

HCERES

High Council for the Evaluation of Research
and Higher Education

Department of Research Evaluation

report on research unit:

Molecular Targets and Therapeutics of Alzheimer's
Disease

CiMoTheMA

under the supervision of
the following institutions
and research bodies:

Université de Poitiers

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

Jaume Folch, 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 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: | Molecular Targets and Therapeutics of Alzheimer's disease |
| Unit acronym: | CiMoTheMA |
| Label requested: | EA |
| Current number: | 3808 |
| Name of Director (2016-2017): | Ms Guylène PAGE |
| Name of Project Leader (2018-2022): | Ms Guylène PAGE |

Expert committee members

| | |
|---|--|
| Chair: | Mr Jaume FOLCH, Universidad Rovira i Virgili (Tarragona, Spain) |
| Experts: | Mr Patrick DERKINDEREN, CHU Nantes Ms Pascale DUFOURCQ, Université de Bordeaux (representative of CNU) Mr Igor SIBON, CHU Bordeaux Mr Tristan PILOTT, Institut Curie (representative of supporting personnel) |
| Scientific delegate representing the HCERES: | Ms Catherine HEURTEAUX |
| Representatives of supervising institutions and bodies: | Mr Serge HUBERSON, Université de Poitiers Mr Gérard MAUCO, CHU Poitiers |
| Head of Doctoral School: | Mr Gérard MAUCO, Doctoral School n° 524, « BioSanté » |

1 • Introduction

History and geographical location of the unit

The laboratory EA n° 3808 entitled “Molecular Targets and Therapeutics of Alzheimer's disease” is located within the “Pôle Biologie-Santé” (PBS) that includes all the research laboratories in biology/health of the faculties of Medicine & Pharmacy and of Fundamental and Applied Sciences of the University of Poitiers. The faculties, the CHU and the CIC-P1402 (Centre d'Investigation Clinique de Poitiers) are located on the same geographical site.

The research unit was founded by Mr. Jacques HUGON in 2004. The unit was renewed in 2008 (Dir: Mr. Bernard FAUCONNEAU) and 2012 (Dir: Ms Guylène PAGE). In January 2015 the entire staff of an emerging team “Genetics of rare diseases” (Dir: Mr Alain KITZIS) joined the EA n° 3808.

Management team

Director, Ms Guylène PAGE, and clinical responsible, Mr Marc PACCALIN.

HCERES nomenclature

SVE1-1

Scientific domains

The themes addressed in this unit were Alzheimer's disease (AD) and mental retardation, developmental disorders and genetic abnormalities with “Developmental Abnormalities and Cystic Fibrosis” axis. So far, scientific outputs concerning AD research are integrated in two axis: Axis 1 “Chemotactic environment at the neurovascular unit”; Axis 2 “Relationship between autophagy and inflammation”. The EA n° 3808 is a multidisciplinary team of doctors (geriatricians, neurologists, geneticists, histologists), pharmacists (cell biology & biotechnology, toxicology) and scientists (cellular and molecular biology, biochemistry, molecular genetics).

Unit workforce

| Unit workforce | Number on 30/06/2016 | Number on 01/01/2018 |
|---|-------------------------|-------------------------|
| N1 : Permanent professors and similar positions | 10 | 9 |
| N2 : Permanent researchers from Institutions and similar positions | 2 | 2 |
| N3 : Other permanent staff (technicians and administrative personnel) | 2 | 2 |
| N4 : Other researchers (Postdoctoral students, visitors, etc.) | 1 | |
| N5: Emeritus | | |
| N6 : Other contractual staff (technicians and administrative personnel) | 4 | |
| N7 : PhD students | 5 | |
| TOTAL N1 to N7 | 24 | |
| Qualified research supervisors (HDR) or similar positions | 6 | |

| Unit record | From 01/01/2011 to 30/06/2016 |
|---|----------------------------------|
| PhD theses defended | 9 |
| Postdoctoral scientists having spent at least 12 months in the unit | 5 |
| Number of Research Supervisor Qualifications (HDR) obtained during the period | 0 |

2 • Assessment of the unit

Global assessment of the unit

The present project of the EA n°3808 is a renewal of the unit, with the integration of the team “Genetics of Rare Diseases” (emerging ex-team of Mr Alain KITZIS) started in 2015, in a new research project focused on “neurovascular unit and cognitive disorders”. The multidisciplinary team EA n°3808 develops a strong translational research with original themes. In the past period 2011 - June 2016, scientists of this unit have made major scientific contributions concerning Alzheimer disease (AD): among others, the development of non-transgenic rats and an in vitro blood-brain barrier model for the study of AD, focusing in the inter-relationship between inflammation and autophagy in damaged adult brain in various experimental models of AD disease; the first development of a new model of blood-brain barrier. The scientific outputs of the ex-team “Genetics of rare diseases” are very relevant, involving the study of complex alleles of CFTR in cystic fibrosis, the running of a therapeutic trial in Hereditary Hemorrhagic Telangiectasia and the identification of mutations in CHD7 gene in Charge syndrome. The group also found the first identification of KCNG4 in genetic diseases affecting the development (associated with cerebellar anomalies).

EA n°3808 is an experienced team of very good scientific quality, largely involved in teaching and with a good local reputation and appeal, and committed to improve significantly their international recognition and leadership in national and international projects and consortia. The present project represents a reorganisation of the team, specifically on the topic of Alzheimer's disease and BBB dys-functioning, two topics that are highly competitive at the international and national levels. Members are fully integrated in research projects and there is a very good atmosphere among members of the genetic and the Alzheimer teams, even though the two teams merged only one year ago. However, a main goal for the future project is to balance the technical staff for administrative and scientific support and the presence of post-doctoral fellows in the reorganized team as there is not enough technical staff for administrative and scientific support, and the absence of post-doctoral fellows is also prejudicial.