# HCERES

High Council for the Evaluation of Research
and Higher Education

Research units

# HCERES report on research unit:

## Neuro-Dol

## Under the supervision of the following institutions and research bodies:

Université D'Auvergne - UDA

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

Evaluation Campaign 2015-2016 (Group B)

# HCERES

High Council for the Evaluation of Research and Higher Education

Research units

*In the name of HCERES,*[1]

Michel Cosnard, president

*In the name of the experts committee,*[2]

Juan-Antonio Mico, 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: | Neuro-Dol |
| Unit acronym: | Neuro-Dol |
| Label requested: | UMR |
| Current number: | 1107 |
| Name of Director (2015-2016): | Mr Alain ESCHALIER |
| Name of Project Leader (2017-2021): | Mr Radhouane DALLEL |

# Expert committee members

Chair: Mr Juan-Antonio MICO, University of Cadiz, Spain

Experts:

Mr Didier BOUHASSIRA, INSERM, Boulogne-Billancourt (representative of the CSS INSERM)

Mr Michel HAMON, INSERM, CPN, Paris

Mr Guy MENSAH-NYAGAN, University of Strasbourg (representative of the CNU)

Scientific delegate representing the HCERES:

Mr Jean-Marie ZAJAC

Representatives of supervising institutions and bodies:

Mr Philippe DULBECCO, Université d'Auvergne

Ms Meriem MAROUF, INSERM

Mr André SALAGNAC, Clermont-Ferrand, University Hospital

Ms Pascale SAULNIER, INSERM

Head of Doctoral School:

Mr Jean-Marc LOBACCARO, ED n°65, "Life, Health, Agronomy and Environment Sciences"

# 1 • Introduction

## History and geographical location of the unit

The unit is located in Clermont-Ferrand, at the faculties of medicine and pharmacy, the faculty of dentistry and the university hospital. This unit, formed of three teams, was created on January 1st, 2012 under the label INSERM/University of Auvergne U1107, by merging two former INSERM units working on pain. Team 1, headed by Mr Alain ESCHALIER and Mr Denis ARDID, is interested in fundamental and clinical pharmacology of pain; team 2 works on trigeminal pain and migraine under the responsibility of Mr Radhouane DALLEL and team 3 is an university team working on neurosensory biophysics with Mr Paul AVAN as a head. On its creation in 2012 the unit was composed of 71 persons; and it will for the next contract include 90 persons.

## Management team

The unit is governed by a board, including the director, the team leaders and the head of the INSERM Clinical Center for Investigation (CIC), with the help of the unit council for consultation.

## HCERES nomenclature

SVE1 LS5

SVE1 LS4

SVE1 LS7

## Scientific domains

The unit is focused on the pathophysiology and pharmacology of extracephalic chronic pain, trigeminal pain, migraine, and auditory impairment.

The unit develops basic and clinical research on the pathophysiology of pain and hearing with a translational research strategy bridging the gap between clinic and basic research. Unit members develop basic research on cephalic and extracephalic pain, study the interactions between physical and sensory structures in the cochlea and the resulting activity in auditory pathways.

### Unit workforce

| Unit workforce | Number on 30/06/2015 | Number on 01/01/2017 |
|---|---|---|
| **N1**: Permanent professors and similar positions | 40 (14.4 FTE) | 44 (16.1 FTE) |
| **N2**: Permanent researchers from Institutions and similar positions | 1 (1 FTE) | 1 (1 FTE) |
| **N3**: Other permanent staff (technicians and administrative personnel) | 15 (10.8 FTE) | 16 (11.9 FTE) |
| **N4**: Other professors (Emeritus Professor, on-contract Professor, etc.) | 2 (0.8 FTE) | |
| **N5**: Other researchers from Institutions (Emeritus Research Director, Postdoctoral students, visitors, etc.) | 2 (2 FTE) | |
| **N6**: Other contractual staff (technicians and administrative personnel) | 2 (2 FTE) | |
| **N7**: PhD students | 16 | |
| **TOTAL N1 to N7** | **78 (47 FTE)** | |
| **Qualified research supervisors (HDR) or similar positions** | 22 | |

| Unit record | From 01/01/2010 to 30/06/2015 |
|---|---|
| PhD theses defended | 26 |
| Postdoctoral scientists having spent at least 12 months in the unit | 10 |
| Number of Research Supervisor Qualifications (HDR) obtained during the period | 7 |

## 2 • Overall assessment of the unit

### Introduction

The unit is focused on a high priority research area, addressing unmet medical needs in pain. Indeed, it is important to improve the knowledge and pharmacology of pain. The unit has defined highly competitive projects and has evolved in its organization optimally, integrating new research lines and groups enhancing its innovative profile. The unit covers basic, clinical and pharmaco-epidemiology aspects in pain research. The unit has been present in almost all broad public supports dedicated to pain in the last years. Unit members have also achieved impressive fundraising. Star business start-up and recruitment of new researchers or post-docs have been very efficient. This unit can be considered as one of the most complete existing today in Europe with basic and clinical orientations on pain research.

### Global assessment of the unit

The unit has some features that make it unique, not only nationally but also at the international level, in the study of pain. Indeed, research is approached from both a neurobiological and pharmacological point of view, mainly at

the preclinical level but with a significant projection toward future clinical research. The level of scientific production is high, with publications in leading journals in the field. The unit also has a great capacity to obtain financial resources from local and national French organizations. The unit participates in many European research projects, in the frame of long-term collaborations with other European groups. Nevertheless, a major implication in European calls is desirable. The capacity to attract young research talents is high, with already some outstanding post-docs recruited. The unit is involved in emerging research lines, developed by excellent new researchers. Concerning knowledge transfer, the unit has created start-up companies exploiting the new knowledge gained from its research. Finally, the unit coordinates a large pre-doctoral training program, which ensures the continuity of qualified researchers in pain. The unit has an excellent relationship with the economic development in the region of Auvergne. The translational research profile of the unit is excellent.

### Strengths and opportunities in the context

The unit investigates pain, an area with many unmet needs. This is a great advantage for research fundraising. The unit has prestige in France but also in Europe for the quality of its research. The unit is located in a region that strongly supports research in pain medicine. The unit is attractive to young scientists from all around the world who wish to conduct research in pain. To conduct this research, the unit has acquired state-of-the-art scientific equipment, allowing the set-up of new technologies. Unit members are renown and participate actively in boards of agencies and institutions in the pain field. The unit developed excellent collaborations with groups in France, Europe and in the US, and has recently launched new lines of highly innovative research in pain (microbiota-pain; hyperacusis-pain), which increases its appeal. The unit has created networks and start-up companies that clearly will increase the scope of pain research in France.

### Weaknesses and threats in the context

The unit has only one full-time researcher engaged in research. Moreover, although translational basic-clinical studies have been started, the experience is still low. Some projects are highly challenging and innovative but still with little proof of concept. The participation in major European projects is low. There is still little connection of team 3 with the rest of the unit.

### Recommendations

The unit needs to prioritize its objectives due to the small full-time researchers critical mass. The committee recommends to reinforce the collaboration with local clinical pain investigators, to increase the unit's visibility by participating in major European research calls and to develop more effective international collaborations. It would be advisable to achieve better integration of the three groups that compose the unit.