STIM - Signalisation et transports ioniques membranaires

Rapport Hcéres

HCERES

High Council for the Evaluation of Research
and Higher Education

Department of Research Evaluation

report on research unit:

Signalisation & Transports Ioniques Membranaires

STIM

under the supervision of
the following institutions
and research bodies:

Université de Poitiers

Université François-Rabelais de Tours

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]

François Boucher, 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:	Signalisation & Transports Ioniques Membranaires
Unit acronym:	STIM
Label requested:	
Current number:	EA 7349 – ERL 7368 CNRS
Name of Director (2016-2017):	Mr Frédéric BECQ
Name of Project Leader (2018-2022):	Mr Bruno CONSTANTIN

Expert committee members

Chair: Mr François BOUCHER, University of Grenoble Alpes (representative of the CNU)

Experts:

Mr Hugues ABRIEL, University of Bern, Switzerland

Ms Claude Marie BACHELET, University of Pierre and Marie Curie, Paris (representative of supporting personnel)

Ms Ana-Maria GOMEZ, University of Paris-Sud (representative of the CSS Inserm)

Ms Brenda KWAK, University of Geneva, Switzerland

Mr Arnaud MONTEIL, University of Montpellier (representative of the CoNRS)

Scientific delegate representing the HCERES:

Mr Jean-Paul LALLES

Representatives of supervising institutions and bodies:

Mr Serge HUBERSON, University of Poitiers

Ms Anne JOUVENCEAU, INSERM

Mr Emmanuel LESIGNE, University of Tours

Ms Armelle LETURQUE, CNRS

Head of Doctoral School:

Mr Boniface KOKOH, Doctoral School n° 524, “Biosanté”

1 • Introduction

History and geographical location of the unit

The research unit Signalisation & Transports Ioniques Membranaires (STIM) is a laboratory with a double affiliation to CNRS (as ERL 7368 - Équipe de Recherche Labellisée) and the French Ministry of Research (as EA-7349 - Équipe d'Accueil). STIM has been created from the restructuration, in January 2012, of the former Institut de Physiologie et Biologie Cellulaires (UMR-6187 Université de Poitiers – CNRS). Up to 2012 STIM was recognized by CNRS as a Formation de Recherche en Évolution (FRE-3511) and, from January 2014 it became Équipe de Recherche Labellisée (ERL-7368). STIM is currently applying for an Inserm label.

STIM is located on 2400 m^2 in the building of the Pôle Biologie Santé on the campus of the Faculty of Applied and Fundamental Sciences of the University of Poitiers. The Pôle Biologie Santé (Bâtiment B36 - TSA 51106 - 1, rue Georges Bonnet - Poitiers) gathers several laboratories working in different fields of Biology and Health. It is located less than 10 min from the hospital and from the teaching rooms.

Management team

For the next contract, Mr Bruno CONSTANTIN will be the director. He will be helped by a deputy director, Ms Valérie CORONAS.

HCERES nomenclature

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

SVE2 Biologie Cellulaire, Imagerie, Biologie Moléculaire, Biochimie, Génomique, Biologie Systémique, Développement, Biologie Structurale

Scientific domains

The general scientific objective of the STIM unit is to contribute to the understanding of the roles of membrane ionic transports in different human cells and tissues, under physiological as well as pathophysiological conditions.

Unit workforce

Unit workforce	Number on 30/06/2016	Number on 01/01/2018
N1: Permanent professors and similar positions	12	11
N2: Permanent researchers from Institutions and similar positions	15	17
N3: Other permanent staff (technicians and administrative personnel)	20	20
N4: Other researchers (Postdoctoral students, visitors, etc.)	3	
N5: Emeritus	0	
N6: Other contractual staff (technicians and administrative personnel)	2	
N7: PhD students	8	
TOTAL N1 to N7	**60**	
Qualified research supervisors (HDR) or similar positions	**20**	

Unit record	From 01/01/2011 to 30/06/2016
PhD theses defended	15
Postdoctoral scientists having spent at least 12 months in the unit	8
Number of Research Supervisor Qualifications (HDR) obtained during the period	2

2 • Assessment of the unit

Global assessment of the unit

The 3 teams of the unit particularly focus on the involvement of membrane channels and transporters (namely CFTR, Na^+ and HCN, Ca^{2+} and TRP channels, connexons and Cx43) in various human primary and secondary channelopathies such as cystic fibrosis, Brugada syndrome and atrial fibrillation. The three teams of the STIM unit master an impressive number of cell physiology and cell biology techniques. They are clearly nationally and internationally recognized for this unique expertise.

There is a high quality output over the evaluated period at the level of: original publications by STIM members as first and last author, good proportion of publications in highest impact journals, limited number of publications with a low impact factor and good technology transfer activities as patents. A strong asset for further exploring technology transfer activities is the creation in 2016 of a cooperative laboratory (LitCH) that will develop its R&D inside STIM with the know-how and facilities of STIM. In addition, the unit has a good national and international reputation mainly based on the outstanding training of PhD students in the fields of physiology and electrophysiology.

The committee of experts was impressed by the high reactivity of the STIM unit following the recommendations of the previous successive evaluations by AERES in 2011, CNRS in 2014 and finally the Strategic Advisory Board in 2015. In particular, there is now a very coherent project formed by the three well-structured teams, all addressing different questions but with clear synergies. The proposed scientific foci are addressing innovative open biomedical questions.

Uncertainty remains, however, as to how the oldest generation will be replaced in the future of STIM since the attractiveness of the unit for new external scientists, in particular new young PIs, is rather low.