MGCPQQ®, new benchmark for EU nutraceuticals

The European nutraceutical sector is entering a new phase, where longevity is no longer an ambition but an increasingly measurable and regulated category. Against this backdrop, Mitsubishi Gas Chemical (MGC) has unveiled new research on its ingredient MGCPQQ®, alongside expanded certification credentials that together reflect a broader shift toward evidence-backed, compliance-ready healthy ageing solutions.

At a time when European consumers and regulators are demanding both scientific data and supply chain transparency, the combination of new lifespan data and enhanced quality certifications could mark an inflection point for mitochondrial health ingredients, particularly pyrroloquinoline quinone (PQQ).

FROM COGNITIVE SUPPORT TO LIFESPAN SCIENCE

PQQ has long been studied for its many health benefits. Found in trace amounts in fruits, vegetables and meats, it is a powerful antioxidant whose effects have been demonstrated to be significantly higher than both Vitamin C and E. However, the newly released data, published in the peer-reviewed journal Food & Function (Royal Society of Chemistry) in May 2026, adds to a growing body of evidence positioning PQQ as more than a cognitive health ingredient.

The study demonstrated that lifelong dietary intake of PQQ delayed age-related decline, preserved physical function, and extended healthy survival in a model of accelerated ageing.

Importantly, researchers observed not only increased lifespan but improvements in what scientists increasingly define as healthspan – the period of life spent in good health. Animals receiving PQQ maintained higher levels of physical activity and better neuromuscular function as they aged, indicating that the ingredient may support quality of life as well as longevity.

This distinction is critical in the European region, where demographic ageing is placing pressure on healthcare systems and shifting policy and consumer attention away from reactive "sick care" and more towards proactive, preventative health. From muscle function and mobility to cognitive resilience, ingredients that target multiple aspects of ageing biology are gaining traction.

The new findings are based on earlier research showing PQQ's role in mitochondrial function. As a compound known to stimulate mitochondrial biogenesis, or the creation of new mitochondria, PQQ directly addresses a core factor of ageing – declining cellular energy production. Additional studies have linked PQQ supplementation to improvements in muscle integrity, reduced inflammation, and better metabolic function in ageing models, reinforcing its relevance for healthy ageing applications.

ALIGNING WITH EUROPE'S LONGEVITY OPPORTUNITY

The implications for European formulators are significant. Historically, PQQ has been positioned primarily in cognitive health supplement products. However, the new data moves the ingredient squarely into the broader longevity and healthy ageing categories.



The latest study represents a shift from organ-specific benefits, such as brain function, to systemic ageing support. By linking mitochondrial efficiency to neuromuscular preservation and sustained physical activity, PQQ is increasingly seen as a foundational ingredient for longevity formulations.

This aligns with wider market dynamics. European consumers are becoming more aware of the biological drivers of ageing and are seeking products with clinically substantiated ingredients that are not only safe but also effective. Rather than asking whether mitochondrial health is important, brands are now focused on how to differentiate it.

For MGCPQQ® specifically – a naturally derived, pure source of pyrroloquinoline quinone disodium salt (PQQ) – decades of safety data and human and animal studies are being leveraged as a competitive advantage. The ingredient, developed by Mitsubishi Gas Chemical in Japan using a proprietary fermentation process, has been studied for more than 40 years and is widely regarded as one of the most validated forms of PQQ available.

REGULATORY CREDIBILITY IN THE EU MARKET

One of the most significant differentiators for MGCPQQ® in Europe is its regulatory status. It remains the only PQQ ingredient to have been evaluated by the European Food Safety Authority (EFSA) and included on the EU's Novel Foods list, allowing it to be legally used in food supplements. To date, it is the only PQQ that is lawfully allowed to be sold across the EU.



In a regulatory environment known for its rigor, this approval provides a crucial foundation for market adoption. European manufacturers must navigate strict requirements around ingredient safety, traceability, and claims substantiation – factors that can limit the use of less-established compounds.

MGCPQQ®'s regulatory clearance, combined with its extensive safety, reduces formulation risk and accelerates time to market. It also supports more confident product positioning, particularly in categories such as healthy ageing, where compliance and credibility are of increased importance.

CERTIFICATIONS RESPOND TO RISING TRANSPARENCY DEMANDS

Beyond scientific validation, MGC has also strengthened its position through new certifications aimed at reinforcing supply chain integrity and global market accessibility.

In early 2026, MGC announced that MGCPQQ® had achieved both FSSC 22000 (Food Safety System Certification) and Halal certification. FSSC 22000 is a globally recognized food safety management system standard, widely adopted across Europe's food and nutraceutical industries. Its inclusion signals that MGCPQQ® meets stringent requirements for production, traceability, and risk management-critical factors as manufacturers face increasing scrutiny from regulators and consumers alike.

Halal certification, meanwhile, expands the ingredient's reach into diverse consumer segments within Europe and beyond. As the European market becomes more multicultural, inclusive certification standards are playing a growing role in product development and brand positioning.

Prior to these certifications, MGC also successfully obtained an Informed-Ingredient designation for MGCPQQ®. Through this global quality assurance program for the sports nutrition industry, MGC can ensure that MGCPQQ® is produced to high-quality standards and that every batch is tested regularly for a broad range of substances banned from the World Anti-Doping Agency (WADA) list. The certification attests to the supplement ingredient's quality and manufacturing integrity and reassures athletes that MGCPQQ® is safe to use.

Collectively, these certifications do more than

check regulatory boxes; they address what industry stakeholders describe as a "new baseline" for nutraceutical ingredients. By proving compliance across safety, inclusivity and athletic reliability, MGC provides the verifiable quality and transparency that today's value chain demands. They also reflect a broader shift toward data-driven quality assurance. MGC's fermentation-based production process is supported by advanced monitoring and optimization systems, ensuring consistency and reproducibility, which are key differentiators in the nutraceuticals market.

A "FUTURE-FIT" INGREDIENT FOR EUROPEAN FORMULATIONS

Taken together, the new lifespan data and expanded certification portfolio highlight a convergence of scientific validation, regulatory compliance, and market readiness.

For European nutraceutical manufacturers, this combination is increasingly essential. The market is evolving to a point where ingredients must demonstrate not only efficacy but also safety, traceability, and regulatory acceptance.

MGCPQQ® is positioning itself within this emerging framework. With its Novel Food approval, extensive research base, and expanded certification credentials, the ingredient is being promoted as a future-fit solution for formulators targeting long-term health outcomes.

Beyond any single ingredient, the developments surrounding MGCPQQ® reflect a broader transformation within the nutraceutical industry.

Longevity is moving from niche to mainstream, driven by demographic trends, scientific advances, and shifting consumer expectations. In Europe, where ageing populations are a defining feature, the demand for products that support healthy, active lifestyles is expected to grow significantly in the coming years.

At the same time, the bar for market entry is rising. Scientific substantiation, regulatory compliance, and supply chain transparency are prerequisites.

In this context, the combination of new research insights and certification milestones is more than incremental progress. For ingredient suppliers and brand owners, the future of nutraceuticals in Europe will be shaped by those who can combine rigorous science with uncompromising quality standards, delivering solutions that are as trustworthy as they are effective. •

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