

Jiří Masojídek's group

Title of the project: Cultivation of microalgal cultures in waste water in pilot-scale outdoor trials to enhance biological activity

Supervisor: Joao da Camara Manoel manoel@alga.cz

For how many student/s: 1

Description of the project:

A selected number of microalgae strains have been chosen for their biological compounds potential – biopesticides, bioestimulants, etc – being cultured in controlled conditions. These compounds are then extracted, and then tested for their bioactivity.

For this project, selected microalgae will be cultured in two types of outdoor culture units - thin-layer cascades and raceway ponds to monitor and compare their growth using various methods and techniques.

The following variables will be measured: optical density, dry weight, cell number, pigment composition, photosynthetic oxygen evolution and electron transport rate. These data should make it possible to adjust suitable cultivation regime for selected strains in individual cultivation units.

Requirements:

English or Spanish; the student must be able to work independently, though there will be supervision.