

## REPORT ON FEDERATIVE STRUCTURE:

Institut de Biologie Paris-Seine (IBPS)

## UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:

Université Pierre et Marie Curie

Centre National de la Recherche Scientifique -  
CNRS

Institut national de la santé et de la recherche  
médicale - Inserm

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## **ÉVALUATION CAMPAIGN 2017-2018**

### **GROUP D**

Report published on July, 23 2018



In the name of Hcéres<sup>1</sup>:

Michel Cosnard, President

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

Pascal Therond, 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 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.

## FEDERATIVE STRUCTURE PRESENTATION

<b>Federation name:</b>	Institut de Biologie Paris-Seine
<b>Federation acronym:</b>	IBPS
<b>Label requested:</b>	
<b>Application type:</b>	Renewal
<b>Current number:</b>	FR3631
<b>Head of the federation (2017-2018):</b>	Mr Michel LABOUESSE
<b>Project leader (2019-2023):</b>	Mr Michel LABOUESSE

## EXPERTS COMMITTEE MEMBERS

**Chair:** Mr Pascal THEROND, Université de Nice Sophia Antipolis

**Experts:**

Ms Hélène BARBIER BRYGOO, I2BC Gif-sur-Yvette

Mr Martin CRESPI, Institute of Plant Sciences Paris Saclay

Juan ELEZGARAY, Université de Bordeaux

Mr Rodolphe FISCHMEISTER, Université Paris-Saclay

Mr Laurent GROC, Université de Bordeaux

Mr Claude PRIGENT, Université de Rennes

**Hcéres scientific officer:**

Mr Pierre COUBLE

**Representatives of supervising institutions and bodies:**

Ms Véronique DEBISSCHOP

Mr Alain EYCHENE, CNRS

Mr Bertrand MEYER, Sorbonne Université

# INTRODUCTION

## HISTORY AND GEOGRAPHIC LOCALISATION MEMBERS

The Institut de Biologie Paris Seine (IBPS) was created in January 2014 by the University Pierre and Marie Curie (UPMC) and the CNRS. It is located in a seven floor building ("Barre Cassan ABC") on the Quai St-Bernard, and regroups most of the research in biology of the Jussieu Campus within the UPMC. Initially, it was a Federation of five UMRs (CNRS-UPMC) with associated INSERM teams: Laboratory of Developmental Biology (LBD) – UMR 7622/INSERM U1156; Evolution Paris Seine – UMR 7138; Neuroscience Paris Seine (NPS) – UMR 8246/INSERM U1130; Laboratory of Computational and Quantitative Biology (LCQB) – UMR 7238; Biological Adaptation and Aging (B2A) – UMR 8256/INSERM U1164. A common Technology department belongs also to the Federation. For the next five-year contract, the UMR 7138 Evolution Paris Seine will leave IBPS, but a new research unit, Laboratoire Jean Perrin, UMR 8237, working on soft matter physics and biology, will join the Federation. The five UMRs present for the next contract have been independently evaluated by ad hoc HCERES committees. The present site visit had two goals; to evaluate both the IBPS Technology department and the scientific orientation and management of the Federation.

## MANAGEMENT TEAM

The IBPS Federation's Director is Michel LABOUESSE.

## HCÉRES NOMENCLATURE

SVE1-2; SVE2-2; SVE2-3; SVE4-1; SVE5-2; ST1-2; ST2-2; ST4-4; ST6-1.

## SCIENTIFIC DOMAIN

The five UMRs of the Federation have transverse interests, from isolated molecule to system biology (organization and collective behavior of living beings) with a strong emphasis on interdisciplinarity with physic, math sciences and computational biology. The common interests of the different players are centered on the biology of stem cells, robustness and plasticity in biological processes, memory and behavior, molecular networks, diversity of individual cell in communities, genomic of human diseases, protein folding, and physical approaches to understand biological processes.

## WORKFORCE SPECIFICALLY ALLOCATED TO THE FEDERATIVE STRUCTURE

Team workforce	Number 30/06/2017	Number 01/01/2019
<b>Permanent staff</b>		
Full professors and similar positions	<b>2</b>	<b>2</b>
Assistant professors and similar positions	1+ <b>2</b>	1+ <b>2</b>
Full time research directors (Directeurs de recherche) and similar positions	3	3
Full time research associates (Chargés de recherché) and similar positions	0	0
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)	21.5 + 3	20.5 + 3
<b>TOTAL permanent staff</b>	<b>25.5 + 7</b>	<b>24.5 + 7</b>
<b>Non-permanent staff</b>		
Non-permanent professors and associate professors, including emeritus	0	
Non-permanent full time scientists, including emeritus, post-docs	2 + 2	
Non-permanent supporting personnel	7.30 + 1	
PhD Students	0	
<b>TOTAL non-permanent staff</b>	<b>9.30 + 3</b>	
<b>TOTAL team</b>	<b>34.8 + 10</b>	

Workforce of the Institut de Biologie Paris Seine (IPBS), (in red, researchers of the BIOSIPE team).

## GLOBAL ASSESSMENT OF THE FEDERATIVE STRUCTURE

The objectives of the IBPS Federation is to boost the local interactions between the five different research units, to increase the visibility of the site, to promote research at the interface of disciplines, to reinforce platform funding, and to optimize the management of technological facilities. Although the five research units focus on different biological processes, they share a common vision and interest. In addition to its interdisciplinarity, the main originality of the Federation is to study a large variety of model organisms, including yeast, diatom, nematode, drosophila, xenopus, chicken, ascidian, zebrafish, mouse and rat. Since 2014, the IBPS has pursued its reorganization: all the research units composing the IBPS are now located within a single site, and IBPS is increasing its interdisciplinary profile with the joining of biophysicists from the Jean Perrin laboratory. It also obtained funding to renovate and increase the surface of its technological platforms, mainly the rodent and aquatic model facilities. One should acknowledge the huge effort of renovation and restructuration accomplished in few years. The Federation has also increased his national and international visibility as evidenced by international grants and collaborations. The Federation could attract ATIP and ANR young team leaders (5) and ERC (2) teams. The research units of the Federation obtained prestigious international funding, including HSFP and EU-H2020, and collaborative industrial projects with more than 20 patent filed and three start-ups created.

The five UMRs are also involved in numerous training actions at UPMC including heading two doctoral schools (neuro/cognitive science and "complexité du vivant"), a Master in bioinformatics and modeling, two Masters in biology, several international summer courses and schools (in bioinformatics, biomathematics, and biology).

The committee encourages the Federation's projects and appreciates all the efforts developed by the management and platforms staff team. The management team developed strong efforts – recognized by the majority of IBPS members - to foster the cohesion of the Federation through different actions, including providing incentive grants for interdisciplinary projects, reinforcing the scientific links between the different units and implementing a IBPS spirit. Due to the location of the IBPS Federation at the UPMC campus - with possibilities of increasing interdisciplinary interactions - there is a real opportunity for the Federation to become a major player in the panel of Parisian research sites and to be fully attractive. Nevertheless, the federation will have to strive to obtain global effort from all the institutions (UPMC, CNRS, INSERM) to rise to a level comparable to surroundings federations, and to be fully attractive with high international visibility. Major efforts should be employed to secure staff members – including in the management team -, improve building conditions and increase some of the facility capacities. Also, the committee believes it is important to delimit

the perimeter of the Federation and the space dedicated to the IBPS in the Building "Barre Cassan" should be clarified in an official document.

Regarding the different facilities, this committee found some uneven quality within the different platforms in both their competence and the quality of their equipment. Due to the man power and budget limitations, the platforms should avoid spreading over too much variety in methodologies and technical approaches, and should focus on few of them for which they are well recognized and on which they are competitive in the Paris community. As mid- and long-term perspectives, the committee feels that now is a good timing to make strategic choices on the reinforcement or change in technological facilities and to define what should be replaced and maintained. Defining their own specificities and complementarities in comparisons with other platforms of the Sorbonne Université and Paris area should be the strategy to follow in order to avoid competition and material duplication. This committee has also noticed that the occupancy of the facilities by IBPS users is highly variable, some being overused and some in which the IBPS represents a minority of users. This likely reflects a lack of communication to attract IBPS users, and the fact that some facilities also work with updated machines, which need to be replaced. For this reason, the committee proposes in particular the fusion of two of the technical facilities: the "Protein Engineering" and "MS proteomic" platforms. This new association could also be an opportunity to create a larger proteomic facility on the UPMC site, a facility that would be managed by Paris Sorbonne University. The committee also proposes that the "BIOSIPE" team do not remain isolated.

Finally, the committee encourages IBPS, CNRS, and UPMC to establish tighter links with INSERM for the Federation project and is surprised to see that this major French institution is not investing in the Federation, although several INSERM teams are part of this structure. The committee also notes that three of the research Unit Directors, including the head of this Federation, will retire at the end of the next 5-years mandate. A global reflection and push on the subject must take place in the near future – i.e. within the next 2-3 years - with all the partner institutions to define the profile of new directors.

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