FINAL RESUME ON THE RESEARCH UNIT:
Epidemiology of Animal and Zoonotic Diseases - EPIA

Under the supervision of the following institutions and research bodies:
Institut national de la recherche agronomique - Inra
VetAgro Sup

EVALUATION CAMPAIGN 2019-2020
GROUP A

Report published on April, 03 2020

High Council for evaluation of research and higher education
Under the decree No.2014-1365 dated 14 November 2014,

1 The president of Hcéres “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 experts committee”. (Article 11, paragraph 2).
Tables in this document were filled with data submitted by the supervising body on behalf the unit.

**UNIT PRESENTATION**

**Unit name:** Epidemiology of Animal and Zoonotic Diseases

**Unit acronym:** EPIA

**Current label and N°:** UMR 0346

**ID RNSR:** 201722610G

**Application type:** Renewal

**Head of the unit (2019-2020):** Mr Xavier Bailly

**Project leader (2021-2025):** Mr Xavier Bailly

**Number of teams and/or themes:** 3

**EXPERTS COMMITTEE MEMBERS**

**Chair:** Mr Simon Goodman, University of Leeds, United Kingdom

**Experts:**
- Ms Julie Aubert, Inra Paris (supporting personnel)
- Mr Matthew Baylis, University of Liverpool, United Kingdom
- Ms Christine Fourichon, ONIRIS Nantes (representative of Inra CSS)

**HCÉRES REPRESENTATIVE**

Ms Birke Bartosch

**REPRESENTATIVES OF SUPERVISING BODIES**

- Ms Sandrine Bec, VetAgro Sup
- Mr Christian Ducrot, INRA
- Mr Fabrice Laurent, INRA
- Ms Estelle Loukiadis, VetAgro Sup
- Ms Muriel Vayssier Taussat, INRA
INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The unit of Epidemiology of Animal and Zoonotic Diseases (UMR 0346 INRA-VAS, "EPIA") is a joint research unit affiliated to the French National Institute for Agricultural Research (INRA) and the Institute of Higher Education and Research in Food, Animal Health, Agricultural Sciences and Environment (VetAgro Sup). The unit has its origins in an “Ecopathology laboratory” established by INRA in Saint Genès Champanelle, near Clermont-Ferrand, in 1978. In 2017, a convention was signed by INRA and VetAgro Sup formalising a partnership to create a joint research unit. In November 2018 INRA’s platform for animal epidemiosurveillance (ESA) was assigned to the unit.

The unit is split on two sites 165 km apart, one at Saint-Genès-Champanelle, near Clermont-Ferrand (18 members including 16 permanent staff) and another one at Marcy l’Etoile in the VetAgro Sup veterinary campus near Lyon.

Management team

Xavier Bailly is the current director. Karine Chalvet-Monfray and Gwenaël Vourc’h act as deputy heads.

HCÉRES NOMENCLATURE

SVE6 : Epidémiologie ; SVE1 : Evolution ; SVE3 : Microbiologie

THEMATICS

The unit works to understand threats, impacts, and mitigation strategies for animal and zoonotic diseases. During the review period work was organised into three thematic areas: i) Detection of infectious diseases and associated risk factors, which aims at improving the surveillance of infectious disease, depicting spatio-temporal patterns and estimating risk factors; ii) Circulation and evolution of pathogens and their interactions with and within hosts, which aims at understanding the transmission of pathogens among hosts taking into account their natural biotic and abiotic environments; iii) Method development, which aims at developing new methods or customizing existing methods in statistics, mathematics, computing, and molecular biology, partly to answer the challenging questions addressed in the other themes. For the next five-year period these themes have been reframed as: Management of health issues and global change; Epidemiology, ecology, and evolution of animal and zoonotic pathogens; Epidemiosurveillance.

UNIT WORKFORCE

<table>
<thead>
<tr>
<th>Name of the unit : Epidemiology of Animal and Zoonotic diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active staff</strong></td>
</tr>
<tr>
<td>Full professors and similar positions</td>
</tr>
<tr>
<td>Assistant professors and similar positions</td>
</tr>
<tr>
<td>Full time research directors (Directeurs de recherche) and similar positions</td>
</tr>
<tr>
<td>Full time research associates (Chargés de recherche) and similar positions</td>
</tr>
<tr>
<td>Other scientists (“Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.”)</td>
</tr>
<tr>
<td>High school teachers</td>
</tr>
<tr>
<td>Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)</td>
</tr>
</tbody>
</table>
**GLOBAL ASSESSMENT OF THE UNIT**

EPIA is a small dynamic unit specializing in the epidemiology of animal disease, many of them zoonotic and/or vector-borne. The unit’s work makes an excellent contribution to the understanding and management of specific disease threats nationally. Over the assessment period the unit published a majority of papers in excellent discipline specific journals. The unit’s research budget was good, with 62% coming from sources external to institutional core funding. Grant funding was obtained from national government science funding sources, and from industrial partners.

Overall the unit has excellent interactions with the non-academic world, by providing advice based on their research activities to some policy stakeholders, end users of epidemiological data, industry and the general public at a national scale. This also includes outstanding public engagement through the media and outreach activities.

The unit delivers graduate student training to an excellent standard, and is very good in terms of the total number of students trained through the evaluation period. The unit is adopting new teaching modes through the development of MOOCs for veterinary professionals.

Overall the unit has excellent structures and procedures relating to its general management and assurance of work quality. It is outstanding for gender balance and collegiate environment.

The new five-year strategy is excellent in terms of the selected research focus, while the operating plan to achieve the strategy is currently good to very good. The strategy delivery can be strengthened by targeting specific detailed objectives to grow external funding and increase the number of leading roles in collaborative projects. There is an excellent appreciation of where the current weaknesses of the unit lie and which need to be addressed. Scientifically the strategy addresses consequential research questions from a One Health perspective, which align well with the funding opportunities that are likely to arise regionally, nationally and internationally during the next contract period. Progress towards achieving these aims is limited by lack of critical mass in the unit, and low level of external funding.

<table>
<thead>
<tr>
<th>Permanent staff</th>
<th>25</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-permanent professors and associate professors, including emeritus</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Non-permanent full time scientists, including emeritus, post-docs (except PhD students)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PhD Students</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Non-permanent supporting personnel</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Non-permanent staff</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>30</td>
</tr>
</tbody>
</table>
The evaluation reports of Hcères are available online: www.hceres.com

Evaluation of clusters of higher education and research institutions
Evaluation of higher education and research institutions
Evaluation of research
Evaluation of doctoral schools
Evaluation of programmes
International evaluation and accreditation