Business Demonstration of a Valuable Lipid Production Project Maximizing the Characteristics of a High Lipid-Producing Microalga (Phytolipid Technologies Co., Ltd.)

City	Year of Establishment	Founder
Yokohama, Kanagawa	2021	Hiroyuki Ohta

Partner VC	Latest round of Fundraising	Valuation
Kyoto University Innovation Capital Co.,Ltd.	Seed	JPY 755 million

Contact Information :
tel ：+81-80-7145-6460
e-mail：tsuyuzaki.s@phytolipidtech.co.jp

Website : https://phytolipidtech.co.jp/

◯ Business Plan

Phytolipid Technologies Co., Ltd. (PLT) aims to produce high–value-added useful materials, such as omega-3 fatty acids, their metabolic derivatives, and oils, on a large scale for food, fuel, and industrial applications. Leveraging technologies cultivated at Tokyo Institute of Technology (now Institute of Science Tokyo), PLT maximizes the inherent ability of plants and microalgae to absorb carbon dioxide and convert inorganic carbon into useful organic compounds through photosynthesis. Through these efforts, PLT is committed to sustainable production of valuable materials while contributing to the reduction and absorption of atmospheric carbon dioxide.

◯ Research Outline

This project aims to establish high-efficiency outdoor cultivation of Nannochloropsis at a 2,000-liter scale and to complete product prototypes using PLT's proprietary two-step extraction process. By implementing low-cost, V-shaped outdoor cultivation systems, the project will achieve high-density seed culture, thereby building a foundation for future scale-up and commercialization. Using biomass obtained from outdoor cultivation, omega-3 fatty acids (GreenEPA+^{TM}), edible oils, and fuel-grade lipid fractions will be produced, and their quality as raw materials will be evaluated in collaboration with partner companies to confirm their suitability for final product manufacturing.

Business Area/Field	Research Period	Research Grant Amount	International collaborative technology demonstration
Food & Agriculture	STS 2025-2027FY	JPY 439 million	-

As of December, 2025