

Aging smart probiotic innovation powering better mobility

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As the global population continues to age, there is an increasing demand for innovative solutions that enhance vitality, mobility, and overall well-being in later life. A noteworthy development in this area is Cerenity, a next-generation probiotic formulation created by Lallemand Health Solutions. Specifically designed to meet the needs of older adults, Cerenity represents a science-based approach to healthy aging, focusing on the emerging concept of the gut-muscle axis. Camille Binachon, Marketing Group Manager at Lallemand Health Solutions, shared insights into the science behind its development and how it is paving the way for new possibilities in personalised aging support.

Q: What distinguishes Cerenity in the healthy aging market, and what was the inspiration behind its development?

Muscle mass decreases approximately 3 to 8 percent per decade after the age of 30, with the rate of decline accelerating after the age of 60. This involuntary loss of muscle mass, strength, and function is a fundamental cause of and contributor to the loss of independence in older people. Healthy aging is a process that starts early, as the loss of muscle mass begins quickly in life. It is, therefore, essential to support mobility and muscle strength in individuals seeking solutions to improve their mobility.

Across generations, there has been an understanding that lifelong nutritional habits have a strong impact on overall health. While all generations pursue healthy aging, their health needs vary depending on age and physiological changes. Research on aging continues to uncover new strategies to promote vitality and longevity. The connection between the gut microbiome and healthy aging is a key area of investigation, offering promising insights into maintaining strength, mobility, and overall health.

Maintaining a healthy gut microbiome is one way to promote healthy aging. The probiotic market targeting healthy aging is still in its infancy, with only a few products aimed at adults aged 50 years or older and limited scientific data specific to this population. Healthy aging involves overall health and various health segments, and providing personalised solutions for aging

adults is crucial for them to understand the beneficial effects probiotics can have for their specific needs.

The gold standard clinical trial conducted with Cerenity in older, healthy adults stands out as it is one of the rare studies showing a probiotic solution modulate the gut-muscle axis, with measurable and comprehensive beneficial effects for the consumers.

Q: Could you elaborate on the gut-muscle axis and how Cerenity aids mobility and strength in older adults?

Aging is a natural process characterised by the gradual decline of tissue, cellular, and organ function. Over time, the accumulation of molecular and cellular damage leads to decreased physical and mental capacity, increasing vulnerability to conditions affecting mental health, cardiovascular health, metabolic health, muscle health, mobility, and immune health. However, the effects of aging are not experienced uniformly. Factors influencing healthy aging include genetics, environment, and lifestyle, with nutrition representing a significant opportunity for intervention.

As we age, the gut microbiome changes, resulting in decreased microbial diversity. Beneficial taxa such as bifidobacteria tend to decline while opportunistic microorganisms increase. These changes lead to increased gut permeability, contributing to systemic inflammation, known as inflammaging. This inflammation can negatively impact muscle size and function. Additionally, changes in the microbiota can reduce nutrient bioavailability and decrease short-chain fatty acid production, leading to intramuscular fatty acid deposition and decreased muscle strength and quality.

To mitigate the physiological impacts of aging, probiotics can help establish a more diverse and balanced gut microbiome to support the gut-muscle axis.

Cerenity by Lallemand comprises three probiotic strains: *Lactobacillus helveticus* Rosell-52, *Bifidobacterium longum* Rosell-175, and *Bifidobacterium lactis* Lafti B94. and was recently shown to support the gut-muscle axis in a breakthrough clinical study conducted on healthy elderlies.

Q: What were the key results of the clinical study, and how do they stack up against earlier studies?

Cerenity by Lallemand, in combination with inulin, has been shown to support the gut-muscle axis in a unique clinical study, demonstrating beneficial effects in healthy older adults. This randomized, double-blind, placebo-controlled study investigated the effects of Cerenity's supplementation on strength, physical performance, and muscle architecture in 64 healthy elderly individuals aged 60 to 85 years over a 16-week intake period, followed by a 4-week follow-up. Participants took 6 billion CFU of Cerenity and 900 milligrams of inulin, or a placebo, in one sachet (1.8g), dissolved in water, daily. The results revealed significant improvements in mobility, coordination, endurance, and muscle strength compared to a placebo. These improvements were measured using handgrip strength, the Short Physical Performance Battery, and the Timed Up and Go tests. Additionally, the study showed interesting exploratory outcomes such as significant enhancement in the morphology of the vastus intermedius muscle as assessed via ultrasound, suggesting increased strength in the quadriceps area. These findings indicate that Cerenity's effectively modulates the gut-muscle axis. These are strong results on primary outcomes related to mobility and tests well known for evaluating elderly mobility. [Manuscript in preparation].

Q: What should industry experts expect from your presentation at Vitafoods Europe 2025?

Camille Binachon, Marketing Group Manager at Lallemand Health Solutions, will present more in-depth details on the study results at Vitafoods Europe 2025. Camille handles product management of the healthy aging, metabolic health, oral health, and probiotic protective technologies portfolios. She is also in charge of market intelligence, providing market trend analysis and consumer insights to align product innovation with market needs. The presentation will be a great opportunity for participants to exchange with her and ask their questions.

Q: In what ways can brands partner with Lallemand Health Solutions to commercialise Cerenity?

With 90 years of expertise, Lallemand Health Solutions stands as a global leader in the probiotic industry. We specialise in the development, production, and marketing of bacteria- and yeast-based probiotic supplements for human health. As a vertically integrated probiotic solutions provider, we ensure unparalleled quality in our products, from raw powder to finished goods. At Lallemand Health Solutions, we deliver innovative formulas and provide each client with our utmost attention, ensuring every project benefits from a customised service plan.

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