

COST Action FA1205: AQUAGAMETE - Assessing and improving the quality of aquatic animal gametes to enhance aquatic resources. The need to harmonize and standardize evolving methodologies, and improve transfer from academia to industry

Name: Sonia Martínez-Páramo

STSM Reference: COST-STSM-FA1205-20704

Title: Establishment of methods for bivalve embryo cryopreservation

Dates: 14-09-2014 to 20-09-2014

Location: Experimental site of Argenton of IFREMER (Brest, France)

Host: Dr Marc Suquet. IFREMER, Brest, France (marc.suquet@ifremer.fr)

Purpose: To learn the techniques used by Dr. Suquet's team to cryopreserve bivalve larvae.

Work description: I participated in the experiments performed by the Dr. Suquet's team to cryopreserved *Crassostrea gigas* larvae. Oocytes and sperm were collected and artificial fertilization performed. Fertilized eggs were incubated until reach the desired developmental stages for cryopreservation. Four cryopreservation protocols were tested, combining two concentrations of larvae per straw and two developmental stages. After cryopreservation, straws were thawed and survival rate of fresh (control) and thawed larvae were quantified at different points during development.

The performance of this STSM provided me new knowledge and skills on working with bivalves, including gamete handling, larval rearing and cryopreservation. The techniques learned will be applied to accomplish the objectives of a recently approved project, in which I am member of the research team, contributing to the standardization of protocols between different research groups which is one on the main objectives of AQUAGAMETE.

Future collaborations will be established between Dr. Marc Suquet and our group to participate in several tasks of the referred project which main objective is the establishment of bases to create a germplasm cryobank for *Crassostrea angulata*.

Confirmation by the host institution of the successful completion of the STSM

Dr. Marc Suquet (IFREMER, Brest, France) certifies that Dr. Sonia Martínez-Páramo (Centre of Marine Sciences, Faro, Portugal) has completed a Short-Term Scientific Mission awarded by the COST Action FA1205 on September 14-20, 2014.



Marc Suquet, PhD.
(Host)



Sonia Martínez-Páramo, PhD.
(STSM applicant)

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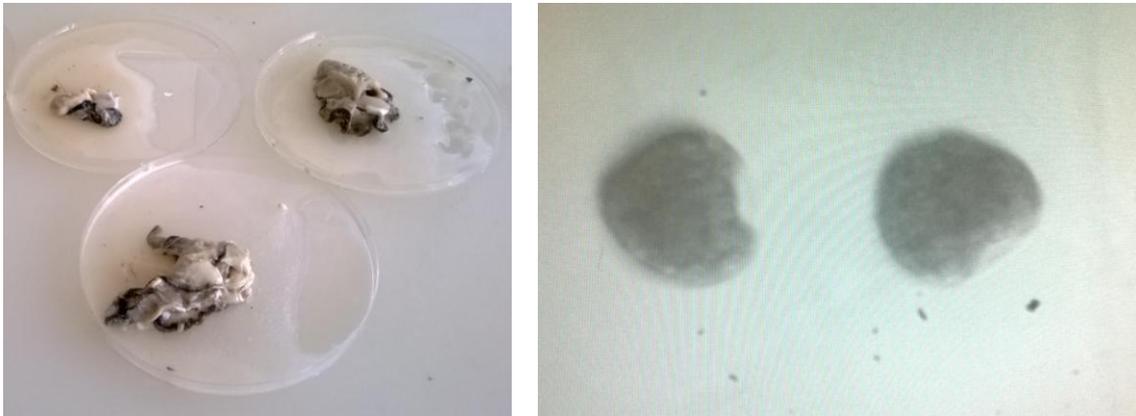


Figure 1: Collection of oyster oocytes (left) and cryopreserved D-larvae (right).



Figure 2: Researchers of AQUAGAMETE working together during this STSM at IFREMER: Catherine Labbe, Sonia Martínez-Páramo, Marc Suquet, Elsa Cabrita and Florent Malo.