STRUCTURE AND CONTENTS – IV EDITION – 2016

For the 2016 edition this central topic will be **“Microbes in a changing world: diversity and biogeochemistry”**

The Colloquium will be organized as follows:

– Masterly lessons of one hour during mornings (15 hours).

– Open discussions on different topics (4 hours), lead by students.

– Student presentations. Participants are encouraged to prepare a 120' presentation (the student can bring one or two slides for the presentation or an alternative way).

– Other activities. There will also be other activities, such as cultural activities within the city as the visit to the AGBAR installations.

INITIAL SESSION SUNDAY 10TH, AFTERNOON)

17:00 Registration

18:00 Welcome and instructions

18:30 Narcís Prat (UB, Barcelona)

The ecological thinking of Ramon Margalef

19:15 Carlos Pedrós-Alió (CNB-Csic, Madrid)

Ecology and Microbes: numbers, observations, manipulations, and applications

20:00 Welcome drink and tapas

Patterns of diversity (Monday 11th)

9:00 Ramon Massana (ICM, Barcelona)

Exploring the hidden diversity among the smallest marine protists

10:00 Coffee break

10:30 David L. Kirchman (Univ. Delaware, USA)

Controls of the composition and diversity of bacterial communities in an estuary

11:45 Ramiro Logares (ICM, Barcelona)

Patterns of community structure in oceanic protists

13:00 Lunch break

14:00 Session “Patterns of diversity” discussion

15:00 Isabel Ferrera (ICM, Barcelona)

Microbial ecology in water treatment systems

16:00 Coffee break

16:30 “My work in 120 s” (student presentations)

18:30 Ice breaker (ICM)

Interactions between microorganisms and between micro- and macroorganisms (Tuesday 12th)

9:00 Ute Hentschel (Geomar, Kiel)

What drives sponge symbioses?

10:00 Coffee break

10:30 Gipsi Lima-Mendez (Univ. Leuven, Belgium)

Predicting ecological interactions from -omics data

11:45 Rachel Foster (Stockholms Universiteit)

A symbiotic advantage: diatoms and cyanobacteria work together in the oligotrophic ocean

13:00 Lunch break

14:00 Session “Interactions between micro- and macroorganisms” discussion

Global Change and microorganisms (Tuesday 12th, afternoon)

15:00 Ruben Sommaruga (Univ. Innsbruck, Austria)

When glaciers and ice-sheets melt: consequences for the biogeochemistry and microbial diversity of aquatic ecosystems

16:00 Coffee break

16:30 Xelu A.G. Morán (KAUST, Saudi Arabia)

Predicting responses of marine prokaryotes to ocean warming: latitude and food matter

17:30 Session “Global change and microorganisms” discussion

Microorganisms and ecological theory (Wednesday 13th)

9:00 Emilio O. Casamayor (CEAB-CSIC, Blanes)

Bridging the gap between empirical microbial ecology and theories of biodiversity organization in space and time

10:00 Coffee break

10:30 Marta Goberna (CIDE-CSIC, València)

Soil bacterial community assembly and the ecological co-existence theory

11:45 Clara Ruiz-González (ICM, Barcelona)

Exploring the assembly of bacterial communities in complex boreal aquatic networks: spatial structure of the metacommunity and the seed bank concept

13:00 Lunch break

14:00 Session "Microorganisms and ecological theory" discussion

15:30 *Microbial ecology in practice:*

Excursion to AGBAR water treatment plant

Reception at AGBAR (sponsor)

18:30 Return from excursion

Biogeochemical cycling and the relationship between genes and fluxes (Thursday 14th)

9:00 Rafel Simó (ICM, Barcelona)

Looking-up genes at the ocean-atmosphere interface

10:00 Coffee break

10:30 Lionel Guidi (CNRS, Villefranche-sur-mer, France)

The biological carbon pump: from remote sensing to genes

11:45 Laura Alonso-Sáez (AZTI, Euskadi)

Linking omics to biogeochemical functions in marine prokaryotes: Examples from the carbon and nitrogen cycles

13:00 Lunch break

14:00 Session "Biogeochemical cycling, gens and fluxes" discussion

15:00 Coffee break

15:30 *Making the invisible visible and intelligible the unintelligible*

Co-creation outreach activity

18:00 End of activity

20:30 Course dinner

Environmental physical dynamics and their effects on diversity and biogeochemical cycling (Friday 15th)

9:00 Francesc Peters (ICM, Barcelona)

Stability and instability in relation to ecosystem structure and function

10:00 Coffee break

10:30 Pedro Cermeño (ICM, Barcelona)

What made the Earth habitable: the role of marine microbial biology

12:15 Steve Smriga (ETH Zurich, Switzerland)

Microscale interactions through the lens of physical ecology

13:30 Lunch break

14:30 Session “Physical dynamics and diversity and cycling” discussion

15:30 Coffee break

16:00 *Making the invisible visible and intelligible the unintelligible*

Co-creation outreach activity (presentations)

17:30 Review of course

18:00 End

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