

REPORT ON THE RESEARCH  
INTERDISCIPLINARY UNIT:  
Saint-Pères Paris Institute for Neurosciences  
(SPPIN)

UNDER THE SUPERVISION OF THE  
FOLLOWING INSTITUTIONS AND  
RESEARCH BODIES:  
Université Paris Descartes  
Centre National de la Recherche Scientifique -  
CNRS

**ÉVALUATION CAMPAIGN 2017-2018**  
GROUP D



In the name of Hcéres<sup>1</sup>:

Michel Cosnard, President

In the name of the expert committee<sup>2</sup>:

Thomas Oertner, Chairman of the  
committee

Under the decree No.2014-1365 dated 14 November 2014,

<sup>1</sup> The president of Hcéres "countersigns the evaluation reports set up by the expert committees and signed by their chairman." (Article 8, paragraph 5);

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

This report is the sole result of the unit's 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 PRESENTATION

<b>Unit name:</b>	Saint-Pères Paris Institute for Neurosciences
<b>Unit acronym:</b>	SPPIN
<b>Requested label:</b>	UMR CNRS & Université Paris Descartes
<b>Application type:</b>	Restructuration
<b>Current number:</b>	
<b>Head of the unit (2014-2018):</b>	Ms Isabel LLANO, Mr Claude MEUNIER and Ms Valentina EMILIANI
<b>Project leader (2019-2023):</b>	Mr Martin OHEIM
<b>Number of teams:</b>	4 + 2 recruited

## COMMITTEE MEMBERS

<b>Chair:</b>	Mr Thomas OERTNER, Hamburg University, Germany
<b>Experts:</b>	Ms Anne CANTEREAU BECQ, Université de Poitiers (supporting personnel) Mr Laurent FAGNI, Institut de Génomique Fonctionnelle de Montpellier Mr Stefan HALLERMANN, University Leipzig, Germany Mr Thomas MISGELD, Technische Universität München, Germany Mr David PERRAIS, Université de Bordeaux (representative of CoNRS)
<b>HCERES scientific officer:</b>	Ms Catherine HEURTEAUX
<b>Representatives of supervising institutions and bodies:</b>	Ms Catherine LABBE-JULLIE, Université Paris Descartes Ms Clarisse LEFORT-DAVID, CNRS Mr Stefano MARULLO, Université Paris Descartes Mr Bernard POULAIN, CNRS

## INTRODUCTION

### HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The unit is a merger of three CNRS laboratories (Llano, Meunier and Emiliani) under the name Saint-Pères Paris Institute for Neuroscience (SPPIN). All teams are located at the St-Pères University Center.

### MANAGEMENT TEAM

During the least report period, Ms Isabel Llano, Mr Claude Meunier and Ms Valentina Emiliani served as unit leaders of the three laboratories. The new unit will be directed by Mr Martin Oheim.

### HCERES NOMENCLATURE

SVE4\_1 Neurologie

### SCIENTIFIC DOMAIN

The unit conducts research in fundamental neuroscience, focussed on motor systems, neuro-glia interactions and synaptic transmission, enabled by interdisciplinary technology development in imaging, electrophysiology, and molecular tools. The restructured unit combines electrophysiology, molecular biology and imaging approaches to address fundamental questions in neuroscience, ranging from the biophysics of single synapses to the control of animal behaviour. A special focus is the function of the motor system in health and disease (amyotrophic lateral sclerosis, Huntington's disease) that is studied in animal models and in human 3D tissue culture systems.

### UNIT WORKFORCE

Unit workforce	Number 30/06/2017	Number 01/01/2019
<b>Permanent staff</b>		
Full professors and similar positions	2	2
Assistant professors and similar positions	4	5
Full time research directors (Directeurs de recherche) and similar positions	7	5
Full time research associates (Chargés de recherche) and similar positions	10	8
Other scientists ("Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.")	0	0
High school teachers	0	0
Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)	11	13
<b>TOTAL permanent staff</b>	<b>34</b>	<b>33</b>
<b>Non-permanent staff</b>		

Non-permanent professors and associate professors, including emeritus	2	
Non-permanent full time scientists, including emeritus, post-docs	7	
Non-permanent supporting personnel	6	
PhD Students	9	
<b>TOTAL non-permanent staff</b>	<b>24</b>	
<b>TOTAL unit</b>	<b>58</b>	

## GLOBAL ASSESSMENT OF THE INTERDISCIPLINARY UNIT

An outstanding strength is the expertise and creativity in developing novel optical imaging techniques and probes, including two-photon and super-resolution microscopy and nano-biosensors, which enables the unit to uncover subcellular details of nanodomain signalling and contributes to the high international visibility of its research. Excellent collaborations with industry ensure commercial development of new inventions.

Compared to the topics of the predecessor unit, there is a new focus on intracellular signalling processes and glia cell biology, which are topics of obvious relevance for a number of neurodegenerative diseases. This direction will greatly benefit from the newly developed microscopes and probes and will also increase the medical and societal relevance of the unit's research program. If the unit succeeds in attracting new teams with expertise in systems neuroscience and behaviour, and/or computational modelling, it would complete the unit's portfolio of techniques for state-of-the-art integrative brain research.

The production, visibility and impact of the teams in the last evaluation period have been excellent to outstanding as detailed below. A challenge for the unit is the distribution of individual teams on different floors of a large building. There is a lack of common social rooms to foster unit cohesion and informal discussions. To counter this challenge, the teams have implemented frequent meetings and committees to encourage internal collaborations. Several renovation projects have improved the quality of the infrastructure, although some facilities appear to be understaffed and further loss of technical staff, e.g. due to retirement, needs to be prevented. In response to the recommendation to develop an integrated PhD program in neuroscience, the unit leader has initiated negotiations about a transnational (Franco-German) PhD program.

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