation of the daf-2 gene, which is homologous to insulin/IGF1 signaling pathways, and 2) cultivation at a cool temperature. Both cooler core body temperatures and reduction of the daf-2/insulin/IGF-1 signaling pathway are pro-survival in multiple species including humans. Pamela Larsen and her team are defining environment by genotype interactions that alter gene transcription (epigenetics) and then testing the functional contribution to adult health and life span. For this their studies include different genotypes at different non-stress-inducing temperatures. They have found that health can be uncoupled from long life. Environmental changes trigger beneficial and detrimental responses. By associating molecular signatures with phenotypes, they can better predict adult health and life span outcomes in different genotypes and environments.

The figure shows results from a neurological exam we did on individuals each day from when they were healthy middle-aged adults. In wild type, we find locomotion slows with age and a small number become paralyzed when old. When they inhibit our candidate adaptive response, we see nearly all show progressive paralysis and yet the life span is not significantly shorter

Virginia Lee

Title: Endowed Professor, Pathology and Laboratory Medicine, University Of Pennsylvania

Bio:

Dr. Lee's research focuses on disease proteins that form pathological inclusions in hereditary and sporadic Alzheimer's disease (AD), Parkinson's disease (PD), frontotemporal lobar degeneration (FTLD), amyotrophic lateral sclerosis (ALS) and related neurodegenerative disorders of aging. Her work demonstrated that tau, alpha-synuclein and TDP-43 proteins form unique brain aggregates in neurodegenerative diseases and provided critical evidence that aggregation of brain proteins is a common mechanistic theme in diverse neurodegenerative diseases including AD, PD, FTLD, ALS and related disorders. Significantly, Dr. Lee's studies implicated the abnormal aggregation of tau, alpha-synuclein and TDP-43 in mechanisms that compromise neuronal viability. Most importantly, this research has opened up new avenues of research to identify targets for drug discovery to develop better treatments for these disorders.

Research Techniques
Protein biochemistry; cell and molecular biology; monoclonal antibody production; immunochemical and immunocytochemical techniques; tissue culture; transgenic mouse models; and electron microscopy.

Christiaan Leeuwenburgh

Title: Professor and Chief, Division of Biology of Aging, Institute on Aging, USA

Bio:

Christiaan Leeuwenburgh's research interests are aging and mitochondrial biology. Aging is thought to result from increased formations of reactive oxygen species and free radicals, mainly produced by the mitochondria, which can result in oxidative stress.

Mitochondria are organelles within cells that, when damaged, can have devastating effects on the body. When the mitochondria fail and become dysfunctional, they produce increasing amounts of reactive oxygen species (some are free radicals) and cells and tissue can be damaged and die. Reactive oxygen species are highly reactive molecules that cause damage to plasma membranes, enzymes, and DNA. Free radicals, unstable and potentially damaging molecules generated by the body's normal chemical reactions, may contribute to mitochondrial dysfunction and cell death, thereby accelerating diseases such as cardiovascular disease, diabetes, cancer, and Parkinson's disease.
Free radicals are unstable molecules because they possess one or more unpaired highly reactive electrons.These molecules can steal electrons from other molecules, thereby altering the structure. The molecule that loses an electron becomes oxidized. Oxidation is thought to damage tissues, including neurons, myocytes, and muscle cells. Normally, free radical damage is kept under control by antioxidants, compounds that protect cells from this damage.

Dr. Leeuwenburgh's research focuses on finding interventions that prevent the mitochondria from becoming dysfunctional. His focus is on genetic, pharmacological and natural (specific diet and exercise) interventions. For example, restricting the amount of calories older animals consume (or periodic fasting) has shown that these animals live 30 to 40% longer than animals not on a restricted diet and they produce less free radicals.

Leeuwenburgh says, for humans, studies have shown that people who participate in life-long exercise will, on average, live two years longer than those who do not exercise. Plus, there is substantially less disease among those who exercise regularly

Rodney Levine

Title: Senior Investigator, Protein Function in Disease Section, NHLBI

Bio:

Rodney Levine graduated from Stanford University with a B.S. in chemistry and an A.B. in biology in 1968 and earned his M.D. and Ph.D. in physiology from Stanford in 1973. He completed his residency in pediatrics at the University of Colorado Medical Center in 1975 and his fellowship in perinatal medicine at the University of Colorado Medical Center and Denver Children's Hospital in 1977. He joined the NHLBI in 1977 as a research associate and rose to become Chief of the Laboratory of Biochemistry in 2008. He is board certified in pediatrics and in neonatal-perinatal medicine and is professor emeritus at the Uniformed Services University of the Health Sciences. Dr. Levine has authored or coauthored more than 200 papers. Currently, he serves on the editorial and scientific review boards of Free Radical Biology and Medicine, Journal of Gerontology, and Mechanisms of Ageing and Development, among others. He holds memberships with the American Association for the Advancement of Science, American Pediatric Society, American Society for Biochemistry and Molecular Biology, and Society for Free Radical Biology which has named him a Fellow of the Society. Research Interests

Because eukaryotic cells depend on molecular oxygen for normal metabolism, they generate reactive oxygen species (ROS) that can cause multiple forms of cellular stress and damage. For several years, Dr. Levine has focused his research on the identification of oxidative modifications of proteins. He is interested in the conditions that give rise to modifications in which amino acids are modified, and the impact those modifications have on enzymatic function or structural integrity.

Several years ago, in collaboration with the late Earl Stadtman, Dr. Levine discovered a novel form of protein modification—carbonylation—that is now a widely accepted measure of oxidative modification in cells ranging from bacteria to humans. Carbonylation is typically associated with protein dysfunction. In a variety of species, carbonyl content rises dramatically in the last third of an organism's life and may be causally related to the phenotypic changes of aging. Although reactive oxygen species are usually promiscuous in their reactivity, Dr. Levine and his colleagues found that this modification was localized to the metal binding sites of proteins that contained them. Such binding sites normally recruit Mg^{2+}, Mn^{2+}, or Ca^{2+}, but upon binding of Fe^{3+}, the protein was rendered vulnerable to ROS modifications and loss of the metal binding site.

Dr. Levine has focused on oxidative modifications that are specific to methionine residues. This amino acid is particularly vulnerable to oxidation. Virtually every aerobic organism has at least one enzyme (methionine sulfoxide reductase) that functions to reduce oxidized methionine back to its original form. To study these modifications, Dr. Levine's laboratory is using a variety of techniques from biochemistry and mass spectrometry to transgenic mouse models with altered enzymatic activity of the reductases. Based on his research, Dr. Levine proposed the concept that methionines serve an important role as an antioxidant, both for the proteins in which they reside and the cell itself. Counter to the commonly held notion that methionines (which are hydrophobic residues) are typically buried within proteins, many methionine residues lie on the surfaces of proteins. Much like well-known antioxidant molecules

such as vitamins E and C, these exposed methionines intercept ROS and become oxidized. In this context, methionine sulfoxide reductase operates to bring the antioxidant system full circle.

More recently, Dr. Levine and his colleagues have found that methionine sulfoxide reductase catalyzes oxidation and reduction of methionine residues bidirectionally. This finding opens the door to a role for oxidative modification of methionine as a cellular signaling mechanism. Whereas ROS production has been viewed as uniformly deleterious to cellular function, it is now clear that cells actually require a certain level of oxidants for optimal function. Dr. Levine is pursuing the hypothesis that oxidative modifications of proteins are not always a negative effect of stress, but also participate in normal cellular signaling.

Gordon Lithgow

Title: Professor at The Buck Institute`

Bio:

Dr. Lithgow sheds light on the mechanisms of aging by identifying agents that extend lifespan or prevent age-related disease. He has discovered a range of factors that can lengthen life in the microscopic worm Caenorhabditis elegans, and he applies these findings to studies in human cell cultures. Much evidence points to stress contributing to a breakdown in the ability to maintain optimal molecular stability resulting in aging and disease. Certain life-extending agents help C. elegans respond to lifelong stress by remodeling the natural stress fighting cellular mechanisms, the Lithgow lab has found. For example, long-lived mutants of C. elegans are very stress resistant as a result of elevated levels of "heat shock proteins." Heat shock proteins promote longevity probably by preventing a loss of protein balance. Long-lived mutant strains are also resistant to heavy metals, so the Lithgow lab is now studying the relationship between longevity and "metallostasis"

The Lithgow lab has discovered that certain cell proteins capable of extending life can also be closely involved in disease prevention. But when proteins play such dual roles, they may sometimes make tradeoffs that affect the fate of the organism. Dr. Lithgow is studying genetic variations in "checkpoint proteins" that may create a trade-off between the rate of aging and incidence of cancer.

The Lithgow lab has made seminal discoveries in the use of pharmacological agents to intervene in aging processes, such as antioxidants that protect cells against damage from unstable chemicals called free radicals. More recently, his lab have uncovered compounds that act as "stress response mimetics" that maintain protein balance and stability. These compounds suppress pathology associated with Alzheimer's disease. The lab continues to undertake screens for chemical compounds that slow aging and extend healthspan.

Dr. Lithgow received his PhD in Genetics from the University of Glasgow, Scotland. He completed postdoctoral training at the Institute for Behavioral Genetics at the University of Colorado, Boulder. Dr. Lithgow was a Senior Lecturer in Molecular Gerontology at the School of Biological Sciences at the University of Manchester in England before coming to the Buck Institute in 2001. He is the Principal Investigator and Director of the Buck Institute's Interdisciplinary Research Consortium on Geroscience. He is also the Principal Investigator of the Larry L. Hillblom Network on the Chemical Biology of Aging, and is the Coordinator of the Hillblom Center for the Biology of Aging Support Award.

Valter Longo

Title: Director of the USC Longevity Institute

Bio:

Dr. Longo is the Edna Jones Professor in Gerontology and Professor in Biological Science. He is also the Director of the USC Longevity Institute. He is interested in understanding the fundamental mechanisms of aging in yeast, mice and humans by using genetics and biochemistry techniques. He is also interested in identifying the molecular pathways conserved from simple organisms to humans that can be modulated to protect against multiple stresses and treat or prevent cancer, Alzheimer's Disease and other diseases of aging. The focus is on the signal transduction pathways that regulate resistance to oxidative damage in yeast and mice.

Carlos Lopez-Otin

Universidad de Oviedo

Title: Lab Director, Department of Biochemistry and Molecular Biology from the Universidad de Oviedo

Bio:

The Lopez-Otin laboratory belongs to the Department of Biochemistry and Molecular Biology from the Universidad de Oviedo (Spain), and to the Instituto Universitario de Oncología del Principado de Asturias (IUOPA). Carlos Lopez-Otin is a Professor of Biochemistry and Molecular Biology at this Department, where he combines his teaching responsibilities with his research lines on Cancer and Aging Biology, as well as on the Functional Analysis of Genomes. His works have been collected in more than 350 articles in international journals and have been cited about 40,000 times to date, with an aggregate Hirsch index of h=96. He is a member of numerous journal editorial boards, committees, and scientific societies, including the Spanish Royal Academy of Sciences and the European Academy, among others. Throughout his scientific career, he has received different national and international awards and distinctions, such as the Doctorate “Honoris Causa” from the International University Menendez Pelayo, University of Zaragoza, and the Autonomous University of Chile, the “Rey Jaime I” Award in Research, the European “25th FEBS Jubilee” Award in Biochemistry, the Mexico Award in Science and Technology, and the “Santiago Ramón y Cajal” National Research Award. In 2017, he has been awarded an “ERC Advanced Grant“ from the European Union.

Janet M. Lord

INSTITUTE OF INFLAMMATION AND AGEING

UNIVERSITY OF BIRMINGHAM

Title: Director of the Institute of Inflammation and Ageing

Bio:

Janet's research focuses on the innate immune system, the body's front line defense against infection, and how the efficiency of this system is affected by ageing and stress, the latter including physical trauma and emotional stress such as bereavement. She is also interested in how the ageing of the immune system predisposes adults to chronic inflammatory diseases such as Rheumatoid Arthritis and COPD and the muscle wasting associated with age and these conditions. In all of her work she aims to translate research findings into interventions, whether lifestyle (exercise, diet) or pharmacological, to improve immunity and health in old age.

Professor Lord is also a leading member of the NIHR SRMRC, researching the impact of major trauma on the immune system and how this differs with age. Find out more about the work of the research centre on the SRMRC website.

Janet has published over 175 research papers and reviews in the fields of immunesenescence, chronic inflammatory disease and neuroendocrineimmune biology. She was elected a Fellow of the Academy of Medical Sciences in 2015 and awarded the Lord Cohen Medal by the British Society for Research into Ageing in 2013. Her research is currently funded by grants from MRC, Arthritis Research UK, NIHR, The Healing Foundation, the European Commission and the Glenn Foundation.

Alvaro Macieira-Coelho

Title: Research Director at the French National Institute of Health

Bio:

Dr. Alvaro Macieira-Coelho is a Research Director at the French National Institute of Health. He received an MD from the University of Lisbon, Portugal, and a PhD from the University of Uppsala Sweden. He made an internship at the University Hospital in Lisbon and was a research associate at the Wistar Institute in Philadelphia (USA) and at the Department of Cell Biology of the University of Uppsala (Sweden). He became Head of the Department of Cell Pathology at the Cancer Institute in Villejuif (France) and was a visiting Professor at the University of Linkoping (Sweden). He published 150 papers in professional Journals and 9 books on cancer and aging. He received the following awards: Fritz Verzar Prize (University of Vienna, Austria), “Seeds of Science”, Career Prize (Lisbon, Portugal), Dr. Honoris Causa (University of Linkoping, Sweden), Johananof International Visiting Professor (Institute Mario Negri, Milano, Italy).

Joao Pedro de Magalhaes

Quote: "I generally make the analogy of the Wright brothers, who built and flew the world's first successful aircraft. They used to look at birds and say these birds are heavier than air and they can fly. If birds can fly, we can make aeroplanes. There is no law of nature that says ageing is immutable. On the contrary we know now that ageing is surprisingly plastic in the sense that it can be manipulated by genes, it can be manipulated by evolution and it can be manipulated by diet." - Joao Pedro de Magalhaes, 2014 http://theconversation.com/ageing-isnt-fixed-we-can-manipulate-it-to-live-longer-31808

Title: Senior Lecturer, University of Liverpool
Principal Investigator, Integrative Genomics of Ageing Group

Bio:

Joao Pedro de Magalhaes graduated in Microbiology from the Escola Superior de Biotecnologia in 1999. As a doctoral fellow, he joined the Ageing and Stress Group at the University of Namur in Belgium. With Olivier Toussaint as his advisor, Magalhaes' work from 1999 to 2004 spanned molecular mechanisms of cellular senescence and responses to oxidative stress, evolutionary models of ageing, and analyses of gene networks.

He then did a postdoc from 2004 to 2008 with George Church at Harvard Medical School. In this role with Church, Magalhaes helped develop high-throughput approaches for studying ageing, including computational tools and databases, statistical models of mortality, methods for cell-based RNAi screens, and comparative genomics methods for investigating the evolution of longevity.

In 2008, Magalhaes joined the University of Liverpool to develop his own group on genomic approaches to ageing. The group was initially in the School of Biological Sciences (which later became the Institute of Integrative Biology), and is now in the Institute of Ageing and Chronic Disease. Joao Pedro de Magalhaes is also an affiliate Principal Investigator in the Neuroendocrinology and Aging Group at the University of Coimbra in Portugal.

Mark Mattson

Title: Senior Investigator, Laboratory of Neurosciences, NHLBI

Bio:

Dr. Mattson received his Ph.D. in Biology from the University of Iowa in 1986. After 3 years of postdoctoral studies in Developmental Neuroscience at Colorado State University, Dr. Mattson took a faculty position at the Sanders-Brown Research Center on Aging at the University of Kentucky Medical Center where he was promoted to Full Professor in 1997. Dr. Mattson is currently Chief of the Laboratory of Neurosciences at the National Institute on Aging, and Professor of Neuroscience at Johns Hopkins University. He is Editor-in-Chief of Ageing Research Reviews and NeuroMolecular Medicine, a Section Editor for Neurobiology of Aging, and an Associate Editor for Trends in Neurosciences. In addition, he has edited 10 volumes in the areas of mechanisms of brain function, stress responses, aging and age-related neurodegenerative disorders. Dr. Mattson is a Fellow of the American Association for the Advancement of Science, and has received numerous awards including the Metropolitan Life Foundation Medical Research Award and the Alzheimer's Association Zenith Award. He is considered a leader in the area of cellular and molecular mechanisms underlying neuronal plasticity and neurodegenerative disorders, and has made major contributions to understanding of the pathogenesis of Alzheimer's disease, and to its prevention and treatment. Dr. Mattson has published more than 400 original research articles and more than 200 review articles and commentaries.

Anne McArdle

Title: Head of the Department of Musculoskeletal Biology II, University of Liverpool

Bio:

Professor McArdle graduated with a BSc (Hons) in Biochemistry from the University of Liverpool in 1988 and completed a PhD in the Department of Medicine in 1993. Anne undertook postdoctoral training at the Institute of Gerontology at the University of Michigan and was awarded a Research into Ageing Queen Elizabeth the Queen Mother Fellowship in 1998 to examine the mechanisms by which the age-related failure of muscle to adapt to contractions resulted in sarcopenia. Anne was appointed as Lecturer at the University of Liverpool in 2001 and as Professor in the Faculty of Health and Life Sciences at the University of Liverpool in 2007. She is currently acting Head of the Department of Musculoskeletal Biology II. Anne is past Chair of the British Society for Research on Ageing and the British Council for Ageing. She is an active member of the American Physiological Society and the UK Physiological Society and Biochemical Society. Professor McArdle is Associate Editor for the American Journal of Physiology, International Advisor on the Environmental & Exercise Physiology Committee of the American Physiological Society and a core member of BBSRC Grant Committee A. Professor McArdle's work on frailty has received considerable public interest with press releases and presentation of our applied work to the general public at several events. As School Director of Postgraduate Research, Anne led a complete overhaul of student monitoring and support procedures within the School which has led to substantial improvements in the student experience.

Professor McArdle's research interests include the basic processes by which cells respond and adapt to stress and damage and in particular, the role that the age-related failure in the stress response plays in the development of age-related skeletal muscle dysfunction and has made key observations in this area of research. Her research group has demonstrated the importance of rapid induction of responses to the increased ROS generated by contractions in maintaining muscle viability and the role that attenuation of these ROS signals and responses play in muscle ageing. Anne has considerable experience of cell and molecular biological studies at the sub-cellular level through to physiological analysis of muscle function in a number of model systems including cell culture, animal models and in humans. This work is funded by the National Institutes of Health (USA), MRC, BBSRC and AgeUK.

Simon Melov

Title: Ph.D., Assistant Professor at the Buck Institute for Research on Aging

Bio:

Simon Melov is one of the founding faculty of the Institute, and has been at the Buck since its doors opened in 1999. He has broad expertise in multiple domains and model systems of aging, including C. elegans biology, functional decline with age in mice, the role of endogenous oxidative stress in the mitochondria, exercise physiology and age-related disease.

Over the last few years, a key focus of the Melov lab has been to define what “aging» means in the context of different organ systems in aging mice, and to use non-invasive techniques to quantitate and enumerate such functional changes. The end goal is to be able to relate age-related functional decline in mice to human aging. Other research interests include the development of molecular techniques to better understand how single cells change with age, and then to use that understanding to elucidate how such changes impact tissue function.

Dr. Melov has always placed a high value on collaborative studies, believing that in the current research environment, the best science is done by synergizing expertise. Based on multiple collaborations, he has published with most of the faculty at the Institute, and has maintained collaborations with researchers at other locations as well. This approach has consistently resulted in multiple discoveries being made in conjunction with other laboratories within the institute, as well as those outside.

Dr. Melov received his PhD in Biochemistry from the University of London in the UK. He held positions at Emory University in Atlanta and at the University of Colorado in Boulder before joining the faculty of the Buck Institute as an associate professor in 1999.

S. Jay Olshansky

UIC UNIVERSITY OF ILLINOIS AT CHICAGO

Quote: "My research suggests that slowing down aging will be the next great public health advance in this century because it targets multiple age-related chronic diseases. Importantly, this approach to public health can save far more health care dollars than treating one disease at a time. The time has arrived to take a new approach to chronic fatal and disabling diseases." - S. Jay Olshansky, 2016 https://www.reddit.com/r/science/comments/4eqnyf/im_s_jay_olshansky_an_epidemiologist_at_the/

Title: Professor, School of Public Health, University of Illinois at Chicago

Bio:

S. Jay Olshansky received his Ph.D. in Sociology at the University of Chicago in 1984. He is currently a Professor in the School of Public Health at the University of Illinois at Chicago, Research Associate at the Center on Aging at the University of Chicago and at the London School of Hygiene and Tropical Medicine, and Chief Scientist at Lapetus Solutions, Inc. The focus of his research to date has been on estimates of the upper limits to human longevity, exploring the health and public policy implications associated with individual and population aging, forecasts of the size, survival, and age structure of the population, pursuit of the scientific means to slow aging in people (The Longevity Dividend), and global implications of the re-emergence of infectious and parasitic diseases. Dr. Olshansky is on the Board of Directors of the American Federation of Aging Research; he is the first author of The Quest for Immortality: Science at the Frontiers of Aging (Norton, 2001) and A Measured Breath of Life (2013); and co-edited Aging: The Longevity Dividend (Cold Spring Harbor Laboratory Press, 2015). In 2016, Dr. Olshansky was honored with the Donald P. Kent Award from the Gerontological Society of America, the Irving S. Wright Award from the American Federation for Aging Research, and he was named one of Next Street's Influencer in Aging.

Alexandre Quintanilha

IBMC
INSTITUTO DE BIOLOGIA MOLECULAR E CELULAR
INSTITUTE FOR MOLECULAR AND CELL BIOLOGY

Title: Director of the Institute for Molecular and Cell Biology (IBMC) in Porto, Portugal

Bio:

Alexandre Tiedtke Quintanilha is the director of the Institute for Molecular and Cell Biology (IBMC) in Porto, Portugal and professor of biophysics. Born in Mo□ambique he completed his Ph.D. in solid state physics at Witswaterstrand University, South Africa in 1972 and at Porto University, Portugal. From 1972 to 1991 he was professor at University of California, Berkeley and Lawrence Berkeley National Laboratory, California, USA. He became Assistant Director of the Energy and Environment Division and later Director of the Center for Environmental Studies. Back in Portugal since 1991 he has served as the Dean of Science at the University of Porto and as Director of Institute for Molecular and Cell Biology (IBMC). In 2006 he was also appointed as Director of Institute for Biomedical Engineering (INEB) and as Secretary-General of the Council of Associated Laboratories.

His main areas of scientific interest concern physiological stress in animals, microorganisms and ecosystems. Alexandre Quintanilha has published close to 100 articles in peer-reviewed international journals. He is the editor/author of 6 Volumes in areas of Stress and Environment, an editorial consultant of the Encyclopedia of Applied Physics and is on the editorial boards of several international journals. Currently he serves on the committees and councils of a number of scientific organizations, such as the committees for Science and Society and Women in Science of the Federation of the European Biochemical Societies (FEBS), the Council on Research and Exploration of the National Geographic Society, USA, the Council on Biology and Biotechnology of the Foundation for Science and Technology (FST, UK) and a member of the advisory council for the Fundação da Juventude in Portugal. He is the chair of National Agency for Food Safety Scientific Council (Portugal) and the Standing Committee of Life and Environmental Sciences of the European Science Foundation (ESF).

Arvind Ramanathan

Title: PhD, Assistant Professor at the Buck Institute for Research on Aging

Bio:

Dr. Ramanathan is taking an integrative approach to answer fundamental questions in aging and musculoskeletal regeneration. His research career has spanned single DNA molecule microscopy, genomics, chemical biology, mTOR biology, skeletal muscle differentiation, cancer metabolism and metabolomics. He has recently used metabolomics and chemical biology to discover metabolic dependencies induced by oncogenes including ras, he has also identified metabolic signals that mediate mTOR signaling and skeletal muscle differentiation. Using mass-spectrometric and imaging based approaches his laboratory addresses the following questions: What are the molecular signals that integrate nutrients, and organismal and cellular physiology with tissue regeneration? And by what mechanisms does aging affect these molecular signals? How do oncogenic mutations remodel cellular metabolism?

Dr. Ramanathan was born in Pondicherry, India. He earned a doctorate in chemistry from New York University. He carried out his graduate work at New York University and University of Wisconsin Biotechnology Center. His post-doctoral work was performed at Harvard University under the mentorship of Prof. Stuart L. Schreiber, and at the Chemical Biology Program at the Broad Institute of Harvard and MIT as a research fellow. He joined the Buck Institute for Research on Aging in 2011 as assistant professor.

Thomas Rando

Quote: "If we could somehow figure out the mechanisms of aging and are able to intervene, it would potentially offer therapy to a wide variety of diseases — not just cancer, heart disease or Alzheimer's, but all of them." - Thomas Rando, 2011 http://randolab.stanford.edu/2011/02/new-center-for-research-on-aging-established-with-grant-from-glenn-foundation/

Title: Professor of Neurology, Stanford University

Bio:

Thomas Rando is a Professor of Neurology at Stanford University. At Stanford, he is also a member of Bio-X, the Cardiovascular Institute, and the Neurosciences Institute. Rando's administrative appointments throughout his career include the following: Founding Director, Muscular Dystrophy Association Clinic, Stanford Medical Center (1999 - 2003); Director, Geriatric Research, Education, and Clinical Center (GRECC), Palo Alto VA Medical Center (2000 - 2007); Chief, Neurology Service, Palo Alto VA Medical Center (1996 - Present); Deputy Director, Stanford Center on Longevity, Stanford University (2006 - Present); Director, Rehabilitation Research and Development Center of Excellence, Palo Alto VA Medical Center (2009 - Present); Director, The Glenn Laboratories for the Biology of Aging, Stanford University School of Medicine (2011 - Present). Honors and awards that Rando has received throughout his career include the following: Frederick E. Terman Fellowship, Stanford University (1996); Paul Beeson Physician Faculty Scholar in Aging, American Federation for Aging Research (1999); Ellison Medical Foundation Senior Scholar Award in Aging, The Ellison Medical Foundation (2004); NIH Director's Pioneer Award, NIH (2005); NIH Transformative R01 (coPI with Dr. Tony Wyss-Coray); NIH (2013). Rando's professional education include a AB from Harvard College in Biochemistry in 1979, an MD from Harvard Medical School in 1987 in Medicine and a PhD from Harvard University in Cell and Developmental Biology in 1987.

Suresh Rattan

AARHUS UNIVERSITET

Title: Editor-in-Chief of the international peer reviewed journal BIOGERONTOLOGY, published by Springer Publishers.

Bio:

Specialist in the biology of aging and anti-aging.
Discoverer of kinetin and zeatin for their anti-aging properties for human cells.

Proponent of the idea of hormesis - mild stress-induced beneficial effects - in aging research and interventions.

Based on the ideas about hormesis, now screening for natural and synthetic compounds termed hormetins which bring about their health beneficial and anti-aging effects by challenging the systems through stress response pathways.

Very much interested in public communication of science - especially the science of healthy aging - excellent speaker and writer.

Specialties: Skin care, healthy aging, extension of health span, discoverer of kinetin and zeatin for their use as anti-aging molecules and hormetins in cosmetics and neutriceuticals.

Holly Van Remmen

Title: Scientist, Oklahoma Medical Research Foundation

Bio:

Oklahoma Medical Research Foundation scientist Holly Van Remmen, Ph.D., has received the Denham Harman Award from the American Aging Association. The honor, the highest bestowed by the organization, was presented to Van Remmen at the Aging Association's annual meeting in Seattle earlier this month.

Established in 1978, the prize is a lifetime achievement award that recognizes scientists who have made significant contributions to the field of research in aging.

Van Remmen joined OMRF in 2013 and heads the foundation's Aging & Metabolism Research Program. Prior to that, she spent more than two decades as an aging researcher at the University of Texas Health Sciences Center in San Antonio, where she earned her Ph.D. in 1991.

Her work has focused on age-related muscle loss and amyotrophic lateral sclerosis, also known as Lou Gehrig's disease. During her career, she has made a series of important insights on muscle degeneration, and this past year she led study that found new links between traumatic brain injuries and neurodegenerative conditions.

Michael R. Rose

Quote: «Aging is not a relentless process that leads to death, «It's a transitional phase of life between being amazingly healthy and stabilizing." - Michael R. Rose, 2016, http://www.businessinsider.com/forget-everything-you-know-about-aging-2016-4

Title: Professor of Biology, University of California, Irvine

Bio:

On receiving a British Commonwealth Scholarship in 1976, Michael Rose proceeded to the University of Sussex for his doctoral studies under the supervision of Brian Charlesworth and John Maynard Smith. The subject of his doctoral research was the quantitative genetics of aging in Drosophila melanogaster.

A federally-funded research faculty position took Rose to Canada in 1981, where he became an Assistant Professor in the Department of Biology, Dalhousie University, Halifax, Nova Scotia. While at Dalhousie, Rose pursued postponed aging, beginning with the organismal physiology involved, particularly energetic metabolism. This work extended aging research in an influential new direction, combining physiology with evolution. In particular, Rose and his students showed that resistance to various stresses was a key factor in postponed aging; flies with the genetic capacity to live longer are better able to resist stress at every adult age.

In 1987, Rose returned to the United States to become an Associate Professor at the University of California, Irvine. In 1990, Rose was promoted to Professor. In 1991, his Evolutionary Biology of Aging appeared, a book that ranged from mathematical genetics to cell biology. This work offered a view of aging that was a complete departure from the views that had dominated the aging field since 1960. The journal Evolution described the field of gerontology as having become «after Rose». In 1997, Rose received the Busse Prize of the World Congress of Gerontology. In 1998, his book Darwin's Spectre was published, a popular introduction to the history and significance of evolutionary biology.

David Sinclair

Quote: “Unfortunately, because aging is so common and natural, we tend to think of it as destiny or something we should accept. But over the last 300 years, we’ve been fighting diseases that cause us to suffer.” - David Sinclair, 2015 https://www.washingtonpost.com/national/health-science/this-serious-scientist-is-working-on-an-anti-aging-pill--and-taking-it-himself/2015/08/17/07628214-3179-11e5-8f36-18d1d501920d_story.html?utm_term=.6055b4a57fe2

Title: Professor of Genetics, Harvard Medical School

Bio:

David A. Sinclair, Ph.D. is a Professor in the Department of Genetics at Harvard Medical School and co-Director of the Paul F. Glenn Center for the Biological Mechanisms of Aging. He is best known for his work on understanding why we age and how to slow its effects. He obtained his Ph.D. in Molecular Genetics at the University of New South Wales, Sydney in 1995. He worked as a postdoctoral researcher at M.I.T. with Dr. Leonard Guarente where he co discovered a cause of aging for yeast as well as the role of Sir2 in epigenetic changes driven by genome instability. In 1999 he was recruited to Harvard Medical School where his laboratory’s research has focused primarily on understanding the role of sirtuins in disease and aging, with associated interests in chromatin, energy metabolism, mitochondria, learning and memory, neurodegeneration, and cancer. Dr. Sinclair is co-founder of several biotechnology companies (Sirtris, Ovascience, Genocea, Cohbar, MetroBiotech, ArcBio, Liberty Biosecurity) and is on the boards of several others. He is an inventor on 35 patents and has received more than 25 awards and honors.

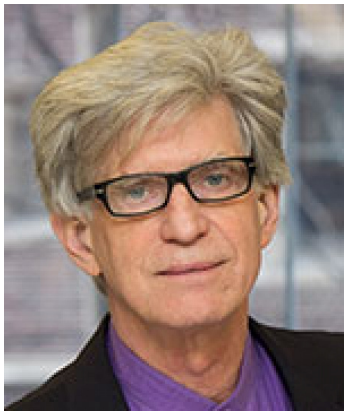
Olivier Toussaint

Title: Director of the Laboratory of Cellular Biology of the University of Namur

Bio:

Senior Research Associate of the Belgian National Fund for Scientific Research (FNRS), he established his research group twenty years ago in the Laboratory of Cellular Biology (URBC) of the University of Namur. He always loved to share his passion for research with students, through the course on ageing and senescence he delivered at the university, but also by guiding them through their doctoral training. His research activities were first focused on the interactions between stress and cellular senescence, and he was a pioneer in the concept of SIPS or Stress Induced Premature Senescence. He then turned his attention to the toxicity of nanoparticles and created a new group on this subject. Author of more than 100 scientific publications, he was renowned for his expertise beyond Belgium. Readily, he developed European and international collaborations. He was a partner and coordinator of several EU projects in his two areas of research. In particular, he was responsible for two European coordination actions, ‘‘Linkage’’ and ‘‘WhyWeAge’’. These actions resulted in a series of thematic workshops allowing people in the ageing field to connect and collaborate but also to raise awareness of European policymakers on the importance of ageing andthe needto support ageing research.By virtue of his visionary and entrepreneurial leadership, Olivier developed several lines of innovative research and was one of the founding pillars of the Straticell company and of the Namur Nanosafety Center. Although he rarely spoke of hisillness, he was conscious ofits progression and lived his life and his career in the fast lane. The number of projects he brought is impressive, as was his ability to create research networks

John Trojanowski



Title: Director of a National Institute of Aging (NIA) Alzheimer's Disease Center
Director of a Institute on Aging

Bio:

Dr. Trojanowski obtained his M.D./Ph.D. in 1976 from Tufts University in Boston. After a medicine internship at Mt. Auburn Hospital and Harvard Medical School, he began pathology/neuropathology training at Massachusetts General Hospital and Harvard Medical School (1977-1979), and completed training at the University of Pennsylvania School of Medicine in 1980 where he was appointed assistant professor of Pathology and Laboratory Medicine (1/1/1981) and rose to tenured full professor in 1990. Dr. Trojanowski holds major leadership positions at the University of Pennsylvania including: Director of a National Institute of Aging (NIA) Alzheimer's Disease Center (1991-present), Principal Investigator of a NIA Program Project Grant on Alzheimer's (AD) and Parkinson's (PD) disease (1990-present), Director of Medical Pathology (1988-2002), Interim Director (2001-2002) and Director (2002-present) of the Institute on Aging, Co-Director (1992-present) of the Center for Neurodegenerative Disease Research, named the first William Maul Measey -Truman G. Schnabel, Jr., M.D., Professor of Geriatric Medicine and Gerontology in 2003 and Co-director of the Marian S. Ware Alzheimer Drug Discovery Program.

For >15 years, Dr. Trojanowski has conducted research on AD, PD, motor neuron disease, dementia with Lewy bodies (DLB), frontotemporal dementias (FTDs) and related disorders. Most of his >500 publications focus on the pathobiology of neurodegenerative disorders, especially the role of abnormal filamentous protein aggregates in these diseases. Dr. Trojanowski received awards for his research including: a MERIT Award (1986-1994) from the National Institutes of Health (NIH), the Metropolitan Life Foundation Promising Investigator Award For Alzheimer's Disease Research (1991), membership in the American Society of Clinical Investigation (1991), an Established Investigator Award from the National Alliance for Research on Schizophrenia and Depression (1994), the Metropolitan Life Foundation Award For Alzheimer's Disease Research (1996), the Potamkin Prize For Research In Pick's, Alzheimer's And Related Diseases (1998), the first Pioneer Award from the Alzheimer's Association (1998), ISI Highly Cited Researcher 2000 (most highly cited neuroscientists for 1981-1999), the Stanley Cohen Biomedical Research Award of the University of Pennsylvania (2000), membership in the Association of American Physicians (2000), the 2004 Irving Wright Award of Distinction of the American Federation for Aging Research, and the 2005 Rous-Whipple Award of the American Society for Investigative Pathology. He was elected President of the American Association of Neuropathologists (1997-1998), and is on the editorial board of several neuroscience and pathology journals.

Dr. Trojanowski was elected to the Institute of Medicine (2002) and he has served and continues to serve on local and national aging research committees including the NIA Neuroscience, Behavior and Sociology of Aging Study Section (1987-1991), the National Advisory Council on Aging (NACA) of the NIA (1994-1998), the NACA Working Group Chair (1996-1998), the Medical and Scientific Advisory Board of the National Alzheimer's Association (1994-1997) as well as of the Southeastern Pennsylvania Chapter of the Alzheimer's Association (1992- present), the NIA Board of Scientific

Counselors (1998-present), the Scientific Advisory Boards of the Paul Beeson Physician Faculty Scholars In Aging Award (1998-present), the Alliance for Aging Research (2002-present) and the Association of Frontotemporal Dementia (2003-present), the Program Committee of the World Alzheimer Congress 2000 (1998-2000), Chair of the «Biology of Synuclein and Cortical Lewy Bodies Associated with Dementia in AD, LBD, and PD» (July, 2001) and «Genetics of Alzheimer's Disease (March, 2002) workshops organized by NIA and the National Institute on Neurological Diseases and Stroke in Bethesda, Maryland, and the Organizing Committee of the 6th (Seville, Spain, 2003) and 7th (Sorrento, Italy, 2005) International Conferences On Progress In Alzheimer's And Parkinson's Disease (2001-2005).

James Vaupel

MAX-PLANCK-INSTITUT
FÜR DEMOGRAFISCHE
FORSCHUNG

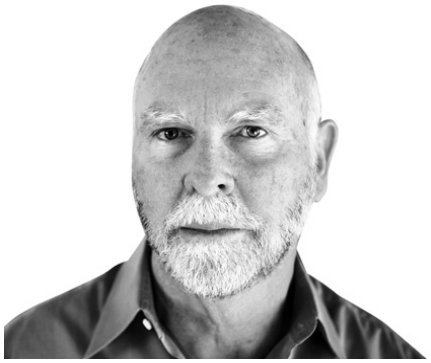
Title: Founding Director of the MPIDR
Head of the Laboratories of Survival and Longevity and of Evolutionary Demography

Bio:

James W. Vaupel is Founding Director of the MPIDR and Head of the Laboratories of Survival and Longevity and of Evolutionary Demography. Since January 2013 he has also been heading the newly founded Max-Planck Odense Center on the Biodemography of Aging. James W. Vaupel studied mathematical statistics and received his PhD in public policy at Harvard University. After serving as a professor at Duke University, the University of Minnesota, and the University of Southern Denmark, he became Founding Director of the MPIDR in 1996. James W. Vaupel is a leading scientist in the field of aging research, and has been instrumental in developing and advancing the idea of the plasticity of longevity. He pioneered research on the heterogeneity of mortality risks, and on the deceleration of death rates at the highest ages.

J. Craig Venter

J. Craig Venter®
INSTITUTE



Quote: ""Your age is your No. 1 risk factor for almost every disease" - Craig Venter, 2014 https://www.nytimes.com/2014/03/05/business/in-pursuit-of-longevity-a-plan-to-harness-dna-sequencing.html

Title: Founder, Chairman, and Chief Executive Officer, J. Craig Venter Institute
Institution

Bio:

J. Craig Venter, Ph.D., is founder, chairman, and CEO of the J. Craig Venter Institute (JCVI), a not-for-profit, research organization dedicated to human, microbial, plant, synthetic and environmental genomic research, and the exploration of social and ethical issues in genomics.

Dr. Venter is co-founder, executive chairman and co-chief scientist of Synthetic Genomics, Inc. (SGI) and is also a co-founder and executive chairman of Human Longevity, Inc. (HLI).

Dr. Venter began his formal education after a tour of duty as a Navy Corpsman in Vietnam from 1967 to 1968. After earning both a Bachelor's degree in Biochemistry and a Ph.D. in Physiology and Pharmacology from the University of California at San Diego, he was appointed professor at the State University of New York at Buffalo and the Roswell Park Cancer Institute. In 1984, he moved to the National Institutes of Health campus where he developed Expressed Sequence Tags or ESTs, a revolutionary new strategy for rapid gene discovery. In 1992 Dr. Venter founded The Institute for Genomic Research (TIGR, now part of JCVI), a not-for-profit research institute, where in 1995 he and his team decoded the genome of the first free-living organism, the bacterium Haemophilus influenzae, using his new whole genome shotgun technique.

In 1998, Dr. Venter founded Celera Genomics to sequence the human genome using new tools and techniques he and his team developed. This research culminated with the February 2001 publication of the human genome in the journal, Science. He and his team at Celera also sequenced the fruit fly, mouse and rat genomes.

Dr. Venter is one of the most frequently cited scientists, and the author of more than 280 research articles.

Jan Vijg

Title: Professor at the Buck Institute for Age Research

Bio:

Jan Vijg, Ph.D. is Professor at the Buck Institute for Age Research, Novato, California. He is the author of more than 200 scientific publications and holds eight patents in research processes and methodologies. In 1989 he helped develop the MutaMouse™, the first transgenic animal engineered to detect gene mutations in a living organism. This allowed scientists to monitor the effects of toxic agents on mouse DNA in any of its tissues or organs. Since that time, he has developed new versions of this mouse model, which make it easy for researchers to monitor ongoing changes in DNA in different tissues or during various developmental stages of the mouse lifespan.

Research at the Vijg Lab is focused on genome instability and the mechanisms through which this may cause human disease and aging. Genome instability is generally considered as a cause of cancer since Theodor Boveri proposed, over 100 years ago, that cancer is based on aberrant chromosome combinations. When in the late 1940s it was discovered that low, daily doses of radiation accelerated symptoms of normal aging in rodents (including non-cancer, degenerative symptoms), the possibility was considered — by such eminent scientists as Leo Szilard, Frank Macfarlane Burnet and Howard Curtis — that genome instability could play a general role in the etiology of human aging and disease.

This possible connection between damage to the genome and aging found strong support in the discovery that heritable defects in genome maintenance are often associated with premature aging, as for example in Werner Syndrome and Hutchinson Gilford Progeria Syndrome. The DNA repair defects present in these conditions, and other defects as well, have been engineered in mice and shown to also cause premature aging in these animals. Interestingly, while such defects sometimes increase both cancer and non-cancer, degenerative symptoms, they often greatly reduce spontaneous tumor formation. This antagonism between cancer and aging is still incompletely understood. In general, research in this area has now begun to attract increased attention and is the main topic of his NIH program project “DNA repair, mutations and cellular senescence” which began in 1999.

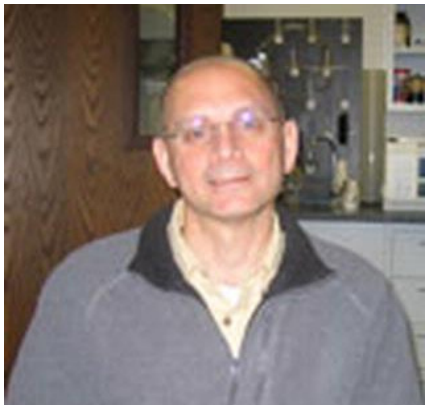
Bryant Villeponteau

Title: VP of R&D with Genescient Corporation

Bio:

He has 30 years of scientific leadership experience and about 60 journal and patent publications. Dr. Villeponteau holds a B.A. in Economics, a M.A. in Biostatistics, and a Ph.D. in Molecular Biology from UCLA. Bryant was Assistant Research Chemist in the Department of Chemistry and Biochemistry at UCLA for 4 years and Assistant Professor of Biological Chemistry at the University of Michigan Medical School for 6 years. Bryant then led a research group at Geron Corporation for 4.5 years, where he was the lead inventor in cloning human telomerase, thereby wining the Distinguished Inventor Award for the 2nd best US patent of 1997. As the Champion of Telomerase Therapeutics at Geron, he also worked on human stem cells, which were pioneered by Geron in the 90s. Bryant then joined HealthSpan Sciences, Inc. as CSO and later served as CEO for three years. For the next 8 years, Dr. Villeponteau served as a VP/consultant for Sierra Sciences. From September of 2008 to present, Dr. Villeponteau has been the VP of R & D with Genescient Corporation. Bryant also cofounded Centagen, Inc. in January of 2009, and Life Code LLC in October of 2010 to market Stem Cell 100TM.

Stephen Welle

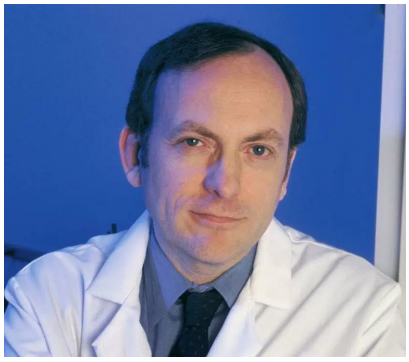


Title: Director of the Functional Genomics Center, University of Rochester

Bio:

After receiving his B.S. in Psychology from the University of Illinois, Dr. Welle obtained a Ph.D. in Neurobiology from Northern Illinois University. Dr. Welle's research deals with regulation of muscle protein metabolism and gene expression, and how these are affected by aging and by endogenous growth factors. He also collaborates with faculty in the neuromuscular research group (neurology department) to study the effects of muscular dystrophies on gene expression. Finally, Dr. Welle plays a critical role in running many of the core facilities at the University of Rochester, serving as Director of the Functional Genomics Center and the CRC Core laboratory.

Michael West



Quote: "My experiences have made me more certain than ever that science can uncover mysteries of nature that we couldn't have imagined – and unlock their power. And we're not finished yet – I believe there are still a lot of surprises to come." - Michael West, 2016
https://thetranslationalscientist.com/issues/0816/lessons-ive-learned-with-michael-west/

Title: Chief Executive Officer, BioTime

Bio:

Dr. Michael West is the Chief Executive Officer of BioTime, Inc. He received his Ph.D. from Baylor College of Medicine in 1989 concentrating on the biology of cellular aging. He has focused his academic and business career on the application of developmental biology to the age-related degenerative disease.

He was the founder and first CEO of Geron Corporation and from 1992 to 1998 he was a Director, and Vice President, where he initiated and managed programs in telomerase diagnostics, oligonucleotide-based telomerase inhibition as anti-tumor therapy, and the cloning and use of telomerase in telomerase-mediated therapy wherein telomerase is utilized to immortalize human cells.

From 1998 to 2007 he was President and Chief Scientific Officer at Advanced Cell Technology, Inc. now Ocata Therapeutics where he managed programs in nuclear transfer, retinal differentiation, and PureStemTM, a technology for the multiplex derivation and characterization of diverse clonal human embryonic progenitor cell lines.

In 2013 he led BioTime's efforts to acquire Geron's stem cell assets through the subsidiary Asterias Biotherapeutics.

Xianmin Zeng

Title: PhD, Associate Professor at the Buck Institute for Research on Aging

Bio:

Dr. Zeng is exploring one of the most hopeful prospects of current biomedical research – that versatile stem cells may some day be a source of replacement cells for damaged tissues of the brain and other organs. She is working toward a treatment for Parkinson's disease, which causes the death of nerve cells in the brain that are needed for agile and controlled muscle movement. Symptoms of the disabling malady include hand tremors and an inability to walk.

Dr. Zeng has developed methods to induce stem cells to transform into the type of nerve cells that are depleted in Parkinson's disease. These nerve cells produce dopamine, a chemical signal that helps deliver the brain's orders to the muscles. Her team has been able to derive such nerve cells from embryonic stem cells, and also from the modified adult cells called induced pluripotent stem cells. These induced pluripotent stem cells can mimic the versatility of embryonic stem cells.

The Zeng lab has tailored a process to make and purify its nerve cell preparations to improve their safety as potential treatments in humans. These nerve cells could also be used for the testing of potential new drugs, and for basic research on the mechanisms of disease.

Dr. Zeng earned a PhD in Molecular Biology at the Technical University of Denmark, and then began research on human embryonic stem cells during her postdoctoral training at the National Institutes of Health. She joined the Buck Institute in 2005. The California Institute for Regenerative Medicine, the state's stem cell research funding agency, has awarded Zeng grant funds to establish a shared research laboratory and to develop a stem cell course as well as to lead an effort to get a stem cell treatment for Parkinson's disease ready for clinical trials.

Alexander Zhavoronkov

Quote: ""I think that even people past their 70s, who are in good health, have a fighting chance to live past 150." - Alexander Zhavoronkov, 2015 http://www.telegraph.co.uk/news/science/science-news/11562492/Meet-the-doctor-who-is-convinced-he-will-live-to-150.html

Title: Director and Trustee, Biogerontology Research Foundation

Bio:

Alex Zhavoronkov, PhD, is the director and a trustee of the Biogerontology Research Foundation, a UK-based think tank supporting aging research worldwide and is the founder of the International Aging Research Portfolio, a curated knowledge management system for aging research. He heads the laboratory of regenerative medicine at the Clinical Research Center for Pediatric Hematology, Oncology and Immunology where his research interests include Hutchinson-Gilford Syndrome, new methods of cellular reprogramming, molecular mechanisms of skin and cartilage regeneration and personalized medicine in oncology. He is also the international adjunct professor at the Moscow Institute of Physics and Technology.

Together with scientists from Canada, Russia and the US, he co-founded the First Oncology Research and Advisory Center, a personalized medicine organization providing contract research services to oncologists interested in gene expression and activated signalling pathway analysis and predicted effectiveness of targeted drugs to improve clinical decision making.

He is also the head of research at NeuroG Neuroinformatics, a neuroinformatics company developing algorithms for cost-effective EEG devices to recognize imagined visual images and delay the onset of age-related neurodegenerative diseases.

He holds two bachelor degrees from Queen's University, a masters in biotechnology from Johns Hopkins University and a PhD in physics and mathematics from the Moscow State University.

Part X

Top 50 Longevity Databases

Analytical Report 2017

AGING ANALYTICS AGENCY
Invest for life

Biogerontology Research Foundation
Prevent. Restore. Preserve.

DEEP KNOWLEDGE LIFE SCIENCES

Top Longevity Databases

1. AgeFactDB - The JenAge Ageing Factor Database
2. AgeInfo
3. AgeLine
4. AGEMAP
5. AgeStats and - AgeSource Worldwide
6. AGID - AGing Integrated Database
7. Aging Genes and Interventions Database
8. AlzGene Database
9. Alzheimer Disease & Frontotemporal
10. Atlas of Genetics and Cytogenetics in Oncology and Haematology
11. CDC Wonder
12. CID - Cross-Species Interactome Database
13. DAA - Digital Ageing Atlas
14. DrugAge
15. ERA-AGE Database
16. European Health for All Database (HFA-DB)
17. European mortality database (MDB)
18. GenAge
19. GenDR
20. GeroProtectors
21. GeroStat
22. GGP - Generations & Gender Programme
23. HFD - The Human Fertility Database
24. HMD - The Human Mortality Database
25. Human Life
26. IARP - International Aging Research Portfolio Database
27. IDB - International Data Base
28. IDL - International Database on Longevity
29. International Alzheimer's Disease Portfolio (IADRP)
30. iPAD - iNTERNET PRIMATE AGING DATABASE
31. K-T database - Kannisto-Thatcher Database on Old Age Mortality
32. Lifespan Observtions Database
33. LongevityMap
34. Longevity.international
35. Longevity Records
36. MitoInteractome
37. MITOMAP
38. MPD - Mouse Phenome database
39. Mutation Database for Parkinson's Disease (MDPD)
40. NACDA - National Archive of Computerized Data on Aging
41. NDAR - National Database of Ageing Research
42. NetAge
43. NIA - Population Studies Database
44. PDGene Database
45. PhenomicDB
46. PRIDE - PRoteomics IDEntifications database
47. REPAIRtoire
48. Shared Ageing Research Models (ShARM UK)
49. SurvCurv
50. The Silver Book
51. TMIG- 2DPAGE Database

AgeFactDB - The JenAge Ageing Factor Database

Website: http://agefactdb.jenage.de

Description:

The JenAge Ageing Factor Database AgeFactDB is aimed at the collection and integration of ageing phenotype and lifespan data. Ageing factors are genes, chemical compounds or other factors such as dietary restriction, for example.

In a first step ageing-related data are primarily taken from existing databases. In addition, new ageing-related information is included both by manual and automatic information extraction from the scientific literature.

Based on a homology analysis, AgeFactDB also includes genes that are homologous to known ageing-related genes. These homologs are considered as candidate or putative ageing-related genes.

AgeInfo

Website: http://www.cpa.org.uk/ageinfo/ageinfo.html

Description:

AgeInfo is an information service about old age and ageing. It includes a bibliographic database, detailed information about organisations active in the field of Old Age and Ageing and an international Calendar of Events (courses, conferences, meetings, training sessions, etc.).

Data access requires a payment.

EBSCO Health

AgeLine

Website: https://health.ebsco.com/products/ageline

Description:

This database focuses exclusively on issues of aging and the population of people aged 50 years and older. Updated on a weekly basis, AgeLine is the premier online resource for social gerontology research.

AgeLine covers the literature of social gerontology and includes aging-related content from the health sciences, psychology, sociology, social work, economics, and public policy. It indexes over 600 journals, books, book chapters, reports, dissertations, consumer guides, and educational videos.

Data access requires a payment.

AGEMAP: a gene expression database for aging in mice

AGEMAP

Website: http://cmgm.stanford.edu/~kimlab/aging_mouse/

Description:

We present the AGEMAP gene expression database, which is a resource cataloging genome-wide changes in gene expression as a function of age in mice. The AGEMAP database includes expression changes for 8,932 genes in 16 tissues as a function of age. We found great heterogeneity in the amount of transcriptional changes with age in different tissues. Some tissues displayed large transcriptional differences in old mice, suggesting that these tissues may contribute strongly to organismal decline. Other tissues showed little or no changes in expression with age, indicating strong levels of homeostasis throughout life. Based on the pattern of age-related transcriptional changes, we found that most tissues could be classified into one of three distinct modes for aging: a pattern common to neural tissues, a pattern for vascular tissues, and a pattern for glandular tissues. We observed that different tissues age in a coordinated fashion in individual mice, such that certain individual mice exhibit rapid aging whereas other individuals exhibit slow aging for multiple tissues. Finally, we compared the transcriptional profiles for aging in mice to those from humans, flies and worms. We found that genes involved in the electron transport chain show common age-regulation in all four species, indicating that these genes may be exceptional good markers of age. However, we saw no overall correlation between age-regulation in mice and in humans, indicating that the aging process in mice and humans may be fundamentally different.

AgeStats and - AgeSource Worldwide

Website: http://www.aarpinternational.org/resource-library/agesource-agestats

Description:

These two databases have been created by AARP to facilitate the international exchange of policy and program-relevant information in aging. AgeSource Worldwide identifies several hundred information resources in some 25 countries which are significant either in size or in their unique coverage of particular aging-related issues. The resources include, among others, clearinghouses, libraries, databases, training modules, major reports, and Web metasites. More about AgeSource Worldwide AgeStats Worldwide provides access to comparative statistical data that compare the situation of older adults across countries or regions around a variety of issues areas. The most recent data and projections as far ahead as 2060 are provided where available.

Administration for Community Living
AGing Integrated Database (AGID)

AGID - AGing Integrated Database

Website: https://agid.acl.gov/

Description:

The AGing Integrated Database (AGID) is an on-line query system based on ACL-related data files and surveys, and includes population characteristics from the Census Bureau for comparison purposes. The four options or paths through AGID provide different levels of focus and aggregation of the data – from individual data elements within Data-at-a-Glance to full database access within Data Files.

Before you begin your query, please review AGID's Resources section with an "About AGID" overview, descriptions of data sources, and frequently asked questions (FAQs). Even experienced AGID users may find the Resources documentation helpful. At any time, you may select from one of the four options below and follow the system prompts. If you need additional assistance, please complete an AGID Support request from the link found at the bottom left of every AGID screen.

Aging Genes and Interventions Database

Website: http://www.uwaging.org/genesdb/

Description:

AnAge is a curated database of ageing and life history in animals, including extensive longevity records. It was primarily developed for comparative biology studies, in particular studies of longevity and ageing.

AlzGene Database

Website: http://www.alzgene.org/

Description:

We have developed this special section of the Alzforum website to provide a resource for all who share an intense interest in familial early-onset AD (eFAD). We have created this series of articles for patients, family members, doctors and care providers, who need reliable, up-to-date information about diagnosis, treatment, genetic counseling and testing, and life issues connected with having this hereditary disorder.

Alzheimer Disease & Frontotemporal

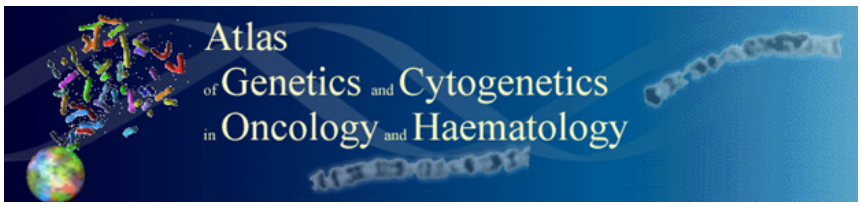
Website: http://www.molgen.ua.ac.be/ADMutations/

Description:

The Alzheimer Disease & Frontotemporal Dementia Mutation Database (AD&FTDMDB) aims at collecting all known mutations and non-pathogenic coding variations in the genes related to Alzheimer disease (AD) and frontotemporal dementia (FTD).

The AD&FTDMDB website was launched in September 1999 as a locus-specific database (Horaitis et al., Nature Genetics 39: 425, 2007) following the guidelines of the Human Genome Variation Society. In 2007, a link to the UCSC human genome browser was made in collaboration with PhenCode.

The database is updated continuously and contains mutations reported in the literature and at scientific meetings, and unpublished mutations directly submitted to the database. To date, AD&FTDMDB contains mutations in the genes encoding the Amyloid Beta Precursor Protein (APP), Presenilin 1 (PSEN1), Presenilin 2 (PSEN2), chromosome 9 open reading frame 72 (C9orf72), Chromatin Modifying Protein 2B (CHMP2B), fusion (involved in t(12;16) in malignant liposarcoma) (FUS), Granulin (GRN), Microtubule Associated Protein Tau (MAPT), TAR DNA binding protein (TARDBP), TANK-binding kinase 1 (TBK1) and Valosin-containing Protein (VCP) and holds 517 different mutations observed in 1646 patients or families.



Atlas of Genetics and Cytogenetics in Oncology and Haematology

Website: http://atlasgeneticsoncology.org/

Description:

The Atlas of Genetics and Cytogenetics in Oncology and Haematology is a peer reviewed on-line journal and database devoted to genes, cytogenetics, and clinical entities in cancer, and cancer-prone diseases.

CDC Wonder

Website: https://wonder.cdc.gov/

Description:

CDC Wide-ranging ONline Data for Epidemiologic Research (CDC WONDER) is a web application that makes many health-related data sets available to the worldwide public health community. Users include state and local health departments, academic researchers, healthcare providers, CDC surveillance programs, and the general public. The data found on CDC WONDER aid users in public health research, decision making, priority setting, program evaluation, and resource allocation.
CDC WONDER manages nearly 20 collections of public-use data for U.S. births, deaths, cancer diagnoses, Tuberculosis (TB) cases, vaccinations, environmental exposures, and population estimates, among many other topics. These data collections are available as online databases, which provide public access to adhoc queries, summary statistics, maps, charts, and data extracts. Most of the data are updated annually; some collections are updated monthly or weekly. System functions include the following: creates tables, maps, charts, and data exports with the ability to index data from any field or limit data by any field; produces ad-hoc summary statistics, such as frequency counts, rates, confidence intervals, standard errors, and percentages; organizes data results into categories; and compares specific populations, locations, and/or groups of people with custom measures, such as age-adjusted rates calculated with various standard populations. These data are available in several file formats, including web pages (HTML), chart and map images (jpgs), and spreadsheet files (simple text [ASCII] with tab-separated values).

CID - Cross-Species Interactome Database

Website: http://cisban-silico.cs.ncl.ac.uk/cid.html

Description:

The CISBAN Interactomes Database (CID) integrates interaction data from a range of model organisms used in ageing research. The project has two specific goals. The first is to integrate individual interaction datasets from publicly available data sources for each organism into a weighted probabilistic network. The second is to facilitate comparative interactomics analyses by providing a tool to transfer and compare interaction data between different organisms.

DAA - Digital Ageing Atlas

Website: http://ageing-map.org/

Description:

The Digital Ageing Atlas (DAA) is a portal of age-related changes covering different biological levels. It integrates molecular, physiological, psychological and pathological age-related data to create an interactive portal that serves as the first centralised collection of human ageing changes and pathologies.

To facilitate integrative, system-level studies of ageing, the DAA provides a centralised source for ageing-related data as well as basic tools to query and visualize the data, including anatomical models. Data in the DAA is manually curated from the literature and retrieved from public databases. For more detailed analyses users are able to download the entire database.

The DAA primarily focuses on human ageing, but also includes supplementary mouse data, in particular gene expression data, to enhance and expand the information on human ageing.

DrugAge

Website: http://genomics.senescence.info/drugs/

Description:

The DrugAge database contains an extensive compilation of drugs, compounds and supplements (including natural products and nutraceuticals) with anti-ageing properties that extend longevity in model organisms. Our focus is on drugs/compounds potentially impacting on ageing, and therefore drugs/compounds extending lifespan in disease-prone animals (e.g., cancer models) are excluded.

ERA-AGE Database

Website: http://era-age.group.shef.ac.uk/explore-the-database.html

Description:

The aim of ERA-AGE 2 is to enlarge the consortium to a critical mass and use this to mount Europe's first ageing research programme supported principally by the Member States: the New European Dynamics of Ageing Programme (NEDA).

ERA-AGE 2 comprises thirteen partners who are each public authorities responsible for the funding and coordination of national research programmes, and since 2009 has recruited six associate partners. The expansion of the consortium enables and maximises the sharing of experiences and build a critical mass of ageing research.

The network is coordinated by the UK representative The New Dynamics of Ageing Programme and it is supported by a steering group of project partners.

European Health for All Database (HFA-DB)

Website: http://www.euro.who.int/en/data-and-evidence/databases/european-health-for-all-family-of-databases-hfa-db

Description:
Provides a selection of core health statistics covering basic demographics, health status, health determinants and risk factors, and health-care resources, utilization and expenditure in the 53 countries in the WHO European Region. It allows queries for country, intercountry, and regional analyses.

Since the mid-1980s, Member States of the WHO European Region have been reporting essential health-related statistics to the Health for All (HFA) family of databases, making it one of WHO's oldest sources of data. As it is based on reported data, rather than estimates, the HFA family of databases is also particularly valuable.

HFA databases bring together the indicators that are part of major monitoring frameworks relevant to the Region, such as Health 2020 and the Sustainable Development Goals. The indicators cover basic demographics, health status, health determinants and risk factors, as well as health care resources, expenditures and more.

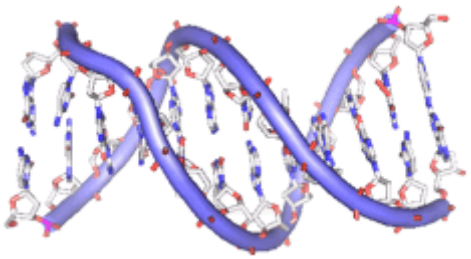
HFA databases allow access to regional, national and some subnational indicators and metadata, which are visualized through interactive online tools in the Health for All explorer. Data, metadata, graphs and maps can be exported or shared online and on social media.

European mortality database (MDB)

Website: http://data.euro.who.int/hfamdb/

Description:

WHO is the authority responsible for public health within the United Nations system. The WHO Regional Office for Europe (WHO/Europe) is one of WHO's six regional offices around the world.
It serves the WHO European Region, which comprises 53 countries, covering a vast geographical region from the Atlantic to the Pacific oceans. WHO/Europe staff are public health, scientific and technical experts, based in the main office in Copenhagen, Denmark, in 3 technical centres and in country offices in 29 Member States.

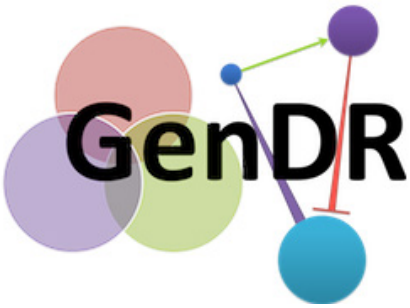


GenAge

Website: http://genomics.senescence.info/genes/

Description:

Welcome to GenAge, the benchmark database of genes related to ageing. GenAge is divided into genes related to longevity and/or ageing in model organisms (yeast, worms, flies, mice, etc.) and ageing-related human genes. The section on human ageing-related genes includes the few genes directly related to ageing in humans plus the best candidate genes obtained from model organisms. Human genes are thus considerably better annotated and include more information. GenAge is manually curated by experts to ensure high-quality content



GenDR

Website: http://genomics.senescence.info/diet/

Description:

Dietary restriction (DR), limiting nutrient intake from diet without causing malnutrition, retards age-related degeneration and extends lifespan in multiple organisms. DR induces multiple changes, yet its underlying mechanisms remain poorly understood. To facilitate research on the genetic and molecular mechanisms of DR-induced life-extension, we developed GenDR, a database of genes associated with DR. GenDR includes two datasets: 1) genes inferred from experiments in model organisms in which genetic manipulations cancel out or disrupt the life-extending effects of DR; 2) genes robustly altered due to DR, derived from a meta-analysis of microarray DR studies in mammals. An analysis of the gene network of DR has also been performed using GenDR.

Understanding the genetic basis of DR is of great importance not only to the biology of ageing but to understand how diet can influence ageing, longevity, health and age-related diseases. Pharmaceutical interventions that target DR-associated genes are also an emerging area with huge potential.

GeroProtectors

Website: http://geroprotectors.org/

Description:

A "geroprotector" is any intervention that aims to increase longevity, or that reduces, delays or impedes the onset of age-related pathologies by hampering aging-related processes, repairing damage or modulating stress resistance.

The Geroprotectors.org database comprises more than 250 life-extension experiments in 11 wild-type model organisms (including M. musculus and C. elegans, among others). We gathered data about more than 200 chemicals promoting longevity, including compounds approved for human use. This database integrates information about lifespan-increasing experiments and related compounds, suppression of aging mechanisms, activation of longevity mechanisms and age-related diseases obtained from research papers and databases.

Geroprotectors.org is intended as a tool for accelerating the process of identifying geroprotectors from a variety of existing substances through pharmacological modeling and biostatistical analysis to reveal new substances with geroprotective effects.

GeroStat

Website: http://www.gerostat.de/en/index.html

Description:

GeroStat offers gerontological and demographic data from official statistics and from social research. GeroStat is an information service provided by the German Centre of Gerontology, Berlin and funded by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth.

GGP - Generations & Gender Programme

Website: http://www.demogr.mpg.de/cgi-bin/databases/GGP/index.plx?dest=nidi

Description:

Welcome to the Contextual Database (CDB) and to the Contextual Data Collection (CDC) of the Generations and Gender Programme (GGP).

The Contextual Database gives easy and open access to comparable, aggregated contextual data, which can be linked to the individual level data of the Generations and Gender Surveys. It contains demographic, economic, and policy indicators. We provide data at the national level, and, wherever possible, at the regional level, for GGP countries as well as other countries in Europe, North America. The Contextual Data Collection are zip-files containing the original data collected by the national partners of GGP-countries for the Contextual Database. It gives access also to those indicators, which have until now not been harmonised across countries. The Contextual Data Collection is available for download on the main page of the database.

The Human Fertility Database

HFD - The Human Fertility Database

Website: http://www.humanfertility.org/cgi-bin/main.php

Description:

The Human Fertility Database (HFD) is a joint project of the Max Planck Institute for Demographic Research (MPIDR) in Rostock, Germany and the Vienna Institute of Demography (VID) in Vienna, Austria, based at MPIDR. We seek to provide free and user-friendly access to detailed and high-quality data on period and cohort fertility and thus to facilitate research on changes and inter-country differences in fertility in the past and in the modern era. The HFD is entirely based on official vital statistics and places a great emphasis on data checking and documentation and on warranting data comparability across time and countries by means of uniform methodology.

The Human Mortality Database

HMD - The Human Mortality Database

Website: http://www.mortality.org/

Description:

The Human Mortality Database (HMD) was created to provide detailed mortality and population data to researchers, students, journalists, policy analysts, and others interested in the history of human longevity. The project began as an outgrowth of earlier projects in the Department of Demography at the University of California, Berkeley, USA, and at the Max Planck Institute for Demographic Research in Rostock, Germany (see history). It is the work of two teams of researchers in the USA and Germany (see research teams), with the help of financial backers and scientific collaborators from around the world (see acknowledgements). The Center on the Economics and Development of Aging (CEDA) French Institute for Demographic Studies (INED) has also supported the further development of the database in recent years.

Human Life Table Database

Human Life

Website: http://www.lifetable.de/

Description:

Life tables describe the extent to which a generation of people (i.e. life table cohort) dies off with age. Life tables are the most ancient and important tool in demography. They are widely used for descriptive and analytical purposes in demography, public health, epidemiology, population geography, biology and many other branches of science.

The Human Life-Table Database is a collection of population life tables covering a multitude of countries and many years. Most of the HLD life tables are life tables for national populations, which have been officially published by national statistical offices. Some of the HLD life tables refer to certain regional or ethnic sub-populations within countries. Parts of the HLD life tables are non-official life tables produced by researchers.

HLD includes the following types of data:

- complete life tables in text format;
- abridged life tables in text format;
- references to statistical publications and other data sources;
- scanned copies of the original life tables as they were published.

Three scientific institutions are jointly developing the HLD: the Max Planck Institute for Demographic Research (MPIDR) in Rostock, Germany, the Department of Demography at the University of California at Berkeley, USA and the Institut national d'études démographiques (INED) in Paris, France. The MPIDR is responsible for maintaining the database.

A big set of life tables was collected for and given to the HLD by Dr. Väinö Kannisto, a former United Nations advisor on demographic and social statistics. Professor J.W.Vaupel, Founding Director of the MPIDR, provided a general guidance to the HLD project.

Also supported the further development of the database in recent years.

IARP - International Aging Research Portfolio Database

Website: http://agingportfolio.org/

Description:

The International Aging Research Portfolio (IARP) is an independent initiative serving the aging research community, academic, corporate, patient advocacy and charitable funding organizations worldwide.

The AgingPortfolio.Org system is a flexible and highly scalable knowledge management system developed to enable funding organizations to collaborate, track, analyze, structure, make decisions and set directions for future research efforts in aging and also address the needs of research investigators, health care policy makers, government officials, interest groups and general public.

The goal of the International Aging Research Portfolio is to become a centralized portal for aging research providing highly granular relevant information to scientists, funding organizations, policy makers and providing a platform for collaboration and research.

At present, IARP incorporates databases of grants from multiple sources such as the NIH, European Commission, CIHR, and MRC. It also incorporates MEDLINE publication abstracts under a license from the National Library of Medicine.

The database contains millions of research projects with funding information and is fully searchable. The system also provides a categorized directory for the aging research projects. In addition to the manual classification by the SAB members, the system uses semantic classification algorithms to automatically classify projects into research areas related to aging.

The flexibility of the system provides different views on aging and age-related projects in order to find trends and analyze the current status of the investigations. It also gives the opportunity to build new classification taxonomies to look at the problem of aging research at different points. Thus, the first centralized system for tracking such complex, interdisciplinary and controversial area as aging research was developed and made available to the public via AgingPortfolio.org.

IDB - International Data Base

Website: https://www.census.gov/population/international/data/idb/informationGateway.php

Description:

The International Data Base (IDB) of the United States Census Bureau provides demographic information (e.g.: population size, fertility, mortality, migration, population pyramids) by country or region over time. The data are also projected into the future.

IDL - International Database on Longevity

Website: http://www.supercentenarians.org/

Description:

The International Database on Longevity (IDL) is the result of an ongoing concerted effort to provide thoroughly validatedinformation on individuals who attain extreme ages. The IDL allows for the demographic analysis of mortality at the highest ages. Originally, the data were collected on individuals who attained an age of 110 years or more - so called supercentenarians. In the meantime the data collection has been extended to include younger ages for some countries.

The information entered into the IDL is supplied by a group of international contributors. The data collection is performed in such a way that age-ascertainment bias is avoided and detailed meta-data are given for each country. This information is essential for valid demographic analyses.

The IDL takes great steps to secure data privacy. All individual information is made anonymous, and no information on the identity of any individual will be made available.

International Alzheimer‘s Disease Portfolio (IADRP)

Website: https://iadrp.nia.nih.gov/cadro-web/

Description:

Alzheimer’s disease is recognized as a public health crisis worldwide. As public and private funding agencies around the world enhance and expand their support of Alzheimer’s disease research, there is an urgent need to coordinate funding strategies and leverage resources in order to maximize the impact on public health and avoid duplication of effort and inefficiency. Such coordination requires a comprehensive assessment of the current landscape of Alzheimer’s disease research in the US and internationally. To capture and compare their existing investments in AD research and research-related resources, funding organizations need to use a common language and a common classification system. To this end, the National Institute on Aging (NIA) at the National Institutes of Health (NIH) and the Alzheimer’s Association (ALZ) developed the Common Alzheimer’s Disease Research Ontology (CADRO). NIA and ALZ hope to expand the use of the CADRO to other federal and non-federal organizations supporting AD research in the US and internationally and their portfolio information to this publicly available International Alzheimer’s Disease Research Portfolio. To date, the US federal and non-federal organizations listed below have contributed their AD research portfolios for inclusion in the IADRP.

iPAD SYSTEM
iNTERNET PRIMATE AGING DATABASE

iPAD - iNTERNET PRIMATE AGING DATABASE

Website: http://ipad.primate.wisc.edu/

Description:

The internet Primate Aging Database (iPAD) is a multi-centered, relational database of biological variables in aging, captive nonhuman primates. Through joint initiative of the National Institute on Aging (intramural and extramural programs), National Center for Research Resources (NCRR), and the National Primate Research Center at the University of Wisconsin-Madison (WNPRC), we have organized a database to study biomarkers of aging in nonhuman primates. iPAD also provides an invaluable veterinary and clinical resource, and can generate normative data for numbers of animals across research settings. iPAD now contains over 1,000,000 data points for body weight, blood chemistry and hematology, for healthy, non-experimental subjects across time.

The iPAD contains data from a number of different primate research facilities, and therefore pooled data across sites may represent different housing conditions, diets, and assay procedures. All subjects were control animals (i.e., non-experimental) and deemed healthy at the time of measurement. Data values for each age represent a mean of the measures for an individual subject for a three-month period.

K-T database - Kannisto-Thatcher Database on Old Age Mortality

Website: http://www.demogr.mpg.de/databases/ktdb/default.htm

Description:

The Kannisto-Thatcher database on old age mortality (K-T database) includes data on death counts and population counts classified by sex, age, year of birth, and calendar year for more than 30 countries. This database was established for estimating the death rates at the highest ages (above age 80). The core set of data in the database was assembled, tested for quality, and converted into cohort mortality histories by Väinö Kannisto, the former United Nations advisor on demographic and social statistics.

Comparable materials on England and Wales, was made available by A. Roger Thatcher, the former Director of the Office of Population Censuses and Surveys and Registrar-General of England and Wales [Kannisto, 1994]. With research funding provided by the U.S. National Institute on Aging and the Danish Research Councils, the Kannisto-Thatcher data base was computerized under the supervision of James W. Vaupel at the Aging Research Unit of the Centre for Health and Social Policy at Odense University Medical School in 1993.

Currently, the database is maintained by the Max Planck Institute for Demographic Research, Germany.

Lifespan Observtions Database

Website: http://kaeberleinlab.org/projects/lifespan-observations-database

Description:

The Lifespan Observations database contains data on the lifespan effects of interventions by genetic engineering, chemical compounds (e.g.: rapamycin) and environmental effects (e.g.: irradiation) across multiple species. The database is community-driven which means that users are allowed to submit and to edit data.

Longevity.international

Website: http://longevity.international

Description:

Longevity.International provides longevity industry services crucial to its functioning on all levels. The platform contains a network section allowing different stakeholders in the longevity industry, from companies to investors to scientists to activists, to connect with one another and collaborate. With its interactive database section employing automated data filtering and visualization of longevity company and investor databases, Longevity.International provides vital information to the industry and presenting new opportunities for everyone in the field. Longevity.International contains latest Longevity Industry Reports allowing the complementary overview of the current longevity landscape: from the most successful investors and disruptive startups to the recent advancements in science, technology and regulation fields.

LongevityMap

LongevityMap

Website: http://genomics.senescence.info/longevity/

Description:

The database of human genetic variants associated with longevity. Negative results are also included in the LongevityMap to provide visitors with as much information as possible regarding each gene and variant previously studied in context of longevity. As such, the LongevityMap serves as a repository of genetic association studies of longevity and reflects our current knowledge of the genetics of human longevity.

Longevity Records

Website: http://www.demogr.mpg.de/longevityrecords/

Description:

«Longevity Records: Life Spans of Mammals, Birds, Amphibians, Reptiles, and Fish» is a book on life spans of a large collection of organisms (Odense Monographs on Population Aging 8, JR Carey & DS Judge, Odense University Press 2001,ISBN 87-7838-539-3, ISSN 0909-119X). The data tables of the book are available and searchable online.

MitoInteractome

Website: https://www.kobic.re.kr/

Description:

The web-based portal containing information on predicted protein-protein interactions, physico-chemical properties, polymorphism, and diseases related to the mitochondrial proteome. It contains several thousand protein sequences which were extracted from the following databases: SwissProt, MitoP, MitoProteome, HPRD and Gene Ontology database.

MITOMAP

Website: https://www.mitomap.org//MITOMAP

Description:

MITOMAP is a compendium of polymorphisms and mutations of the human mitochondrial DNA. It reports published and unpublished data on human mitochondrial DNA variation, curated manually.

MITOMAP reports published data on human mitochondrial DNA variation. Currently variant tables report frequencies from 37528 full length human mitochondrial DNA sequences.

MPD - Mouse Phenome database

Website: https://phenome.jax.org/

Description:

The Mouse Phenome Database (MPD, RRID:SCR_003212) enables the integration of genomic and phenomic data by providing access to primary experimental data, well-documented data collection protocols and analysis tools. Data are contributed by investigators from around the world and represent a broad scope of behavioral, morphological and physiological disease-related characteristics in naive mice and those exposed to drugs, environmental agents or other treatments.

Data in MPD include per mouse and per strain data from genetic reference populations for which data are cumulative over time and across laboratories. Strain types include inbred, recombinant inbred, Collaborative Cross, chromosome substitution, mutants, and others. In addition, there are data from heterogeneous mice in mapping populations including Diversity Outbred and other inbred mouse strain crosses in the QTL Archive.

MPD provides a venue for compliance with data sharing policies and facilitates data reuse and data integration to provide a means of analyzing trait relations, discovering the biological basis of complex traits, and assessing replicability and reproducibility across experimental conditions and protocols.

MPD is a grant-funded research resource headquartered at The Jackson Laboratory.

Mutation Database for Parkinson‘s Disease (MDPD)

Website: http://datam.i2r.a-star.edu.sg/mdpd/index.php
https://omictools.com/mutation-database-for-parkinson-s-disease-tool

Description:

MDPD provide access to information about genes related to Parkinson‘s disease.
An integrated genetic information resource for Parkinson's disease. MDPD contains 2,391 entries on 202 genes extracted from 576 publications and manually examined by biomedical researchers. Each genetic substitution and the resulting impact are clearly labelled and linked to its primary reference. Every reported gene has a summary page that provides information on the variation impact, mutation type, the studied population, mutation position and reference collection. In addition, MDPD provides a unique functionality for users to compare the differences on the type of mutations among ethnic groups.

National Archive of Computerized Data on Aging

NACDA - National Archive of Computerized Data on Aging

Website: http://www.icpsr.umich.edu/icpsrweb/NACDA/

Description:

The National Archive of Computerized Data on Aging (NACDA), located within ICPSR, is funded by the National Institute on Aging. NACDA's mission is to advance research on aging by helping researchers to profit from the under-exploited potential of a broad range of datasets.
NACDA acquires and preserves data relevant to gerontological research, processing as needed to promote effective research use, disseminates them to researchers, and facilitates their use. By preserving and making available the largest library of electronic data on aging in the United States, NACDA offers opportunities for secondary analysis on major issues of scientific and policy relevance. The NACDA staff represents a team of professional researchers, archivists and technicians who work together to obtain, process, distribute, and promote data relevant to aging research.

NDAR - National Database of Ageing Research

Website: http://www.cpa.org.uk/research/ndar_about.html

Description:

NDAR, the National Database of Ageing Research is the Centre for Policy on Ageing's database of research into ageing and older people. The focus is on current and ongoing research. In addition to research information provided by CPA's information staff, registered researchers and research organisations can add and update information about their own research projects .

As with the AgeInfo databases, the Research database is fully indexed and searchable. The National Database of Ageing Research (NDAR) aims to be a fully comprehensive on-line resource of both research in progress and forthcoming research within the UK on all non-medical aspects of older age. The resource was originally established in 1955 as 'old age: a register of social research' and published annually for many years in directory format.

The database contents are drawn from research projects, both internally and externally funded, being carried out within a range of settings -

- academic sector
- voluntary and independent sector
- local and central government
- independent 'think tanks'

The database is fully structured and searchable and covers all aspects of the research including - the researching organisation; title of the research; aims; a summary of findings; subject keywords; research methods used; researchers and other staff involved; funding type and funding body; budget; start/end dates and duration; research outputs including publications and whether the results and data from the research are publicly available.

NetAge

Website: http://netage-project.org/

Description:

Ompendium of networks for longevity, age-related diseases and associated processes. Gives a wealth of information about the microRNA-regulated protein-protein interaction networks which are involved in complex processes of aging and age-related diseases, and ultimately in the determination of longevity.

By making these resources available online, it provides the scientific community with a solid platform for biogerontological research, and encourage greater participation in systems biology experiments. This, in turn, might shed more light on the public and private mechanisms of aging and could open a new avenue for inspiring the attempts on life span extension, a major goal of biogerontology.

National Institute on Aging
Population Studies Database

NIA - Population Studies Database

Website: https://nihlibrary.ors.nih.gov/nia/ps/niadb.asp

Description:

The NIA Population Studies Database brings together in one searchable location information about a range of population studies of interest to the research on aging community. We hope that our NIA researchers and grantees will find it useful for identifying completed and ongoing studies, possible collaborations for future studies, and data sources for new or extended analyses. Users should work directly with the study contacts listed whenever possible and with the NIA points of contact as needed to facilitate connections.

This is a simple text searching system with no Boolean operators or wild card functions. To maximize your search results, limit your search term to the minimum number of characters required. For example, entering osteoporosiswill yield only studies with the full word in the title or description, whereas osteo will yield study listings that include osteoporosis, osteoporotic, and osteoarthritis.

PDGene Database

Website: http://www.pdgene.org/my_meta

Description:

The PDGene Database aims to provide a comprehensive, unbiased and regularly updated collection of genetic association studies performed in Parkinson's disease. It includes summaries of key characteristics of the investigated populations, as well as genotype distributions in cases and controls. It provides continuously updated random-effects meta-analyses for polymorphisms with genotype data in at least three case-control samples.

PhenomicDB

Website: https://omictools.com/phenomicdb-tool

Description:

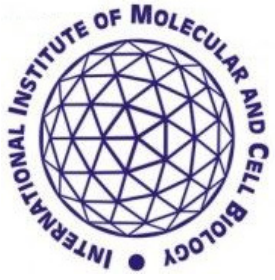
PhenomicDB is a multi-organism phenotype-genotype database including human, mouse, fruit fly, C.elegans, and other model organisms. The inclusion of gene indices (NCBI Gene) and orthologues from HomoloGene allows to compare phenotypes of a given gene over many organisms simultaneously.

PRIDE - PRoteomics IDEntifications database

Website: https://www.ebi.ac.uk/pride/archive/

Description:

The PRIDE PRoteomics IDEntifications (PRIDE) database is a centralized, standards compliant, public data repository for proteomics data, including protein and peptide identifications, post-translational modifications and supporting spectral evidence. PRIDE is a core member in the ProteomeXchange (PX) consortium, which provides a single point for submitting mass spectrometry based proteomics data to public-domain repositories. Datasets are submitted to PRIDE via ProteomeXchange and are handled by expert biocurators.



REPAIRtoire

Website: http://repairtoire.genesilico.pl/

Description:

REPAIRtoire contains components involved in the repair mechanisms of all kinds of cellular DNA lesions. In this version, repair pathways from H.sapiens, E.coli and S.cerevisiae are contained, together with their protein components and molecular events that trigger those pathways.

In the upcoming releases, they are expecting to provide more data for a multitude of prokaryotic and eukaryotic pathways, protein families involved, and diseases related to particular repair processes.

Shared Ageing Research Models (ShARM UK)

Website: https://www.mrc.ac.uk/research/facilities-and-resources-for-researchers/shared-ageing-research-models-sharm-uk/

Description:

UK scientists studying the biology of ageing can access ShARM - a resource to share tissues and make the most of every mouse bred for ageing research, reducing the numbers of animals required and saving money.

Because the genes and tissues of mice are very similar to our own, mouse models are important tools in ageing research. But housing and looking after mice over the long period it takes for them to reach old age is costly, which has a knock-on effect on the development of new projects. Furthermore, scientists will only use one or two tissues from these animals, with surplus tissues often being discarded. This has economic, scientific and ethical shortcomings.

Not-for-profit organisation Shared Ageing Research Models (ShARM UK), which is funded by Wellcome trust and supported by the MRC, combines web-based information systems with a physical tissue bank. A network of ageing mouse colonies across the UK will be linked up via a bank of flash-frozen surplus tissues available to the research community, allowing scientists to see rapidly what kind of tissue is available for research, and when.

An online collaborative environment (MiCEPACE) will also be set up to help scientists share knowledge, experience on care and welfare of ageing mice.
Dr Mark Prescott, Head of Research Management and Communications at the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs), said: “ShARM has the potential to contribute to reduction and refinement, as well as the speed and cost-effectiveness of research into ageing. Banking and sharing of tissues will help make maximum use of each animal. Plus the online network can be used to share information on best practice in the care, use and welfare of aged mice.”

ShARM was established by scientists from the MRC-Arthritis Research UK Centre for Integrated Research into Musculoskeletal Ageingopens in new window and MRC Harwellopens in new window

SurvCurv

Website: https://www.ebi.ac.uk/thornton-srv/databases/SurvCurv/

Description:

SurvCurv is a database of manually curated and annotated survival data. The database offers various functions including plotting, mathematical models, and statistical tests, facilitating e.g. reanalysis and cross comparisons.

The Silver Book

Website: http://www.silverbook.org/

Description:

The Silver Book is an almanac of thousands of facts, statistics, graphs, and data from hundreds of agencies, organizations, and experts. It is a searchable database, produced and updated by the Alliance for Aging Research, that provides free and easy access to the latest information on the burden of chronic diseases that disproportionately impact older Americans, and the value of investing in medical research.

TMIG- 2DPAGE Database

Website: http://proteome.tmig.or.jp/2D/

Description:

Proteome database of cultured human cells.

Primary cultures of human-derived cell strains and permanent cell lines are valuable research resources with which various investigations into cell functions and pathological deviations are able to be performed avoiding human ethical problems. The characterization and profiling of the behavior of cells in different culture conditions by using the methods of proteomics might offer useful information in the biomedical researches of human cell physiology and pathology. The TMIG-2DPAGE Proteome Database is being developed for the proteomic analysis of molecular mechanisms of aging and age-dependent cell dysfunction.