

Research evaluation

# FINAL RESUME ON THE RESEARCH UNIT: Pathogenesis and Control of Chronic and Emerging Infections - PCCEI

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES: Université de Montpellier Institut national de la santé et de la recherche médicale - Inserm Établissement Français du Sang - EFS

### **EVALUATION CAMPAIGN 2019-2020** GROUP A

Report published on April, 03 2020



#### In the name of Hcéres<sup>1</sup>:

Nelly dupin, Acting President In the name of the experts committee<sup>2</sup>:

Nicolas Lévêque, 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 experts committees and signed by their chairman." (Article 8, paragraph 5);

<sup>2</sup> The evaluation reports "are signed by the chairman of the experts committee". (Article 11, paragraph 2).



Tables in this document were filled with data submitted by the supervising body on behalf the unit.

### **UNIT PRESENTATION**

Unit name:	Pathogenesis and Control of Chronic and Emerging Infections
Unit acronym:	PCCEI
Current label and N°:	UMR 1058
ID RNSR:	201119394M
Application type:	Restructuration
Head of the unit (2019- 2020):	Mr Philippe Van de Perre
Project leader (2021-2025):	Mr Philippe Van de Perre (2021-2022) and Mr Nicolas Nagot (2023-2025)
Number of teams and/or themes:	2

### **EXPERTS COMMITEE MEMBERS**

Chair:	Mr Nicolas Leveque, Université de Poitiers
Experts:	Ms Alexandra Aubry, Sorbonne Université (representative of CNU)
	Ms Constance Delaugerre, Université de Paris (representative of Inserm)
	Ms Diana GIBB, University College London, United Kingdom
	Mr Emmanuel SEGERAL, Inserm Paris (supporting personnel)

## **HCÉRES REPRESENTATIVE**

Mr Theophile Ohlmann

### **REPRESENTATIVES OF SUPERVISING BODIES**

Mr Jacques Cavaille, Inserm Mr Justin Daniel, Université des Antilles Mr Gregory March, EFS Mr. Jacques Mercier, Université de Montpellier

Ms Juliette Saillard, Inserm



### INTRODUCTION

#### HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The UMR 1058 was created in January 2011 after meraing the EA4205 dedicated to research on HIV pathogenesis, transmission and prevention with a group from the Molecular Dermatology Unit of the University Institute of Clinical Research (IURC) with expertise on viruses responsible for mucocutaneous infections. The unit was renewed in January 2015 concomitantly with the integration of a research group (Transdiag) from the French Blood Establishment (EFS) as well as several researchers from Inserm and the University of Montpellier. Since 2015, research activities are shared between two sites in Montpellier, 1400 m<sup>2</sup> laboratory at the first floor of the building of the Inserm regional delegation (that is shared with another research unit (CBS)) and 350 m<sup>2</sup> of scientifically protected zone accredited laboratory at the EFS Euromedecine and South Mediterranean Region building. UMR1058 is closely linked with the two University Hospitals of Montpellier and Nîmes embodied by the creation of the FHU (Fédération Hospitalo-Universitaire) InCh ("Chronic Infections") in 2017. The UMR participates to the activities and meetings of the pole Rabelais Biologie-Santé, which coordinates the scientific animation of the region. It is a founding member of the Infectiopole Sud based in Marseille and the LabEx EpiGenMed. UMR 1058 collaborates with the CoEn (centre d'excellence en maladies Neurodégénératives) on prion and protein misfolding diseases research. Finally, the unit is involved in the University of Montpellier I-Site MUSE (Montpellier University of excellence) project gathering the forces of 19 institutions in the fields of agriculture, environment and health.

#### MANAGEMENT TEAM

The director of the unit is Philippe VAN de PERRE. The unit also has a deputy-director who is Jean-Pierre MOLÈS.

#### HCÉRES NOMENCLATURE

SVE3 Microbiologie, virologie, immunité SVE6 Santé publique, épidémiologie, recherche clinique SVE4 Neurosciences SVE2 Biologie cellulaire, imagerie, biologie moléculaire, biochimie génomique, biologie systémique, développement, biologie structurale.

#### THEMATICS

The UMR 1058 research topics are divided into two axes or themes. Axis 1 concerns the control of chronic infections with HIV, HBV, HCV and mycobacterium tuberculosis (TB), particularly in vulnerable populations and developing countries, while axis 2 aimed at improving diagnosis and knowledge about pathogenesis of emerging infections such as prions and arboviruses.

Axis 1 includes projects evaluating new strategies to prevent the transmission of chronic viral infections, particularly that of HIV from mother-to-child by breastfeeding, as well as the study of the physiopathological mechanisms involved, and, HIV and HCV in at-risk populations such as IV drug users. It includes the development of innovative diagnostic tests for HIV drug resistance and TB, relevant in developing countries. Finally, this axis wants to improve the therapeutic management of chronically infected patients, especially those co-infected with HIV and TB.

Axis 2 projects aim to improve the diagnosis of prion diseases in order to prevent their iatrogenic transmission, and to define the determinants of arbovirus outbreaks, neurotropism and neuro-invasion.

#### UNIT WORKFORCE

Pathogenesis & Control of Chronic Infections		
Active staff	Number 06/30/2019	Number 01/01/2021
Full professors and similar positions	7	12



Assistant professors and similar positions	6	5
Full time research directors (Directeurs de recherche) and similar positions	2	2
Full time research associates (Chargés de recherche) and similar positions	5	4
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)	22	33
Permanent staff	42	56
Non-permanent professors and associate professors, including emeritus	0	
Non-permanent full time scientists, including emeritus, post-docs (except PhD students)	1	
PhD Students	11	
Non-permanent supporting personnel	6	
Non-permanent staff	18	
Total	60	56

### **GLOBAL ASSESSMENT OF THE UNIT**

The UMR 1058 "Pathogenesis and Control of Chronic Infections", whose two research themes are chronic (HIV, HBV, HCV, HTLV and tuberculosis) and emerging (prions and arboviruses) infections, presents an outstanding overall assessment for the period 2015-2019. Its scientific production is impressive as much by its quantity as by its quality through numerous publications as first or last author in very prestigious international journals. Its works, in particular on the prevention of the transmission of HIV from mother-to-child through breastfeeding as well as on emerging arboviruses and protein misfolding diseases, have given it great national and international renown, resulting in a significant impact in public health. Moreover, they have enabled to build up a dense network of international collaborations, in particular with limited resource countries, and collections of biological samples of great value which can be used for further research carried out by the unit itself or by academic or industrial partners. Its close links with the Nîmes and Montpellier University Hospitals as well as its participation in numerous regional, national and international research networks demonstrate its dynamism and its excellent integration in its scientific domain. The hosting of many PhD students and international researchers highlights both its involvement in scientific training and its great attractiveness. The exceptional quality of its administrative and organizational management has enabled it to obtain numerous national and international funding, some of which particularly competitive such as H2020 and NIH grants. Finally, the research project proposed for the upcoming contract (2021-2025) is of high quality, original and ambitious while being in perfect line with previous works and skills acquired by the unit. It includes several large-scale clinical trials but also more fundamental research projects intended to provide a better understanding of the pathophysiological mechanisms involved in the transmission of the infectious pathologies studied. It will also rely on the integration of researchers from the University of the Antilles, which represents a great opportunity but also a big challenge for the future of the unit.

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