

TRAINING COURSE  
“CHALLENGES AND APPLICATIONS IN MICROALGAL BIOTECHNOLOGY”  
PROGRAMME

Monday, February 17

Timetable	Lecturer	Topic
9:00-9:45	Registration of participants	
10:00-10:15	Introduction to the course and welcome	
10:15-11:15	Dr. Ma. Edith Ponce	What are algae? Generalities, where they live, importance, location and taxonomy
11:15-11:30	COFFEE BREAK	
11:30-13:30	Dr. Giuseppe Torzillo	Photosynthesis: basic principles to optimize growth of microalgae culture outdoors
13:30-14:30	LUNCH	
14:30-15:30	Dr. Guillermo Quijano	Kinetic characterization of microalgal cultures
15:30-15:45	COFFEE BREAK	
15:45-17:00	Experimental work	Preparation of inoculum for raceways in flat plate bioreactors (180 L)

Tuesday, February 18

Timetable	Lecturer	Topic
9:00-9:45	Dr. Ma. Edith Ponce	Identification of Microalgae (theoretical part)
9:45- 11:45	Dr. Roberto De Philippis	Exploitation of cyanobacteria for soil rehabilitation
11:45-12:00	COFFEE BREAK	
12:00-13:00	Dr. Eugenia J. Olguín	Dual purpose systems for the production of microalgae and treatment of wastewater
13:00- 14:00	LUNCH	
14:00-15:00	Dr. Germán Buitrón	Microalgal-bacterial aggregates for wastewater treatment
15:00-17:00	Dr. Roberto De Philippis	Heavy metal bio-removal with exopolysaccharide-producing cyanobacteria
17:00-17:15	COFFEE BREAK	
17:15-18:00	Dr. Ma. Edith Ponce	Observation and identification of microalgae

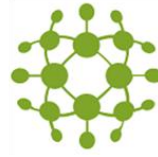


### Wednesday, February 19

Timetable	Lecturer	Topic
9:00-10:45	Dr. Ma. Edith Ponce	Preparation of permanent and semi-permanent preparations of microalgae
10:45:11:45	Dr. Germán Buitrón	Obtaining hydrogen and methane from microalgal biomass
11:45-12:00	COFFEE BREAK	
12:00-13:00	Dr. Eugenia J. Olguín	Microalgae-based biorefineries using agro-industrial wastewater and aquatic plants
13:00-14:00	LUNCH	
14:00-16:00	Dr. Luis Fernández Linares	Various types of microalgae cultures and bioproducts
16:00-16:15	COFFEE BREAK	
16:15-17:00	Dr. Ma. Edith Ponce	Cleaning and assembly of diatoms
17:00-18:00	Experimental work	Cultivation of <i>A. maxima</i> in raceways (2,000 L)

### Thursday, February 20- WORKSHOP "HIGH VALUE PRODUCTS FROM MICROALGAE"

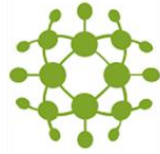
Timetable	Lecturer	Topic
9:00-9:30	Registration (tea and coffee)	
9:30-9:40	Dr Alla Silkina	Welcome and housekeeping
9:40-10:00	Dr Claudio Fuentes-Grünewald/Prof Carole Llewellyn	Talk1 Phycopigments project (UK)
10:00-10:20	Prof Eugenia J. Olguín	Talk2 Cultivation of <i>A. maxima</i> and production of phycocyanin (México)
10:20-10:40	Dr. Giuseppe Torzillo	Talk 3 Purification of phycocyanin from <i>Arthrospira platensis</i> biomass using hydrophobic interaction membrane chromatography
10:40-11:00	Prof Saul Purton	Talk 4 Algae-UK network
11:00-11:20	TBC	Talk 5 by somebody from CONACYT (México)(TBC)



11:20-11:50	COFFEE BREAK AND NETWORKING	
11:50-12:10	Dr Roberto de Philippis	Talk 6 Exopolysaccharides of industrial interest from cyanobacteria
12:10-12:30	John McDonald	Talk 7 Algaecytes (UK)
12:30-12:50	Joe McDonald	Talk 8 PBR Varicon (UK)
12:50-13:10	Prof Carole Llewellyn	Talk 9 Circular economy, ALG-AD (UK)
13:10-14:00	LUNCH	
14:00-14:30	Demonstration of culture systems and separation-INECOL	
14:30-15:00	Dr Claudio Fuentes-Grünewald, Eduardo Rodríguez Verdú	Harvesting of biomass for Spirulina culture- (UK)
15:00-15:30	Eduardo Rodríguez Verdú	Phycocyanin separation demo (UK)
15:30-16:00	COFFEE BREAK	
16:00-16:45	Dr Alla Silkina	Roundtable on identification of good product systems for Mexico and routes to market
16:45-17:30	Networking	

### Friday, February 21

Timetable	Lecturer	Topic
9:00-10:00	Dr. Hugo Moreira Soares	Trends and Tendencies in Bioprocess Engineering Applied to the Environment
10:00-12:00	Dr. Eugenia J. Olguín (Chair) Dr. Germán Buitrón Dr. Roberto de Philippis Dr. Guillermo Quijano Dr. Giuseppe Torzillo	ROUND TABLE- The future of Microalgae Biotechnology
12:00-12:15	COFFEE BREAK	
12:15-13:00	Dr. Eugenia J. Olguín Dr. Hugo Soares Dra. Gloria Sánchez	Information about SOLABIAA



13:00-14:00	Dr. Miguel Rubio (Director of INECOL) Dra. Blanca Jiménez (Directora of CONAGUA)	Closing Ceremony
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