

HCERES

High Council for the Evaluation of Research
and Higher Education

Research units

HCERES report on research unit:

Epidermis Differentiation and Rheumatoid
Autoimmunity

UDEAR

Under the supervision of
the following institutions
and research bodies:

Université Toulouse 3 - Paul Sabatier - UPS

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

Centre National de la Recherche Scientifique - CNRS

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In the name of HCERES,¹

Didier HOUSSIN, president

In the name of the experts committee,²

Daniel ABERDAM, 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	Différenciation Epidermique et Autoimmunité Rhumatoïde
Unit acronym:	UDEAR
Label requested:	UMR
Present no.:	UMR 5165 CNRS - U 1056 INSERM
Name of Director (2014-2015):	Mr Guy SERRE
Name of Project Leader (2016-2020):	Mr Guy SERRE

Expert committee members

Chair:	Mr Daniel ABERDAM, INSERM, Paris
Experts:	Mr Jean-Christophe BORIES, Institut universitaire d'hématologie, Paris (representative of the CoNRS) Ms Nathalie CHARNAUX, Laboratory of vascular translational science, Paris (representative of the CNU) Mr Dirk ELEWAUT, University of Ghent, Belgium Ms Agnès LEHUEN, Institut Cochin, Paris (representative of the INSERM CSS) Mr Daniel SCHORDERET, Université de Lausanne, Switzerland

Scientific delegate representing the HCERES:

Ms Sophie EZINE

Representative(s) of the unit's supervising institutions and bodies:

Ms Armelle BARELLI, délégation régionale INSERM MPL

Ms Christelle GUEGAN, délégation régionale INSERM MPL

Mr Bruno LUCAS, CNRS

Ms Virginie Mahdi, délégation régionale du CNRS

Ms Armelle REGNAULT, AVIESAN

Ms Anne ROCHAT, INSERM

Mr Alexis Valentin, Université Toulouse 3

Mr Philippe VALET (director of the Doctoral School 151 Biologie, Santé et Biotechnologies)

1 • Introduction

History and geographical location of the unit

UMR 5165 CNRS was created in 2003 and rewed in 2007 with the two major thematics of skin barrier and Rhumatoid autoimmunity, still present in the ongoing unit. In 2011, the unit has been created with a double labeling Inserm/CNRS with the same director as single research team (mono-équipe) (Inserm U1056/UMR 5165 CNRS). The present application is a renewal of this "mono-equipe" team under the two labels with the integration of an UPS team EA 4555 co-headed by an ophthalmologist and a geneticist.

The unit locates within a renovated CNRS building in the heart of the Biological Research square of the University-Hospital of Purpan. Close proximity to Core facility plateforms and clinical departments of the clinicians of the unit.

Management team

The laboratory has been headed by the same director since 1991. For the present renewal application, they suggest a deputy director (DR2 Inserm). Both have worked together for many years and this organization anticipates well the retirement of the director at the end of the 5 next years. The sharing spots between them and the rest of the unit is well described and defined.

HCERES nomenclature

SVE1 LS6

Unit workforce

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
N1: Permanent professors and similar positions	4 (1.2)	10 (2.8)
N2: Permanent researchers from Institutions and similar positions	4 (3.9)	4 (3.5)
N3: Other permanent staff (without research duties)	11 (10.15)	11 (10)
N4: Other professors (Emeritus Professor, on-contract Professor, etc.)		
N5: Other researchers from Institutions (Emeritus Research Director, Postdoctoral students, visitors, etc.)		
N6: Other contractual staff (without research duties)		
TOTAL N1 to N6	19 (15,25)	25 (16,3)

Unit workforce	Number as at 30/06/2014	Number as at 01/01/2016
Doctoral students	4	
Theses defended	10	
Postdoctoral students having spent at least 12 months in the unit	1	
Number of Research Supervisor Qualifications (HDR) taken	0	
Qualified research supervisors (with an HDR) or similar positions	4	10

2 • Overall assessment of the unit

Global assessment of the unit

The present application is a renewal of a “mono-équipe” unit with on-going projects that have been quite successful during the last 4 years. It mainly focused on identification and characterization of proteins involved in the late stages of keratinocyte terminal differentiation and related skin and joint pathologies (Rheumatoid arthritis, Atopic Dermatitis). Each of the three teams has published satisfyingly, raised financial supports (industries, national and European grants) and deposited patents (no information on licencing was provided).

The integration of a new team leaded by an ophtalmologist and a geneticist is a challenge, as it does not appear obvious that their reseach topics are synergical to these developed by UDEAR. But the visit committee felt that there is a strong will of UDEAR members to integrate the new team to the ongoing technologies for the development of scientific synergy, mainly on ephthelial differentiation (skin and cornea) and implant genetic strategies.

Strengths and opportunities in relation to the context

- Presence of 2 PU-PH specialized in dermatology with internationally recognized expertise in disease related to the scientific field of epidermal barrier and keratinocyte differentiation. Through their involvement in national and international networks, both are real added value in developing translational studies (from bedside to bench). The rheumatoid arthritis (RA) team has a longstanding and internationally recognized role in anti-citrullinated protein antibodies and their role in RA. A strength of the approach is the translational nature of the research proposal with patient centered work.

- Very good to excellent track record both for basic research and clinical research: best specialty journals in dermatology and rheumatology with members at first/last authors (J Invest Dermatol, Br J Dermatol, J Am Acad Dermatol, Ann Rheum Dis) and very good general scientific publications (J Cell Science, 2014).

- Excellent industrial valorisation and collaboration with industrial partners (Fabre, Chanel, Biomérieux, Novimmune) leading to numerous patents and major industrial contracts.

- Relevance of the proposed project in which collaborations with group 1 and group 2, as well as with geneticists and ophthalmologists (from the current EA 4555) will be largely developed and optimized. It is to note that there is scientific relevance in developing the same methodological approaches for studying both eye and skin epithelia pathological models, so there may be good research opportunities for cross-fertilization among different teams.

- Optimized easy access to technical facilities. Sharing in common technicians from UDEAR with the close CPTP unit is a pertinent local strategy.

- Strong and internationally recognized expertise in the scientific fields proposed in the 4 thematic groups acknowledged by involvement of UDEAR members in national, international (ANR) and international (E2BRN; COST "Skin barrier in Atopic disease") networks.

Weaknesses and threats related to the context

No recruitment of researchers in the last 5 years, neither from local promotion nor from external recruitment.

- The number of post-doctoral fellows is too low (one French in 5 years and no foreign scientists).
- The RA project, largely based on the design of a specific algorithm, could be a weakness if the computer programming expertise is not solved in-house.

Recommendations

- UDEAR should propose clear strategies for recruiting researchers in the next years.
- Even if UDEAR has demonstrated real competence in establishing industrial contracts, obtaining public funds would be of great interest in order to strengthen links with other units specialized in the UDEAR scientific topics. This should result in higher impact outcomes for the unit.