



Aging
Analytics
Agency

Mitochondria-Longevity Research in Switzerland

Teaser

Q3 2021

Table of Contents

Introduction	2
Approach of the Report	3
Executive Summary	4
General Overview	7
Mitochondrial Dysfunction Among Other Hallmarks of Ageing	8
Age-Related Approach	9
Mitochondria in Ageing: Avenues/Directions	10
Mitochondrial Clinical Trials vs. Ageing Clinical Trials	11
Growth of Scientific Interest in the Role of Mitochondria in Ageing	12
Mitochondria Treatment Targets	13
Diagnostic Biomarkers	14
Mitochondria in Longevity: Switzerland Overview	15
Leading Companies in Mitochondria-Longevity Industry	16
Investment Activity in the Industry	24
Fundamental Research of Mitochondrial Dysfunction	25
Key Influencers and Experts	26
Trends and Prospects of the Mitochondria-Longevity Industry in Switzerland	27
Future Opportunities in Advancing Mitochondrial Medicine	29
Conclusions	30
Disclaimer	35

Mitochondria-Longevity Research in Switzerland Q3 2021 was compiled to give a detailed systematic description of the **innovative approaches for regulating mitochondrial function to control Human Longevity and treat some systemic disorders**. This analytical case study focuses on **BioTech, Pharmaceutical and Healthcare companies**, and **R&D institutions in Switzerland** and their partnerships, predicting the development of the relevant market and determining the degree of technology relevance. In addition, a unique database was compiled for the systematic review of key stakeholders in the industry.

All the technologies described in the analytical case study are already available, in use, and ready for further research.

The Mitochondria Targets and Biomarkers are selected by their **clinical efficacy** and create the most relevant modern precedent for safe and effective human experimentation and validation that the Longevity Industry can apply.

The separate chapter of the report is devoted to the **overview of companies in Switzerland** (for example, **Amazentis**) that are developing different technologies to enhance the mitochondrial longevity capacity. Overall, this analytical case study offers **a one-stop expert evaluation of a novel and dynamic industry**, particularly in Switzerland, with high growth potential.

Approach of the Report

Database

100+
Companies

120
Investors

30
R&D Centres

The database was formed based on:

- the **identification of companies** that conduct or have conducted ageing and mitochondria-related clinical trials or preclinical studies;
- the **determination of investors** that contributed money to these companies.

Applied Research and Analytics Methods

Descriptive
Analysis

Mixed Data
Research

Data
Triangulation

Comparative
Analysis

Qualitative Data
Collection

Data
Filtering

Data Sources

Media Overview
(Articles and Press Releases)

Industry-Specialised
Databases

Publicly Available Sources
(Websites)

Industry Reports and
Reviews

Relying on various research methods and analytics techniques, the analysis provides a comprehensive overview of the Preclinical and Clinical Trials Industry. This approach has certain limitations, especially when using publicly available data sources and conducting secondary research. Aging Analytics Agency is not responsible for the quality of the secondary data presented herein; however, we do our best to eliminate the said risks using different analytics techniques and cross-checking data. Please note that we did not deliberately exclude certain companies from our analysis. Nor was it due to the data-filtering method used or difficulties encountered. The main reason for their non-inclusion was incomplete or missing information in the available sources.

Executive Summary

Ever since being discovered, **mitochondria – which provide the body with its main source of energy** – have played a key role in understanding human biology. Because of their importance in cellular physiology, defects in mitochondria are associated with various human diseases. In addition, many studies have shown that mitochondria play a central role in ageing.

Switzerland is one of the best and **most innovative locations for biotechnology in Europe**. Local companies hold leading positions throughout many sectors and thus attract capital and researchers worldwide. Furthermore, the economic and scientific environment boasts the presence of successful international chemical and pharmaceutical companies, such as **Novartis** and **Roche**, as well as innovative firms from the medical technology, biotechnology, and nanotechnology sectors, for example, **Amazentis**, making it highly suitable for strategic partnerships, licensing, or patent sales.

Main Features of the Analytical Case Study

Overview of Clinical Trials for Mitochondria at All Phases

In-depth Review of Notable Mitochondrial Trials for Ageing

Detailed Analysis of Key Market Players in Switzerland

Trends and Prospects of Mitochondria-Longevity Industry in Switzerland

Key Expert Findings of a Novel and Dynamic Industry with High Growth Potential

**Mitochondria
in Longevity:
Switzerland
Overview
Q3 2021**

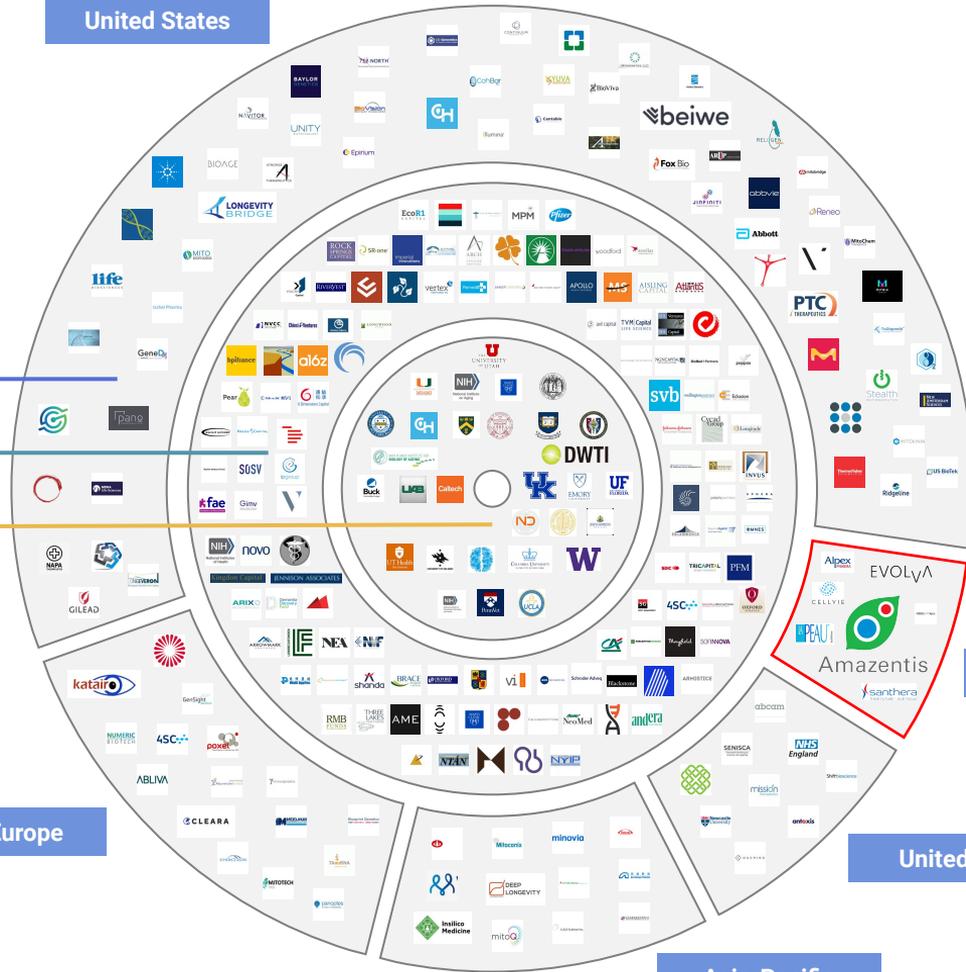
United States

**Companies – 100+
Investors – 120
R&D Centres – 30**

Companies

Investors

R&D Centres



Switzerland

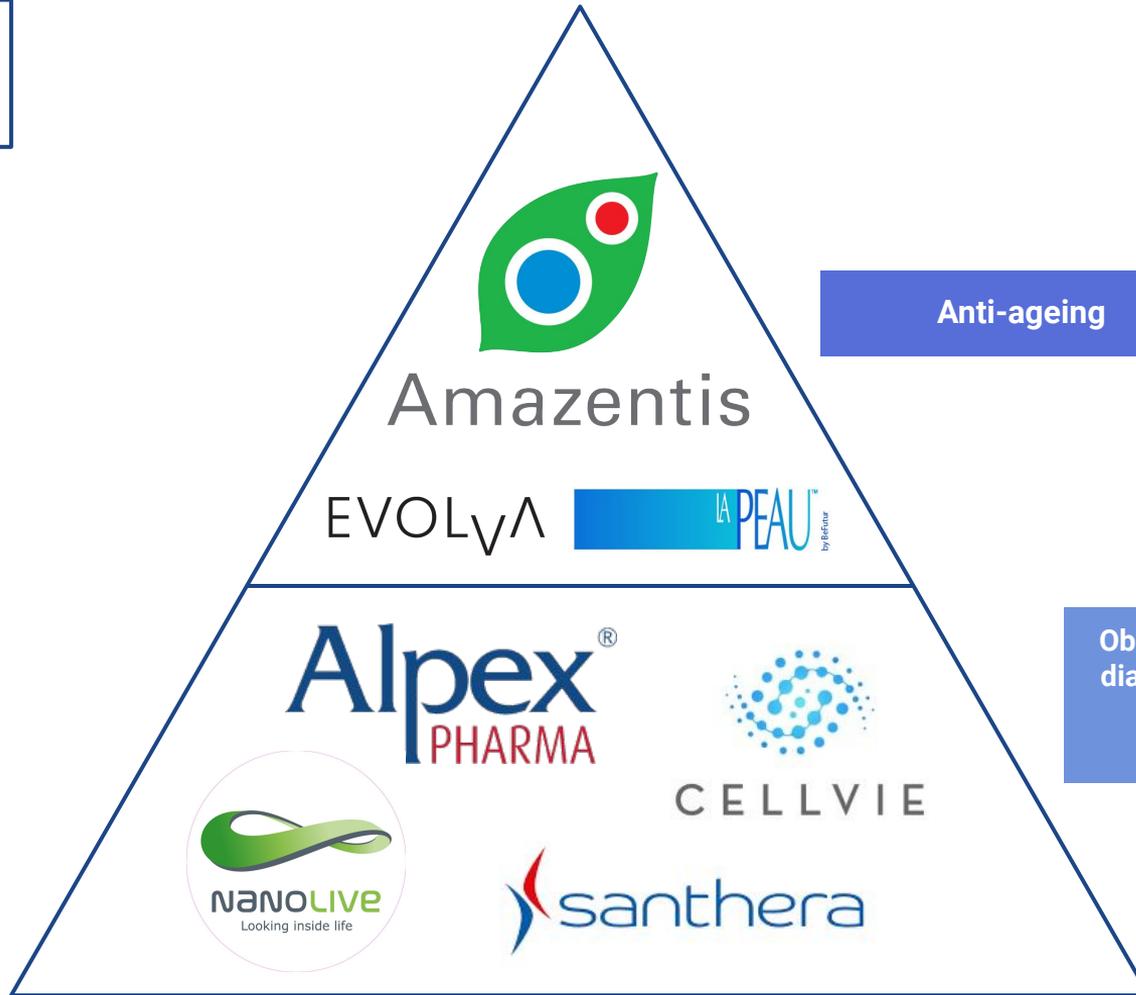
Europe

United Kingdom

Asia-Pacific

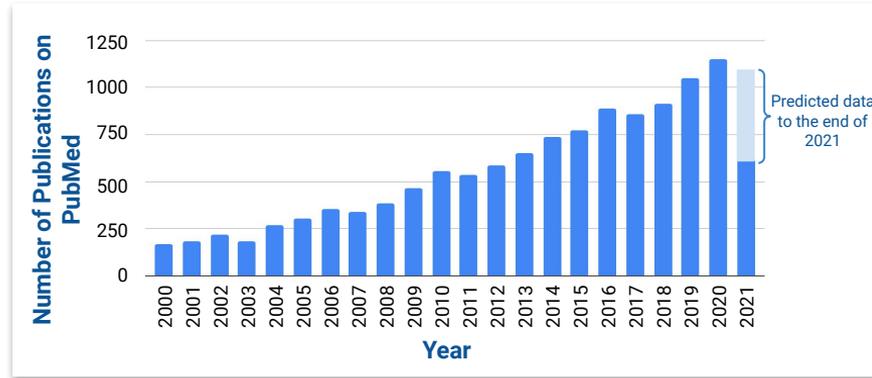
Swiss Companies
by Field of Operation
Q3 2021

Anti-ageing - 3
Others - 4



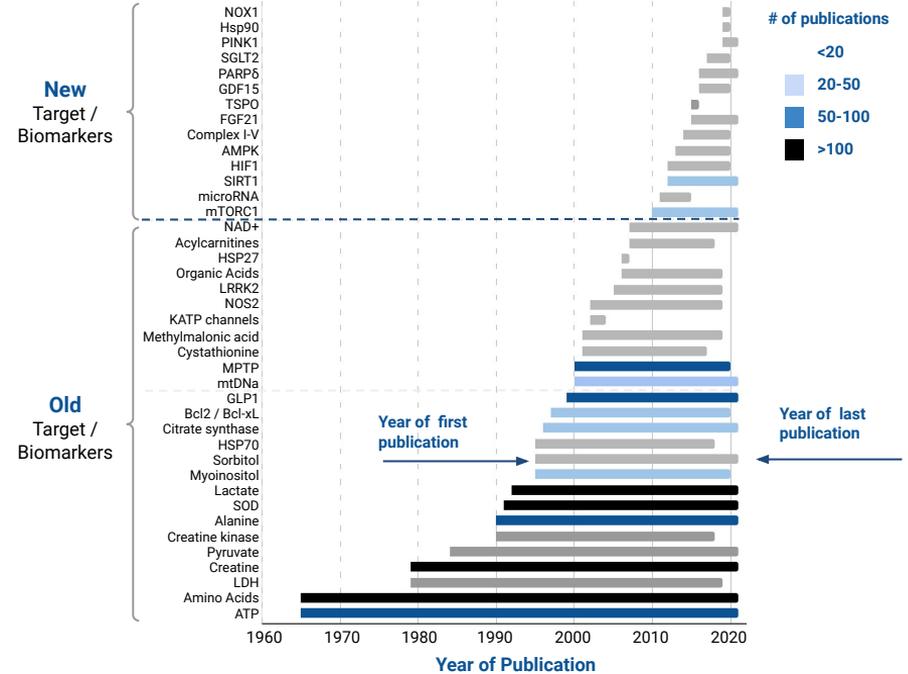
Growth of Scientific Interest in the Role of Mitochondria in Ageing

Total Scientific Interest in the Role of Mitochondria in Ageing



Broadly speaking, scientific interest in the role of mitochondria in ageing is now 10 times greater than it was in the early 2000s. **The most reliable mitochondrial biomarkers**, such as concentration of **amino acids, creatinine level, lactate and SOD** in biological samples, are a “golden standard” for clinical trials. The **new diagnostic biomarkers** are **GDF15 and FGF21**. The other one is **miRNA** which used for diagnostic of mitochondrial disease (TamiRNA). Among the newest mitochondrial therapeutic targets, **the most promising** are **TSP0** for imaging and **SIRT1** and **mTOR** for regulation of energetic processes.

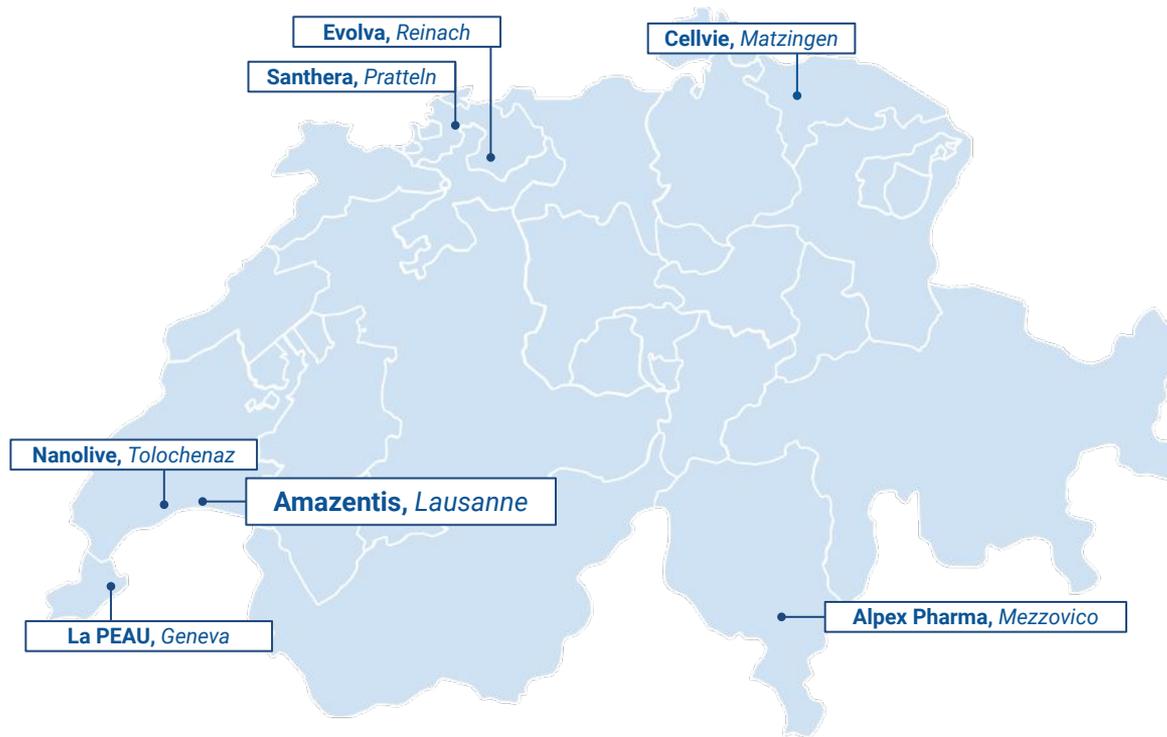
Popularity of Mitochondrial Targets / Biomarkers in Time



Search Terms

Keywords: “target name” + ageing
Article Type: Clinical Trials

Leading Companies in Mitochondria-Longevity Industry



Switzerland has long been known as a booming BioTech hotspot in Europe that boasts many high-profile companies. Notable Swiss BioTech companies that target mitochondria for treating age-related disorders are **Santhera** and **Cellvie**.

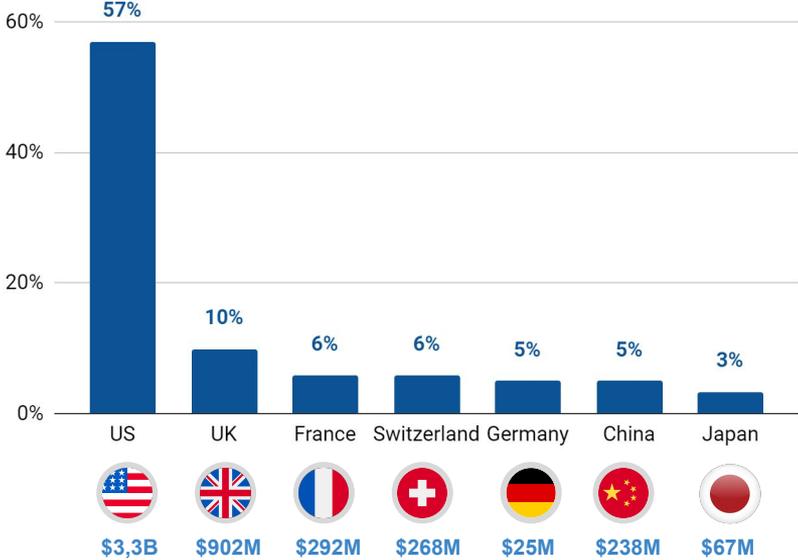
Nanolive proposes diagnostic tools for mitochondria 3D diagnostic in living cells.

Other known companies produce dietary supplement for healthy ageing. The most impact have **Evolve** and **Amazentis**.

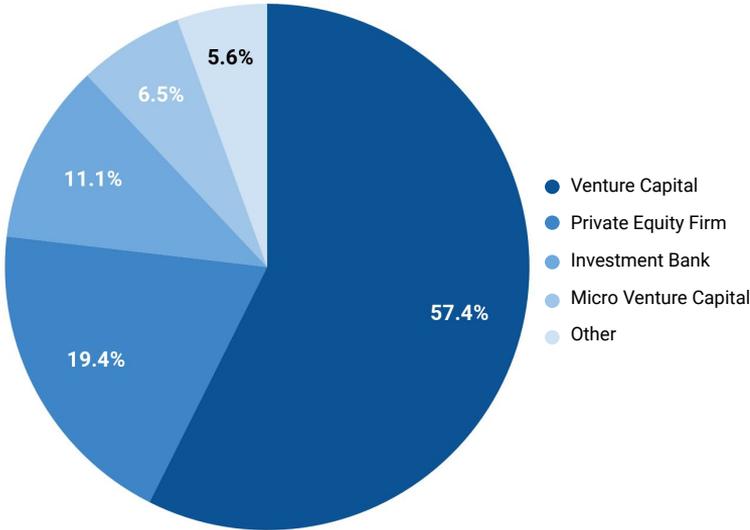
Swiss BioTech companies are supported by academic institutions, incubators, and accelerators. Examples include the **ETH Zurich, the University of Zurich, the University of Basel, the EPF Lausanne, StartLab, and BaseLaunch**.

Investment Activity in the Industry

Top Countries by Number of Investors, % of Total



Main Type of Investors, % of Total



Switzerland is in 4th place among other world countries by the number of investors that invested **\$268M** in companies conducting Mitochondria research. Furthermore, **all investors (7 organisations)** that contribute money to Swiss BioTech companies are **Venture Capital firms**.

Fundamental Research of Mitochondrial Dysfunction

Many of the BioTechs in Switzerland are connected to **the University of Lausanne (UNIL)**, as well as the renowned **Swiss Federal Institute of Technology Lausanne (EPFL)**. BioTechs in Lausanne are particularly strong in medical applications.

The biggest Swiss pharmaceutical companies, **Nestle Health Science**, **Hoffmann la Roche** and **Novartis**, also provide fundamental research and study therapeutic targets of mitochondrial dysfunction. The main area of interest is a mechanism of age-related myopathies, cardiovascular disorders and vision loss.

Academia



Big Pharma



Key Influencers and Experts



Patrick Aebischer
Amazentis



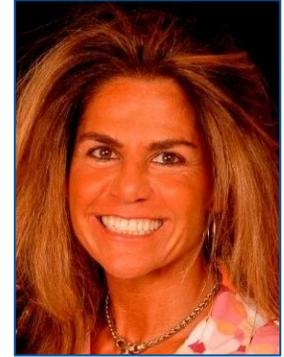
Yann Cotte
Nanolive



Dario Eklund
Santera



James C. Gale
Alpex Pharma



Carla Khanjian
La PEAU



Vasant Narasimhan
Novartis



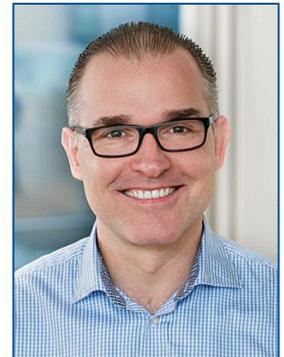
Chris Rinsch
Amazentis



Alexander Schueller
Cellvie



Severin Schwan
Roche



Oliver Walker
Evolve

Stay on Top of the Latest Intelligence

Stay on top of the latest information about Switzerland's DeepTech Industry with our analytical case studies and interactive IT platforms.

Basel Area Life Science Ecosystem

Basel Area Life Sciences Ecosystem

Landscape Overview Q3 2021

Teaser



Longevity and Precision Medicine Clinics in Switzerland

Longevity and Precision Medicine Clinics in Switzerland

Landscape Overview Q3 2021

AI Industry in Switzerland

Artificial Intelligence Industry in Switzerland Landscape Overview 2021/Q3

Teaser

August, 2021



Longevity Industry in Switzerland



InsurTech in Switzerland



Longevity in Switzerland Landscape overview 2019



Longevity Investment: Big Data Analytics Dashboard



Longevity Investment Big Data Analytics Dashboard

Market Intelligence

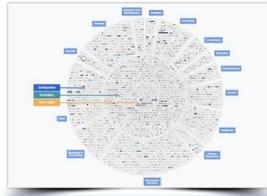
Longevity Investment Market Intelligence

Major Trends

Network Diagrams

Interactive MindMaps

Interactive Mindmaps



View More

Dashboard Parameters

DATA POINTS

814090

PERSONALITIES

16107

COMPANIES

19603

INVESTORS

9007

SECTORS

14

SUBSECTORS

140

Dynamic Industry Charts



View More

Longevity Investment Market Intelligence

SWOT Analysis

FAQ & Tutorials

Register Free Account

Send Us Feedback

Search Engine

Longevity Investment Ecosystem Investors

Investor Portfolio Search

Investor Competitors Search

Investor Search

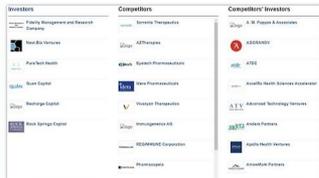
Investor & Company Advanced Search



Find Investors

Find Companies

Competitor Search



Company Competitors

Investor Competitors

Interactive Network Diagrams



View More

Longevity Investment Ecosystem Companies

Company Investor Search

Company Competitors Search

Entrepreneur Search

Welcome There!

Aging Analytics Agency: Value Proposition

Visit Website



Aging Analytics Agency is the only specialised analytics agency in the world that focuses exclusively on the emerging Longevity Industry. They are recognised internationally as the premier analytics agency for advanced data analysis, industry reports and next-generation infographics on the topics of Aging and Longevity.

Aging Analytics Agency is focusing on three key activities:

Providing Commercial Services

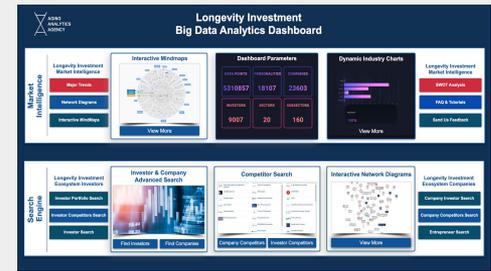
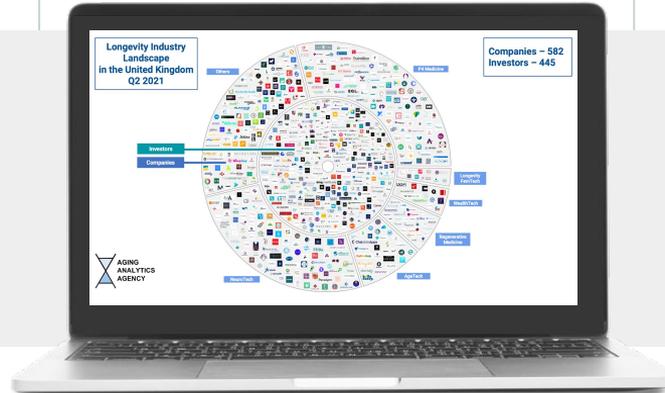
Conducting customised case studies, research and analytics for internal (organizational) use, tailored to the precise needs of specific clients.

Preparing Open Access Reports

Producing regular open access and proprietary analytical case studies on the emerging topics and trends in the Longevity Industry.

Building Big Data Analytics Platforms

Offering customised analysis using specialised interactive industry and technology databases, IT-platforms and Big Data Analytics Dashboards.





AGING ANALYTICS AGENCY

Link to the Report: analytics.dkv.global/mitochondria-in-switzerland

E-mail: info@aginganalytics.com

Website: www.aginganalytics.com

Aging Analytics Agency (AAA) Disclaimer.

The information and opinions in this report were prepared by Aging Analytics Agency. The information herein is believed by AAA to be reliable but AAA makes no representation as to the accuracy or completeness of such information. There is no guarantee that the views and opinions expressed in this communication will come to pass. AAA may provide, may have provided or may seek to provide advisory services to one or more companies mentioned herein. In addition, employees of AAA may have purchased or may purchase securities in one or more companies mentioned in this report. Opinions, estimates and analyses in this report constitute the current judgment of the author as of the date of this report. They do not necessarily reflect the opinions of AAA and are subject to change without notice. AAA has no obligation to update, modify or amend this report or to otherwise notify a reader thereof in the event that any matter stated herein, or any opinion, estimate, forecast or analysis set forth herein, changes or subsequently becomes inaccurate. This report is provided for informational purposes only. It is not to be construed as an offer to buy or sell or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy in any jurisdiction.