

HCERES

High Council for the Evaluation of Research
and Higher Education

Research units

HCERES report on research unit:

Actions for onCogenesis understanding and Target
Identification in ONcology

ACTION

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

Miguel A PIRIS, 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 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:	Actions for onCogenesis understanding and Target Identification in ONcology
Unit acronym:	ACTION
Label requested:	UMR Inserm Université
Present no.:	U 916
Name of Director (2014-2015):	Mr Josy REIFFERS
Name of Project Leader (2016-2020):	Mr Pierre-Louis SOUBEYRAN

Expert committee members

Chair:	Mr Miguel A PIRIS, Hospital Universitario Marques de Valdecilla, Spain
Experts:	Mr Olivier BERNARD, Génétique des tumeurs, Institut Gustave Roussy (representative of the CSS Inserm)
	Mr Olivier COQUERET, Inserm, Université d'Angers (representative of the CNU)
	Mr Francisco X REAL, Centro Nacional de Investigaciones Oncológicas, Spain

Scientific delegate representing the HCERES:

Ms Maryam MEHRPOUR

Representatives of the unit's supervising institutions and bodies:

Mr Pierre DOS SANTOS, Bordeaux University

Ms Karine GIONNET, Inserm

Ms Isabelle HENRY, Inserm

Mr Yannick LUNG, Bordeaux University

Mr Roger MARTHAN (director of the ED SVS n°154 "Science de la vie et de la santé")

1 • Introduction

History and geographical location of the unit

The “Action for onCogenesis understanding and Target Identification in Oncology (ACTION)” research unit results from a single team research group under the direction of Mr Josy REIFFERS, also director of the Bergonié Institute. It is located in the Bergonié Institute in Bordeaux and includes several clinicians and pathologists from the institute, together with scientists working in different Inserm units, as expected for a unit aiming at merging clinical and more fundamental research. Most of the research activity is at Bergonié Institute, but one team currently is located at the CHU de Bordeaux (Pessac and Inserm 1035) and will join the unit upon its creation. A project leader in the Institut Européen de Chimie et de Biologie (IECB), an incubator for research teams, will join team 3 when enough space will be available.

Management team

Action is headed by Mr Pierre-Louis SOUBEYRAN. It is managed by a unit board, including the director and all researchers, which meets monthly. A general assembly gathering all the unit researchers is held every year and a lab council, including representative of all personal, half elected and half nominated, meets 3 or 4 times a year.

HCERES nomenclature

Principal : SVE1_LS1 Biologie moléculaire et structurale, biochimie

Secondaire : SVE1_LS4 Physiologie, physiopathologie, biologie systémique médicale

SVE1_LS3 Biologie cellulaire, Biologie du développement animal

SVE1_LS2 Génétique, génomique, bioinformatique

SVE1_LS7 Epidémiologie, santé publique, recherche clinique, technologies biomédicales

Unit workforce

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
N1: Permanent professors and similar positions	10	10
N2: Permanent researchers from Institutions and similar positions	4	5
N3: Other permanent staff (without research duties)	16	19
N4: Other professors (Emeritus Professor, on-contract Professor, etc.)	10	14
N5: Other researchers (Emeritus Research Director, Postdoctoral students, visitors, etc.)	1	3
N6: Other contractual staff (without research duties)		
TOTAL N1 to N6	41	51

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
Doctoral students	5	
Theses defended	13	
Postdoctoral students having spent at least 12 months in the unit	5	
Number of Research Supervisor Qualifications (HDR) taken		
Qualified research supervisors (with an HDR) or similar positions	14	13

2 • Overall assessment of the unit

Global assessment of the unit

The ACTION research unit (Actions for onCogenesis understanding and Target Identification in ONcology) is a conglomeration of three research teams carrying out important bench-to-bedside research which tackles oncogenic processes in the sarcoma, myeloid leukaemia biology, breast cancer therapy and prediction of response to cancer treatment. It was composed of 1 team located at the Bergonié Institute in Bordeaux when created in 2007. The project of ACTION for the next 5 years includes the creation of 3 teams. In combination the 3 teams have strong scientific background, important complementary skills enabling basic, translational and clinical investigations and the potential for delivering research that can bring about change in the clinical management of oncology. Three research axes interest the teams that currently constitute the ACTION:

- team 1: Oncogenesis and therapeutic targeting of the sarcoma cell (ONCOSARC);
- team 2: Genetic Diversity and Resistance to Therapy: Mammary and Leukemic Oncogenesis (MLO);
- team 3: Validation and Identification of New Targets in cancer and AGEing (VINTAGE).

The teams are also integrated into a “Les Sites de Recherche Intégrée sur le Cancer” SIRIC program.

This is an excellent unit proposal that integrates research groups already included in the previous research unit located at the Bergonié Institute and other research teams currently in other locations. All three teams that participate to the present proposal have excelled in cancer research, through the development and application to cancer of high-throughput molecular studies and other functional and clinical studies.

Teams within the unit have developed in the past excellent research in sarcoma clinical prediction, myeloid leukaemia biology, breast cancer therapy and cancer treatment in elderly patients, and have a very high international reputation. Within these niches, the research teams play a leading role in the international scenario.

The unit has also been able to attract some top investigators in basic aspects of cancer research such as senescence, autophagy and others.

Strengths and opportunities in relation to the context

The main asset of the unit is the interaction between a cancer clinical centre and multiple basic research Inserm groups working in Bordeaux. This has already led to the recognition of a SIRIC by INCa (Institut National du Cancer). Consolidation of the integration between all the different agents involved in cancer research in Bordeaux may facilitate the consolidation and the further development of other ambitious projects within the research unit.

The unit includes multiple experienced researchers in different aspects of cancer research, with publications in the top journals of the field such as Nature Medicine, Molecular Cell and Lancet Oncology.

The unit is developing projects in connection with International Cancer Genome Consortium (ICGC) and European Organisation for Research and Treatment of Cancer (EORTC). Involvement in ICGC projects should likely

facilitate access to high-throughput sequencing and bioinformatics technology, and eventual publications in top journals.

Existence in Bordeaux of additional basic and clinical cancer research groups, whose integration in the unit should facilitate the consecution of the unit objectives.

Weaknesses and threats related to the context

Cancer research is a highly dynamic field, where the pursuit of excellence is always required. The unit is encouraged to follow generating solid experimental and clinical data that can be published in the top cancer journals

Team leaders have been able to secure a reasonable funding obtained in competitive European agencies. The unit should ambition to successfully apply for ERC and other top European projects in the Horizon 2020 program.

Recommendations

Excellence. The unit is doing a great job. Cancer research is an exciting and highly dynamic subject, where the pursuit of excellence is a requisite for the successful clinical translation.

Focus. The research team should focus more on precise niches of excellence, trying to improve the connections between the different sub-projects. Further maturation of the unit should allow the identification of biologically and clinically meaningful long-term programs that could become the focus of the team's activity.

Consolidation of common platforms and resources in animal facilities, bioinformatics and functional studies together with attraction of competitive researchers could permit the development and consolidation of additional research groups.