

Thursday, October 8th

18:30-20:00 Arrival and registration

20:00 - *Dinner*

Friday, October 9th

09:00-9:20 *Welcome*

Roberto Di Lauro (Stazione Zoologica Napoli, Italy)

Session 1: The Marine Environment

Debora Iglesias-Rodriguez, Chair

09:20-10:00 **Maurizio Ribera d'Alcalà** (Stazione Zoologica Napoli, Italy)

How far can we go?

10:00-10:40 **Eric Karsenti** (EMBL, Germany)/**Chris Bowler** (CNRS-ENS, France) *Tara Oceans: a three year expedition to explore the wellbeing of planktonic ecosystems throughout the world's oceans*

10:40-11:10 *Coffee*

11:10-11:50 **Michael Follows** (MIT, MA, USA)

The organization of microbial communities in model ocean

11:50-12:20 **Wolfgang Hess** (University Freiburg, Germany)

Modelling the pan- and supragenome of marine picocyanobacteria and definition of their core genome

12:20-12:40 **Silvia De Monte** (Ecole Normale Supérieure, France)

Structuration of phytoplankton communities in the open ocean

12:40-13:00 **Daniela Schmidt** (University of Bristol, UK)

A palaeontological perspective on ecological and evolutionary changes in the planktic ecosystems

13:00 - 14:30 *Lunch*

Session 2: Growth, Reproduction and Survival @Sea

Catherine Boyen, Chair

14:30-15:10 **Marina Montresor** (Stazione Zoologica Napoli, Italy)

The complex life of unicellular microalgae: a challenge for ecological and experimental research

15:10-15:50 **Assaf Vardi** (Rutgers University, NJ, USA)

Chemical arms race at sea: on cell signaling, mortality and defense of marine phytoplankton

15:50-16:10 **Valerie Devos** (Ghent University, Belgium)

Transcriptome and exometabolome analysis of the cell size-regulated sexual reproduction in diatoms

16:10-16:30 **Miguel Frada** (Rutgers University, USA)

*The response of *Emiliania huxleyi* sexual life cycles to viral infection: in vitro and in situ observations*

16:30 - 17:00 *Coffee*

17:00 - 18:00 **Round table "Life Strategies of Marine Organisms:**

Internal vs External Control"

Marina Montresor & Assaf Vardi, Chairs

18:00 - 20:00 **Poster Session** (with drinks)

20:00 - *Dinner*

Saturday, October 10th

Session 3: Evolution and Development @ Sea

Gáspár Jékely & Chris Lowe, Chair

09:00-9:40	Detlev Arendt (EMBL, Germany) <i>The annelid Platynereis dumerilii - a new molecular model for marine zooplankton</i>
09:40-10:20	Ulrich Technau (Vienna University, Austria) <i>The sea anemone Nematostella vectensis as a model system for the study of the evolutionary origin of triploblasty and bilaterality</i>
10:20 - 11:00	Chris Lowe (Chicago University, USA) <i>Early regulatory origins of the vertebrate head: conservation of an extensive genetic network in divergent body plans and environments</i>
11:00-11:30	<i>Coffee</i>
11:30-12:10	Bernie Degnan (Queensland University, Australia) <i>The antiquity of pelagobenthic life cycle and its role in animal ecology and evolution</i>
12:10-12:30	Luis Gimenez (Bangor University, UK) <i>Linking environmental history, developmental plasticity and recruitment in marine organisms</i>
12:30-12:50	Ferdinand Marlétaz (Centre d'Océanologie de Marseille, France) <i>High level of structural polymorphism in the Hox region of a single population: evolutionary stasis and genomic variation in the chaetognath S. cephaloptera</i>
12:50-13:10	Hiroshi Suga (Parc Científic de Barcelona, Spain) <i>Divergence of Protein Tyrosine Kinase Family in the Pre-Metazoan Opithokonts</i>
13:10 - 14:40	<i>Lunch</i>
14:40-15:20	Gaspar Jékely (MPI-Tübingen, Germany) <i>Neurobiology of marine zooplankton</i>
15:20-15:40	Gabriele Procaccini (Stazione Zoologica Anton Dohrn, Italy) <i>Post-glacial evolutionary patterns of the seagrass Posidonia oceanica in the Mediterranean Sea</i>
15:40-16:00	Sam Dupont (University of Gothenburg, Sweden) <i>How to predict impact of future climate change on the development of marine invertebrates?</i>
16:00-16:20	Maria Byrne (Sydney University, Australia) <i>Naked abalone and corrupted urchins, development in a global climate change hot spot</i>
16:20-16:40	Sandie Degnan (Queensland University, Australia) <i>Ecological genomics reveals impact of microhabitat on developmental plasticity in the tropical abalone Haliotis asinina</i>
16:40 - 17:10	<i>Coffee</i>
17:10 - 18:10	Round table "Integrated Biology: Towards Eco-Evo-Devo?" <i>Detlev Arendt & Ina Arnone, Chairs</i>
18:10 - 20:00	Poster Session (with drinks)
20:00 -	<i>Dinner</i>

Sunday, October 11th

Session 4: Change @ Sea *Angela Falciatore & Gabriele Procaccini, Chairs*

09:00-9:40	Chris Bowler (CNRS-ENS, France) <i>Comparative and functional genomics of eukaryotic marine plankton</i>
09:40-10:20	Peer Bork (EMBL, Germany) <i>Metagenomics as entry into molecular trait-based ecology</i>
10:20-11:00	Arthur Grossman (Carnegie Institution, Stanford, USA) <i>Photosynthetic electron flow to oxygen in marine Synechococcus</i>
11:00-11:30	<i>Coffee</i>
11:30-12:10	Debora Iglesias-Rodriguez (Southampton University, UK) <i>Application of marine proteomics to ocean biogeochemistry</i>
12:10-12:30	Ilana Berman-Frank (Bar Ilan University, Israel) <i>Regulation of nitrogen metabolism in the marine diazotroph Trichodesmium in a "greenhouse" world</i>

12:30-12:50	Marie Huysman (Ghent University, Belgium) <i>Genome-wide analysis of the diatom cell cycle unveils a novel cyclin gene family involved in environmental signalling</i>
12:50 - 14:20	<i>Lunch</i>
14:20-15:00	Mitchell Sogin (Brown University, USA) <i>The rare biosphere is everywhere</i>
15:00-15:40	Devaki Bhaya (Carnegie Institution, Stanford, USA) <i>Probing population level functional diversity in cyanobacteria with comparative genomics and metagenomics</i>
15:40-16:40	Round table "Adaptive Responses to Gradual and Sudden Environmental Changes" <i>Chris Bowler, Arthur Grossman & Mitchell Sogin, Chairs</i>
16:40 - 17:10	<i>Coffee</i>
17:10 - 18:30	Final discussion "Integrative Marine Biology: How to proceed? What is needed?" <i>Roberto Di Lauro & Maurizio Ribera d'Alcalà, Chairs</i> Catherine Boyen (Station Biologique Roscoff, France) <i>'Marine Genomics Europe' Network of Excellence, five years of integration at the European level: achievements, bottleneck and opportunities</i> Michèle Barbier (CIESM - Mediterranean Scientific Commission) <i>Integrative ecosystemic research in the Mediterranean - the CIESM experience</i> Guntram Bauer (HFSP, Strasbourg, France) <i>Opportunities for international collaborations and training in the life sciences from HFSP</i>
20:00 -	<i>Gala dinner</i> End of meeting