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IINS - Institut interdisciplinaire de neurosciences

Rapport Hcéres

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HCERES

High Council for the Evaluation of Research
and Higher Education

Research units

HCERES report on research unit:

Interdisciplinary Institute for Neuroscience

IINS

Under the supervision of
the following institutions
and research bodies:

Centre National de la Recherche Scientifique - CNRS

Université de Bordeaux

HCERES

High Council for the Evaluation of Research
and Higher Education

Research units

In the name of HCERES,¹

Didier HOUSSIN, president

In the name of the experts committee,²

Thomas Oertner, 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 result of the evaluation by the experts committee, the composition of which is specified below. The assessments contained herein are the expression of an independent and collegial deliberation of the committee.

Unit name:	Interdisciplinary Institute for Neuroscience
Unit acronym:	IINS
Label requested:	UMR
Present no.:	5297
Name of Director (2014-2015):	Mr Daniel CHOQUET
Name of Project Leader (2016-2020):	Mr Daniel CHOQUET

Expert committee members

Chair:	Mr Thomas OERTNER, Institute for Synaptic Physiology, Hambourg, Germany
Experts:	Mr Boris BARBOUR, IBENS (representative of the CoNRS)
	Mr José A. ESTEBAN, Centro de Biología Molecular Severo Ochoa, Madrid, Spain
	Mr Dominique MULLER, Centre Médical Universitaire, Genève, Switzerland
	Ms Geneviève ROUGON, Institut de Neurosciences de la Timone, Marseille
	Mr Philippe VERNIER, Paris-Saclay Institute of Neuroscience, Gif-sur-Yvette
	Mr Denis VIVIEN, Cyceron, Caen (representative of the CNU)

Scientific delegate representing the HCERES:

Mr Jean-Marie ZAJAC

Representatives of the unit's supervising institutions and bodies:

Mr Pierre DOS SANTOS, Université de Bordeaux

Mr Roger MARTHAN (director of the Doctoral School SVS n° 154)

Ms Florence PARNIER, CNRS

1 • Introduction

History and geographical location of the unit

The Interdisciplinary Institute for Neuroscience (IINS) was officially created January 1st 2011 with the CNRS and Bordeaux University as host institutions. Its predecessor was the UMR CNRS 5091 “The cellular physiology of the synapse” which has been directed by Mr Christophe MULLE for 12 years. The main objective of the unit was the molecular, cellular and physiological study of glutamatergic synapses, with a focus on glutamate receptors. Four of the current IINS team leaders were part of this former unit (THOUMINE, CHOQUET, GROG, MULLE), four groups joined when IINS was created (SIBARITA, NÄGERL, HUMEAU, LANDRY), and a new group out of the THOUMINE team is applying for independence (GIANNONE). The unit is currently situated in the Institute Francois Magendie, an INSERM building on the campus of University de Bordeaux 2, with additional lab space in the "Génomique Fonctionnelle" building on the same campus. To alleviate current space problems and allow for further dynamic growth of the unit, a new building is under construction, to be completed in 2016. The scientific scope of the IINES spans molecular, cellular and circuit level neuroscience questions with a special emphasis on cutting edge microscopy techniques. The IINS has an external Scientific Advisory Board composed of renowned scientists from France, Germany and Switzerland which visited and assessed the institute in January 2014.

Management team

The research unit is directed by Mr Daniel CHOQUET with Mr Marc LANDRY serving as a deputy director. A team council consisting of the individual team leaders meets with the director and deputy director on a bimonthly basis.

HCERES nomenclature

SVE1_LS5

SVE1_LS3

Unit workforce

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
N1: Permanent professors and similar positions	8	8
N2: Permanent researchers from Institutions and similar positions	22	21
N3: Other permanent staff (without research duties)	18	18
N4: Other professors (Emeritus Professor, on-contract Professor, etc.)	1	1
N5: Other researchers (Emeritus Research Director, Postdoctoral students, visitors, etc.)	28	22
N6: Other contractual staff (without research duties)	26	8
TOTAL N1 to N6	103	78

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
Doctoral students	23	
Theses defended	18	
Postdoctoral students having spent at least 12 months in the unit	16	
Number of Research Supervisor Qualifications (HDR) taken	5	
Qualified research supervisors (with an HDR) or similar positions	15	14

2 • Overall assessment of the unit

Global assessment of the unit

Research from the unit has significantly advanced our understanding of synaptic function and receptor trafficking and has brought new methods and imaging modalities to the neuroscience community. The results have been published in leading international journals (121 publications in total, 52 in journals with IF>7). Technological breakthroughs in the fields of superresolution microscopy and image analysis contributed significantly to the success of the unit and have led to 9 patents. The unit has been an important motor for the development of neuroscience in the Bordeaux area. Members of the unit have made very notable contributions to the French and European neuroscience community. The planned federation with IMN and BIC for administrative rationalization, shared facilities and broader scientific interactions is strongly supported by the committee. Twenty-six doctoral degrees have been awarded during the past five years. A new generation of successful researchers has emerged from the unit. The IINS consistently attracts a very high level of external funding, a demonstration of the scientific excellence and competitiveness of the present teams. External funding at this level may be challenging to maintain in the future. The rapid growth of the unit during the past 4 years results in a high number of staff (61%) on temporary contracts. The international reputation of the unit is outstanding.

Strengths and opportunities in relation to the context

- technological and conceptual leadership in membrane molecule dynamics;
- excellent leadership on the unit level and at the level of the individual teams;
- a high number of teams led by dynamic young investigators;
- high level of synergy between technologically and biologically oriented teams.

Weaknesses and threats related to the context

- extreme gender imbalance at the team leader level, complete lack of role models for female scientists;
- possible delays in delivery of the new building;
- financial aspects of building maintenance and administration of the unit are not sorted out.

Recommendations

The relatively tight focus on the organization of glutamatergic synapses, which was extremely successful in the past, could be extended to more physiological preparations in the next expansion period, as technological developments allow.

To prevent overspecialization of the unit by further inbreeding, future team leaders should be recruited through open and international calls. Excellent female researchers should be encouraged to apply.