

## STSM Scientific Report

### 1 Purpose of the STSM

Discussion of the ongoing and future collaborations between the team of ICTA-UPV in Valencia, led by Pr Juan Asturiano, and the team of BOREA CNRS/MNHN, in Paris, led by Dr Sylvie Dufour.

### 2 Description of the work carried out during the STSM

- Discussion and work between Pr Luz Perez, from ICTA-UPV, Dr Sylvie Dufour and Dr Anne-Gaelle Lafont, from BOREA CNRS/MNHN, on the advances on the PROEEL European project. L. Perez, S. Dufour and A.G. Lafont are all involved in common and complementary work on ovarian and liver vitellogenesis in the European eel.
- Discussion and work between Pr Juan Asturiano, Pr Luz Perez, and Dr David Penaranda, from ICTA-UPV, Dr Sylvie Dufour and Dr Anne-Gaelle Lafont, from BOREA CNRS/MNHN, on future collaboration in male eels. They discussed on the possibility to establish a new common research project on the effect of temperature on reproduction of the European eel.

### 3 Description of the main results obtained

Pr J. Asturiano, Pr L. Perez, and Dr D. Penaranda, from ICTA-UPV, Dr S. Dufour and Dr A.G. Lafont, from BOREA CNRS/MNHN, wrote a draft for a common project on the influence of constant or variable temperatures on the sexual maturation and gamete quality of the male European eel. From an applied point of view, this innovative project will involve the development of an aquarium prototype for submitting eels to daily temperature changes, which should mimic the natural diurnal oceanic migratory pattern of the European eel. From a basic point of view, this project should implement cutting edge methodologies for analyzing the effects of temperature on gene expression and methylation. This project will be submitted to the Spanish National Program on Research and Development oriented to the Society Challenges, from the Ministry of Economy and Competitiveness.

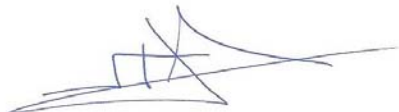
### 4 Future collaboration with host institution

During the STSM both partners decided and planned the following future collaborations:

- Visit of Marina Morini, PhD student at ICTA-UPV under the supervision of Pr J. Asturiano and Dr D. Penaranda, in November-December to BOREA Paris, to complete the ongoing collaborative investigation on European eel vitellogenin receptor, under the supervision of Dr AG Lafont and Dr S. Dufour. This stay will be supported by the COST Aquagamete program.
- Visit of Dr AG Lafont, post doctoral researcher at BOREA CNRS/MNHN, Paris, to ICTA-UPV, Valencia, for 2 or 3 months in Spring 2014, in the frame of the COST Aquagamete program, in order to work on the collaboration between the two partners, on the neuroendocrine control of the sexual maturation and gamete production of the European eel.
- Initial planning of the visit of Dr D. Penaranda, superior technician at ICTA-UPV, Valencia, to BOREA CNRS/MNHN, Paris, in order to participate in the adaptation and development of *in vitro* organ culture system for European eel gonads.

**5 Confirmation by the host institution of the successful execution of the STSM**

Pr Juan Asturiano, ICTA-UPV, Valencia, certifies that Dr Sylvie Dufour visited his laboratory as a guest researcher from November 10th to November 17th of 2013, thanks to a grant awarded by Short Term Scientific Mission, COST Action FA1205. Dr Dufour has participated in the discussion and planning of new collaborative projects between ICTA-UPV, Valencia, and BOREA CNRS/MNHN, Paris.



Signed:  
Pr Juan Asturiano



Signed:  
Dr Sylvie Dufour