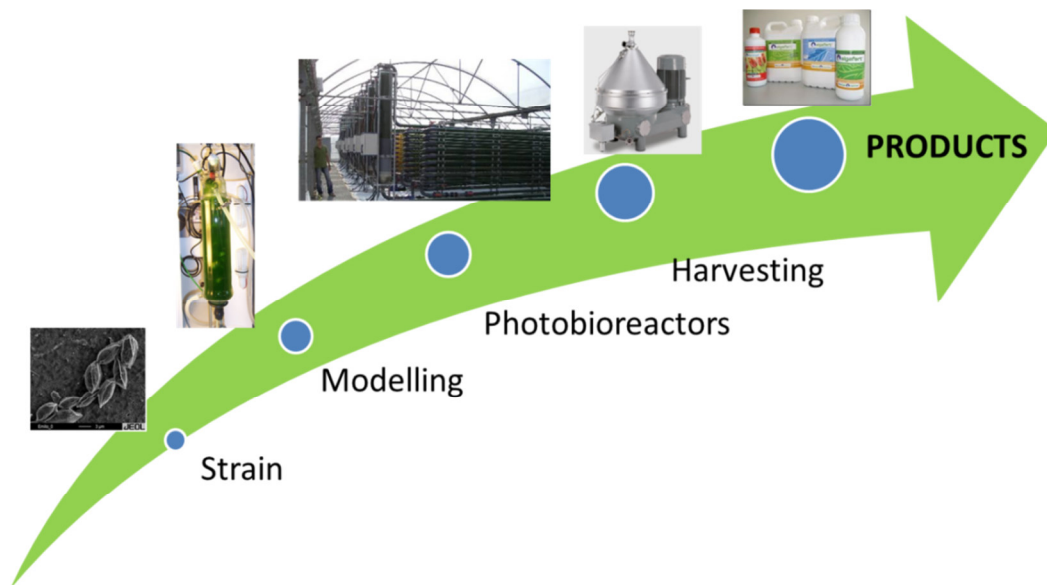




TRAINING SCHOOL

Microalgae processes: from fundamentals to industrial scale



Almería (Spain), 13th-15th September 2017

University of Almeria/Fundación Cajamar



COST is supported by the EU Framework Programme Horizon 2020

With the collaboration of



Cátedra Cajamar de
Bioeconomía



Fundación Cajamar



EU Project SABANA

DESCRIPTION OF THE COURSE

Intensive course about microalgae based processes; on which expertise from academia and industry explain the major aspects of these processes. The course cover all the aspects related with microalgae based processes, from (i) the modelling of strains and light utilization, to (ii) the design and operation of photobioreactors, (iii) harvesting and processing of the biomass to achieve reliable products, and (iv) scale-up to commercial size. Fundamental and practical aspects will be covered always including the participation of young students and the exchange of experiences between the assistants.

The course is oriented towards PhD students or equivalent experience students in microalgae field from whatever fundamental area as microbiology, biology or biological/ biochemical engineering, chemistry and biochemistry. The course is also intended to give those working in the industry an opportunity to upgrade their knowledge in microalgae biotechnology.

COURSE SUMMARY

Language: English

Number of participants: 30

Total hours: 18 (theoretical and practical). This will be confirmed by a certificate of participation, but it will not have ECTS equivalents.

No registration fee

COURSE PROGRAM

Date: September, 13th, 2017

Place: University of Almeria

Time		Description
8:00	8:30	Transport from the Hotel
8:30	9:00	Plenary Lecture: "An Overview of Algal Biofuels Developments within the NAABB Program in the USA", Prof. Jose Olivares
9:00	10:00	WG 1: Microalgae growth optimization and population dynamics Giuseppe Torzillo (30 min) Discussion (10 min) Selected student (10 min)+discussion (10 min)
10:00	11:00	WG 2: Microalgae harvest and cell wall disruption Koenraad Muylaert (30 min) Discussion (10 min) Selected student (10 min)+discussion (10 min)
11:00	11:30	Coffee
11:30	12:30	WG 3. Refining of microalgae into its value components Luisa Gouveia (30 min) Discussion (10 min) Selected student (10 min)+discussion (10 min)
12:30	13:30	WG 4. Valorisation of intermediates and by-products Cristina González (30 min) Discussion (10 min) Selected student (10 min)+discussion (10 min)
13:30	15:00	Lunch
15:00	16:00	WG 5: Life Cycle Assessment (LCA) Pierre Collet (30 min) Discussion (10 min) Selected student (10 min)+discussion (10 min)
16:00	17:00	Overall discussion about topics presented
17:00	17:30	Transport to the hotel

Date: September, 14th, 2017

Place: Est. Exp. Palmerillas, Fundación Cajamar

Time		Description
8:00	8:30	Transport from the Hotel
8:30	9:00	Introduction to the training activities
9:00	10:00	Light distribution in microalgae cultures Jose M. Fernández Sevilla, Cintia Gómez
10:00	11:00	Growth modelling Jose M. Fernández Sevilla, Cintia Gómez
11:00	11:30	Coffee
11:30	12:30	Photobioreactors performance: tubular Emilio Molina, Cynthia González
12:30	13:30	Photobioreactors performance: raceway Emilio Molina, Cynthia González
13:30	15:00	Lunch
15:00	16:00	Harvesting: flocculation/sedimentation, centrifugation F. Gabriel Acien, Ismael Martín
16:00	17:00	Control of the entire process F. Gabriel Acien, Ismael Martín
17:00	17:30	Transport to the hotel
21:00	23:00	Dinner at the hotel

Date: September, 15th, 2017

Place: Hotel

Time		Description
8:30	9:00	Introduction to the companies presentations
9:00	9:40	BiotechSolutions, Jose Peña
9:40	10:20	GEA Westfalia, Luis Valiente
10:20	11:00	Hach-Lange, Juan Pedro Cordero
11:00	11:30	Coffee
11:30	12:10	Aqualia, Arbib Zouhayr
12:10	12:50	Biorizon Biotech, Joaquin Pozo
12:50	13:30	Certificate award ceremony and closure of the course
13:30	15:00	Lunch
16:00	19:00	Party on the beach

TYPES OF ACTIVITIES DURING THE COURSE INCLUDE:

- Lectures given by senior researchers
- Practical at facilities of Fundación Cajamar
- Technical lectures by companies
- Posters sessions
- A social programme

APPLICATION FOR REGISTRATION

Applicants should send an email to info@eualgae.eu and attach in one single document:

- A cover letter with a statement of interest of up to one page, including a description of your research topic
- Short CV including contact data and a list of publications, if any

Students have the opportunity to apply for grants to partially cover their travel expenses, meals and accommodation. The following grants are offered:

- 23 grants of 720 € for students from COST countries participating in the Action
- 7 grants of 400 € for Spanish students (for students from Almeria- 75 €)

Accepted applicants must to provide an abstract about most relevant aspects of his research. Up to five abstracts will be accepted for oral presentation whereas others can be presented as poster during the course.

SELECTION OF PARTICIPANTS

The following selection criteria will be applied:

- CV
- Letter of interest
- Research topic
- Gender balance
- Country balance

DEADLINES

- 30th of June – Submission of all applications
- 15th of July – Selection and announcement of participants

ACCOMMODATION AND TRANSPORT

Hotel Don Angel ****

Single room with breakfast: 53 €

Double room with breakfast: 70 €

Tlf.: +34 950 328350

roquetasdemar@hoteldonangel.com,

www.hoteldonangel.com/hotel_don_angel_roquetas_de_mar.php

Transport between the official hotel and the different research centers during the training school will be provided by the organization. No other transport services or from other hotels are included.

ORGANIZATION

The course is organized by the Department of Chemical Engineering at the University of Almeria (Spain), in collaboration with Fundación Cajamar (Spain) as part of the EUALGAE ES1408 COST Action. COST is supported by the EU Framework Programme Horizon 2020.

Coordinator:

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Information about Almería

Climate

Almeria has a Hot Arid climate (BWh). Almeria's winters are very mild, around 18°C (65°F). Summers are long and hot and often reach and exceed 40°C (104°F) in the shade during July and August.

Get in

By plane

Carriers serving Almeria include Monarch from London Luton, Birmingham and Manchester, Ryanair from London Stansted, Iberia from Barcelona, Madrid and Melilla, BMI Baby from East Midlands, Easyjet from London Gatwick & Jet2.com from Leeds/Bradford.

Also efficient are flights to Madrid or Malaga, followed by bus trips to Almeria. While requiring more time, they are often cheaper than direct flights to Almeria.

By train

Almeria's train station is located on the Plaza de la Estación in the centre of the city and has services to destinations across Spain. Bus and train station are next to each other.

By bus

The bus and train station are combined. Buses arrive from Jaén, Málaga, Granada and a variety of other cities all day. More options are available if routing through Granada, which is quick and simple. The station is located southeast of the center, and is a 15-25 minute walk from the center of town. The station is close on the night.

By boat

Ferries connect Almería to Melilla, Nador, Ghazaouet and Oran