FINAL RESUME ON THE RESEARCH UNIT: Interdisciplinarity Medicine, Anthropobiology, Genomic, Environment and Evolutionary science (IMAGENE)

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:
Université Paul Sabatier (Toulouse 3) - UPS
Centre National de la Recherche Scientifique - CNRS

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EVALUATION CAMPAIGN 2019-2020
GROUP A

Report published on February, 26 2020
In the name of Hcéres¹:
Nelly Dupin, Acting President

In the name of the experts committee²:
Eugénia Cunha, Chairwoman of the committee

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).
Interdisciplinarity Medicine, Anthropobiology, Genomic, Environmental and Evolutionary science, IMAGENE, Paul Sabatier University, CNRS, Mr Ludovic ORLANDO

Tables in this document were filled with data submitted by the supervising body on behalf the unit.

UNIT PRESENTATION

Unit name: Interdisciplinarity Medicine, Anthropobiology, Genomic, Environmental and Evolutionary science
Unit acronym: IMAGENE
Current label and N°: UMR 5288
ID RNSR: 201119472X
Application type: Renewal
Head of the unit (2019-2020): Mr Éric CRUBÉZY
Project leader (2021-2025): Mr Ludovic ORLANDO
Number of teams: 3

EXPERTS COMMITTEE MEMBERS

Chair: Ms Eugénia CUNHA, University of Coimbra, Portugal
Experts: Ms Nicole BOIVIN, Max Planck Institute, Jena, Germany
Mr Bruno DUTAILLY, CNRS, Bordeaux (supporting personnel)
Mr Gregor MARCHAND, CNRS, Rennes (representative of CoNRS)
Mr Gérald QUATREHOMME, University of Nice and CHU of Nice (representative of CNU)
Mr Hugues ROEST CROLLIUS, CNRS and Ecole Normale Supérieure (ENS-Ulm), Paris

HCÉRES REPRESENTATIVE

Mr Christopher CARCAILLET

REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Ms Martine REGERT, CNRS
Mr Alexis VALENTIN, PAUL SABATIER University
INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

IMAGENE results from a restructuring of the AMIS laboratory, which was created in 2011. It is a joint laboratory between CNRS and the University of Toulouse 3 Paul Sabatier (UPS). In addition to CNRS and UPS people, the unit includes also research scientists from Inserm, scientific staff from the Natural History Museum of Toulouse, archaeologists from Inrap (a public administration dedicated to preventing archaeological research), and from the Ministry of Culture. The unit is chiefly located on an UPS campus situated downtown dedicated to medical sciences, the Purpan Medical School, and, the rest of the unit is at the Rangueil Hospital and the Dental School in Toulouse. The unit is well integrated within the local scientific organization of the Toulouse area. The AMIS unit was organized in three research teams, but one team left the unit in 2019. The unit’s structure was deeply revised following this scission, also with the relocation of a group in 2017 from the Copenhagen University to Toulouse, and finally the leaving of a professor, co-founder of the AMIS unit, who left to Paris as Director of the Forensic Institute. This new organization has led to a strong reduction in the researcher number. In 2020, the research unit IMAGENE will be reorganized with the remaining workforces around three main research teams all focussed on the evolution of the human lineage at different time scales.

MANAGEMENT TEAM

The head of the research unit AMIS is currently Eric CRUBÉZY, with three adjunct-heads: Catherine MOLLÈREAU-MANAUTÉ, Ludovic ORLANDO and Norbert TELMON.
From January 2020, before the end of the current contract, the structure of IMAGENE will be as follows: a direction committee headed by the Director Ludovic ORLANDO, with adjunct heads: José BRAGA, Norbert TELMON and Catherine THÈVES.

HCÉRES NOMENCLATURE

SVE1_2 Évolution, écologie, biologie des populations

THEMATICS

IMAGENE, formerly known as AMIS, will focus on the evolution of the human lineage at different time scales. The strategy is an integrative approach between medicine, odontology and anthropology. IMAGENE gathers experts in anthropological and evolutionary sciences as well as medical doctors, and has direct access to a number of fieldwork sites in paleontology and archaeology, and osteological collections. The unit aims to become a world leader in paleogenomics.

UNIT WORKFORCE

<table>
<thead>
<tr>
<th>AMIS/IMAGENE</th>
<th>Active staff</th>
<th>Number 06/30/2019</th>
<th>Number 01/01/2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full professors and similar positions</td>
<td>12</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Assistant professors and similar positions</td>
<td>10</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Full time research directors (Directeurs de recherche) and similar positions</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Full time research associates (Chargés de recherche) and similar positions</td>
<td>7</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Other scientists (“Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.”)</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>High school teachers</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)</td>
<td>9</td>
<td>9</td>
<td>5</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Permanent staff</th>
<th>43</th>
<th>29</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-permanent professors and associate professors, including emeritus</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Non-permanent full time scientists, including emeritus, post-docs (except PhD students)</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>PhD Students</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Non-permanent supporting personnel</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Non-permanent staff</strong></td>
<td><strong>31</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>74</strong></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

**GLOBAL ASSESSMENT OF THE UNIT**

Generally speaking, IMAGENE (formerly AMIS) is a very well recognized unit and the research subjects under development are, unequivocally, of high international level and appeal. The staff is highly international with members from Europe, Africa, Asia and North America. Overall, the interactions with the non-academic world are very well developed notably through public outreach and knowledge transfer. However, collaborations with private societies or foundations still remain to develop. The involvement in training through research is very good but heterogeneous, with PhD students developing generally high-quality theses. This supervising quality would be improved if the mean undertaken PhD durations were significantly shortened. The new facilities have clearly improved work conditions and contributed to a closer relationship between the new teams AGES and IDEA that resulted from the ancient AGES and IDEA teams, after some modifications in scientific perimeters and workforces. However, the new FOSSIL team, resulting from the former IDEA team that split in two, is less connected to the unit. Last, there is an imbalance in the distribution of the full-time scientists among the three new teams, clearly in favour of the scientifically dominant group: AGES. AGES is also dominant in terms of scientific outputs at the forefront of the discipline of paleogenetics developing blue-sky research lines and advances in evolutionary biology, and ability to obtain national and European funding. Despite efforts to find cross-cutting themes across the three teams, there is still a lot to be done in this respect. There are also significant concerns about governance and the unit’s working environment. From 2020, it is expected a better governance and support to researchers. Nevertheless, overall, the unit remains at a very high scientific level and the results achieved, in terms of publication and funded projects, as well as the unit’s capacity to attract students, place it in an internationally competitive position.
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