

## REPORT ON THE RESEARCH UNIT:

Research Unit on Cardiovascular and Metabolic Diseases (UMR ICAN)

## 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



In the name of Hcéres<sup>1</sup>:

Michel Cosnard, President

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

Karin Sipido, Chairwoman 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 the unit's 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 PRESENTATION

<b>Unit name:</b>	Research Unit on Cardiovascular and Metabolic Diseases
<b>Unit acronym:</b>	UMR ICAN
<b>Requested label:</b>	n/a
<b>Application type:</b>	Restructuration
<b>Current number:</b>	UMR_S 1166
<b>Head of the unit (2017-2018):</b>	Mr Stéphane HATEM
<b>Project leader (2019-2023):</b>	Mr Stéphane HATEM
<b>Number of teams:</b>	6

## COMMITTEE MEMBERS

<b>Chair:</b>	Ms Karin SIPIDO, University of Leuven, Belgium
<b>Experts:</b>	Mr Magnus BACK, Karolinska Institutet, Sweden
	Ms Catherine BRENNER, Université de Chatenay-Malabry
	Mr Xavier COLLET, Université de Toulouse
	Ms Hélène DUEZ, Université de Lille (representative of Inserm CSS)
	Mr Alain LACAMPAGNE, Université de Montpellier (representative of CoNRS)
	Mr Jean-Yves LEGUENNEC, Université de Montpellier (representative of CNU)
	Mr Xavier MARECHAL, Université de Lille (supporting personnel)

### HCERES scientific officer:

Ms Florence PINET

### Representatives of supervising institutions and bodies:

Mr Christian BOITARD, Inserm  
Mr Alain EYCHENE, CNRS  
Mr Stéphane REGNIER, UPMC

# INTRODUCTION

## HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The UMR\_S 1166 is the product of a restructuring of the ICAN-UMR1166.

In 2011, the UMR\_S 1166 has played a major role in the creation of the IHU-ICAN, which has provided unique core facilities for clinical research and human bioresources. In 2013, the UMR\_S 1166 has contributed to the creation of the "Fédération des Recherches Interdisciplinaires Pitié-Salpêtrière" (FRIPS), which is composed of UMR\_S 1166 and two other UMRs located in the same building, and which share core facilities, lab spaces and staff. ICAN - UMR 1166 was created in 2014 by bringing together six independent teams dedicated to the research on cardiovascular and metabolic diseases.

The unit is located at the Pitié-Salpêtrière Medical Campus in Paris.

## MANAGEMENT TEAM

The UMR\_S 1166 is headed by Mr Stéphane Hatem.

## HCERES NOMENCLATURE

SVE5\_1; SVE6\_3; SVE2\_2.

## SCIENTIFIC DOMAIN

UMR\_S 1166 focuses its research on the pathophysiology of cardiovascular and metabolic diseases using a multidisciplinary and integrated approach, and translating its novel findings to the clinic. The teams address the major clinical problems of atherosclerosis and heart failure.

Six specific research axes are pursued:

- studying the epidemiological, clinical, molecular and functional genomics of cardiovascular disorders with a strong emphasis on cardiomyopathies and arrhythmias;
- identifying the molecular mechanisms involved in cardiovascular remodelling, focusing on smooth muscle cells and cardiac myocytes and how cardiac progenitors and pluripotent stem cells can be used;
- improving patient care and developing precision medicine through identification of candidate biomarkers and molecular predictors of clinical and biological situations, as well as through clinical trials of novel treatments;
- exploring the lipid metabolism and its relation to immune cells;
- exploring the role of mononuclear phagocytic cells in the pathophysiology of the progression and/or regression of atherosclerosis and metabolic disease;
- identifying mechanisms and potential targets in the processes underlying cardiomyopathy with cancer therapy.

## UNIT WORKFORCE

Unit workforce	Number 30/06/2017	Number 01/01/2019
<b>Permanent staff</b>		
Full professors and similar positions	30	23
Assistant professors and similar positions	12	8

Full time research directors (Directeurs de recherche) and similar positions	12	6
Full time research associates (Chargés de recherche) and similar positions	9	12
Other scientists ("Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.")	0	19
High school teachers	0	0
Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)	33	27
<b>TOTAL permanent staff</b>	<b>96</b>	<b>95</b>
<b>Non-permanent staff</b>		
Non-permanent professors and associate professors, including emeritus	0	
Non-permanent full time scientists, including emeritus, post-docs	5	
Non-permanent supporting personnel	19	
PhD Students	24	
<b>TOTAL non-permanent staff</b>	<b>48</b>	
<b>TOTAL unit</b>	<b>144</b>	

## GLOBAL ASSESSMENT OF THE UNIT

UMR\_S 1166 covers the cardiovascular field with excellent teams of high international standing and visibility. The track record of outputs is excellent, with publications in leading journals, patents and findings that advance clinical practice through new international guidelines. A next generation of dynamic young scientists are leading the individual teams, while the unit as a whole has a highly competent management providing scientific and organizational leadership. The re-structuring of the unit is welcomed by all team members, and is seen as an opportunity to strengthen the research focus and interactions.

The project is building on existing expertise and strengths, yet pursues new directions and explores innovative hypotheses in areas at the forefront of cardiovascular medicine. The project aims and objectives span across discovery research, translation and innovation into new diagnostic tools. To reach these goals, UMR\_S 1166 can rely on established core facilities, tools and platforms, including cohorts, biobanks, bioinformatics and biostatistics tools/pipelines, metabolomics analysis. Furthermore, the unit has a strong collaborative network internationally and in public-private partnerships.

The excellent track record and scientific programme of the unit puts it in a leading position internationally.

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