FINAL RESUME ON THE RESEARCH UNIT:
Department of Immunology

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:
Institut Pasteur Paris
Institut National de la Santé et de la Recherche Médicale - INSERM

EVALUATION CAMPAIGN 2019-2020
GROUP A

Report published on March, 02 2020
In the name of Hcéres¹:
Nelly Dupin, Acting President

In the name of the experts committee²:
Christian Münz, 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).
UNIT PRESENTATION

Unit name: Department of Immunology

Unit acronym: UMR

Current label and N°: 200621930R

Application type: Renewal

Head of the unit (2019-2020): Mr Gerard Eberl (until 30/04/2019)/Mr Philippe Bousso (since 01/05/2019)

Project leader (2021-2025): Mr Philippe Bousso

Number of teams and/or themes: 13

EXPERTS COMMITTEE MEMBERS

Chair: Mr Christian Münz, University of Zürich, Switzerland

Experts: Mr Lionel APETOH, Inserm Est, Dijon (representative of Inserm CSS)
Ms Andrea COOPER, University of Leicester, UK
Mr Michael DUSTIN, University of Oxford, UK
Mr Matteo IANNACONE, University of Milan, Italy
Mr Sanjiv LUTHER, University of Lausanne, Switzerland
Mr Niclas SETTERBLAD, Sorbonne Paris Cité (supporting personnel)
Mr Ludvig Magne SOLID, University of Oslo, Norway
Mr Marc VELDOHEN, Universidade de Lisboa, Portugal
Ms Gillian GRIFFITHS, University of Cambridge, UK (Institut Pasteur)

HCÉRES REPRESENTATIVE

Ms Birke BARTOSCH

REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Mr Alain ISRAEL, Institut Pasteur
Ms Evelyne JOUVIN-MARCHE, Inserm
Mr Patrick TRIEU-CUOT, Institut Pasteur
INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The Department of Immunology at Pasteur follows the long tradition initiated by the recruitment of Dr. Élie METSCHINKOFF by Louis Pasteur. The Department is located in the center of Paris and has attractive and modern labs in the Metchnikoff, Lwoff and Francois Jacob buildings. The Department is composed of thirteen research units and one associated technical platform and is headed by Dr. Philippe Bouso since 2019. Dr. Bouso will also be the head of the department for the next period. Within the Department the scientists share the common interest in exploring the fundamental processes of immunity. During the last five years, the department recruited one new team leader.

MANAGEMENT TEAM

Head: Dr. Philippe Bouso
Deputy Head: Dr. Caroline Demangel

HCÉRES NOMENCLATURE

SVE3.

THEMATICS

Research in the Department of Immunology of the Pasteur Institute in Paris is organized in 13 independent research units/teams, each with their own expertise and scientific interests. However, the department has a strong focus on lymphocytes, their signalling and ontogenesis. This involves B cell immunobiology (E3 and E9), T cell signalling, movement in tissues, development and differentiation (E1, E2, E4 and E13), innate lymphoid cells (E7 and E8) and lymphoid malignancies (E6). With respect to myeloid cell immunobiology expertise on dendritic cells (E12), myeloid cells as targets of mycobacterial infections (E5) and neutrophils (E3) exists in the department. Finally, the E11 and E10 groups study type I interferon responses and stromal cell immunobiology, respectively. All teams aim to provide new insights into disease pathogenesis, inspire novel vaccines and support the design of unique therapeutic strategies.

UNIT WORKFORCE

<table>
<thead>
<tr>
<th>Department of Immunology</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>
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<td></td>
</tr>
<tr>
<td>Assistant professors and similar positions</td>
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<td></td>
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<tr>
<td>Full time research directors (Directeurs de recherche) and similar positions</td>
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<td>18</td>
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<tr>
<td>Full time research associates (Chargés de recherche) and similar positions</td>
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<tr>
<td>Other scientists (“Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.”)</td>
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</tr>
<tr>
<td>High school teachers</td>
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<td></td>
</tr>
<tr>
<td>Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)</td>
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<td></td>
</tr>
<tr>
<td>Permanent staff</td>
<td>64</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Non-permanent professors and associate professors, including emeritus</td>
<td>2</td>
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</table>
GLOBAL ASSESSMENT OF THE UNIT

The Department of Immunology at the Pasteur Institute in Paris, France, consists of thirteen research groups. Despite its 10% reduction in size the scientific output in the last five years was excellent and even increased compared to the previous five-year period. Furthermore, the acquisition of research funding was outstanding with seven ERC grants. Four of the research teams are deemed outstanding, one excellent to outstanding due to the heterogeneity of the research programs that are combined in it, and eight excellent. The department has a strong research focus on lymphocyte development, activation and function, and contains leaders in these respective fields. The immunology department engaged also in excellent activities for the training of PhD and Master students. Along these lines Fundamental and Advanced Immunology Courses have been organized by members of several teams as well as the core facility CB UTechS. Furthermore, two European Marie-Curie training networks have been coordinated by the one team leader. Nearly all teams of the immunology department have also trained both Master and PhD students in their laboratories with excellent publication output for the PhD students, as outlined for the individual teams below. The life and organization of the immunology department is considered outstanding and has also been perceived as such by the PhD students and post-doctoral fellows. It includes seminars by external and internal speakers, as well as work-in-progress seminars. The team leaders also exchange their project ideas in chalk talks, while the team members discuss theirs in poster lunches. Department retreats and social events complement the interactions between the department members. The list of scientific interactions is more extensive than for most internationally comparable immunology departments.

These achievements are however threatened by a further reduction of the department size by 24% in the next five years through the retirement of the heads of two teams in 2022 and the discontinuation of another one in 2020. Furthermore, permanent staff retention and new staff acquisition seems to be challenging for most research groups, further reducing the department size.

In addition to these challenges to maintaining a critical mass for competitive research in immunology, the research programs seem to be further challenged by shortcomings in the bioinformatics support, increased core facility costs, including animal husbandry, and lack of infrastructure and technical personal to ensure continuity in clinical research programs.

The department is world class as to fundamental immunology performed in animal models. However, when it comes to human and translational immunology, there are departments elsewhere in the world which are comparatively stronger.

In order to address these challenges of the near future (2020 to 2022) dedicated searches for immunology in the G5 recruitment mechanism, encouragement of independent group leaders within research teams to apply for the US mechanism, continuation and expansion of interinstitutional research programs in human immunology like the Milieu Interieur Consortium and increased institutional support for core facility services should be considered.

| Non-permanent full time scientists, including emeritus, post-docs (except PhD students) | 31 |
| PhD Students | 35 |
| Non-permanent supporting personnel | 7 |
| Non-permanent staff | 75 |
| Total | 140 64 |
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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