C3M - Centre méditerranéen de médecine moléculaire

Rapport Hcéres

HCERES

High Council for the Evaluation of Research and Higher Education

Department of Research Evaluation

report on research unit:

Mediterranean Center for Molecular Medicine

C3M

under the supervision of the following institutions and research bodies:

Université Nice Sophia Antipolis

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

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]

Peter Vandenabeele, chairman 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:	Mediterranean Center for Molecular Medicine
Unit acronym:	C3M
Label requested:	UMR multi-organismes
Current number:	Inserm 1065
Name of Director (2016-2017):	Mr Patrick AUBERGER
Name of Project Leader (2018-2022):	Mr Patrick AUBERGER

Expert committee members

Chair:	Mr Peter VANDENABEELE, Ghent University, Belgium
Experts:	Mr François BOUCHER, Université Grenoble Alpes (representative of the CNU)
	Ms Marie-Thérèse DIMANCHE-BOITEL, Université de Rennes
	Mr Jürgen ECKEL, German Diabetes Center of Düsseldorf, Germany
	Mr Éric ELDERLING, Academic Medical Center, Amsterdam
	Mr Lionel LARUE, Institut Curie, Orsay
	Ms Véronique MARSAUD, Institut Curie, Orsay (representative of supporting personnel**)**
	Mr Éric OSWALD, Centre Hospitalier Universitaire de Toulouse
	Ms Valérie PARADIS, Centre de Recherche sur l'Inflammation, Paris (representative of the Inserm)
	Mr Éric SOLER, Institut de Génétique Moléculaire de Montpellier
Scientific delegate representing the HCERES:	
	Mr Bohdan WASYLYK
Representatives of supervising institutions and bodies:	
	Mr Jeanick BRISSWALTER, Université Nice Sophia Antipolis
	Ms Aurélie PHILIPPE, Inserm
Head of Doctoral School :	
	Mr Thomas LAMONERIE, Doctoral School n° 85, « Sciences de la Vie et de la Santé »

1 • Introduction

History and geographical location of the unit

The C3M is a joint research unit supported by the University of Nice Sophia Antipolis and Inserm (UMR 1065). C3M was created in January 2008, under the direction of Mr Yannick LE MARCHAND-BRUSTEL and with Mr Patrick AUBERGER as deputy director. The objective of C3M was to build in Nice a novel biomedical research institute dedicated to cancer and cardio-metabolic diseases. This project was based on the strong determination of both researchers and clinicians coming from 4 independent Inserm units to join their expertise (Inserm U 526 headed by Mr Patrick AUBERGER, Inserm U 568 headed by Mr Yannick LE MARCHAND-BRUSTEL, Inserm U 597 headed by Mr Robert BALLOTTI and Inserm U 627 headed by Mr Emmanuel LEMICHEZ). Hence, C3M was initially developed on three main topics: "Metabolic Diseases", "Cancer" and "Infectious and Inflammatory Diseases".

In 2012, C3M was renewed under the direction of Mr Patrick AUBERGER, following the retirement of Mr Yannick LE MARCHAND-BRUSTEL. Meanwhile, Mr Jean-François TANTI and Mr Philippe ROSTAGNO acted as deputy director and general secretary, respectively.

Since its creation, C3M has regularly grown with the arrival of new teams. Indeed, the Metabolic Diseases topic was strengthened with the arrival in 2012 of a new team under the supervision of Mr Jaap NEELS (team 9) coming from Inserm U 907 headed by Mr Paul GRIMALDI, and the creation in 2013 of an Atip /Avenir team headed by Mr Laurent YVAN-CHARVET (team 13). The cancer topic was strengthened by the creation in 2012 of another Atip/Avenir team (team 12) headed by Mr Thierry PASSERON, a young professor of dermatology, and by the emergence in 2012 of a new team (team 11) headed by Ms Sophie TARTARE-DECKERT and resulting from the fusion of the group headed by Ms Sophie TARTARE-DECKERT in team 1 and the group headed by Mr Marcel DECKERT from Inserm U 576. A third Atip/Avenir team (team 10) headed by Ms Michele TRABBUCCHI was created in 2011 to strengthen the Infectious and Inflammatory Diseases topic. Therefore, C3M has grown from 143 persons at the beginning of the 2012 contract to 185 persons today.

C3M is located in the Archimed building, opened at the end of 2007, on the site of the Archet Hospital in the South-West of Nice. This location allows interactions and collaborations with physicians and clinicians. C3M is five miles from IRCAN (Institut de Recherche sur le CANcer et le vieillissement) and IBV (Institut de Biologie du Développement), two other important biological institutes in Nice and 10 miles from IPMC (Institut de Pharmacologie Moléculaire et Cellulaire) in Sophia-Antipolis. In the Archimed building, C3M occupies 3800 m^2 of laboratory space on one-floor, including an animal facility of 460 m^2 (up to 12,000 mice). An amphitheatre with 100 seats for meetings and seminars is also located in the Archimed building. Currently, the 13 teams and all the technological core facilities are located in the same building.

Management team

The director of C3M for the current contract is Mr Patrick AUBERGER. He is assisted by a scientific deputy director, Mr Jean-François TANTI.

HCERES nomenclature

Principal: SVE5 Physiologie, Physiopathologie, Cardiologie, Pharmacologie, Endocrinologie, Cancer, Technologies Médicales

Secondary: SVE2 Biologie Cellulaire, Imagerie, Biologie Moléculaire, Biochimie, Génomique, Biologie Systémique, Développement, Biologie Structurale

VE3 Microbiologie, Immunité

Scientific domains

The Mediterranean Center for Molecular Medicine (C3M) is a translational research institute aiming at understanding the mechanisms and the causes of cancer and cardio-metabolic diseases, and at developing novel prevention and therapeutic strategies against these diseases.

unit workforce

unit workforce	Number on 30/06/2016	Number on 01/01/2018
N1: Permanent professors and similar positions	22	30
N2: Permanent researchers from Institutions and similar positions	47	46
N3: Other permanent staff (technicians and administrative personnel)	16	17
N4: Other researchers (Postdoctoral students, visitors, etc.)	29	
N5: Emeritus	0	
N6: Other contractual staff (technicians and administrative personnel)	14	
N7: PhD students	43	
TOTAL N1 to N7	**171**	
Qualified research supervisors (HDR) or similar positions	40	

unit record	From 01/01/2011 to 30/06/2016
PhD theses defended	38
Postdoctoral scientists having spent at least 12 months in the unit	12
Number of Research Supervisor Qualifications (HDR) obtained during the period	5

2 • Assessment of the unit

Global assessment of the unit

The 13 teams of the C3M unit, located at the Archet Hospital, develop strong basic and translational research programs on three major topics: Cancer, Inflammation and Metabolism. These are studied in an interdisciplinary and integrated way with several teams combining two major topics: Metabolism and Cancer (teams 1, 2, 3, 4, 5, 7, 8, 12, 13) and Cancer and Inflammation (teams 2, 3, 6, 7, 8, 9, 12, 13). C3M has grown from 8 teams in 2008 to 13 teams today and from 143 persons at the beginning of the 2012 contract to 185 persons today. The scientific strategy aims at further reinforcing a continuum of basic, translational and clinical research to: (1) understand mechanisms in cancer and cardio-metabolic diseases and (2) transfer knowledge to the clinic with the development of novel therapeutic and preventive strategies. This increased integration is attested by the fact that 3 clinicians currently head C3M teams and that 29 clinicians or medical doctors participate in C3M team projects. In addition, 9 researchers from C3M have obtained "Translational Research Contracts" with the Nice Hospital.

The C3M unit is dynamic and has an adequate balance between established teams and young, emerging teams. There was a high quality output over the evaluated period (2010-2016) at the level of: original publications by C3M members as first and last author (371 among which a large proportion in highest impact journals such as *Nature*, *Nature Med*, *Nature Immunol*, *Cancer Cell*, *Cell Host & Microbes*, etc.), internal collaborative papers (127/371 or 1/3 of the original publications are collaborations between C3M teams), training (43 PhD theses, ANR Excellence LabEx-Signalife), recruitment of competitive positions (PhDs, postdocs, permanent positions), and technology transfer activities (impressive list of 40 patents among which 10 with an industrial licence). A strong asset for further exploring technology transfer activities and collaborations with clinic and industry is the establishment of the ISO9001 quality assessment system for the service facilities (Gestion-Secretary, Animal Facility, Imaging Facility, Cytometry Platform).The scientific strategy for the future, to become the translational center in the Nice area, is a notable ambition. The integrated approach between basic, translational and clinical research will further improve the share of high impact journals, international visibility and networking, and the technology transfer activities.

The C3M unit has invested in a highly integrated and interdisciplinary basic, translational and clinical research program in cancer, metabolism and inflammation, and developed strong technical transfer activities at the Archet Hospital site. This unit has a balanced range of research activities (basic, translational and clinical) and is dynamic. These activities are strong and relatively unique assets at the national and international levels. The development of a bioinformatics service team and more research space will facilitate these endeavors.