

AQUAEXCEL TRAINING COURSES SERIES

Date: 16-18 October 2013 Location: Rennes, France

COURSE OUTLINE

TITLE: Contribution of Genomic Approaches to the Development of Sustainable Aquaculture for Temperate and Mediterranean Fish

COURSE DESCRIPTION

This course will focus on the recent developments in aquaculture genomics research which will support innovation in trout, bass, bream, turbot, and carp aquaculture. It will cover two major areas where genomic tools and studies can be of benefit for aquaculture:

- 1) Genomic research for developing new tools for refined phenotyping.
- 2) Genomic research for characterisation of genetic architecture of important traits which will be applied in selective breeding programs.

Within these two topics, the course will also present specific genetic materials (such as selected fish lines and isogenic fish lines) as tools for understanding the mechanisms for construction of phenotypes which will be necessary for developing new phenotyping tools and genetic analysis of production traits required for sustainable aquaculture.

COURSE CONTENT

Main elements of the course:

- The genome – introduction, sequencing, construction, annotation and comparative genome mapping
- How genomic information can help to refine phenotyping
- Identification and exploration of genomic regions associated with variation of aquaculture-related traits
- Practical training

COURSE ORGANISERS

INRA (Institut National de la Recherche Agronomique) Laboratory of Fish Physiology and the INRA GABI (Génétique Animale et Biologie Intégrative) Genetics and Aquaculture group, France, with the expertise of IATS (Instituto de Acuicultura de Torre de la Sal) of the Consejo Superior de Investigaciones Científicas (CSIC), Torre de la Sal, Spain.

TARGET AUDIENCE

Aquaculture researchers and technicians from continental European and Mediterranean countries involved in rainbow trout, sea bass, sea bream, and carp research. Courses will be designed to be accessible for early stage researchers or senior researchers who have only basic knowledge in the field of genomics.

COURSE TUTORS:

- Patrick Prunet, Jean-Jacques Lareyre, Jérôme Montfort, Aurélie Lecam, INRA Laboratory of Fish Physiology and Genomics (LPGP), Rennes, France
- Edwige Quillet INRA GABI Genetics and Aquaculture group, Jouy-en-Josas, France
- Josep Calduch IATS (CSIC), Torre de la Sal, Spain

LOCATION: INRA Laboratory of Fish Physiology, Campus de Beaulieu, Rennes, France. www6.rennes.inra.fr/lpgp

TIME: From Wednesday 16 October (morning) until Friday 18 October (mid-day)

REGISTRATION: Visit www.aquaexcel.eu/training_courses for online registration. Participants are requested to submit their CV and a brief description outlining their motivation for attending the course. Places will be confirmed, at the latest, one month before the start of the training course. Admittance to the course will be confirmed officially. Please do not make travel arrangements unless you have received official confirmation.

FEES: Course attendance is **FREE**, thanks to EC FP7 funding. Participants are expected to pay for their own travel, subsistence and accommodation.

MAXIMUM PARTICIPANTS: 25 people (CV & description of motivation for wanting to attend the course may be used as selection criteria).

LANGUAGE OF INSTRUCTION AND MATERIAL: English



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COURSE 1

Title: Recirculating Aquaculture System (RAS) Technology
 Course Provider: Aquaculture and Fisheries Group, Wageningen University (the Netherlands), with the expertise of NOFIMA, IFREMER and IMARES
 Location: Wageningen University, the Netherlands
 Date: 22-25 April 2013

COURSE 3

Title: The Application of Chromosome Set Manipulations and the Importance of Gamete Collection and Management in Aquaculture
 Course Provider: Institute of Aquaculture, University of Stirling
 Location: Stirling, UK
 Date: 18-22 November 2013

COURSE 2

Title: Contribution of Genomic Approaches to the Development of Sustainable Aquaculture for Temperate and Mediterranean Fish
 Course Provider: INRA
 Location: Rennes, France
 Date: 16-18 October 2013

COURSE 4

Title: Efficient Utilisation of New Monitoring and Control Systems in Fish Experiments
 Course Provider: NTNU and SINTEF Sealab
 Location: University of Science and Technology (NTNU), Trondheim, Norway
 Date: 19-22 May 2014