FINAL RESUME ON THE RESEARCH UNIT:
Laboratory of Molecular Genetics and Microbiology (LMGM)

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:
Centre national de la recherche scientifique - CNRS
Université Toulouse 3 - Paul Sabatier - UPS

EVALUATION CAMPAIGN 2019-2020
GROUP A

Report published on March, 10 2020
In the name of Hcéres¹:
Nelly Dupin, Acting President

In the name of the experts committee²:
Alain Filloux, Chairman 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).
Tables in this document were filled with data submitted by the supervising body on behalf the unit.

UNIT PRESENTATION

Unit name: Laboratory of Molecular Genetics and Microbiology
Unit acronym: LMGM
Current label and N°: UMR 5100
ID RNSR: 199911662K
Application type: Renewal
Head of the unit (2019-2020): Mr Patrice POLARD
Project leader (2021-2025): Mr Patrice POLARD
Number of teams and/or themes: 6

EXPERTS COMMITTEE MEMBERS

Chair: Mr Alain FIILOUX, Imperial College London, United Kingdom
Experts: Ms Sandrine CHABAS, Inserm Bordeaux (supporting personnel)
Ms Maryline FOGLINO, Aix Marseille Université (representative of CoNRS)
Mr Ivan MATIC, CNRS Paris
Mr Jacques OSERRO, Université Paris-Saclay
Ms Pascale ROMBY, CNRS Strasbourg
Mr Romé VOULHOUS, CNRS Marseille

HCÉRES REPRESENTATIVE

Mr Théophile OHLMANN

REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Mr Matthieu ARLAT, Université Toulouse 3
Mr Frédéric BOCCARD, CNRS
INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The LMGM “Laboratoire de Microbiologie et de Génétique Moléculaires”, which is a joint unit CNRS and University Paul Sabatier (UT3) exists since 1992 and is now one of the unit part of the newly created Center of Integrative Biology (CBI) since 2016. The CBI is on the University Paul Sabatier campus and is composed of an additional 4 UMRs. This will be changed for the next period, starting 2021, and the CBI will be made of 3 units in total including the LMGM. The LMGM is currently based in the IBCG building together with another unit (Laboratoire de Biologie Moléculaire Eukaryote, LBME) in a total surface of 5000m². A new building connected to the IBCG will be completed by 2020 (Plan Campus) and will then host all 3 CBI units in a 15,000 m² surface. The LMGM as a unit of the CBI is also part of a Fédération de Recherche de Biologie de Toulouse (FRBT) which includes another large unit at another site, the Institut de Pharmacologie et de Biologie Structurale (IPBS).

The integration of the LMGM in the CBI has resulted in a profound redistribution of logistics services, and as such administrative services, institutional communication, site management or technical facilities are shared collegially, while the units embedded in the CBI, and thus the LMGM, remain autonomous for projects, teams and day-to-day operations.

As part of the CBI, the director and deputy director of the LMGM (Microbiology) would be on the CBI direction board together with the other directors and deputy directors from the two other constituent units, “Molecular Cellular and Development Biology” as well as “Animal cognition”, which all together is a very broad but groundbreaking ensemble of integrative research in Biology. The CBI will have a Director and one of the LMGM members will be deputy director forming the executive committee together with a general administrator. The executive committee will be functionally linked with the CBI board which will be in turn linked with the corresponding management committee of each independent unit, including the LMGM. As said the CBI will also incorporate core facilities (imaging, bioinformatics, mouse, etc.) as well as administration services including store, media, international collaborations and contract management.

MANAGEMENT TEAM

DIRECTOR: Mr Patrice POLARD (CURRENT DIRECTOR)

DEPUTY DIRECTOR: MS CÉCILE ALBENNE (CONTRACT COMMENCING 2021)

HCÉRES NOMENCLATURE

SVE2_1; SVE3_1.

THEMATICS

All teams in the LMGM address timely questions in Molecular Microbiology. More particularly, the unit conducts research of essentially fundamental nature originally focusing on genome biology of bacterial and archaeal models. This has now expanded in a broader Integrative Microbiology program and themes like cell cycle, horizontal gene transfer, protein sorting or RNA biology have now a significant place in the overall activity of the unit. The approaches used are very multidisciplinary and key bioinformatic expertise is complementing experimental approaches.
UNIT WORKFORCE

<table>
<thead>
<tr>
<th>Name of the unit LMGM</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>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Assistant professors and similar positions</td>
<td>9</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Full time research directors (Directeurs de recherche) and similar positions</td>
<td>9</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Full time research associates (Chargés de recherche) and similar positions</td>
<td>10</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Other scientists (&quot;Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.&quot;)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>High school teachers</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)</td>
<td>14</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Permanent staff</td>
<td>44</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Non-permanent professors and associate professors, including emeritus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-permanent full time scientists, including emeritus, post-docs (except PhD students)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD Students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-permanent supporting personnel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-permanent staff</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>38</td>
<td></td>
</tr>
</tbody>
</table>

GLOBAL ASSESSMENT OF THE UNIT

The Laboratoire de Microbiologie et Génétique Moléculaire or LMGM has clearly gained a national visibility in Microbiology and many of its members have reached international status. The historical theme on DNA and chromosome has seen many of previous world-renowned senior scientists leave or retire, but the managerial dynamism of the current director, and the support of the deputy director, and their vision of the Microbiology as an integrated discipline offers guarantees that the newly developed projects are high quality and cutting edge. There is for example currently two junior teams which are promised to a bright future and which have brought new themes and methodologies. The unit has planned to recruit two new PIs, one of which already identified will conduct research along the microbiome axis which is timely. The design and conduct of new projects will also be helped by the ongoing incorporation of the LMGM within a larger research federation, the Centre of Biology Integrative (CBI) which offers mutualisation of a number of tasks, administrative or research, and notably access to state of the art platforms and equipment. This should help transversal and multidisciplinary projects to be effectively conducted on site. In this context, the CBI provided funds to initiate transversal collaborations, and several LMGM teams have benefit of this initiative. One of the LMGM team leader acts as the deputy director for the CBI which should help the communication between the two entities. The unit is also making a very good effort to federate the Microbiology in Toulouse, its region and beyond, which is very appropriate.

The reorganization of the teams within the unit has also been very significant and goes beyond the recruitment of new team leaders, and the redistribution of some of the researchers and technical staff. One notable change is the merging of two independent teams into a single one with two group leaders. This would actually work nicely,
looking at the proximity and complementarity of the projects, and would be an excellent move at the condition that emerging and synergic projects result from the fusion.

The size of the teams within the unit varies greatly but the distribution of technical support across them is appropriate. The size of the bioinformatics team might be too small to address large projects in a very fast moving and invaluable scientific area so that one would need to adequately position the team, its researchers and their projects in the context of the LMGM/CBI. It is also striking that only one PI is a woman and the gender balance should be addressed notably through the recruitment of new PIs and promoting the visibility of women scientists within the existing teams.

The overall quality of publications level is excellent and steady as compared to previous periods, while the level of funding is still significant despite the drop of institutional funding over the years. Many of the team leaders have had ANR grants and several are still active or about to start. For the strategic vision fitting with the current unit resources it is clear that the group leaders with excellent/outstanding track record should apply for additional major funding which is offered at the European level and notably the ERC.

The teaching implication of the unit is very impressive and covers multidisciplinary aspects through various master programmes, including bioinformatics. The intake of PhD candidates is very significant while their distribution between different teams could be better balanced.

Overall the unit and its life are very healthy and the managerial style of the director and the deputy director seems very well accepted and understood. On the long term the contours and the main research themes of the unit should be refined to guarantee visibility within the larger microbiology field and that should go through strategic recruitment and funding opportunities involving collaborations within the unit and the CBI.
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