

Microbial Protein & Microbial Oils Transition Players
Fermentation Platform for High-Value Food and Beverage Ingredients
MATRIA Biotechnology
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Malted Grains
Precision Fermentation
Microbial Oil

Abstract:

MATRIA delivers a circular precision-fermentation platform that converts malted grains and compatible bakery sidestreams into high-value food ingredients: food-grade single-cell oils, microbial protein, and a fermented liquid enriched with prebiotics, postbiotics, organic acids, antioxidants, and aroma compounds. We use a non-GMO, GRAS QPS-approved oleaginous yeast, so our oils are not subject to Novel Food classification and can move to market quickly. The oil offers a healthy fat profile with naturally high monounsaturated oleic acid, low saturated fat, zero trans fats, and no cholesterol. Instead of discarding the liquid phase, we upcycle 100 percent of the fermentation broth into a functional beverage or into concentrates and powders that support gut health and clean-label formulation.

The platform is engineered for feasibility at scale. It runs on standard brewery equipment, integrates with existing food-grade utilities and QA systems, and accepts flexible carbohydrate inputs from malted grain or qualified bakery sidestreams.

Full-stream valorisation eliminates wastewater and disposal costs, creates dual product revenue, and improves unit economics compared with conventional single-cell oil or protein processes that treat the broth as waste. This combination of regulatory clarity, operational simplicity, and zero-waste design lowers deployment risk for industrial partners and shortens time to commercial validation. Our goal is to deliver fermentation-based ingredients that are technically robust, economically scalable, and easy to integrate into modern food systems.