agence d'évaluation de la recherche
et de l'enseignement supérieur

Section des Unités de recherche

Report from the visiting committee

Research unit : Institut de Génétique et de Biologie Moléculaire et Cellulaire (IGBMC)

UMR 7104 – UMR_S 596

University Strasbourg 1

February 2008

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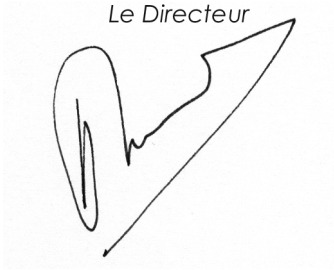
Section des unités de recherche

Le Directeur



Jean-Jacques Aubert

february 2008

Report from the visiting committee

The research unit :

Name of the research unit : Institut de Génétique et de Biologie Moléculaire et Cellulaire (IGBMC)

Requested label : UMR and UMR_S

N° in case of renewal : UMR 7104 and UMR_S 596

Head of the research unit : Mr Dino MORAS, Mr Jean-Louis MANDEL

University or school :

University Strasbourg 1

Other institutions and research organization:

CNRS, INSERM

Date(s) of the visit :

February 5 -7, 2008

Members of the visiting committee

Chairman of the commitee :

M. Giuseppe BALDACCI, Paris

Other committee members :

Mrs Geneviève ALMOUZNI, Paris

Mr Pico CARONI, Basel, Suisse

Mr Patrick LEMAIRE, Marseille

Mr Achim LEUTZ, Berlin, Germany

Mr Patrick MEHLEN, Lyon

Mr Malcom PARKER, London, UK

Mr Henk STUNNENBERG, Nijmegen, The Netherlands

Mr Dale WIGLEY, London, UK

Mr Nicolas Levy, Marseille

Mr Henry Neel, Montpellier

CNU, CoNRS, CSS INSERM, représentant INRA, INRIA, IRD.....) representatives :

Mr Thierry GRANGE, Paris, représentant du CoNRS (section 22)

Mr Patrick CHARNAY, Paris, représentant des CSS de l'INSERM

Mr Gilbert DELEAGE, Lyon, représentant du CNU

Observers

AERES scientific representative:

Mr Philippe Bouvet

University or school representative:

M. Jean Luc Souciet, University representative

Research organization representative (s) :

Mme Martine DEFAIS, CNRS representative

Mme Chantal LASSERRE, INSERM representative

Report from the visiting committee

1 • Short presentation of the research unit

- Numbers of researchers with teaching duties : 22
- Number of full time researchers : 70
- Number of Ph.D. students : 127, all funded
- Number of post-doctoral fellows : 108
- Number of ingeneers, technicians and administrative assistants (253 including 115 on contracts
- Numbers of PhD students who have obtained their PhD since January 2004 : 144
- Average lenght of a PhD during the past 4 years : 4 years
- Numbers of lab members with an HDR : 50
- Numbers of lab members who have been granted a PEDR : 8
- Numbers of “publishing” lab members : 76 out of 92 (EC, E)

2 • Preparation and execution of the visit

The overall organisation of the visit was satisfactory. However, the criteria of the evaluation should have been available to the Committee at least three weeks before the visit.

The whole committee listened at the general presentation by the director and at the presentations of departments by their respective heads. All the members were present during presentations and discussions with PhD students and post-docs, with staff scientists and with technical staff.

Three separate groups of experts took charge of presentations by individual research teams and some technological platforms.

Since it was not foreseen, in the course of the visit the Committee requested the presence of all group members during the presentations by group leaders. Also, presentation time should have been strictly limited to 20 minutes. Thus, since the scientific achievements over the last 4 –5 years are described in condensed form in the written report, only the most recent results and future plans should have been be discussed during the presentations.

In addition, as a general recommendation for the future, we think that individual laboratory visits should be organized and that the researchers should provide a limited number of posters and discuss their projects with the reviewers of the evaluation panel. Actually, it is important for reviewers to meet leading post-docs and graduate students in order to appreciate scientific potential of the groups.

As far as the document is concerned, we found it satisfactory although reports by some groups were missing or difficult to find. As a general recommendation, we think that previous evaluation reports on the groups should be provided before the evaluation and that the overall structure and funding of groups should be indicated clearly and homogeneously (e.g. Institutional funding, contracts, tenured positions, post-docs, graduate students, technicians and other supports, lab space etc.).

3 • Overall appreciation of the activity of the research unit, of its links with local, national and international partners

The IGBMC is a large research structure: 3 buildings, 92 tenured researchers, 108 post docs, 127 PhD students and 253 technical staff, 96 working in the research teams, 54 in the common services, 32 on the platforms and 71 are administrative staff.

The IGBMC is very well known internationally for its scientific achievements. This institute has been a world-leading centre in molecular biology during the last decades. It is characterized by the presence of many technological platforms providing high quality services to groups inside and outside the IGBMC. The administrative organisation is quite complex. This seems due to the size of the Institute and to its previous funding by a big pharmaceutical company. The existence of a GIE (Groupement d'Intérêt Economique) constituted by the CNRS, the INSERM and the Université Louis Pasteur, allows flexible economic management of the IGBMC.

In the last four years eight groups have left the IGBMC, six have been recruited and three staff scientist have been promoted to group leader. Recruitments of the future director and of additional groups are pending in 2008.

The record of total publications by IGBMC groups in international journals is of paramount visibility. However, there is some heterogeneity among different teams that will be pointed in more details in the reports on individual groups.

OUTLINE OF TECHNICAL AND ADMINISTRATIVE ACTIVITIES

At the IGBMC the vast majority of the groups have technical help at the bench and also profit of many states of state-of-the-art core facilities and dedicated technological platforms allowing them to obtain fast and high quality reagents and results.

- **Animal house facility** :

24 people. The work consists in animal care, breeding, experimentation, mice import-export, cryo-preservation and re-derivation. There are 30000 mice representing 365 different lines at IGBMC. About 130 rabbits are injected every year with different antigens for producing polyclonal antibodies.

- **Production of monoclonal and polyclonal antibodies** :

5 people. They develop the best strategy to design appropriate and useful antibodies. Recombinant proteins or polypeptide coupled to ovalbumin for immunization of mouse, rabbit or rat. Monoclonal antibody: 40 different antigens per year with 2-3 mAbs per antigen. Polyclonal antibodies: production of about 200 antisera per year, approximately 90% of them are positive with very high titer.

- **Baculovirus facility** :

2 people. Cell growth, virus amplification and protein production: 2 bioreactors (1 and 5 litres) a warm room (27°C) where are the spinner culture vessels. The researcher provides DNA constructs, then the service does generation, identification and evaluation of baculovirus recombinants, and expression optimization

- **Cell culture facility :**

7 people. All media (classical and special) are prepared in the lab (5000/year). The charge consists in maintenance of cell lines, thawing and subculturing cell lines ordered by researchers or freezing new cell lines. Management of all frozen cell lines. Large scale preparation of HeLa cells. Optimisation of culture conditions.

- **Genetic engineering facility :**

2 people. They develop the technologies of general importance for IGBMC (development of inducible RNAi vectors, inducible Cre dependant expression vectors. Generation of BIF vectors (2 half YFP constructed compatible with the gateway system). 112 recombinant constructions were successfully generated in the service.