

HCERES

High Council for the Evaluation of Research
and Higher Education

Department of Research Evaluation

report on research unit:

Laboratory of Molecular Physiomedicine

LP2M

under the supervision of
the following institutions
and research bodies:

Université Nice Sophia Antipolis

Centre National de la Recherche Scientifique - CNRS

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

Kari Keinänen, 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: Laboratory of Molecular Physiomedicine

Unit acronym: LP2M

Label requested: UMR

Current number: 7370

**Name of Director
(2016-2017):** Mr Jacques BARHANIN

**Name of Project Leader
(2018-2022):** Mr Laurent COUNILLON

Expert committee members

Chair: Mr Kari KEINÄNEN, University of Helsinki, Finland

Experts: Ms Anne-Emilie ALLAIN, University of Bordeaux (representative of supporting personnel)

Mr Alain LACAMPAGNE, University of Montpellier (representative of CoNRS)

Ms Britta SIEGMUND, Charité Hospital, University Medicine Berlin, Germany

Mr Michel VIGNES, University of Montpellier (representative of CNU)

Scientific delegate representing the HCERES:

Mr Jean-Paul LALLÈS

Representatives of supervising institutions and bodies:

Mr Jeanick BRISSWALTER, University of Nice

Ms Armelle LETURQUE, CNRS

Head of Doctoral School:

Mr Thomas LAMONERIE, Doctoral School n° 85, "Sciences de la Vie et de la Santé"

1 • Introduction

History and geographical location of the unit

The Laboratory of Molecular Physio-Medicine (LP2M) originates from a merger that brought together four research groups working on ion channels and transporters and one working on osteoimmunology and inflammation. It was created as a CNRS FRE (Formation de Recherche en Évolution) in 2012, and was awarded a CNRS joint laboratory status UMR 7370 in January 2014. Initially, the unit was based in the Faculty of Science Campus (Parc Valrose) but relocated in 2014 to the Faculty of Medicine Campus (Pasteur Hospital) of the University of Nice in order to build stronger links with medical research.

Management team

The head of LP2M is Mr Jacques BARHANIN. The future head for the next contract will be Mr Laurent COUNILLON.

HCERES nomenclature

SVE5 Physiologie, Physiopathologie, Cardiologie, Pharmacologie, Endocrinologie, Cancer, Technologies Médicales.

Scientific domains

The major scientific domain of the unit is physiology with particular interest in the role of ion transport phenomena in various physiological and pathophysiological processes (with focus on renal, muscular, vascular, sensorineural and bone function) and the immune and inflammation biology of bone tissue, with basic approaches and clinical applications.

Unit workforce

Unit workforce	Number on 30/06/2016	Number on 01/01/2018
N1: Permanent professors and similar positions	4	5
N2: Permanent researchers from Institutions and similar positions	9	9
N3: Other permanent staff (technicians and administrative personnel)	4	5
N4: Other researchers (Postdoctoral students, visitors, etc.)	2	
N5: Emeritus		
N6: Other contractual staff (technicians and administrative personnel)	2	
N7: PhD students	7	
TOTAL N1 to N7	28	
Qualified research supervisors (HDR) or similar positions	9	

Unit record	From 01/01/2011 to 30/06/2016
PhD theses defended	6
Postdoctoral scientists having spent at least 12 months in the unit	5
Number of Research Supervisor Qualifications (HDR) obtained during the period	

2 ● Assessment of the unit

Global assessment of the unit

The laboratory brings together expertise in ion channel and transporter research and in immunology and inflammation of bone tissue, which provides a strong research platform to address original and important problems related to human physiology and disease in a highly integrative manner. The major scientific themes are the role of ion transport phenomena in various physiological and pathophysiological processes (with focus on renal, muscular, vascular, sensorineural and bone function) and the immune and inflammation biology of bone tissue. Within these broader fields, the research groups of the unit have reached internationally leading roles in particular niches. This is reflected in the large number of high-impact scientific publications, very good success in obtaining external funding from national public and private sources, and in prestigious science awards that the unit's research groups have gathered since 2011. The unit has established industrial partnerships and is active in patenting research findings with commercial potential.

The combination of the expert groups that form the current unit and represent the ion transport and bone immunology/inflammation fields gives the unit a distinct and quite unique character and potential to highly original new approaches.

The unit plays an active role in student training at all levels, especially at master's and doctoral studies.

Several changes prompted by the recommendations expressed in the previous (AERES) evaluation report of the unit have already been implemented and some are underway. The scientific scope of the unit has been broadened by incorporating a research group working on osteoimmunology and inflammation into the previously predominantly ion channel/transporter focused unit. The physical move of the laboratory to the medical campus has provided larger laboratory space and better access to relevant infrastructure and, together with recruitment of a medical associate professor (MCU-PH) and new MD-PhD students, has increased the unit's ties with medicine and increased its possibilities for collaboration with clinicians. In the future period, the laboratory is planned to be organized as two research teams instead of the present five groups. This will be accomplished by combining the current, individually rather small research groups working on ion channels and transporters into one team ("Pathophysiology of Ion Transport"), whereas the other team ("Osteoimmunology, Niches and Inflammation") will be built on the already existing single group working in this area. This change is expected to provide a clearer and stable overall structure for the unit as both teams will then be of reasonable size, better for funding stability and for recruitment of students and postdocs. Also, the tighter structure may catalyze more internal collaboration and help generate new projects that make full use of the wide range of expertise present in the unit.

The unit is relatively small (staff of 28, of which 18 currently in permanent positions) and as such, vulnerable to retirement of key scientific and administrative/technical personnel, unless compensated by successful recruitment policy.