

HCERES

High Council for the Evaluation of Research
and Higher Education

Department of Research Evaluation

Report on research unit:

Santé Génétique et Microbiologie des Mollusques

SG2M

Under the supervision of
the following institutions
and research bodies:

Institut Français de Recherche pour L'Exploitation de la
MER - IFREMER

Evaluation Campaign 2016-2017 (Group C)

HCERES

High Council for the Evaluation of Research
and Higher Education

Department of Research Evaluation

In the name of HCERES,¹

Michel Cosnard, president

In the name of the experts committee,²

Albert Bosch, chairman of the committee

Under the decree N°2014-1365 dated 14 november 2014,

¹ The president of HCERES "countersigns the evaluation reports set up by the experts committees and signed by their chairman." (Article 8, paragraph 5)

² The evaluation reports "are signed by the chairman of the expert committee". (Article 11, paragraph 2)

Evaluation report

This report is the sole result of evaluation by the expert committee, the composition of which is specified below.

The assessments contained herein are the expression of an independent and collegial reviewing by the committee.

Unit name: Santé Génétique et Microbiologie des Mollusques

Unit acronym: SG2M

Label requested: Reconduction

Current number:

Name of Director (2016-2017): Ms Sylvie LAPÈGUE

Name of Project Leader (2018-2022): Ms Sylvie LAPÈGUE

Expert committee members

Chair: Mr Albert BOSCH, Universitat de Barcelona, Spain

Experts: Ms Christelle GUIGUI, Institut National des Sciences Appliquées de Toulouse
 Mr Étienne THIRY, Université de Liège, Belgique
 Mr Marc VANDEPUTTE, INRA, (representative of supporting personnel)

Scientific delegate representing the HCERES:
 Mr Jean-François HOCQUETTE

Representative of supervising institutions and bodies:
 Ms Marie-Hélène TUSSEAU-VUILLEMIN, IFREMER

Head of Doctoral School:
 Mr Yann PEREON, Doctoral School n° 502, “Biologie Santé”

1 • Introduction

History and geographical location of the unit

The “Santé Génétique et Microbiologie des Mollusques” unit, SG2M, of IFREMER, consists of three teams: the “Laboratoire Génétique et Pathologie des Mollusques Marins” (LGPM), the “Laboratoire Santé Environnement et Microbiologie” (LSEM) and the “Laboratoire Sécurisation Des Productions Conchylicoles (LSPC)”. Following the recommendations of the previous AERES assessment, these teams merged in 2013 to provide a more comprehensive overview of issues affecting the role of pathogenic organisms in coastal ecosystems, the genetics of molluscs and the fate of shellfishborne human pathogens.

The SG2M unit is spread in four geographic locations: Brest, Nantes, La Tremblade and Bouin, which adds some difficulties in the coordination of the activities. A total number of 63 researchers, engineers, technicians and students are distributed in the three teams as follows: 32 in the LGPM, 23 in the LSEM and 8 in the LSPC.

Management team

The director of the unit is Ms Sylvie LAPÈGUE who is assisted by a deputy director, Mr Jean PROU. During the new contract, a new director will be appointed, but Ms Sylvie LAPÈGUE will continue until the nomination.

HCERES nomenclature

LS1_1 Molecular biology and interactions.

Scientific domains

The deep restructuration of the unit in 2013 led to the establishment of thematic axes covering:

1. Clinical microbiology aspects of transmission routes and dynamics of human pathogens in the coastal environment;
2. Study of shellfish diseases;
3. Knowledge on genomes, domestication and genetic improvement of bivalves;
4. Water quality management for shellfish husbandry.

Unit workforce

Unit workforce	Number on 30/06/2016	Number on 01/01/2018
N1: Permanent professors and similar positions		
N2: Permanent researchers from Institutions and similar positions	14	14
N3: Other permanent staff (technicians and administrative personnel)	52	49
N4: Other researchers (Postdoctoral students, visitors, etc.)	3	
N5: Emeritus		
N6: Other contractual staff (technicians and administrative personnel)	7	
N7: PhD students	4	
TOTAL N1 to N7	80	
Qualified research supervisors (HDR) or similar positions	5	

Unit record	From 01/01/2011 to 30/06/2016
PhD theses defended	7
Postdoctoral scientists having spent at least 12 months in the unit	7
Number of Research Supervisor Qualifications (HDR) obtained during the period	3

2 • Assessment of the unit

Global assessment of the unit

The unit is the EU Reference Laboratory for shellfish diseases (LGPMM), and the National Reference Laboratory for shellfish Sanitary Microbiology (LSEM). This reveals its outstanding quality and large recognition at the EU level.

The SG2M facilities are well equipped for the tasks of the different teams and cutting-edge platforms including next-generation sequencing infrastructure are available. Two experimental platforms complete the high standard equipment of the unit, comprising facilities enabling experiments on genetics of molluscs and pathogen-mollusc interactions. The unit conducts research and surveillance activities, as well as tasks related with their activity as National Reference Laboratory which involve their positioning as experts in the field and certified laboratory.

A slight evolution is foreseen for the next five years with a proposed structuration in 2 laboratories (LGPMM and LSEM) and 2 platforms (LSPC and the experimental facilities of LGPMM in “La Tremblade”). The scientific strategy of the unit for the next plan is a key activity for IFREMER, with expected outcomes on improved knowledge in the genetics of molluscs, the diversity of bivalve mollusc pathogens and mollusc-pathogen interactions. The unit is therefore engaged in continuing the efforts leading to an effective merge of the laboratories with a more intense collaboration between scientific teams. For this purpose, the unit proposes the definition of six transversal thematic axes that still need to be implemented but should enable an optimisation of the interactions within the unit.

The international recognition of the unit and its activities as reference laboratories explain its strategic positioning in France and at a European and international level.

The committee of experts recognised that major scientific results were obtained and published in excellent scientific journals. This scientific production has induced a very good academic reputation and appeal of the unit, especially at the European level. The translational activity of the unit is excellent in general, and even outstanding regarding the activities of its reference laboratory at the national and EU levels. The committee of experts acknowledges the very good organisation of the unit, with the perspectives offered by the merge and the strong willingness to continue the current organisation. The unit involvement in training through research is satisfactory in general, taking into account that all staff members are full-time researchers from IFREMER and thus have no teaching commitments. The strategic plan for the future is also satisfactory. In particular, it was decided to involve more deeply the researchers in transversal thematic axes, which is a good point.