

HCERES

High Council for the Evaluation of Research
and Higher Education

Research units

HCERES report on research unit:

Host Pathogens Interactions

IHAP

Under the supervision of
the following institutions
and research bodies:

Institut National de la Recherche Agronomique - INRA

École Nationale Vétérinaire de Toulouse

HCERES

High Council for the Evaluation of Research
and Higher Education

Research units

In the name of HCERES,¹

Didier HOUSSIN, president

In the name of the experts committee,²

Olivier SPARAGANO, 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: | Host Pathogens Interactions |
| Unit acronym: | IHAP |
| Label requested: | UMR |
| Present no.: | 1225 |
| Name of Director (2014-2015): | Mr François SCHELCHER |
| Name of Project Leader (2016-2020): | Ms Christine CITTI |

Expert committee members

| | |
|----------|--|
| Chair: | Mr Olivier SPARAGANO, Coventry University, Coventry, UK |
| Experts: | Mr Hervé BOURHY, Institut Pasteur, Paris |
| | Mr Ronald MELKI, CNRS, Gif sur Yvette (representative of INRA CSS) |
| | Mr Henri-Jean BOULOUIS, ENVA, Maisons Alfort |

Scientific delegate representing the HCERES:

Mr Gabriele SORCI

Representatives of the unit's supervising institutions and bodies:

Mr Thierry PINEAU, INRA

Mr Alain MILON, ENVT

Mr Hervé REMIGNON (representative of the Doctoral School SEVAB - n° 458)

Mr Philippe VALET (representative of the Doctoral School BSB - n° 151)

1 • Introduction

History and geographical location of the unit

The Joint Research Unit (JRU) Host Pathogen Interactions is based in the ENVT in Toulouse. This Unit was created in 2003 based on the merge of two previous units.

Management team

During the previous evaluation period (2009-2014) the Director of this unit was Mr Francois SCHELCHER (PR1 ENVT), supported by Ms Christine CITTI (DR2 INRA) as his deputy Director.

HCERES nomenclature

SVE1_LS6 Immunologie, microbiologie, virologie, parasitologie

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 | 20 | 18 |
| N2: Permanent researchers from Institutions and similar positions | 7 | 8 |
| N3: Other permanent staff (without research duties) | 25 | 23 |
| N4: Other professors (Emeritus Professor, on-contract Professor, etc.) | 2 | 1 |
| N5: Other researchers (Emeritus Research Director, Postdoctoral students, visitors, etc.) | 1 | 3 |
| N6: Other contractual staff (without research duties) | 11 | 12 |
| TOTAL N1 to N6 | 66 | 65 |

| Unit workforce | Number as at 30/06/2014 | Number as at 01/01/2016 |
|---|-------------------------|-------------------------|
| Doctoral students | 12 | |
| Theses defended | 21 | |
| Postdoctoral students having spent at least 12 months in the unit | 1 | |
| Number of Research Supervisor Qualifications (HDR) taken | 2 | |
| Qualified research supervisors (with an HDR) or similar positions | 21 | 23 |

2 • Overall assessment of the unit

Global assessment of the unit

This excellent Unit has decided to focus on three research themes (Evolution, virulence and emergence of pathogens; Understanding the infectious process and the host response; Contribution to a better control of diseases). The panel was impressed about the volume and amount of research income awarded to the Unit showing national and international collaborations and publications.

The research activities, all together, appear to be of high qualities but the committee has noted disparate achievements between themes which should be compensated by good practice and cross-sub-unit training.

The unit has a good involvement within the PGR activities of the Doctoral Schools SEVAB (n° 458) and BSB (n° 151) but the number of students, in particular those from BSB, appears low with a reduced number of PhD vivas in the last two years.

The unit has a good involvement with a large number of MSc courses but the volume of teaching hours appears low for the size of the Unit. The Unit is heavily involved in ENVT teaching/training activities.

Members of the unit have good dissemination at conferences and on publications but not always as senior authors.

Strengths and opportunities in relation to the context

- Top Know how;
- research activities on prions are influencing national and European health standards;
- very strong integration within the socio-economic context and animal health issues at regional, national and European levels;
- integrated approaches of animal wellbeing;
- strong support from Funding Bodies;
- quality of publications;
- participation to many national and european research consortia;
- collaborative work with private/industrial companies.

Weaknesses and threats related to the context

- Original and recent matrix approach aiming at organising the research activities which does not translate into a clear managerial framework and specific scientific issues;
- bottleneck activities such as bioinformatics will need to be addressed to improve capabilities;
- tackling distinct, although related, highly competitive scientific issues without sharp focus and/or critical mass and/or know how;
- a low ratio PGR students (PhDs and M2 students)/staff full time employees;
- majority of researchers are not senior authors for outputs;
- contingency plans for staff replacement.

Recommendations

The unit should promote grant writing training workshops to support junior staff to win quickly research grants.

There should be an increasing involvement with doctoral training schools.

Thematic research activities should be better defined in terms of focus.

Researchers should have more involvement with grant evaluation panels, international prizes and responsibilities to develop the international dimension of the Unit.

The relocation in a new building should enhance cross fertilization among researchers to sustain thematic approaches and create shared facilities and human resources.

Such transversal approach should rely on existing strengths to build up on future developments and identify common and complementary needs and expertise, capacities and facilities gaps.

The unit should think and define thoroughly the needs in terms of large data set exploitation, identify what profile meets best with the needs of the Unit.

The unit should advertise and attract/recruit a group with expertise in bioinformatics, which research activities can i) benefit from research carried out within one or more of the three research axis of the unit, ii) bring expertise and assistance to exploit the genomic and proteomic data sets generated within the Unit.