

Future of healthy ageing: Insights from Sirio Institute for Anti-Ageing

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As the global population ages, the demand for effective and scientifically validated solutions to support healthy ageing has never been greater. In response to this need, SIRIO Pharma has established the Sirio Institute for Anti-Ageing (SIA)â??a groundbreaking initiative dedicated to advancing the science of longevity and wellness. By integrating cutting-edge research with practical applications, SIA aims to set new standards for innovation, transparency, and efficacy in the nutraceutical industry.

Dr Youyou Zhao, Assistant Vice President and Global Head of Research & Development at SIRIO Pharma, and Dr Yu-Xuan Lyu, Head of the Sirio Institute for Anti-Ageing and Assistant Professor at the Institute of Advanced Biotechnology and the School of Medicine at Southern University of Science and Technology (SUSTech), discuss their inspiration for the Institute, its strategic focus areas, and how it plans to transform the future of health solutions for ageing.

What inspired SIRIO to establish the Sirio Institute for Anti-Ageing (SIA), and what are its key objectives?

Dr Youyou Zhao: The creation of the Sirio Institute for Anti-Ageing (SIA) was driven by a clear market need and a scientific imperative. The global population is ageing rapidly, and consumers are looking for scientifically backed solutions to promote longevity and maintain health as they age. However, the healthy ageing nutraceutical market is often plagued by unverified claims and inconsistent product efficacy. SIA was established to bridge this gap by integrating cutting-edge research with industrial application, ensuring that anti-ageing solutions are evidence-based, verifiable, and effective. Our key objectives revolve around three pillars: enhancing customer value by developing innovative, science-backed ingredients; strengthening SIRIOâ??s capabilities as a leader in raw material innovation; and ultimately, protecting consumer health by bringing clarity and credibility to the healthy ageing space.

The Institute focuses on cellular health, probiotics, muscle health, and reproductive system healthâ??why were these specific areas chosen, and how do they relate to the ageing process?

Dr Yu-Xuan Lyu: Ageing is a complex biological process influenced by multiple factors, and these four areas represent critical points of intervention. Cellular health is at the core of longevity, as cellular dysfunction accelerates ageing and age-related diseases. Probiotics and gut health are increasingly recognised as key players in systemic ageing, impacting everything from metabolism, inflammation, to cognitive function. Muscle health is essential for maintaining mobility and metabolic function, which are crucial for quality of life in older adults. Finally, reproductive system health, particularly in women, has been linked

to longevity, as hormonal changes influence everything from bone density to cardiovascular health. By focusing on these areas, we aim to develop targeted interventions that can significantly improve ageing outcomes.

How does the Scientific Advisory Board contribute to the research and development efforts at the Institute?

Dr Yu-Xuan Lyu: “Our Scientific Advisory Board brings together globally recognised experts in ageing research, each specialising in key areas that inform our work. They guide our research direction, ensuring that our approach aligns with the latest scientific breakthroughs. For example, Professor Richard A. Miller’s work with the Intervention Testing Program (ITP) would help us rigorously evaluate potential anti-ageing compounds, while Professor Dario Valenzano’s expertise in gut microbiota and ageing will provide critical insights into probiotic interventions. The Board would not only support fundamental research but also help translate findings into real-world applications, ensuring that our products are scientifically supported and market-ready.”

How will SIA’s research translate into real-world nutraceutical products, and what role does scientific validation play in their development?

Dr Youyou Zhao: “Scientific validation will be at the heart of everything we do at SIA. We will have a highly skilled R&D team, advised by the expert team we are assembling for SIA, to follow a strict framework of preclinical and clinical testing. This will ensure that any bioactive ingredient or formulation we develop has a proven mechanism of action. By partnering with global research institutions, we will conduct rigorous studies to validate the efficacy of our ingredients and products. Once validated, these findings will be integrated into product development for our clients, enabling them to bring scientifically backed healthy ageing nutraceuticals to market. This will ensure that consumers receive products that are not only innovative but also truly effective in promoting healthy ageing.”

How do you see the future of the anti-ageing nutraceutical industry evolving, and what role will SIRIO and the SIA play in shaping its direction?

Dr Youyou Zhao: The anti-ageing nutraceutical industry is set for substantial growth, driven by an ageing global population and increasing consumer demand for science-backed longevity solutions. According to market projections, the global healthy ageing supplements market is projected to grow to \$ 8.80 billion by 2032, exhibiting a CAGR of 7.9 per cent. Consumers are becoming more educated and are demanding transparency and efficacy in the products they use. With SIA, we aim to elevate our customers from marketing-driven claims to evidence-based innovation.

Also, regulatory scrutiny is increasing, which will further push the industry toward higher standards of formulation and validation. We see a future where precision anti-ageing, tailored to individual genetic and metabolic profiles, becomes mainstream.

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