Research evaluation

FINAL RESUME ON THE INTERDISCIPLINARY RESEARCH UNIT:

Chemistry, Modelling, Biophysics and Biochemistry (CMBB)

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:

Institut Curie
Université Paris-Sud
Institut National de la Santé et de la Recherche Médicale - Inserm
Centre National de la Recherche Scientifique - CNRS

EVALUATION CAMPAIGN 2018-2019
GROUP E

Rapport publié le 02/04/2019

High Council for evaluation of research and higher education

In the name of Hcéres[1]:

Michel Cosnard, President

In the name of the experts committee[2]:

Anne Imberty, Chairman of the committee

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

[1] The president of Hcéres "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 experts committee". (Article 11, paragraph 2).

Tables in this document were filled with data provided by laboratories and supervising bodies in the unit's application and in the Excel files "Données du contrat en cours" and "Données du prochain contrat".

UNIT PRESENTATION

Unit name:	Chemistry, Modelling, Biophysics and Biochemistry
Unit acronym:	CMBB
Requested label:	UMR 9187 / U 1196
Application type:	Restructuration
Current number:	UMR 9187 / U 1196
Head of the unit (2015-2019):	Ms Marie-Paule TEULADE-FICHOU
Project leader (2020-2024):	Mr Jean-Louis MERGNY
Number of teams and/or themes:	3 (report) / 4 (project)

EXPERTS COMMITTEE MEMBERS

Chair:	Ms Anne IMBERTY, CNRS Grenoble
Experts:	Ms Cynthia BURROWS, University of Utah, United States
	Ms Maria DUCA, CNRS - Université Côte d'Azur, Nice (representative of CoNRS)
	Mr Ludovic Halby, CNRS - Institut Pasteur, Paris (supporting personnel)
	Ms Valérie TALY, CNRS - Université Paris Descartes, Paris (representative of Inserm CSS)
	Mr Olivier Tillement, Université Lyon 1 - CNRS, Villeurbanne (representative of CNU)

HCÉRES REPRESENTATIVE

Mr Georges MASSIOT

REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Mr Étienne AUGE, Université Paris Sud

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Mr Erick DUFOURC, INC CNRS

Mr Bruno GOUD, Institut Curie

Ms Marie-Joseph LEROY ZAMIA, Inserm

Mr Stéphane MENAGE, INC CNRS

INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The unit "Chemistry, Modelling, Biophysics and Biochemistry" (CMBB) will correspond to the restructuration of the existing "Chemistry, Modelling and Imaging for Biology" (CMIB) depending on Curie Institute, CNRS, Inserm and Université Paris Sud (UMR 9187 / U 1196). The laboratories are located on Orsay campus and span 940 m^2 in a building from the Curie Institute.

The original UMR between CNRS and Curie Institute was created in 1996 on Orsay and Paris sites. In 2013, the UMR176 – Orsay emerged under the direction of Ms Marie-Paule Teulade-Fichou. This laboratory then became the CMIB unit in 2015 by merging with the Biophysic Laboratory of the Curie Institute in Orsay, and Mr Sergio Marco, director of Inserm U759 unit, became deputy director. The unit was organized in two teams headed by the director and deputy director, respectively, and focusing on chemical biology of nucleic acid and kinases and on multimodal imaging. Mr Sergio Marco accepted an industry position in 2017 and the team on multimodal imaging activity will not be maintained in the future. Ms Florence Mahuteau-Betzer is the new deputy-director. The junior team of Mr A. Granzham, on molecular recognition of nucleic acids, was created in 2017 through a competitive selection call from Curie Institute. Mr Jean-Louis Mergny, director of *Institut Européen de Chimie et Biologie* (Bordeaux), will join the unit in 2019 and is proposed as the future chairman for the new unit.

The CMBB laboratory will be organized in four teams, two originating from the splitting of nucleic acid and kinase activities, one for the junior team, and the fourth one under the responsibility of the new chairman.

MANAGEMENT TEAM

The CMBB will be headed by Mr Jean-Louis Mergny Inserm research director, with Ms Florence Mahuteau-Betzer, CNRS research director, as deputy-director.

HCÉRES NOMENCLATURE

ST4: Chemistry (principal)
SVE1_LS1: Biologie moléculaire et structurale, biochimie (secondary)

SCIENTIFIC DOMAIN

The CMIB, as part of Curie Institute, has the mission to develop molecular compounds directed towards targets of interest in cancer research, such as kinases and nucleic acids. A special interest is given to non-canonical structures, such as G-quadruplexes. The domains of activity include organic and bioorganic chemistry for the design of anti-cancer drugs and molecular probes.

The unit hosts the proprietary chemical library of Institute Curie, as well as two platforms for production of recombinant proteins and chemical imaging. The Abivax start-up is hosted in the unit premises.

UNIT WORKFORCE

	Unit workforce	
	Chemistry, Modelling, Biophysics and Biochemistry	
Active staff	**Number 30/06/2018**	**Number 01/01/2020**
Full professors and similar positions	1	1
Assistant professors and similar positions	2	3
Full time research directors (Directeurs de recherche) and similar positions	2	4
Full time research associates (Chargés de recherche) and similar positions	8	5
Other scientists (“Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.”)	1	1
High school teachers	0	0
Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)	15	10
Permanent staff	**29**	**24**
Non-permanent professors and associate professors, including emeritus		
Non-permanent full time scientists, including emeritus, post-docs	12	
PhD Students	7	
Non-permanent supporting personnel	11	
Non-permanent staff	**23**	
Total	**52**	**24**

GLOBAL ASSESSMENT OF THE INTERDISCIPLINARY UNIT

The CMIB is a unit at the forefront of Chemical Biology with excellent expertise in the development of molecular tools for controlling and imaging cellular processes involved in cancer. The scientific output is of very high quality and quantity for a unit that is relatively small but efficiently organized in scientific teams and technical facilities run by dedicated staff. Among these, the Curie-CNRS chemical library is a powerful tool and screening that led to the discovery of several hits, along with collaborations with a pharmaceutical start-up. The unit demonstrated strong attractiveness in the last few years, compensating for the retirement or departure of some staff that will result in the closure of the team devoted to chemical imaging. One young CNRS researcher was recruited in 2015 and the research performance of another one was acknowledged through a Curie Institute competitive international grant.

A new director, with very strong international reputation and management skills is being recruited. The ongoing change will bring a new research axis while being coherent with strong focus on non-canonical nucleic acid structures. The proposed restructuration of the new CM2B unit in two senior research teams and two younger ones is well balanced. The challenge will be to maintain a leading role amidst strong international competition. This will be possible by taking all opportunities offered by the excellent scientific environment at Curie Institute and local research centers. This evolution will provide the opportunity to expand to even more interdisciplinary domains through collaborations with clinicians and companies. The expert committee felt that the unit is on the right track to generate excellent science and increase further its attractiveness and international recognition.

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