

Vitafoods Europe 2025: trends, innovations, and market outlook by *MicrobiomePost*







Publisher **Clorofilla srl – scientific publishing**Publishing Director Massimo Barberi

Clorofilla srl - scientific publishing Via Podgora 12A, 20122 Milano Tel +39 02 39523784 www.clorofillaweb.it info@clorofillaweb.it ROC Registration n. 25358

Copyright © 2025

All material appearing in MicrobiomePost is copyright unless otherwise stated or it may rest with the provider of the supplied material. MicrobiomePost takes all care to ensure information is correct at time of printing, but the publisher accepts no responsibility or liability for the accuracy of any information contained in the text or advertisements. Views expressed are not necessarily endorsed by the publisher, editor or aformentioned organizations of the contributors.



Table of contents

Vitafoods Europe 2025: overview and context			4
1.	1.1 1.2 1.3 1.4	trends in nutraceuticals and functional foods (2025) Personalized nutrition and Al-powered health tools Focus on women's health and "beauty-from-within" Cognitive and emotional well-being (stress, sleep, mood) Sustainability and clean labeling Immune and metabolic health	5 6 6 7 8
2.	Fea	tured innovations	9
	2.1	Science-backed solutions for women's health Zinereo Pharma: advancing women's health through microbiome science IFF Health Solutions: empowering menopausal wellness with The Mystic	9 9 11
	2.2	Gut-brain axis: new frontiers in mental well-being Science in action: dsm-firmenich's microbiome-driven solutions for complex health needs	13 13
	2.3	Microbiome-driven approaches to longevity Longevity and innovation: SynBalance's commitment to healthy ageing	15 15
3.	Nev	v players and strategic launches Cultech Ltd.: unlocking new product potential with the Lab4 Probiotic Platform	17 17
4.	Companies showcased at Vitafoods Europe 2025: innovation category winners		19
	4.2	Lactiplantibacillus plantarum TWK10 Heat-Treated Postbiotic ES1 (Bifidobacterium longum CECT 7347) Bifidobacterium breve MCC1274	19 20 20
5.	. Market outlook and implications for the nutraceutical & functional food sectors		
	5.1	Key trend implications	23





Vitafoods Europe 2025: overview and context

Vitafoods Europe 2025, held for the first time in Barcelona, highlighted critical trends and showcased cutting-edge innovations shaping the nutraceutical and functional foods industry. The event drew **over 21,000 industry experts** from **160+ countries**, underscoring the sector's global momentum.

This report distills key trends from the official Vitafoods Europe 2025 Trend Guide and event coverage, examines notable product innovations and companies featured at the show, and discusses the market outlook and implications for the nutraceutical and functional food sectors (with data-driven projections). Alongside editorial insights, it also features a selection of sponsored content curated by the MicrobiomePost editorial team, highlighting innovative solutions and emerging players in the microbiome space.



1. Key trends in nutraceuticals and functional foods (2025)

1.1 Personalized nutrition and Al-powered health tools

Personalized nutrition emerged as a major development area, driven by advances in digital health tech and consumer demand for **tailored solutions**.

Vitafoods Europe 2025's program devoted sessions to the future of personalized nutrition, including discussions of Al, machine learning, epigenetics, and diagnostic tools for customizing health recommendations.

Industry pioneers explored how to make personalized health solutions both **sustainable and affordable** at scale, reflecting the push to bring bespoke nutrition into the mainstream.

On the show floor, companies unveiled technologies enabling on-demand

customization, for example: ACG debuted a Personalised Capsule Machine (PCM) that produces supplement capsules tailored to an individual's biomarkers, health data, and goals.

Such Al-driven platforms, along with wearable sensors and at-home genetic or microbiome tests, are powering the shift from a "one-size-fits-all" model to targeted nutrition. Consumer interest is high:

- half of global consumers are eager to try personalized nutrition solutions
- 1 on 3 already use apps to personalize their diet plans.

This convergence of data-driven tools and consumer demand positions personalized nutrition as a transformational trend for the industry.





1.2 Focus on women's health and "beauty-from-within"

Women's health has become a dominant focus in nutraceuticals, with growing awareness of women's unique nutritional needs across life stages.

Vitafoods Europe 2025 launched an all-new Women's Health Spotlight in its conference, covering topics from hormonal balance and menstrual health to fertility, pregnancy, and menopause support.

Science-backed insights into challenges at all stages of a woman's life – including the latest breakthroughs in menopause management and emotional well-being, were shared, alongside explorations of beauty-from-within solutions for hair, skin, and nail health. This reflects a broader market trend: the women's supplement segment is surging as a "dominant force", with rising demand for products addressing PMS, menopause symptoms, healthy aging, and skin beauty.

At the show, companies showcased targeted innovations.

For instance, Solabia presented Bonolive® (olive polyphenol) research demonstrating improved skin anti-aging benefits. aligning with the beauty-from-within trend. Similarly, biotech startup Olga unveiled Sulfodyne, a natural sulforaphane ingredient that in clinical trials reduced PMS-related discomfort and improved mood in women.

Industry leaders like Aker **BioMarine** emphasized krill oil's role in women's wellness, citing research on omega-3's benefits for PMS, menopause relief, skin health, and even cognitive clarity. The emphasis on women's health at Vitafoods 2025 underscores both market а opportunity а commitment and inclusivity, as brands develop tailored formulations for women's hormonal health and beauty needs.

1.3 Cognitive and emotional well-being (stress, sleep, mood)

In 2025, nutraceutical innovation is increasingly geared toward mental wellness, addressing stress, sleep quality, mood, and cognitive performance.

Vitafoods Europe's conference dedicated a core theme to Cognitive and Emotional Health, with expert panels and case studies on new solutions for brain health and mood support. Several exhibitors featured ingredients targeting the brain-gut axis and stress response.

For example, Spanish supplier Nektium highlighted a range of botanical extracts for cognitive and mental wellness, including Zynamite® (mango leaf extract) for mental energy, Rhodiolife® for stress resilience and sports recovery, and Vanizem®, a new ingredient designed to improve mood, reduce stress, and aid sleep.

Another novel ingredient debut was Magtein® (magnesium L-threonate) from ThreoTech, touted as the first form of



magnesium able to cross the blood-brain barrier to enhance brain structure and function; having recently gained EU novel food approval, it's drawing attention for benefits in mood, sleep, and overall cognitive health. The focus on mental wellbeing also extends to probiotic and nootropic innovations.

Notably, the Vitafoods Innovation Awards recognized several cognitive health

ingredients – finalists included a probiotic strain B. breve MCC1274 (Morinaga) and botanical complexes like RelaxPLX® (Monteloeder) – aimed at stress reduction and mental performance. Overall, the convergence of neuroscience and nutrition is giving rise to supplements for stress management, better sleep, and sharper focus, reflecting consumer priorities in a post-pandemic era of heightened mental health awareness.

1.4 Sustainability and clean labeling

Sustainability and clean-label principles are now central to product development in nutraceuticals. The Vitafoods 2025 Trend Guide emphasizes that many new innovations leverage **natural**, **plant-based ingredients and holistic health concepts**, aligning with consumer demand for cleaner, more sustainable products.

Indeed, judges of the inaugural Vitafoods Innovation Awards noted the common theme of "supporting holistic health" and use of natural ingredients, mirroring the surge in demand for clean-label solutions. There was even a dedicated Sustainability award category, where finalists showcased measurable eco-friendly practices ingredient production, examples include Zooca® Calanus Oil (a novel marine oil) and Nexira's inavea™ prebiotic, both cited for their environmentally sustainable sourcing. On the show floor, many products highlighted their sustainable origins or processes.

Aker BioMarine, for instance, unveiled Revervia™, a new algae-derived DHA omega-

3 that delivers high-potency DHA from a clean, sustainable plant source, directly responding to the growing global demand clean-label vegan, supplements. Upcycled ingredients were also in focus, Dutch company NutriLeads presented clinical findings on Benicaros®, a precision prebiotic fiber extracted from upcycled carrot pomace, which supports gut and immune health across diverse gut microbiomes.

Clean-label formulation goes hand-in-hand with consumer trust: surveys show 50% of consumers avoid "diet" products that contain artificial ingredients or feel overprocessed, fueling the shift toward natural, transparently sourced products.

In summary, sustainability is not just a corporate responsibility slogan but a tangible product attribute in 2025 – from eco-conscious sourcing and reduced waste to clean labeling and plant-based alternatives – all of which are increasingly non-negotiable in the nutraceutical and functional food space.



1.5 Immune and metabolic health

Even as the acute phase of the pandemic recedes, immune health remains a top consumer priority and a key innovation area in 2025. The Vitafoods Europe Trend Guide identifies immunity (often coupled with gut health) as a continued focus, with robust product development in this category. In fact, Vitafoods Europe launched an Immune & Gut Health award to recognize leading ingredients: finalists included Benicaros® (a carrot-derived prebiotic), an ADM heattreated postbiotic, and Finzelberg's 360GUT botanical blend, all targeting enhanced function via modulating immune microbiome.

Postbiotics (heat-killed beneficial microbes or their metabolites) are gaining traction as evidenced by ADM's finalist entry and new partnerships like Lallemand-Kirin's deal to distribute the postbiotic IMMUSE immune support globally. Moreover, betamedicinal mushrooms, glucans, and adaptogenic herbs (such as the chaga mushroom extract introduced by Seppic at the show) are being formulated into immunity-boosting supplements, indicating the category's evolution beyond vitamins. support, Alongside immune metabolic health, covering blood sugar management, weight control, and metabolic syndrome, has come to the forefront.

Many experts tie metabolic health to preventative nutrition, given rising rates of obesity and type-2 diabetes. At Vitafoods 2025, solutions for metabolic wellness were prominently featured. For example, ingredient supplier Puredia showcased CardiOmegia™, vegan omega-7 а formulation designed to synergize with DHA for optimal metabolic and cardiovascular health.

Similarly, collagen leader Rousselot introduced Nextida™ GC, a hydrolyzed collagen peptide clinically shown to help regulate post-meal blood glucose spikes (with supportive data in both normoglycemic and prediabetic individuals).

These innovations address consumers' desire to manage weight and blood sugar through functional nutrition. Indeed, weight management is cited as a leading health concern driving functional food purchases – nearly 3 in 10 consumers buy functional foods/beverages for weight or metabolic benefits. The focus on immune resilience and metabolic balance is expected to persist, as consumers adopt a more proactive, preventative approach to health that nutraceutical companies are eager to support with science-backed products.





Featured innovations

Science-backed solutions for women's health 2.1

Content sponsored by ZZineReo



Zinereo Pharma: advancing women's health through microbiome science

In an era where women's health is gaining more and more attention, Zinereo Pharma is focusing on microbiome-based solutions rooted in science and developed to pharmaceutical-grade standards. As part of the Zendal Group, the company merges biotechnology with clinical rigor to create targeted probiotics that address some of the most pressing and often overlooked challenges in female health, from fertility to intimate well-being.



At the core of Zinereo's innovation is Fertibiome®, a formulation containing Ligilactobacillus salivariusPS11610.

This strain has demonstrated immunomodulatory antimicrobial and activity, and its efficacy is supported by both clinical and retrospective studies.

In the Profec I clinical trial, 44.4% couples with idiopathic infertility achieved pregnancy after six months of Fertibiome® use, while nearly 89% resolved their dysbiosis.

In a retrospective study involving 694 IVF patients, Fertibiome® users for at least one month before embryo transfer, experienced significantly higher live birth and biochemical pregnancy rates, especially women under 37.

L. salivarius PS11610 works by restoring



Lactobacillus dominance in the vaginal and endometrial microbiota, enhancing endometrial receptivity and epithelial integrity and shifting the uterine immune microenvironment.

Importantly, Zinereo applies a couplecentered approach, acknowledging that male urogenital microbiota also impacts fertility outcomes.

By modulating the microbiome of both partners, the company introduces a non-invasive, scientifically validated tool that complements conventional fertility treatments.

Beyond fertility, Zinereo addresses recurring issues like bacterial **vaginosis**, **candidiasis**, **and UTIs** through its flagship brand

Giniwa®. Built on the metaphor of the vaginal microbiota as a living garden, Giniwa blends probiotic strains like L. crispatus, L. acidophilus, and L. plantarum with botanical extracts and vitamins to restore balance and strengthen the mucosal barrier. This synergistic formula designed not just to relieve symptoms but to reestablish ecological balance.

From formulation to education, Zinereo challenges common misconceptions about probiotics, emphasizing strain specificity, vaginal tropism, and the need for robust clinical validation. Through webinars, training programs, and clinician engagement, they are actively reshaping how healthcare professionals and patients understand and use probiotics.

By making microbiome science actionable and accessible, Zinereo Pharma is not just responding to a trend, it is redefining what it means to care for women's health.

Content sponsored by



Zinereo Pharma, part of the Zendal Group, is a company specializing in pharmaceutical-grade probiotics with strong clinical validation.

Focused on women's health, fertility, and gut health, its mission is to transform microbiome science into safe, effective, and accessible probiotic solutions. Through medical education, and partnerships with

Through medical education, and partnerships with healthcare professionals, Zinereo redefines the clinical role of probiotics.

With global reach across Latin America, Asia, and the Middle East, Zinereo brings innovation and care to life.



Content sponsored by HEALTH SCIENCE

IFF Health Solutions: empowering menopausal wellness with The Mystic

As awareness grows around women's health, menopause remains a largely underserved segment, despite its profound impact on quality of life. IFF Health Solutions is addressing this gap with The Mystic, a formulation designed to relieve some of the most common and bothersome menopausal discomforts.



Combining probiotics and botanical extracts, The Mystic offers a holistic, ready-to-market solution for companies looking to expand into the fast-growing menopause category. The formulation is built on three science-backed ingredients:

SoyLife®: a premium extract derived from Glycine max germ (40% soy isoflavones), shown to significantly help reduce both the frequency and severity

of hot flashes. Isoflavones are phytoestrogens, compounds known to help balance hormonal fluctuations in menopausal women.

HOWARU® Calm (Lactobacillus paracasei Lpc-37): a probiotic clinically studied to support emotional well-being through the gut-brain axis, helping to manage the psychological response to stress and mood-related issues.



Gare4U® Lemon Balm extract: a traditional herbal remedy recognized for its calming and sleep-supporting properties, lemon balm contributes to improved rest and promoted calmness.

In a 60-day consumer perception study, The Mystic proved its value quickly: within just 15 days, participants began reporting noticeable improvements in sleep, mood, and vasomotor discomforts like hot flashes and night sweats.

By the end of the trial:

- The average number of menopausal signs dropped from 5 to 2
- Women experienced a marked reduction in the frequency and intensity of remaining discomforts
- 79% reported an improved quality of life
- 8 out of 10 would recommend The Mystic to other women navigating menopause.

What makes The Mystic particularly attractive is its versatility: it is available as a white-label product or a premix, making it an ideal solution for brands eager to enter or strengthen their position in the menopause health market.

By merging clinically supported ingredients with consumer-proven satisfaction, IFF Health Solutions is redefining how we support women through midlife transitions, with empathy, efficacy, and scientific integrity.

Reference

- Patterson E, et al. 2020. Lacticaseibacillus paracasei Lpc-37® improves psychological and physiological markers of stress and anxiety in healthy adults: a randomized, double-blind, placebo-controlled and parallel clinical trial (the Sisu study). Neurobiol Stress. 24;13:100277.
- Nahas PE, et al. 2004. Benefits of soy germ isoflavones in postmenopausal women with contraindication for conventional hormone replacement therapy. Maturitas. 20;48(4):372-80.
 - https://doi.org/10.1016/j.maturitas.2003.09.026
- Ye YB, et al. 2021. Soy germ isoflavones improve menopausal symptoms but have no effect on blood lipids in early postmenopausal Chinese women: a randomized placebo-controlled trial. Menopause. 19(7):791-8.
- IFF internal data, Consumer Perception Study on 100 women after 60 days of use with no placebo

Content sponsored by



At IFF Health Sciences, clinically studied, consumerfocused science is our driving force. Fueled by a legacy of probiotic innovation that stretches further than any other, our scientists and researchers use cutting-edge technology to explore the vast potential of probiotics, enzymes, botanicals and bioscience ingredients to develop solutions that support optimal health across all life stages.



2.2 Gut-brain axis: new frontiers in mental well-being

Content sponsored by **dsm-firmenich**

Science in action: dsm-firmenich's microbiome-driven solutions for complex health needs

At Vitafoods Europe 2025, dsm-firmenich showcased its commitment to advancing microbiome-targeted interventions through the lens of innovation and evidence. Well known for its portfolio of high-purity vitamins, the company is now setting new benchmarks in the health ingredients space with its proprietary biotic viitamins, HMOs, and postbiotics, designed for precision, bioavailability, and clinical impact.



Among the highlights of the event was the presentation of a groundbreaking study addressing gut-brain interaction in autistic children suffering from gastrointestinal disorders. Conducted in collaboration with leading academic institutions, the randomized trial explored the impact of a synbiotic formula composed of partially hydrolyzed guar gum and four selected probiotic strains (including L. rhamnosus GG ATCC 53103) and L. plantarum DSM 34532), with or without gut-directed hypnotherapy (GDH).

Over 12 weeks, both treatment arms significant showed improvements gastrointestinal symptoms, including reductions in pain and stool irregularities. Notably, the group receiving the combined synbiotic and GDH intervention experienced additional benefits in anxiety reduction behavioral outcomes. microbiota level, participants showed a significant rise in Bifidobacterium animalis and other beneficial taxa, reinforcing the synbiotic's potential support the to microbiome-gut-brain axis.



This study represents more than a clinical milestone, infact, it reflects dsm-firmenich's integrative approach to health innovation. By strategically combining clinically validated advanced probiotic strains, prebiotic substrates, and psychobiotic modalities, the addressing company is complex, multifactorial conditions with scientific precision. Through sustained investment in translational research and microbiomecentered development, dsm-firmenich is shaping next-generation health solutions that extend well beyond gastrointestinal support, contributing to neurodevelopment,

emotional well-being, and broader systemic health.

From pediatric applications to adult-targeted formulations, the company continues to pave the way for scientifically sound, market-ready innovations that redefine the potential of nutrition and health.

Reference

 Leanne K. M., et al. 2024. Gastrointestinal, Behaviour and Anxiety Outcomes in Autistic Children Following an Open Label, Randomised Pilot Study of Synbiotics vs Synbiotics and Gut-Directed Hypnotherapy. Journal of Autism and Developmental Disorders

Content sponsored by



dsm-firmenich is a global leader in science-backed health, nutrition, and biosciences. Beyond traditional vitamins, the company is driving innovation with Biotic Vitamins, Human Milk Oligosaccharides (HMOs), and postbiotics, unlocking new frontiers in gut and immune health.

With a legacy of scientific rigor and sustainability, dsm-firmenich continues to redefine ingredient

excellence and clinical relevance in the nutraceutical and functional food sectors.



2.3 Microbiome-driven approaches to longevity



Longevity and innovation: SynBalance's commitment to healthy ageing

At the intersection of scientific research and wellness, SynBalance is pioneering a new vision of longevity. Their work embraces biotics world, targeting strain development to support a healthier, more resilient ageing process. Longevity is not a single destination but a theme that touches multiple therapeutic areas, from metabolic balance to skin health and neuroprotection.



One of the standout innovations in the industry is SynbÆctive® ProBeautyShield composed by L. reuteriPBS072, L. plantarum PBS067 and L. rhamnosus LRH020, designed for skin health and mature skin.

fourth clinical trial. **ProBeautyShield** has shown measurable improvements in skin hydration, brightness, and wrinkle reduction.

Volunteers aged between 40 and 65 took the product for two resulting months, in both measurable improvements and enhanced self-perception.



The company's longevity research also includes a preclinical study in C. elegans, revealing new insights into cellular ageing mechanisms.

This model allows rapid, visible evaluation of probiotic effects on motility and antioxidant activity, shedding light on how microbial ingredients can support vitality at a cellular level. It is a step toward understanding not just what works, but how it works, crucial in an industry that increasingly demands scientific substantiation.

In parallel, SynBalance is exploring the gutbrain axis through **SynbÆctive® KeepCalm**, an ingredient showing promising effects on brain organoids and mental wellbeing. Researchers evaluated the effects of metabolites produced by the strains L. reuteri PBS072 and B. breve BB077. The combined metabolites promoted axon growth, critical for strengthening neural connections, especially as they deteriorate with age.

Postbiotics also play a growing role in SynBalance's offers. The **SynbiOFF®** line

focuses on inactivated strains, which are gaining traction for their stability and wideranging applications. The newest addition, L. paracasei LPC1114, complements a portfolio aimed at supporting gastrointestinal and immune health.

With inactivated strains, SynBalance addresses markets where probiotic viability is less feasible, while still harnessing the bioactivity of microbial compounds.

Crowning this multi-dimensional approach, the new **YouFirst capsule collection**, Seven Nature Wonders, represents the culmination of its creative vision.

Inspired by the concept of longevity, it draws from the majestic and timeless essence of nature's wonders.

Designed as ready-to-market prototypes, each product is infused with probiotic strains and bioactives tailored to support ageing well.

In a world where the pursuit of longevity is becoming a central goal, SynBalance is building the tools for longer, healthier, and more vibrant lives.

Content sponsored by



SynBalance designs, develops and manufactures top-quality probiotic bacteria. We are the ideal partner seeking market success thanks to complete product dossiers and clinically tested concepts.

With the huge effort of both R&D and Formulation Department, SynBalance is able to offer several ready-to-go prototypes of finished products from bulk to the full-service solutions.



New players and strategic launches



Cultech Ltd.: unlocking new product potential with the Lab4 Probiotic Platform

At Vitafoods Europe 2025 in Barcelona, Cultech unveiled a strategic evolution: the Lab4 probiotic consortium, long used exclusively in finished products for major global brands, is now available as a standalone, branded ingredient. This move marks a significant opportunity for companies in the nutraceutical, pharmaceutical, and functional food sectors to incorporate Lab4 into new or existing formulations with the assurance of robust clinical backing.



Originally developed in 1998, the Lab4 consortium includes four proprietary strains:

- Lactobacillus acidophilus CUL60 and
- Bifidobacterium animalis subsp. lactis CUL34
- Bifidobacterium bifidum CUL20

These strains were selected from a large strain bank based on key functional attributes: strong epithelial adhesion, resistance to acid and bile.

immunological activity characterized by antiinflammatory and immune-tolerant cytokine production.

Cultech has invested heavily substantiating the health benefits of Lab4. Over the past 25 years, more than 35 clinical trials have been conducted on Lab4 and its derivatives, an exceptional achievement for an independent, family-owned company. consistently results demonstrate significant benefits across a range of health domains: gastrointestinal function,



immune defense, metabolic health, and overall quality of life.

To address specific population needs and use cases, Cultech has developed several targeted Lab4-based formulas:

- Lab4: the original blend, tested for gut barrier function, IBS, and immune modulation.
- Lab4B: designed for use during pregnancy and early life, it includes Lactobacillus salivarius CUL61 and Lactobacillus paracasei CUL08, offering protection against infant eczema, constipation, and allergy sensitization.
- Lab4P: combines Lab4 with Lactobacillus plantarum CUL66 for cardiometabolic benefits such as weight loss and

- improved lipid profiles, even without dietary changes.
- Lab4S: enriched with Saccharomyces boulardii, this blend supports antibioticassociated recovery, helping reduce Clostridioides difficile infections and maintaining microbial diversity.

In making Lab4 accessible as a core ingredient, Cultech offers partners a unique combination: clinically proven efficacy, long-term stability, excellent safety profile, and versatile applicability across life stages. Companies looking to differentiate their probiotic offering can rely on Cultech's unmatched scientific credibility and production excellence to build innovative, high-performance health solutions.

Content sponsored by



Cultech Ltd., a UK-based company founded in 1994 by microbiologists Dr. Nigel Plummer and Dr. Sue Plummer, is internationally recognized for its science-led approach to probiotic innovation. With roots in microbiological research dating back to the early 1990s, Cultech has played a pioneering role in the development and clinical validation of probiotics for both animal and human health.

All Cultech strains are produced in GMP-compliant

facilities, with quality and safety assured at every step. Regulatory dossiers and technical documentation are available to support formulation, registration, and product launch in global markets.



4. Companies showcased at Vitafoods Europe 2025: innovation category winners

The inaugural Vitafoods Europe Innovation Awards have spotlighted the growing influence of microbiome-based solutions across key functional health categories. Notably, three of the innovation category winners in 2025 were directly tied to biotic technologies—probiotic, postbiotic, or prebiotic—underscoring the sector's momentum and growing scientific credibility. Below, we explore three of the most impactful award-winning innovations.



4.1 Lactiplantibacillus plantarum TWK10



Sports Nutrition and Active Lifestyle Ingredient

Synbio Tech Inc. (Taiwan)

Synbio Tech Inc. is a Taiwan-based biotech company specializing in the research, development, and production of probiotics and postbiotics for applications in human health, animal care, and fermented food systems.

TWK10, isolated from Taiwanese kimchi, has been studied across C. elegans, murine, and human models. It has demonstrated ergogenic properties, including improved muscle endurance, enhanced glycogen storage, and reduced fatigue markers (lactate and ammonia). In a 2025 study by Liao et al., TWK10 supplementation extended lifespan and improved locomotion in C. elegans, outperforming reference probiotic strains.

In human trials, 6-week supplementation (10^10 CFU/day) improved grip strength (1.1^1) and time to exhaustion (1.27^1). Combined with pea protein and resistance training, TWK10



significantly enhanced the absorption of branched-chain and essential amino acids and improved muscle mass, strength, and anaerobic power output.

Reference

- Lee M-C et al., Current Research in Food Science, 2024; 9:100917.
- Liao J-F et al., Current Research in Food Science, 2025; 10:101015.

4.2 Heat-Treated Postbiotic ES1 (Bifidobacterium longum CECT 7347)



ADM (Archer Daniels Midland) is a global leader in nutrition and one of the world's largest agricultural processors, with a robust portfolio in microbiome-based health through its Health & Wellness division.

HT-ES1 is a heat-treated postbiotic derived from Bifidobacterium longum CECT 7347. In a 2024 pilot study involving healthy adults with mild GI symptoms, HT-ES1 significantly reduced non-HDL cholesterol and stabilized fecal calprotectin levels. In a separate RCT on patients with IBS-D, HT-ES1 supplementation for 12 weeks reduced the IBS-SSS score by 177 points—compared to 60 points in the placebo group (p < 0.0001).

Additional benefits included improvements in stool consistency, anxiety levels, and quality of life. HT-ES1 also promoted the growth of butyrate-producing genera such as Faecalibacterium and Anaerobutyricum, highlighting its contribution to gut homeostasis.

Reference

- Srivastava S et al., GUT Microbes, 2024; 16(1):2338322.
- Naghibi M et al., Nutrients, 2024; 16:3952.

4.3 Bifidobacterium breve MCC1274



Morinaga Milk Industry Co., Ltd. is a leading Japanese dairy company known for its advanced research in Bifidobacteria, with applications in aging, cognition, and metabolic health. MCC1274 (also known as B. breve A1) has been clinically evaluated in older adults with suspected mild cognitive impairment (MCI). In two RCTs (2020 and 2022), supplementation



with 2×10^{10} CFU/day for 16-24 weeks led to significant improvements in cognitive function as assessed by RBANS and MMSE. In individuals with baseline brain atrophy (Z-score ≥ 1.0), brain imaging (VSRAD) showed slower progression of hippocampal degeneration.

The strain also preserved memory and visuospatial processing, without significantly altering gut microbiota composition, suggesting central (CNS-mediated) mechanisms likely involving reduced neuroinflammation. A 2024 study further reported beneficial effects on body composition and triglyceride levels.

Reference

- Asaoka D et al., Journal of Alzheimer's Disease, 2022; 88(1):75–95.
- Xiao J et al., Journal of Alzheimer's Disease, 2020; 77(1):139–147.
- Sato S et al., Nutrients, 2024; 16(6):815.



5. Market outlook and future implications in the nutraceutical & functional food sectors

The nutraceutical and functional foods sector continues on a strong growth trajectory, propelled by the very trends highlighted at Vitafoods Europe 2025. Rising consumer health consciousness, aging demographics, and a post-COVID emphasis on preventive care are driving increased demand for supplements and functional foods.



Industry analyses project steady expansion in the coming decade.

The global nutraceuticals market(encompassing functional foods, supplements, and nutritional beverages) was valued around \$463.6 billion in 2025, and is forecast to reach \$762.3 billion by 2035, a ~5.1% compound annual growth rate (CAGR).

Growth is broad-based but especially pronounced in certain segments: for example, personalized nutrition, while still an emerging niche, is expected to grow at double-digit rates (estimated at ~\$16 billion

in 2025, potentially quadrupling by 2040), and the global immune health supplements market is likewise set to expand from ~\$22 billion in 2025 to ~\$36 billion by 2032 (CAGR ~7.4%).

The functional foods and beverages subset is also booming, with one forecast projecting a rise from ~\$399 billion in 2025 to ~\$794 billion by 2032 (around 10% CAGR) as healthy snacking, protein-fortified foods, and convenient nutrition gain traction. These data-driven projections underscore that nutraceuticals are outpacing many traditional food categories in growth.



5.1 Key trend implications

Innovations in personalized nutrition, microbiome-targeted products, and **clean-label ingredients** are expected to continue as major growth engines. Companies that invest in R&D and partnerships (for instance, tech collaborations between **nutrition firms and data startups**, or ingredient suppliers teaming up to create novel combinations) are well-positioned to capture value in this evolving market.

The trends also reflect a shift in consumer expectations: today's informed consumers seek holistic wellness solutions that are not only effective but also sustainable and tailored to their lifestyles. This means brands must prioritize transparency (clean evidence-based labeling), claims, inclusivity (developing products for different genders, and dietary Regulatory bodies are simultaneously increasing scrutiny on health claims and ingredient safety, which will likely raise the for scientific substantiation, development that favors companies with strong clinical research behind their products.

Regionally, markets like Europe and North America remain leaders in nutraceutical consumption and innovation, but emerging markets are catching up. Europe's nutraceutical sector is significant (Spain, the new host of Vitafoods, ranks among the top 5 European nutraceutical markets), and the move to a larger venue in 2025 reflects confidence in further growth.

As consumer demand grows, the supply chain implications include **scaling up sustainable sourcing** (to meet clean-label

and plant-based ingredient needs), investing in advanced manufacturing (to enable personalized and convenient formats), and potentially facing supply chain challenges (sourcing novel ingredients ethically and ensuring quality). Companies responding by broadening their portfolios (e.g., traditional ingredient firms are adding biotech-driven products, and supplement companies are exploring functional foods) sector boundaries blurring to consumers "where they are" with functional benefits in many forms.

> summary, the outlook for nutraceuticals and functional foods robust. The kev trends highlighted at Vitafoods Europe personalized nutrition, women's health, mental wellbeing, sustainability, immune/metabolic health, are not passing fads, but rather indicators of a paradigm shift toward proactive, personalized, and planet-friendly nutrition.

The industry can expect continued growth as it innovates at the intersection of health science and consumer lifestyle. Stakeholders will need to stay agile, investing in research and technology (like Al and omics data integration) while upholding quality and sustainability, to fully capitalize on the significant market opportunities ahead.

Vitafoods Europe 2025: trends, innovations, and market outlook by *MicrobiomePost*



