

Maruha Nichiro Corporation Enters Agreement with UMAMI Bioworks to Develop and Commercialize Cell-Cultivated Tuna

Accelerating Development and Commercialization of Sustainable Seafood

Maruha Nichiro Corporation (Head Office: Koto-ku, Tokyo; President and CEO: Masaru Ikemi) has entered a joint development agreement with UMAMI Bioworks (Head Office: Singapore; CEO: Mihir Pershad) to develop and commercialize cell-cultivated tuna. This partnership aims to capitalize on the rapidly growing global tuna market, valued at over \$40 billion, with well-defined R&D objectives and a commitment to launching a test marketing of cell-cultivated tuna setting the stage for full-scale commercialization.

The global demand for tuna is surging, yet the industry is burdened by overfishing, supply chain challenges, and environmental damage. This partnership aims to make tuna, one of the world's most nutrient-dense superfoods, more accessible and sustainable, responding to growing consumer demand for health-conscious, ethical options.

This joint development effort brings together the complementary strengths of both companies. Maruha Nichiro, a global leader in seafood with deep expertise in category management, flavor development, and distribution, was the first private company to successfully achieve 100% egg-to-harvest, farm-raised tuna in 2010. UMAMI Bioworks, a pioneering biopatform company, specializes in cell line development, bioprocess optimization, and scalable cultivated seafood production. Together, they aim to optimize cell culture processes, refine production scalability, and establish the foundation for commercial deployment of cultivated tuna.

The collaboration between Maruha Nichiro and UMAMI Bioworks marks a significant step toward the future of healthy, sustainable seafood. Key upcoming milestones include establishing robust cell lines, scaling production capabilities, securing regulatory approvals, and launching test marketing efforts. With a strong commitment to innovation and sustainability, UMAMI Bioworks is also dedicated to expanding its presence in Japan, supporting the country's leadership in seafood excellence, and delivering next-generation seafood solutions that meet consumer needs.

About Maruha Nichiro Corporation

Maruha Nichiro Corporation is one of the world's largest seafood companies, specializing in fisheries, aquaculture, processing, and global distribution. With a legacy of excellence in seafood production, Maruha Nichiro is committed to delivering high-quality, sustainable seafood solutions to meet evolving consumer needs worldwide.

About UMAMI Bioworks

UMAMI Bioworks is the leading biopatform for the development and production of sustainable planetary biosolutions. Through the synthesis of machine learning, multi-omics biomarkers, and digital twins, UMAMI has established market-leading capability for discovery and development of cultivated bioproducts that can seamlessly transition to manufacturing with UMAMI's modular, automated, plug-and-play production solution. By partnering with market leaders as their biomanufacturing solution provider, UMAMI is democratizing access to sustainable blue bioeconomy solutions that address a wide range of global challenges.