

**Longevity Biomarkers Landscape Overview Q4 2021** provides a review of **Aging-related** and **Longevity biomarkers**. It contains selected lists, rankings, and profiles of more than **100 companies that develop single biomarkers** correlated with age-related diseases and disorders. An increasing role of **Artificial Intelligence applications** in the field of the biomarkers' industry is also introduced.

Biomarkers are an essential factor in the Aging Analytics Agency's strategic agenda, which includes policy proposals to national and international governance bodies on how to effectively increase **National Healthy Longevity** via practical implementation of **P4 medicine technologies**. It is essential to develop and promote the widespread use of panels of biomarkers that are validated and actionable.

The report documents various aging-related biomarkers and identifies from among them those which, by the metrics described, belong to the category we have named Minimum Required: the Most Viable Products for immediate implementation.

## Longevity Biomarkers Landscape Overview

Q4 2021

October 2021



[www.longevity.international/biomarkers](http://www.longevity.international/biomarkers)

It is our hope and commitment that regardless of whether it is adopted wholesale, the results of the report's analysis can guide relevant counterparties on how to **optimally utilize existing technologies to maximize the health of aging populations and aging economies**.

**300**

Companies

**495**

Investors

**235**

R&D Centers

**>1000**

Biomarkers

## About Longevity International

LongevityInternational is a **first-of-its-kind, open-access non-profit decentralized Longevity Industry Knowledge and Collaboration platform** with the aim of promoting a greater degree of synergy, efficient cooperation, and discussion among a variety of Longevity Industry participants and stakeholders, including companies, investors, non-profits, academic labs and R&D hubs, governmental bodies and policymakers.

The platform was **initiated by Ian Inkster**, and launched by a number of institutional co-founders including the Biogerontology Research Foundation (UK), Kitalys Institute (USA), Cambridge University Longevity Society (UK), Oxford Society for Ageing and Longevity (UK), The Millennium Project (Washington, D.C., USA), Gerontology Research Group (USA), Aging Intervention Foundation (USA), Aging Metrics (USA), Hype50+ (Brazil), Aging Analytics Agency (UK), Ibero-American Futurists Network (Spain and Portugal), Canadian Longevity Association (Canada), World Future Society Venezuela, World Future Society Spain, World Future Society Mexico, London Longevity Society (UK), Longevity Swiss Association (Switzerland), Gerontology Section of the Moscow Society of Naturalists (Russia), International Longevity Alliance (Global) and Vetek Association (Israel).

The platform utilizes sophisticated data-driven analytics provided by **Aging Analytics Agency** and advanced IT solutions sponsored by **Deep Knowledge Group**.

We **welcome other non-profits and non-commercial entities** seeking to transform the challenge of aging into the opportunity of Longevity to join us as institutional partners, and relevant commercial organizations are encouraged to join as sponsors.

## Key Takeaways

- **High demand for personalized medicine** leads to rise in commercial interest and government support for Age-related Biomarkers and AI-technologies for Longevity. That trend accelerates strong funding of Longevity sector, thus promoting faster innovation.
- The amount of **clinical and biological data** in the world is steadily rising, with a projected **CAGR** of more than **30%**. The **number of data points** for clinical usage is **rapidly increasing**, and the only option to optimize their utilization is to create **digital avatars**. **A digital avatar is a forerunner in the field of personalized medicine**, which is still in its early stages. Because of the massive amounts of data, **clear analysis of such avatars is only feasible with the help of AI**.
- The ability to monitor health status with accurate and trustworthy lab findings explains the market's significant appeal for the **at-home tests**. This **trend emerges** as a result of the **simplified procedure of ordering tests, collecting samples, and obtaining results**. Typically, such solutions arise as a result of the probable **removal of the need for hospital/lab visits**, making such tests an ideal solution for modern people. **This tendency is about to take off on a massive scale, and traces of it can already be observed**.
- **AI for Longevity** will become one of the most impactful sectors within the industry in the next several years, and make its potential to accelerate the continued development of the industry in almost every sector, such as **Longevity R&D, therapeutic development, P4 Medicine, biomarker discovery**, and even non-biomedical sectors such as the **Longevity Financial Industry**.

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## Longevity Biomarkers Landscape Q4 2021

### AI Biomarkers

**Companies - 300**  
**Investors - 495**  
**R&D Centres - 235**  
**Non-Profits - 7**

### Digital Biomarkers

### Systemic Biomarkers

### Companies

### Investors

### R&D Centres

### Non-Profits

### Physiological Biomarkers

### Molecular Biomarkers

### Imaging Biomarkers

### Omic-based Biomarkers



## Longevity Biomarkers Framework

