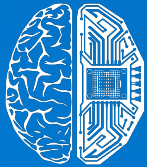
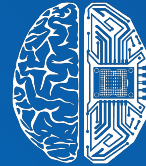


Artificial Intelligence in Oncology 2023

Teaser

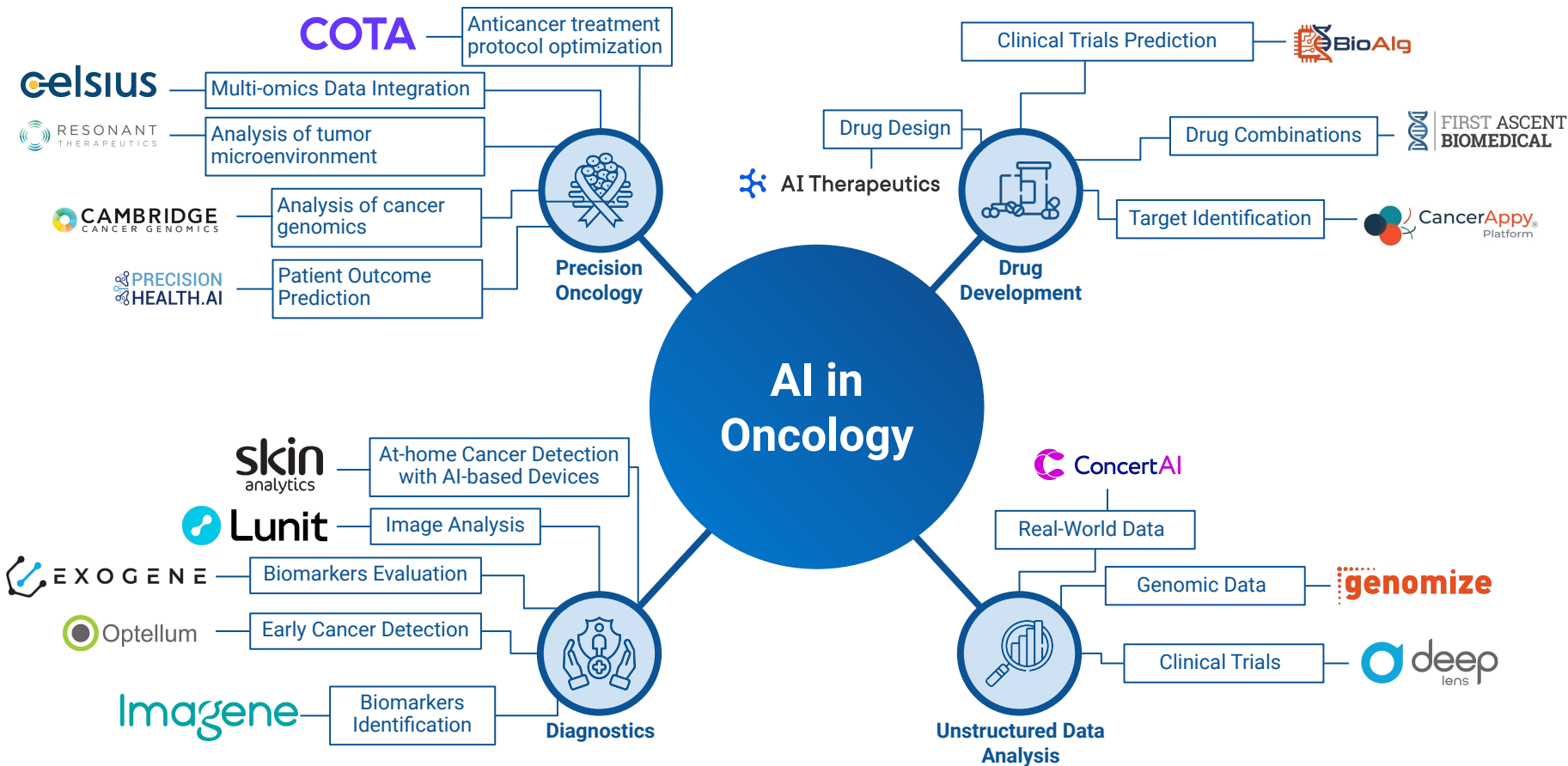


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AI Implementation in Oncology



Artificial Intelligence in Oncology 2023

Cancer Research

Immunotherapy Development

Genome Data Analysis

Cancer Treatment

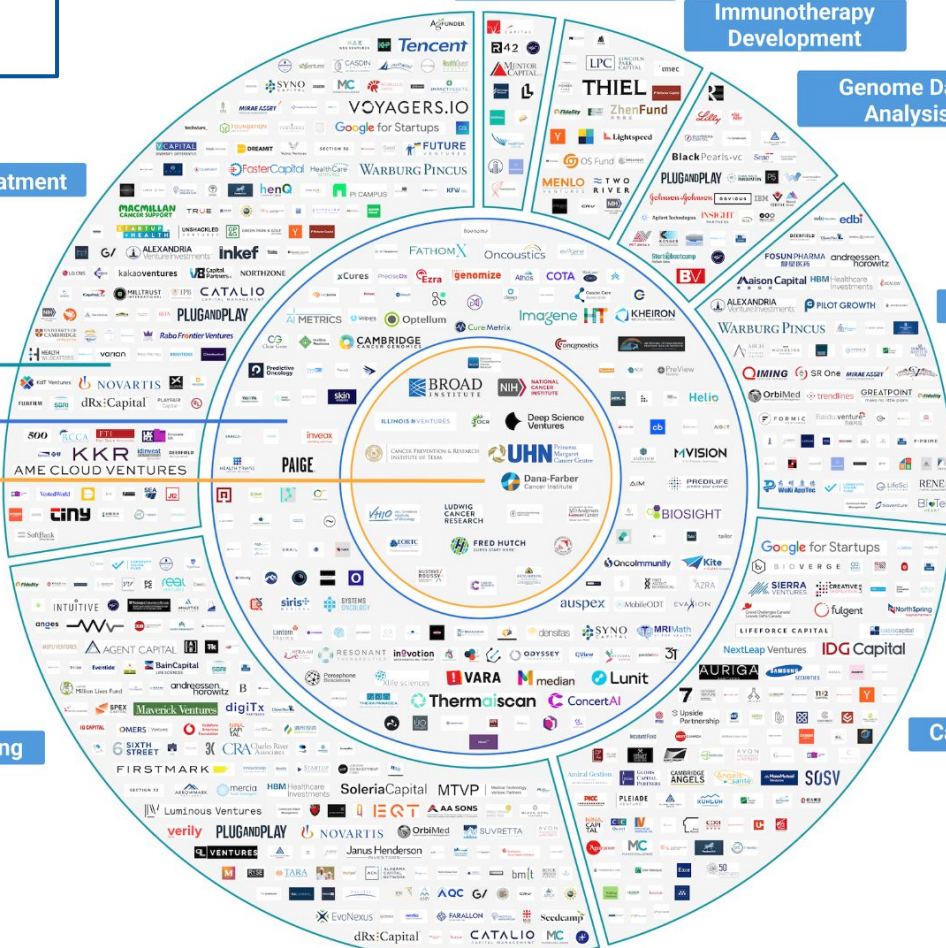
Drug Development

Investors

Companies

Hubs

AI Companies – 140
Investors – 475
Hubs – 20



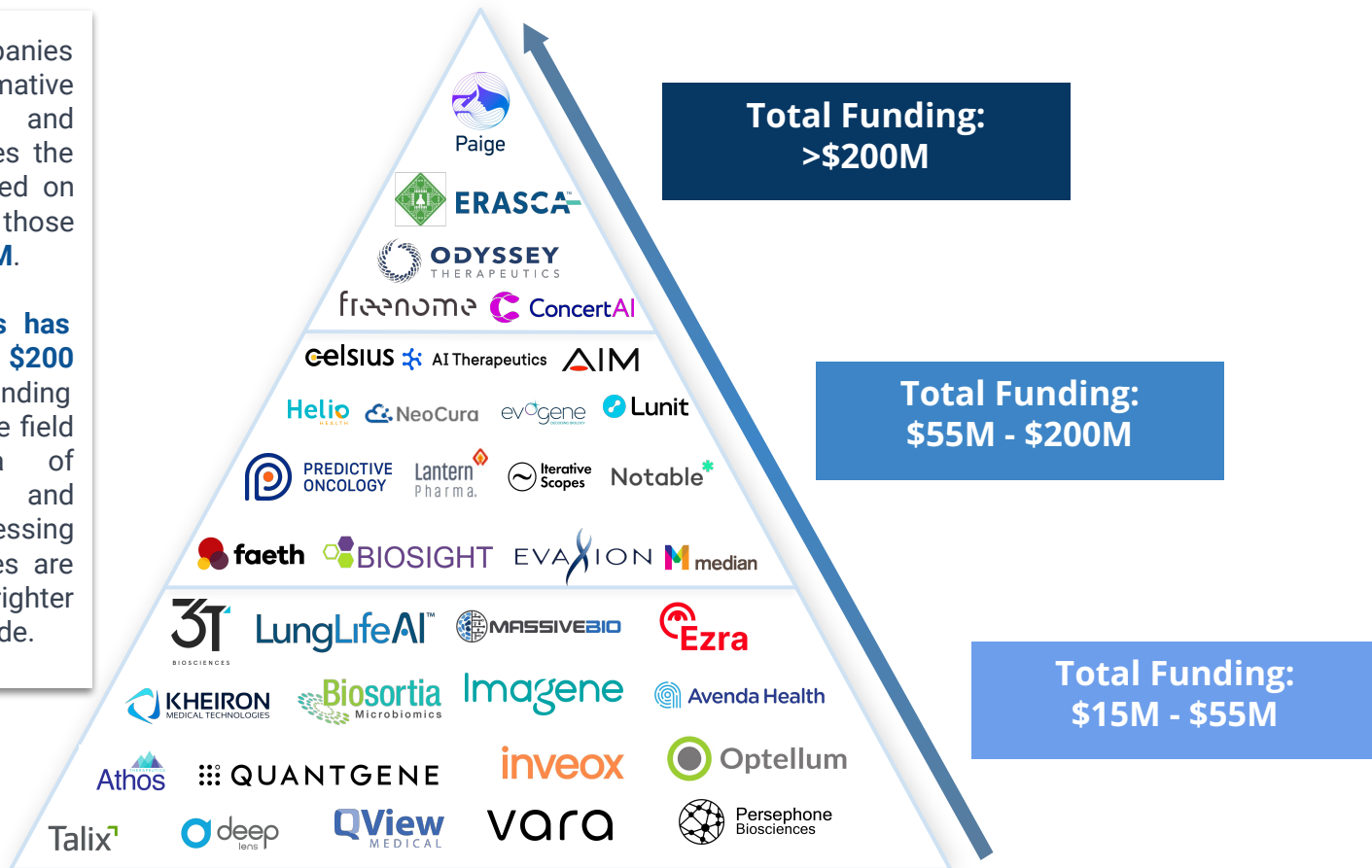
DEEP PHARMA INTELLIGENCE

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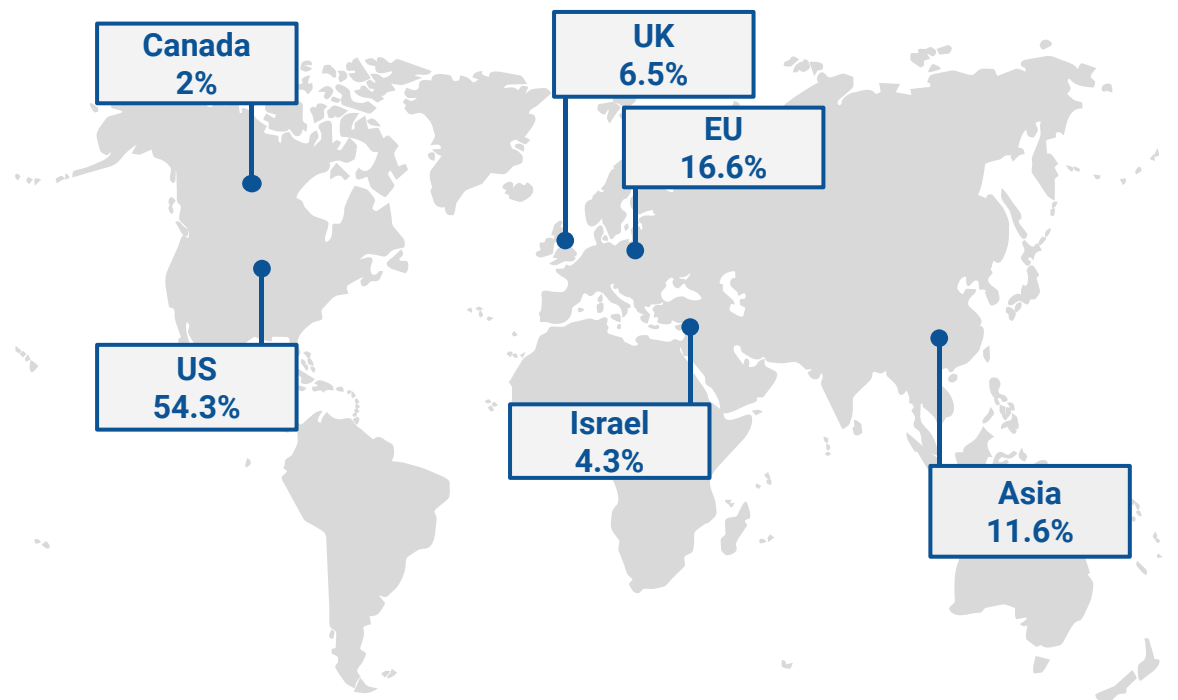
AI Companies Focus on Oncology: Leadership by Funding Level

In the realm of oncology, AI companies are driving transformative advancements in research and treatment. This scheme illustrates the leadership of AI companies based on funding levels, with a focus on those with **total funding exceeding \$15M**.

A select group of **5 companies** has **garnered total funding exceeding \$200 million**. AI companies across funding tiers are collectively propelling the field of oncology into an era of unprecedented discovery and patient-centered care. By harnessing AI's capabilities, these companies are leading the charge toward a brighter future for cancer patients worldwide.



140 AI Companies with Oncology Focus: Regional Proportion



The US is still firmly in the lead regarding its proportion of AI for Oncology companies, placing **54.3%** of companies. It is followed by **Europe** and **Asia** regions with **16.6%** and **11.6%** of all AI companies under analysis. Interestingly, **UK** holds the **4th** place, placing **6%** of companies, all of which were founded from 2015 to 2019. In contrast, the oldest and the newest companies, are located in the United States. As well as top 10 largest last funding amounts come from US. Meanwhile, **Israel** and **Canada** hold less than **5%** each. Another **5%** are distributed around other regions.

Selected Collaborations for AI in Oncology

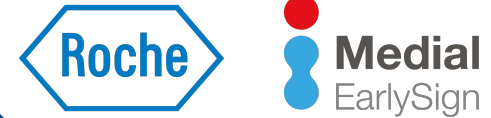
AstraZeneca partnered with **Aidence** to enable and increase **diagnosis of lung cancer** at earlier stages, using Aidence's AI.



Paige partnered with **Microsoft** to transform cancer diagnosis and treatment by Paige AI Platform for **digital pathology images**, using Microsoft Azure cloud.



Roche expands collaboration with **EarlySign** supporting the early detection of colon cancer, combining the power of EarlySign's AI-model and navify® Algorithm Suite from Roche.



Jan 2020

Jul 2021

Sep 2021

Jan 2023

May 2023

Jul 2023

Exscientia and **Bayer** announce a collaboration to accelerate the drug discovery for **oncology**, leveraging Exscientia's AI.



Johnson & Johnson partnered with **Optellum** to increase **lung cancer survival rates** via disease prevention and early intervention, using Optellum's AI.



Massive Bio and **CureMatch** collaborated to revolutionize cancer treatment through AI

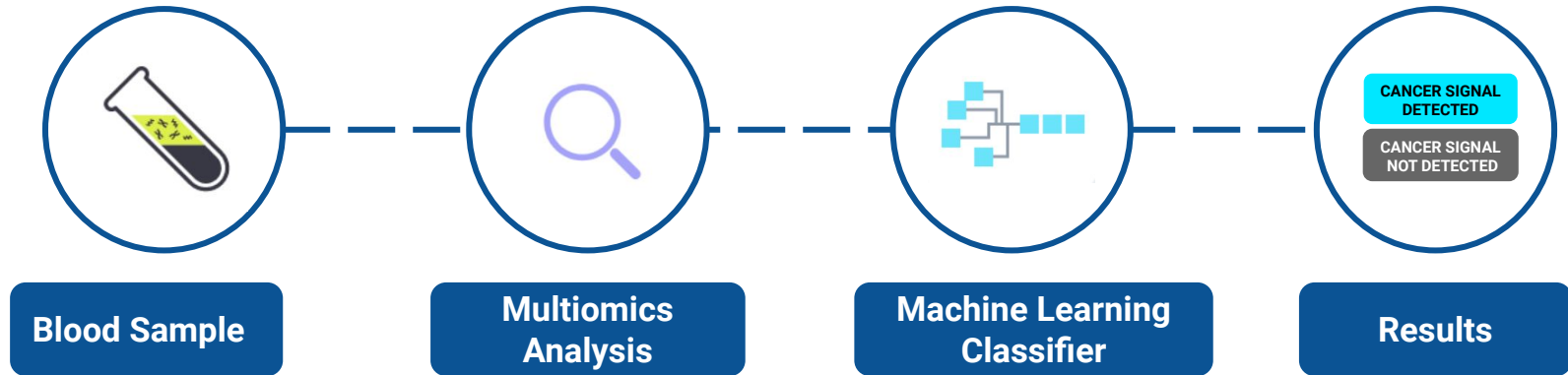


Notable Use Case: AI for Oncology Therapeutics

freenome

How **Freenome** uses AI in R&D?

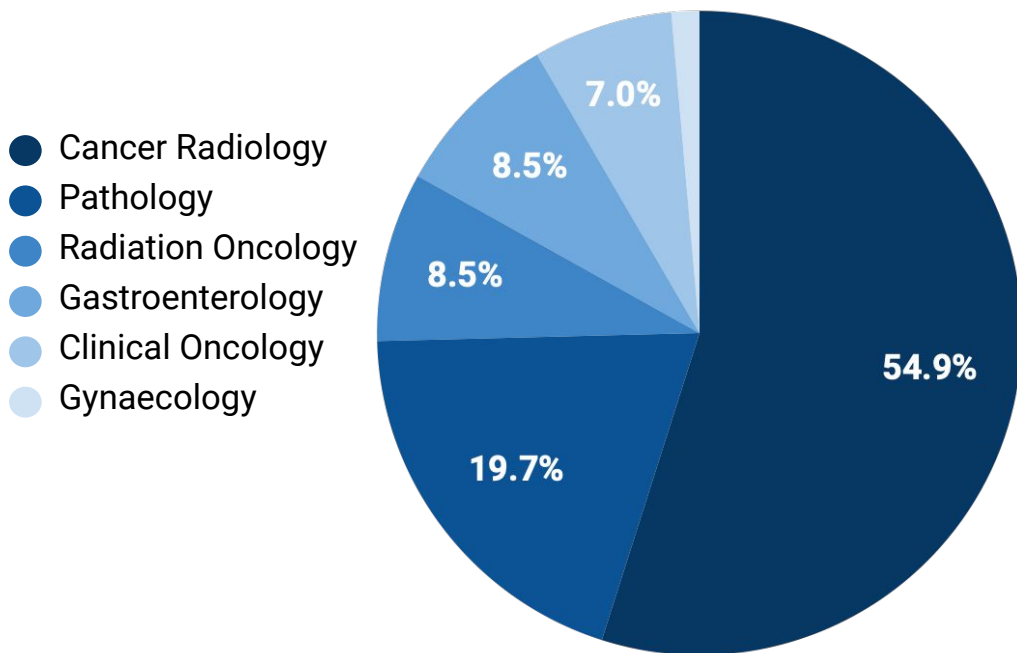
Freenome, a biotechnology and life-science company, that developed Artificial Intelligence bioscience platform for **early cancer detection** using a routine blood draw. By combining deep expertise in molecular biology with advanced computational biology and machine learning techniques to recognize disease-associated patterns among circulating, cell-free biomarkers, Frenome developed simple and accurate **blood tests for early cancer detection**.



Freenome is building a real-world data feedback loop to enable a learning healthcare system. The learning healthcare system will incorporate the latest insights into patient care, continuously optimizing cancer screening tools and improving patient outcomes.

FDA-Approved AI-Based Devices Expressed by Oncology-Related Specialties

AI-based devices that have received FDA approval



The pie chart provides a visual depiction of the distribution of **artificial intelligence-based devices** that have received **FDA approval**, focusing on their application within **oncology-related specialties**. In this representation, each specialty is represented as a segment of the pie, with their respective proportions conveying their significance in the field.

The data is divided as follows: **cancer radiology** holds the largest portion at **54.9%**, followed by **pathology** at **19.7%**, **radiation oncology** and **gastroenterology** both at **8.5%**, **clinical oncology** at **7.0%**, and finally, **gynaecology** contributing **1.4%**.

Altogether, the pie chart paints a comprehensive picture of how AI applications have permeated various facets of oncology-related specialties, revolutionizing the way healthcare professionals approach diagnostics and treatment within these domains.

Notable Use Case: AI for Oncology Therapeutics

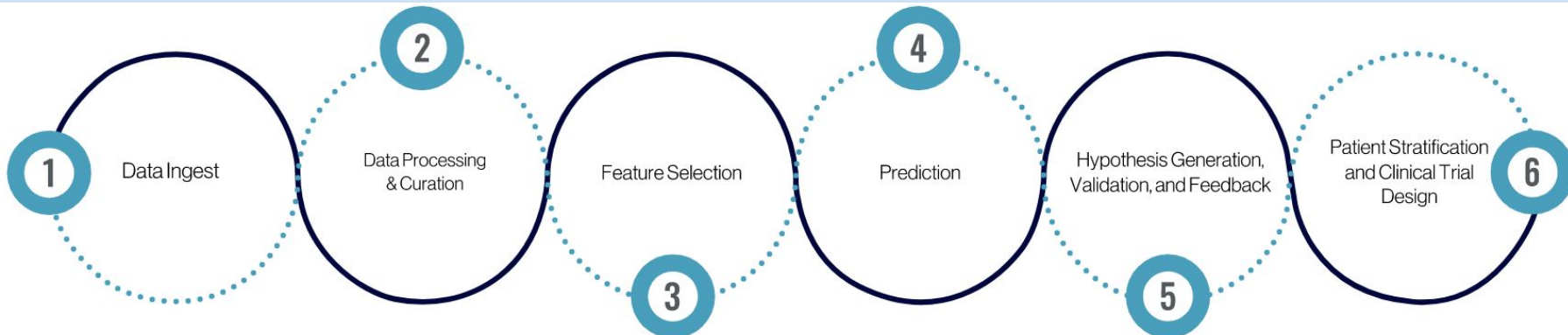


How **Lantern farma** uses AI in R&D?

Lantern Pharma is a life science enterprise that is enhancing and speeding the development of precision oncology treatments via analyzing biomarker signatures and developing personalized drug therapies by combining artificial intelligence, genomics, and machine learning.

Lantern's proprietary platform, **RADR**, which combines data analytics, experimental biology, biotechnology, and machine learning, is primarily used to forecast how patients will react to Lantern's medications as well as other drugs that Lantern is reviewing and analyzing. Lantern Pharma is constantly improving **RADR** in order to expand therapeutic portfolio and identify patient groups that can benefit from their therapies.

RADR Workflow:



About Deep Knowledge Group

Deep Knowledge Group is a consortium of commercial and nonprofit organisations active on multiple fronts in the realm of DeepTech and Frontier Technologies (AI, Longevity, FinTech, GovTech, InvestTech), ranging from scientific research to investment, entrepreneurship, analytics, media, philanthropy, and more.

Deep Knowledge Group runs several data-driven **investments and financial vehicles**



DEEP KNOWLEDGE VENTURES



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DeepTech and Longevity Industry Financial Advisors



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AGING ANALYTICS AGENCY



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Highly specialized think tank in the area of biotech innovation profiling, market intelligence, and biotech development advisory. The company is dedicated to producing powerful data mining and visualization systems, interactive analytics tools, and industry reports offering deep technical insights, market intelligence, and strategic guidance in the high growth and significant opportunity areas.

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Deep Pharma Intelligence is building a sophisticated cloud-based engine for advanced market and business intelligence in various deeptech industries.

We provide profound AI-driven insights on the private and public markets in the Tech industries via **customized IT-Platforms and Dashboards**.

Our Partners

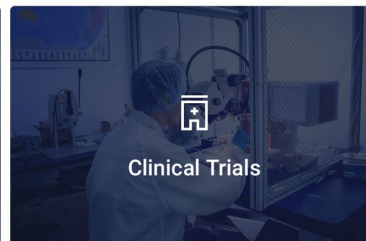


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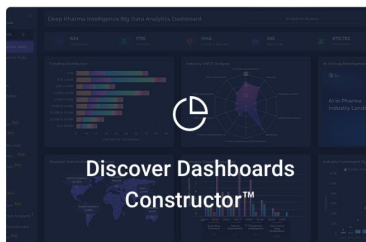
Clinical Trials

Discover clinical trials conducted by AI for drug development companies



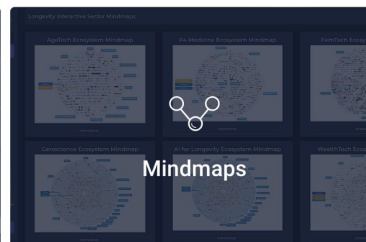
Market Intelligence

Get actionable insights on the flow of capital across VC, PE and M&A in the AI industry



Discover Dashboards Constructor™

Ultimate solutions for building customized Big Data Analytics Systems and Dashboards



Mindmaps

Understand the connections between companies and investors within industry sectors



Networking

Connect to industry professionals for fruitful relationships

AI in Drug Discovery Analytical Dashboard

AI in Drug Discovery Analytical Dashboard is a fundamental tool for strategic insights, opportunity evaluation, competitor profiling, and other purposes relevant to Pharma and BioTech decision-makers, life science investors, consulting companies, and regulatory agencies.

800

Companies

1,900

Investors

265

R&D Collaborations

3200

Clinical Trials

170

Parameters of Automated SWOT Analysis



Market Intelligence Focus

Automated SWOT Analysis

Market Projections

Interactive Chart Builder

Automated Competitive Analysis

Financial Portfolio Constructor

Matching Tool for Investors

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Big Data Analytics System and Dashboards

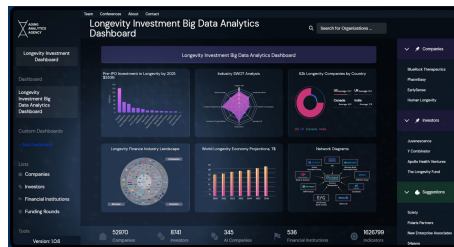
We provide deep investment and data science insights on the private and public markets via customized IT platforms we call **Dashboards**. In essence, Dashboard is a Big Data Analytical System that consists of separate Dashboards:

Five dashboards for the Longevity & BioTech Industry

Seven dashboards for the DeepTech Industry

917,000	Companies
101,000	Investors
87 million	Data Points
170	Parameters of Automated SWOT Analysis

Longevity Investment Dashboard



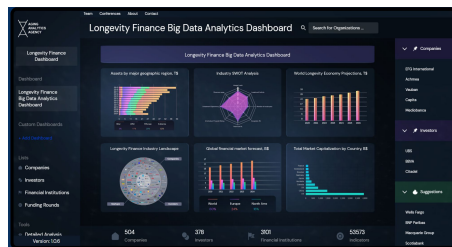
www.deep-innovation.tech/longevity-investment

Longevity Public Companies Dashboard



www.deep-innovation.tech/public-longevity-investment-dashboard

Longevity Finance Dashboard



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Longevity Governance Dashboard



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Market Intelligence Focus

HealthTech

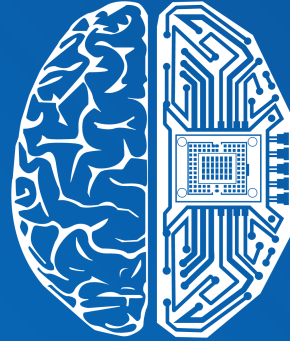
DeepTech

BioTech

Longevity

GovTech

Philanthropy



[Link to the Platform: www.deep-pharma.tech/oncology-ai](http://www.deep-pharma.tech/oncology-ai)

E-mail: info@deep-pharma.tech

Website: deep-pharma.tech

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