

# Research evaluation

FINAL RESUME ON THE RESEARCH UNIT: Hemostasis Inflammation Thrombosis (HITh)

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:

Université Paris-Sud Institut national de la santé et de la recherche médicale - Inserm

# **EVALUATION CAMPAIGN 2018-2019**GROUP E

Report published on February, 01 2019

High Council for evaluation of research and higher education



In the name of Hcéres<sup>1</sup>:

Michel Cosnard, President

In the name of the experts committee2:

Thomas Renné, Chairman of the committee

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

<sup>&</sup>lt;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>&</sup>lt;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 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:** Hemostasis Inflammation Thrombosis

Unit acronym: HITh

Requested label: UMR

**Application type:** Restructuration

Current number: U1176; EA4609

Head of the unit

(2018-2019): Ms Cécile Denis and Mr Claude Negrier

**Project leader** 

(2020-2024): Ms Cécile DENIS

Number of teams: 3

# **EXPERTS COMMITTEE MEMBERS**

Chair: Mr Thomas Renné, University Medical Center Hamburg, Germany

Experts: Mr Ramaroson Andriantsitohaina, Inserm Angers (representative of Inserm CSS)

Ms Claire Debarnot, Université d'Aix Marseille (supporting personnel)

Mr Jean Christophe Gris, CHU de Nîmes et Université de Montpellier

(representative of CNU)

Ms Beate Kehrel, University of Münster, Germany

# **HCÉRES REPRESENTATIVE**

Mr Jean-Paul Lallès

# REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Ms Laurence Parmantier,, Inserm

Mr Ali Turhan, Universite Paris-Sud



## INTRODUCTION

#### HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The UMR\_S1176 « Hemostasis-Inflammation-Thrombosis » (HITh) has a long history arising from the Inserm unit 143 Hemostasis and thrombosis created in 1987 and the Inserm unit U770 entitled Hemostasis and vascular cell dynamics that was created in 2006 linked with Université Paris 11. The current unit was created in 2015 by fusion of EA4531 « Ingéniérie des protéines de l'hémostase à potentiel thérapeutique » and UMRS 770 « Hémostase et Dynamique Cellulaire Vasculaire ». During this restructuration, members of EA4531 moved from the Faculty of Pharmacy of Paris-Sud University in Chatenay-Malabry to join UMRS 770, which has been located in Bicêtre hospital since its first creation as Inserm Unit 143 in 1987. The unit is located at the ground floor of the Grégory Pincus building of Bicêtre hospital, additional L2 laboratory for tissue culture and a radiation-safety laboratory are on the third floor of the building. A common Unité mixte de service (UMS32) animal facility is located in the basement of the building.

The research team EA4609 "Hemostasis, Inflammation and Cancer" (head: Mr Claude Négrier) with renowned expertise on clinical research and pathophysiology of bleeding disorders is located in Lyon. It will join the unit for the next contract, but will remain in Lyon. This team is located within the Faculty of Medicine RTH Laennec Lyon and is housed on the 3<sup>rd</sup> floor of the building B of UFR Lyon-Est Laennec. The laboratory allocated to this team includes two L2 laboratories for tissue culture. It has access to an animal facility (of the "Institut Fédératif de Recherche", IFR200) in the same building. Two team members (Mr Claude Négrier and Ms Yesim Dargaud) are both affiliated to the Unit of Clinical Hemostasis and Comprehensive Haemophila Care Centre of the University Cardiology Hospital Louis-Pradel near Lyon (Bron). The team has also access to the core genomics facility of the latter hospital.

#### MANAGEMENT TEAM

Head of U1176 and future Head: Ms Cécile DENIS.

Deputy Head: Ms Delphine Borgel.

Head of EA4609 and future Deputy Head at the Lyon site: Mr Claude Négrier and Ms Yesim Dargaud.

# **HCÉRES NOMENCLATURE**

SVE5\_1; SVE5\_2.

#### SCIENTIFIC DOMAIN

The core theme of the (present and future) unit is thrombosis and hemostasis and comprises basic science, clinical work, translational research and adjacent topics. The scientific work is organised in three themes. It focuses on von Willebrand disease (vWD); other haemorrhagic disorders and platelet pathophysiology; cellular and molecular effects of anticoagulant proteins including Antithrombin, Protein C and protein Z dependent inhibitor; cardiovascular functions of the calcium transporter SERCA3 have been investigated; recombinantly engineered clotting factors for improved substitution therapy and clinical trials constitute hallmark of the team.

#### **UNIT WORKFORCE**

	Unit workforce		
	Hémostase - Inflammation - Thrombose	EA4609 Hémostase Inflammation et Cancer	Hémostase Inflammation Thrombose
Active staff	Number 30/06/2018	Number 30/06/2018	Number 01/01/2020
Full professors and similar positions	2	3	5



Assistant professors and similar positions	4	1	5
Full time research directors (Directeurs de recherche) and similar positions	5	0	5
Full time research associates (Chargés de recherche) and similar positions	3	1	4
Other scientists ("Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.")	2	3	5
High school teachers	0	0	0
Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)	8	3	10
Permanent staff	24	11	34
Non-permanent professors and associate professors, including emeritus	1	0	
Non-permanent full time scientists, including emeritus, post-docs	5	0	
PhD Students	5	1	
Non-permanent supporting personnel	2	0	
Non-permanent staff	13	1	
Total	37	12	

# **GLOBAL ASSESSMENT OF THE UNIT**

The UMRS 1176 unit « Hemostasis-Inflammation-Thrombosis » (HITh) operates in the cardiovascular field and addresses topics of thrombosis and hemostasis with von Willebrand disease (vWD) and hemophilia in the scientific centre. The scientific work is organised in three themes that cooperate with each other at multiple levels generating a highly productive and internationally competitive environment. The unit comprises broad and internationally recognized expertise in the field spanning from basic science over translational research to clinical projects. The scientific output measured by publications in high impact journals, patents, invited lectures at conferences, competitive scientific prices and recognitions, public outreach, third party funding and grant intake, leadership in steering committees, recognition in national such as international organizations, higher education and mentoring is excellent. Taken together the unit ranks among the leading centers of its kind and is worldwide renowned. The unit is currently organized into two teams that will incorporate a third team from Lyon within the next contract period. The unit had adequatly responded to all points of critique raised during the previous evaluation period and provided convincing solutions. A key strength of the unit is its capability to address translational concepts in thrombosis/hemostasis and vascular inflammation. The capacity of the unit to develop basic science discoveries into improved patient care is outstanding and a result of productive collaboration with the various research teams. The unit successfully has identified novel targets and mechanisms including mechanism of thrombocytopenia in vWD2B, innovative recombinant half-time prolonged clotting factors for substitution therapy, and mechanisms to modulate Protein C and PZI activities with far reaching clinical implications. Importantly the unit has successfully developed a nanobody platform that is central for preclinical developments and innovative diagnostic assays.

Taken together the unit comprises long standing and internationally leading expertise in thrombosis and hemostasis and presents an outstanding and highly successful example of translational research with important clinical implication.

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