



XXXII UPV/EHU SUMMER SCHOOL IN SAN SEBASTIAN (SPAIN)

Title of the Summer School course: Genomic tools in marine ecosystem monitoring, status assessment and management, within European marine policy legislation and governance

Director: Dr Angel Borja, AZTI-Tecnalia (Spain), Coordinator of the European 7th FP DEVOTES project (Development of innovative tools for understanding marine biodiversity and assessing good environmental status)

Objectives: This is the 10th AZTI's Marine Research Division Summer School. As in previous years, we want that attendees can acquire new knowledge on recent trends in marine research, related to management of our oceans. In this way, the increasing interest in marine ecosystem protection and sustainable use of oceans has developed in national ocean policies (e.g. U.S. National Ocean Policy and Australia's Ocean Policy), legislation (e.g. Canada Oceans Act) and regional ocean governance strategies (e.g. the Marine Strategy Framework Directive or the Common Fisheries Policy, in Europe) focusing on integrative tools for marine resources management and assessing environmental status. Genomic technologies come up as an efficient and standardizable alternative to traditional monitoring and analytical methods, providing more comprehensive results or allowing addressing questions that were not possible to address before. This Summer School will explore the potential and recent advances in the use of genomic technologies, such as metagenomics, population genomics or transcriptomics in different monitoring and assessment networks and research projects, such as the European FP7 project "DEVOTES" (Development of innovative tools for understanding marine biodiversity and assessing good environmental status), in which most of the teachers of this Summer School are involved. Hence, the objectives of the school are to give an overview on the genomic application to ocean and coastal management, assessment and monitoring, supporting informed ocean governance for resilience and sustainability in a changing world.

Dates: 15th to 17th July 2013

Venue: Aquarium of San Sebastián (Spain)

Fees: 80 euros

Registration dates: from 22nd March to 15th July, <http://udaikastaroak.i2basque.es/portal/index.php?lang=en>
(you can contact also the Director of the course: aborja@azti.es)

Programme:

Date: 15th July

9:00 Registration

9:15 Introduction European marine policy legislation: opportunities for genomic tools
Prof. Angel Borja (AZTI-Tecnalia, Pasaia)

10:30 Pause

10:45 Lecture Introduction to marine 'omics': applications and recent advances
Prof. Naiara Rodríguez-Ezpeleta (AZTI-Tecnalia, Sukarrieta)

12:00 Pause

12:15 Lecture Marine phylogenomics: suitable tools for European directives
Prof. Naiara Rodríguez-Ezpeleta (AZTI-Tecnalia, Sukarrieta)

13:30 Lunch break (free afternoon to enjoy this interesting city)

Date: 16th July

9:15 Lecture Review of marine viral ecology and the development of metagenomic approaches to assess viral diversity
Prof. Roberto Danovaro (Polytechnic University of Marche, Italy)

10:30 Pause

10:45 Lecture Uncovering marine microbes through environmental sequencing
Prof. Ramón Massana (Institut de Ciències del Mar, CSIC, Barcelona)

12:00 Pause

12:15 Lecture Population genomics applied to marine fisheries
Prof. Dorte Bekkevold (Technical University of Denmark)

13:30 Lunch break (free afternoon to enjoy this interesting city)





Date: 17th July

- 9:15 Lecture** Genomics in aquaculture and in assessing its impact
Prof. Dorte Bekkevold (Technical University of Denmark)
- 10:30 Pause**
- 10:45 Lecture** Use of recent metagenetic approaches in ecology: estimating the actual biodiversity of metazoa
Prof. Roberto Danovaro (Polytechnic University of Marche, Italy)
- 12:00 Pause**
- 12:15 Lecture** Single cell genomics as a tool in microbial ecology
Prof. Ramón Massana (Institut de Ciències del Mar, CSIC, Barcelona)
- 13:30 Lunch break** (free afternoon to enjoy this interesting city)