

Contract No: FP7-613588-MIRACLES

Title: Multi-product Integrated bioRefinery of Algae: from Carbon dioxide and Light Energy to high-value Specialties

Duration: 01/11/2013 - 31/10/2017

Abstract:

Microalgae are a promising feedstock for the sustainable supply of commodities and specialties for food and non-food products. Despite this potential, implementation is still limited, mainly due to unfavourable economics. Major bottlenecks are the lack of available biomass at acceptable costs and the absence of appropriate biorefinery technologies.

The 4-year MIRACLES project aims to resolve these hurdles by development of integrated, multiple-product biorefinery for valuable specialties from algae for application in food, aqua feeds and non-food products.

MIRACLES focuses on the development and integration of mild cell disruption and environmentally-friendly extraction and fractionation processes, including functionality testing and product formulation based on established industrial algal strains. It will also develop new technologies for optimizing and monitoring valuable products in the algal biomass during cultivation.

The project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration.

In this project, CHIMAR is working on the use of various fractions from algae biomass in adhesives suitable for the production of wood-based panels.

