

INTERNATIONAL AUTUMN SCHOOL 22ND – 23RD OCTOBER 2018

From waste to microalgae: an example of circular economy

UNIVERSITY OF MILAN, PALAZZO FELTRINELLI GARGNANO (BRESCIA), ITALY

Introduction

The school will investigate the core theme of the circular economy: the recovery of CO₂ and nutrients to produce valuable products and feedstocks. In particular, the discussion will focus on the context of one of the main biorefinery in Lombardy and Europe, biogas, combined with one of the most promising biotechnologies: the cultivation of microalgae. The speakers will present the state of the art of biogas upgrading technologies and CO₂ recovery and will give a taste of the latest research developments on selective CO₂ absorption with nanoporous materials.

The researchers involved in the challenge of large-scale cultivation of microalgae will share their experience, highlighting problems and advantages related to the recovery of wastes (slurry, wastewater, digestate) to make this technology competitive in Europe. The business world will present microalgae-based products that can be sold on the market and successful case history, in which innovative products with high added value (biostimulants) have brought value to the traditional agricultural sectors.

Venue

University of Milan,
Palazzo Feltrinelli, Via Castello 3
25084 Gargnano (Brescia), Italy

Who can attend the school?

The school is designed for PhD students and post-doctoral researchers, working in universities, public and private research centres. Applications are welcome from all countries. The participation is free of charge. In order to attend the autumn school, CV, motivation letter and Application Module (available at <https://www.italbiotec.it/index.php/it/news/522-balance-autumn-school>) should be sent to: verdepertutti@gmail.com
Up to 20 Participants will be selected.

Please note the following key dates:

Deadline for submission of application
20th September 2018

Successful applicants informed
30th September 2018

Further information

Further information can also be obtained by contacting verdepertutti@gmail.com

Organizing committee

Prof. Fabrizio Adani, University of Milan
Ilaria Re, Consorzio Italbiotec
Silvia Salati, Consorzio Italbiotec

Scientific committee

Prof. Fabrizio Adani University of Milan
Prof. Piero Sozzani University of Milano Bicocca
Prof. Gabriel Acien University of Almeria



Consorzio
Italbiotec

Autumn School Secretariat

Reservations on

Eventbrite

<https://autumnschoolofmicroalgae.eventbrite.it>

PROGRAM

DAY

1

MONDAY

22ND OCTOBER 2018

- 9.30 Opening address and Welcome the participants
- 10.30 **Climate Change, Bioeconomy and Circular Economy**
Fabrizio Adani - *Università degli Studi di Milano*
Gruppo Ricicla Labs
- 11.30 Coffee Break
- 11.45 **Biogas as a source of energy, nutrients and CO₂**
Eric Meers - *Gent University - Belgium*
- 13.00 Lunch
- 14.00 **The agro-food wastes: production and use as renewable feedstock**
Barbara Scaglia - *Università degli Studi di Milano*
Gruppo Ricicla Labs
- 14.30 **Algae cultivation and full-scale approach (including CO₂ recovery), SABANA project**
Gabriel Acien Fernández - *Universidad de Almería - Spain*
- 15.30 **Microalgae and organic wastes: mixotrophic way**
Giuliana D'Imporzano - *Università degli Studi di Milano*
Gruppo Ricicla Labs, Consorzio Italbiotec
- 16.30 **Microalgae and waste recovery: genomics and metagenomics**
Katia Parati - *Istituto Sperimentale Italiano Lazzaro Spallanzani*
- 17.30 Speed sparring and Studies presentations
- 20.00 Social dinner

2
DAY

TUESDAY

23RD OCTOBER 2018

- 9.00 **Biogas upgrading and CO₂ recovery: State of the art and perspective**
Lorenzo Maggioni - *Consorzio Italiano Biogas*
- 9.30 **Innovative methods for CO₂ recovery: nanoporous materials**
Piero Sozzani - *Università degli Studi di Milano Bicocca*
- 10.30 Coffee Break
- 10.45 **Microalgae and wastes**
Gabriel Acien Fernández - *Universidad de Almería - Spain*
- 11.45 **Strategy 2025 The sustainability of the biogas chain beyond the incentives: exploitation of the downstream**
Andrea Chiabrando - *Consorzio Monviso Agroenergia*
- 13.00 Lunch
- 14.00 **Microalgae products: biostimulants and biofertilizers. The history and experience of Biorizon Biotech**
Joaquín Pozo Dengra - *Biorizon Spain*
- 14.30 **Microalgae in acquaculture. State of the art and future trends**
Andrea di Biase - *AIA spa*
- 15.30 **Carbon and nutrients recovery for microalgae growth: Life Cycle Analysis**
Giuliana D'Imporzano - *Università degli Studi di Milano - Gruppo Ricicla Labs, Consorzio Italbiotec*
- 16.30 Work closure