LISM - Laboratoire d'ingénierie des systèmes macromoléculaires

Rapport Hcéres

HCERES

High Council for the Evaluation of Research and Higher Education

Department of Research Evaluation

report on research unit:

Macromolecular Systems Engineering Laboratory

LISM

under the supervision of the following institutions and research bodies:

Aix-Marseille Université

Centre National de la Recherche Scientifique - CNRS

Evaluation Campaign 2016-2017 (Group C)

HCERES

High Council for the Evaluation of Research and Higher Education

Department of Research Evaluation

In the name of HCERES,[1]

Michel Cosnard, president

In the name of the experts committee,[2]

Tracy Palmer, chairwoman 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 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.

Unit name:	Macromolecular Systems Engineering Laboratory
Unit acronym:	LISM
Label requested:	UMR
Current number:	7255
Name of Director (2016-2017):	Mr James STURGIS
Name of Project Leader (2018-2022):	Mr James STURGIS

Expert committee members

Chair: Ms Tracy PALMER, University of Dundee, Scotland, UK

Experts:

Mr Rodolphe AUGER, CNRS, Institut de Biologie Intégrative de la Cellule (representative of supporting personnel)

Ms Cécile BREYTON, CNRS, Institut de Biologie Structurale, Grenoble

Mr Philippe DELEPELAIRE, CNRS, Institut de Biologie Physico-Chimique, Paris

Ms Éliane HAJNSDORF, CNRS, Institut de Biologie Physico-Chimique, Paris (representative of the CNU)

Mr Emmanuel TETAUD, CNRS, Université de Bordeaux (representative of the CoNRS)

Scientific delegate representing the HCERES:

Mr Alexandre G. de BREVERN

Representatives of supervising institutions and bodies:

Mr Bruno MIROUX, CNRS

Mr Marc SENTIS, AMU

Head of Doctoral School:

Mr Philippe NAQUET, ED N°62, « Sciences de la vie et de la santé »

1 • Introduction

History and geographical location of the unit

The LISM was formed in 1992 and is located on the CNRS site in Marseille. It is part of the "Institut de Microbiologie de la Méditerranée" (IMM). The members of the unit are primarily housed over two floors of a common building, and along a linking corridor with a neighbouring building. Some of the unit facilities and the platforms overseen by members of the unit are located elsewhere on the site. There have been several changes to the unit recently, and the unit size has grown from 5 to 7 teams during the past five years. A further group will arrive to join the unit in the near future.

Management team

A unit director heads the LISM. M. James Sturgis will still be the director in charge with the laboratory board of science policy and all that pertains to the unit life. The unit currently has no deputy director.

HCERES nomenclature

Main: SVE2 Cell Biology, Imaging, Molecular Biology, Biochemistry, Genomics, Systemic Biology, Development, Structural Biology.

Secondary: SVE3 Microbiology, Immunity.

Scientific domains

Scientifically, since its inception, the LISM has focussed on processes that occur at the cell envelope of Gram-negative bacteria, employing common approaches including structural biology, fluorescence microscopy and functional analysis.

Unit workforce

Unit workforce	Number on 30/06/2016	Number on 01/01/2018
N1: Permanent professors and similar positions	8	8
N2: Permanent researchers from Institutions and similar positions	9	11
N3: Other permanent staff (technicians and administrative personnel)	12	12
N4: Other researchers (Postdoctoral students, visitors, etc.)	3	
N5: Emeritus		
N6: Other contractual staff (technicians and administrative personnel)	2	
N7: PhD students	12	
TOTAL N1 to N7	**46**	
Qualified research supervisors (HDR) or similar positions	8	

Unit record	From 01/01/2011 to 30/06/2016
PhD theses defended	13
Postdoctoral scientists having spent at least 12 months in the unit	2
Number of Research Supervisor Qualifications (HDR) obtained during the period	1

2 • Assessment of the unit

Global assessment of the unit

The science carried out by the unit is excellent and has generated a number of publications (108 papers and 27 reviews) with a dozen in very high impact publications over the past five years (e.g Nature, Nat Nanotech).

The scientific theme of the unit is very coherent. The teams collaborate with each other, as evidenced by the numerous co-authored publications (11), and they share many common techniques (microscopy, mass spectrometry, protein production, bioinformatics, etc.). The teams in the unit are co-located and share much common equipment. They have regular seminars where the work of individual members of the team is presented to the whole unit.

The unit is well integrated into the IMM and they manage three of the IMM shared platforms. The staff who work in the unit are uniformly happy; they recognise the excellent facilities and very much enjoy the friendly working atmosphere.

It was recognised that the unit has an excellent record in obtaining national funding (28 including 14 ANR), however very little European funding has been won over the past five years.

Currently, the management team comprises only a unit director. The director would benefit from the assistance of a deputy director to assist with day-to-day running of the unit and to help to guide future research strategy.

There are currently only few foreign workers in the unit and the global attractiveness could be improved.