

HCERES

High Council for the Evaluation of Research
and Higher Education

Research units

HCERES report on research unit:
Angiogenesis and Tumor Microenvironment
Laboratory
LAMC

Under the supervision of the following
institutions and research bodies:

Université de Bordeaux
Institut National de la Santé Et de la Recherche
Médicale - INSERM

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and Higher Education

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In the name of HCERES,¹

Didier HOUSSIN, president

In the name of the experts committee,²

Christer BETSHOLTZ, chairman of the committee

Under the decree No.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 result of the evaluation by the experts committee, the composition of which is specified below.

The assessments contained herein are the expression of an independent and collegial deliberation of the committee.

Unit name:	Angiogenesis and tumor microenvironment laboratory
Unit acronym:	LAMC
Label requested:	INSERM-University (team 1-3), INRIA-University-CNRS (team 4)
Present no.:	U 1029
Name of Director (2014-2015):	Mr Andreas BIKFALVI
Name of Project Leader (2016-2020):	Mr Andreas BIKFALVI

Expert committee members

Chair:	Mr Christer BETSHOLTZ, Uppsala University and Karolinska Institute, Sweden
Experts:	Mr Boris ANDREIANOV, Université de Franche-Comté (representative of the CNU)
	Mr Olivier BERNARD, Génétique des tumeurs, Institut Gustave Roussy, Paris (representative of the CSS Inserm)
	Mr Holger GERHARDT, Max-Delbrück Centre for Molecular Medicine, Berlin, Germany

Scientific delegate representing the HCERES:

Ms Maryam MEHRPOUR

Representatives of the unit's supervising institutions and bodies:

Mr Pierre DOS SANTOS, Université de Bordeaux

Ms Karine GIONNET, Inserm

Mr Jochen LANG (representative of the Doctoral School "Science de la Vie et de la Santé" n°154)

Mr Yoann LUNG, Université de Bordeaux

Ms Stéphanie POMMIER, Inserm

Ms Monique THONNAT, INRIA

1 • Introduction

History and geographical location of the unit

The Angiogenesis and tumor microenvironment laboratory (LAMC) results from the evolution of a previous single team research unit (Inserm U 1029; now team 1), which was joined by two small teams (team 2 from Inserm unit, Hôpital Saint-Louis, Paris & team 3 is from "Institut de Chimie et Biologie des Membranes et des Nano-objets" Bordeaux). A fourth team is an INRIA team that will be "associated" with the unit, but not "labeled" by Inserm. One Inserm scientist and several PUPH have also joined teams 1 or 2 to participate in the translational aspects of the projects.

The unit is localized at the Pessac site of the Université de Bordeaux in the B2 building. It occupies two floors of about 1500 m². The laboratory is in the process of a complete renovation and possesses state-of-the art installations and equipment for molecular and cellular biology research.

Management team

The LAMC is headed by Mr Andreas BIKFALVI supported by the deputy director Mr Majid KHATIB.

HCERES nomenclature

Principal : SVE1_LS4

Secondaire : SVE1_LS3 and SVE1_LS2

Unit workforce

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
N1: Permanent professors and similar positions	8	11
N2: Permanent researchers from Institutions and similar positions	5	7
N3: Other permanent staff (without research duties)	13	13
N4: Other professors (Emeritus Professor, on-contract Professor, etc.)		
N5: Other researchers (Emeritus Research Director, Postdoctoral students, visitors, etc.)	7	9
N6: Other contractual staff	4	4
TOTAL N1 to N6	37	44

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
Doctoral students	13	
Theses defended	13	
Postdoctoral students having spent at least 12 months in the unit	7	
Number of Research Supervisor Qualifications (HDR) taken		
Qualified research supervisors (with an HDR) or similar positions	9	10

2 • Overall assessment of the unit

Global assessment of the unit

The “Laboratoire de l’Angiogenèse et du Microenvironnement des Cancers (LAMC)” is a multidisciplinary research laboratory dedicated to studies of cancer and angiogenesis. It results from the evolution of a previous single team research unit (Inserm U 1029; now team 1) which was joined by two small teams (team 2 Inserm UMR-S 606, Université Paris-Diderot, and Hôpital Lariboisière, Paris & team 3 is from INP Bordeaux). A fourth team is an INRIA team that will be “associated” to the unit but not “labeled” by Inserm. Several fruitful scientific collaborations have been established between the teams during the last years. A main goal of this proposal is to physically associate groups from different and complementary research fields to jointly tackle central problems in cancer and vascular biology research. The LAMC is planned to be organised into four teams:

- team 1: Regulatory Networks in Angiogenesis, Tumor Invasion and Metastasis;
- team 2: Preprotein Convertases in Tumor Invasion and Metastasis;
- team 3: Biophysics of Vascular Plasticity;
- team 4: Mathematical Modeling.

The experts committee finds the initiative to organize the new research entity into four teams providing a cross-disciplinary platform from which to tackle outstanding questions in cancer research both exciting and attractive. If the teams work together as outlined, there are clear prospects for synergy and scientific breakthroughs. The experts committee recognizes creativity, methodological strengths and dynamic working conditions but also notes the risks and challenges associated with need to focus on a limited number of scientific problems. If a good balance between technological width and conceptual focus can be obtained, there should be prospects for scientific breakthroughs.

Strengths and opportunities in relation to the context

Prospects of synergy through cross-disciplinary interactions within the unit.

Strong links with clinical research, especially in the kidney cancer area.

Significant outreach activities and networking at national and international levels.

Excellent team spirit and enthusiasm among students, postdocs, staff and associated clinicians.

Extensive collaborations at the national and international level.

Ability to raise research funds through competitive grant applications.

Weaknesses and threats related to the context

Risk of spreading thin through the numerous projects and subprojects, some of which are currently underdeveloped.

Possible underestimation of complexity involved in implementing “omics” and big data technologies in cancer research.

Some research areas are hugely competitive in an international perspective.

Recommendations

The experts committee recommends that the research team puts priority on those research projects and subprojects where clearcut synergies can be created through inter-team collaborations. Such a focus would allow a more complete integration of the research across the unit and would considerably raise the possibilities of the unit to achieve high impact results and publications. The committee foresees that such prioritization would include a definition of the competitive edge within each subproject and that projects deemed non-competitive at the international frontline are abandoned.