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IBS - Institut de Biologie Structurale

Rapport Hcéres

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HCERES

High Council for the Evaluation of Research
and Higher Education

Research units

HCERES report on research unit:

Institut de Biologie Structurale

IBS

Under the supervision of the following
institutions and research bodies:

Centre National de la Recherche Scientifique - CNRS

Commissariat à l'Énergie Atomique et aux Énergies

Alternatives - CEA

Université Joseph Fourier - Grenoble - UJF

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

Yves GAUDIN, chairman of the committee

Under the decree No.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:	Institut de Biologie Structurale
Unit acronym:	IBS
Label requested:	UMR
Present no.:	5075
Name of Director (2014-2015):	Ms Eva PEBAY-PEYROULA
Name of Project Leader (2016-2020):	Mr Winfried WEISSENHORN

Expert committee members

Chair:	Mr Yves GAUDIN, CNRS, Gif sur Yvette, France
Experts:	Ms Isabelle CALLEBAUT, Université Pierre et Marie Curie, Paris (representative of the CoNRS)
	Ms Marie-Thérèse GIUDICI-ORTICONI, CNRS, Marseille (representative of the CoNRS)
	Ms Yvonne JONES, University of Oxford, United Kingdom
	Ms Claudine MAYER, Université de Paris Diderot (representative of the CNU)
	Ms Elena ORLOVA, University of London, United Kingdom
	Mr Harmut OSCHKINAT, University of Berlin, Germany
	Mr Emmanuele PACI, University of Leeds, United Kingdom
	Mr Dirk J SLOTBOOM, University of Groningen, Holland
	Mr Thilo STEHLE, University of Tuebingen, Germany

Scientific delegate representing the HCERES:

Mr Georges MASSIOT

Representatives of the unit's supervising institutions and bodies:

Mr Gilles BLOCH, CEA

M^{me} Christelle BRETON (representative of Doctoral School N°218)

Mr Eric DEFRANCO, Université Joseph Fourier

Mr Jean-Claude MICHALSKI, CNRS

1 • Introduction

History and geographical location of the unit

The IBS was installed in 1992 close to the european large scale facilities, the synchrotron X-ray facility (ESRF) and the neutron source (ILL). It is a mixed research unit supported by three agencies: CEA, CNRS and UJF. The new IBS project will also include the teams from the UVHCI (Unit of Virus Host Cell Interactions) which was created in 2007 as an international mixed unit (implicating the CNRS, the UJF and the EMBL) on the same scientific campus. Globally, it will include 17 teams and about 250 personnel within a new building in which the former IBS teams are already installed since November 2013. A team will remain in the CIBB building located about 250 meters from the new IBS building. The IBS teams will benefit from impressive up to date infrastructures in structural biology.

IBS will remain associated with the PSB (Partnership for Structural Biology) which has been created to foster the structural biology around the ESRF and the ILL. A "Fédération de recherches" will be created to strengthen the partnership with the EMBL.

Management team

Eva Pebay-Peyroula will step down from her director position at the end of 2014. Her succession has been well prepared. After an open call at the international level, the search committee preselected 3 candidates who were further interviewed by the steering committee of the IBS. Mr Winfried WEISSENHORN (professor at the UJF and group leader at the UVHCI) was finally selected and will officially take the directorship of IBS in January 2015. He will be assisted by Dr Jacques NEYTON as deputy director, who was already present in the previous period and will assist him in administrative duties.

HCERES nomenclature

SVE1 LS1 and LS6, ST2

Unit workforce

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
N1: Permanent professors and similar positions	49	50
N2: Permanent researchers from Institutions and similar positions	41	41
N3: Other permanent staff (without research duties)	74	74
N4: Other professors (Emeritus Professor, on-contract Professor, etc.)	2	2
N5: Other researchers from Institutions (Emeritus Research Director, Postdoctoral students, visitors, etc.)	51	
N6: Other contractual staff (without research duties)	15	
TOTAL N1 to N6	232	167

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
Doctoral students	58	
Theses defended	69	
Postdoctoral students having spent at least 12 months in the unit	75	
Number of Research Supervisor Qualifications (HDR) taken	16	
Qualified research supervisors (with an HDR) or similar positions	64	64

2 • Overall assessment of the unit

Global assessment of the unit

IBS is one of the leading institutes in the field of structural biology in the world. It is strongly supported by CNRS, CEA and University Grenoble-Alpes. It houses several platforms offering state-of-the-art technologies in structural biology. Several groups are developing new methodologies and sophisticated instrumentation. This is indeed part of the mission of the IBS to give access to those technologies to the structural biology community.

The integration of the structural virology teams previously located in the UVHCI is an opportunity to expand the range of scientific topics, which currently include membrane protein structures, metalloenzymes, macromolecular assemblies, and to generate enhanced synergy among these topics.

Globally, the scientific production of the teams composing the future IBS is excellent and several teams have been doing outstanding work during the assessed period. Furthermore, given the outstanding expertise and technology platforms available to its members, IBS is well positioned to further increase the impact of its research activities.

The future research plans are a logical extension of the current activities of the teams which are organized around four axes termed "Host-pathogen interaction and diseases", "Structural and chemical biology of cellular processes", "Membrane processes and proteins" and "Methods for dynamic structural biology".

Overall, the experts committee has felt a positive atmosphere for all staff members. However, although the fusion has been carefully planned, inherently to any restructuring process, there are some questions on the future organization among the IBS personnel. The experts committee recommends reinforced attention is given to these concerns during this transition period. The experts committee also felt that the four axes, as well as the titles of some individual projects, could be defined more precisely to increase the visibility of the research performed at the Institute.

Strengths and opportunities in relation to the context

IBS is strongly supported by University Grenoble-Alpes, CEA and CNRS.

The excellence of the past research argues in favor of the new scientific project.

Most of the teams are funded by external grants for the next two or three years.

IBS is home to several international scientific leaders in structural biology, with complementary expertises, resulting in a strong attractiveness of the Institute for young researchers and in opportunities for international collaborations.

IBS teams benefit from an impressive local concentration of cutting edge technologies and from the excellent organization of state-of-the-art platforms run by the Institute.

This impressive infrastructure favors (and should continue to facilitate) some rewarding collaborative projects between IBS teams.

Strong involvement of the IBS members in teaching which helps attract Master and PhD students.

The current director has prepared her succession very well.

Weaknesses and threats related to the context

Several of the teams that include several PIs appear to have difficulties to find a focused research theme, and in a small number of cases, the experts committee was not convinced by the scientific coherence of their organization.

The research axes, as currently defined, do not contribute to the visibility and readability of the research performed in the IBS.

Any evolution of the ANR policy might have strong effects on the funding of IBS teams which are highly dependent on ANR grants.

There is a need for more expertise in molecular modelling, computational biology and bioinformatics.

Some cutting-edge technologies are developed in the absence of a strong exemplifying, biology-driven, project.

As in any restructuration process, the vision of the management may not be shared by all the IBS members.

Recommendations

The experts committee recommends to recruit a researcher with a track record attesting interest for structural and integrative aspects, in a key area of cellular biology.

The experts committee recommends to recruit a researcher in computational biology, molecular modelling or bioinformatics with an attested will to collaborate on a biology-driven key project of the institute.

In the frame of the fusion with the UVHCI teams, the axes should be redefined with a focus on the most promising projects to increase the visibility and the readability of the research performed in the Institute.

During this transition period, the communication inside the Institute deserves a reinforced attention.