HCERES

High Council for the Evaluation of Research and Higher Education

Department of Research Evaluation

report on research unit:

Institute of Molecular and Cellular Pharmacology

IPMC

under the supervision of the following institutions and research bodies:

Université Nice Sophia Antipolis

Centre National de la Recherche Scientifique - CNRS

Institut National de la Santé Et de la Recherche Médicale - INSERM

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]

Christophe Mulle, 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:	Institute of Molecular and Cellular Pharmacology
Unit acronym:	IPMC
Label requested:	UMR
Current number:	UMR - 7275
Name of Director (2016-2017):	Mr Pascal BARBRY
Name of Project Leader (2018-2022):	Mr Jean-Louis NAHON, co-director Mr Florian LESAGE

Expert committee members

Chair:	Mr Christophe MULLE, CNRS, Université de Bordeaux
Experts:	Mr Guillaume BOSSIS, IGMM, Université de Montpellier (representative of the CNU)
	Ms Isabelle BRUNET, Collège de France, Paris (representative of the INSERM)
	Mr Jamel CHELLY, IGBMC, Illkirch
	Mr Alexander DALPKE, University Hospital Heidelberg, Germany
	Mr Éric HOSY, Neuroscience, Université de Bordeaux
	Ms Stéphanie KWIATEK-VENTEO, INM, Université de Montpellier (representative of supporting personnel)
	Mr Tangui MAURICE, Université de Montpellier (representative of the CNRS)
	Mr Shane MINOGUE, UCL, London, UK
	Mr Luc PENICAUD, GSGA-INRA, Dijon
	Ms Stéphanie SCHORGE, UCL, London, UK
	Ms Valérie TALY, Université Paris Descartes (representative of the INSERM CSS)

Scientific delegate representing the HCERES:

Mr Christian GIAUME

Representatives of supervising institutions and bodies:

Mr Jeanik BRISSWALTER, Université de Nice Sophia Antipolis

Mr Jean-Marc GAMBAUDO, Université de Nice Sophia Antipolis

Ms Anne JOUVENCEAU, INSERM-DESP

Ms Florence NOBLE, CNRS-InSB

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 Institut de Pharmacologie Moléculaire et Cellulaire (IPMC) is a joint unit between the Centre National de la Recherche Scientifique (CNRS) and the University Nice Sophia Antipolis (UNS). IPMC have been directed by Mr Michel LAZDUNSKI from 1989 to 2003 and by Mr Pascal BARBRY from 2004 to 2017.

Two buildings located at Sophia-Antipolis accommodate 18 teams, which have been working in pharmacology, biochemistry, biophysics, physiology, genetics, immunology and functional genomics. Along with the addition of a new building in 2008, the institute has grown from 6 to 18 research teams.

Management team

Mr Pascal BARBRY is the actual director of the IPCM and Mr Jean-Louis NAHON and Mr Florian LESAGE are the proposed director and co-director, respectively, for the next period.

HCERES nomenclature

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

Secondary: SVE2: Biologie Cellulaire, Imagerie, Biologie Moléculaire, Biochimie, Génomique, Biologie Systémique, Développement, Biologie Structurale;

SVE4: Neurologie;

SVE3: Microbiologie, Immunité.

Scientific domains

The scientific domains are focused on neurological disorders, including Parkinson’s and Alzheimer's diseases, stroke, depression and pain, as well as cancer, obesity, inflammatory, respiratory, cardiovascular diseases.

Unit workforce

Unit workforce	Number on 30/06/2016	Number on 01/01/2018
N1: Permanent professors and similar positions	12	16
N2: Permanent researchers from Institutions and similar positions	61	60
N3: Other permanent staff (technicians and administrative personnel)	45	47
N4: Other researchers (Postdoctoral students, visitors, etc.)	19	
N5: Emeritus	1	
N6: Other contractual staff (technicians and administrative personnel)	25	
N7: PhD students	40	
TOTAL N1 to N7	**203**	
Qualified research supervisors (HDR) or similar positions	49	

Unit record	From 01/01/2011 to 30/06/2016
PhD theses defended	28
Postdoctoral scientists having spent at least 12 months in the unit	51
Number of Research Supervisor Qualifications (HDR) obtained during the period	12

2 • Assessment of the unit

Global assessment of the unit

The international visibility is largely based on the seminal discoveries and expertise in ion channels, but has extended in the last 10 years to membrane biology, functional genomics, integrative biology, mucosal immunology and pathophysiology of neural disorders. Whereas in the last term diversification of topics came with the recruitment of excellent junior groups in the field of neurosciences, two new teams have emerged from existing teams in the present proposal, with no additional external teams…

All teams hosted by the IPMC appear very productive, a few at the highest international level. A general quantitative analysis shows a good proportion of articles in the best journals of biomedical research. There is evidence from the presentations and from publication records of substantial collaborations between some teams within the IPMC. A high proportion of publications derive from external collaborations. Overall, many teams are engaged at a high level into technology transfer and translational activities, as evidenced by the number of patents. The array of topics developed by the IPMC teams is certainly a strength that sets the IPMC as central to research in biology and health science in Nice and surroundings, within the Université Côte d'Azur.

The multi-thematic research developed allows participation in many of the major investment programs locally and at a nationwide level such as the LabEx ICST (ion channels), DistAlz (Alzheimer's disease), SignaLife (cell signalling) and the National Infrastructure for Biotechnology and Health “France Génomique”. The IPMC is also a strong component of the newly granted IDEX to the UCA, and of two translational research clusters, the FHU InovPain and OncoAge. Many IPMC scientists play an important part in the management of these different programmes.

The teams are very well integrated into national excellence cluster grants (so called Initiative d'Excellence), and have been successful in the past in being part of some European consortia (e.g. FP7 programmes).

The IPMC hosts very efficient core facilities. The well-organized and dedicated technical support is remarkable. There is a plan to further develop and optimize the activity of core facilities through the interesting SABLES project, although this will likely take several years into the next 5-years contract before it will be finalized.

The possibility of association of the IPMC with the INSERM could be a promising opportunity, which makes full sense with respect to the strong focus of most teams on disease mechanisms, the discovery of promising drug candidates for pain, depression and idiopathic nephropathies, the development of therapeutic and diagnostic antibodies and participation in two FHU (OncoAge and InnovPain), and the LabEx DistAlz. In addition, it should be noted that there is a close balance between CNRS and INSERM researchers. In its prospective part, the unit proposes a significant evolution in general management, with a stronger participation of team leaders in decisions, a recommendation that was already made in 2011. The “evaluation committee” also highly appreciates the will to have a prospective strategy with respect to the expected retirement of several team leaders at the end of the next 5-year contract. The committee thus supports the decision to install a “foresight committee” that, together with the SAB, considers future strategies with the upcoming change in a significant number of high-profile team leaders. A diverse membership of this committee will be important to keep all stakeholders of the IPMC engaged with the strategy. The change of directorship and the choice of a co-director who will take over the responsibility for the following term is certainly an appreciable opportunity for the IPMC to face the challenges to come. The scientific and technical staff has greatly appreciated being involved in the choice through elections.

The decision to identify a few “transversal axes” to strengthen the recognition of the IPMC in defined fields and to foster cooperation between unit teams is appreciated but has to be worked out in more detail during the next year. The multiplicity of themes is a difficulty in terms of natural interactions between teams and scientific visibility/identity as a whole. A clearer strategy to focus the institute is missing but might be developed given the significant number of retirements after the running contract period. Care seems to be taken to provide instruments for interactions and common projects. However, the proposed transverse axis should be better defined in terms of the precise outcome expected and the support provided by the IPMC. If the thematic expansion is meant to be “contained, without missing any opportunities”, how will this be dealt with?

In terms of success for international/European grants, it appears that the current situation is less favourable than it was a few years ago, with many projects ended, including the single ERC advanced grant. Efforts should certainly be made to improve international visibility through the success in international competitive grants.

The balance of PhD students defending a PhD in 2011-2016 looks somewhat low considering the overall number of permanent staff scientists. The expected ending of three LabEx, will certainly worsen the situation.

The number of post-docs, and in particular foreign post-docs, is rather modest (about 20 at the present time), with regards to the prestige of the IPMC. International visibility seems moderate in regard of post-doc or team recruitments from foreign countries and might benefit from additional conferences organized by the institute.

At the time of the HCERES evaluation visit, the scientific strategy proposed by the future direction team is not developed enough, and should be based on frequent and thorough discussions among all team leaders. The committee of experts understands that this is already planned and will likely take time.