



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 Biologie

Moléculaire et Cellulaire (Fédération de Recherche)

University of Strasbourg 1



April 2008



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Section des unités
de recherche

Le Directeur

Jean-Jacques Aubert

april 2008



Report from the visiting committee

The research unit :

Name of the research unit : Institut de Biologie Moléculaire et Cellulaire

Requested label : FRC CNRS

N° in case of renewal : FRC1589

Head of the research unit : Eric Westhof

University or school :

University Strasbourg 1

Other institutions and research organization:

CNRS

Date(s) of the visit :

February 21, 2008



Members of the visiting committee

Chairman of the committee :

Mr Bertrand Séraphin, Gif sur Yvette

Other committee members :

Mr Frédéric Allain , Zurich, Switzerland

Mrs Renée Schroeder, Vienna, Austria

Mr Roland K. Hartmann, Marburg, Germany

Mr Walter Keller, Basel, Switzerland

Mr Felix Rey, Paris

Mrs Genevieve Ball, Marseille

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

Mr Gilbert Deleage, Lyon, CoNRS and CNU, representative

Observers



AERES scientific representative:

Mr Philippe Bouvet

University or school representative:

Mr Mir Wais Hosseini University, Université Strasbourg 1

Research organization representative (s) :

Mr Thierry Meinel, DSA CNRS

Report from the visiting committee



1 • Preparation and execution of the visit

The schedule of the visit was prepared through emails and phone call exchanges between the FRC Director, the AERES representative and the Evaluation Committee chairman, taking into account directives transmitted by the AERES. An important point was that the visit had to be coordinated with evaluation of the CNRS unit UPR9002 (whose director is the same as the FRC1589 director) that was conducted by the same committee on the preceding days. Unfortunately, for technical reasons, the FRC1589 evaluation could not be coordinated with the evaluation of the two other of its constituting units, namely CNRS UPR9021 and CNRS UPR9022. This should be organized in advance for the next evaluations. To palliate this problem, the committees involved in evaluation of CNRS units UPR9021 and CNRS UPR9022 sent an email with relevant information to the chairman of the FRC1589 evaluation committee. This, however, unduly delayed the report preparation.

Practically, the visit started at 13h30 on Thursday February 21, 2008, and ended at 17h00 on the same day. The visit consisted exclusively of oral presentations. It is noteworthy, however, that the FR1584-employed ITAs had a meeting with the ITA representative of the evaluation committee, Mme Geneviève Ball, on Wednesday February 20, 2008, from 10h45 to 12h00. A brief overview of the visit schedule is given below. Overall, the visit took place in very good conditions, thanks to the efficient local organisation under the supervision of the FRC director.

- 13h30-14h00 : General presentation by the FRC director
- 14h00-15h00 : Presentation by the three directors of the CNRS units (20 min each)
- 15h00-16h00 : Presentation by heads of the platforms
- 16h00 :17h00 : Closed committee meeting
- 17h : Committee departure

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

The CNRS unit FRC1589 cannot be considered as a pure research unit. However, research is performed in its three constituting CNRS UPRs, and the FRC1589 supports this research by providing common services to the units. This includes managing the (aging) building where the three units are located and supervising the common services (proteomic service, computer platform, animal house, library (now obsolete), central store (now closed), cleaning, gardening...).

Overall, the management of these common services and tools seems to generate only minor problems, and important decisions (such as the closing of the library or the common store) have been taken after due consideration. Beside building management, three main services (proteomic service, computer platform, animal house) have an impact on the research programs of the FRC-constituting units. Those are described below in detail. It is clear that

these services have strong links with one or more of the three UPRs of the FRC (often all three of them, albeit to different extent). These services have more limited links with other local institutions or at the national and international levels. However, this feature is disparate and difficult to evaluate (e.g., the computer platform may be most "transparent" for internet users abroad, but it is clearly essential for the international visibility of the FRC). In summary, the committee found that the organization and management of the FRC provided true support to the three



units forming the “Institut de Biologie Moléculaire et Cellulaire”, thus contributing to the recognition of this institute as an international leader in several areas (see evaluation of the corresponding CNRS units).

3 • Specific appreciation team by team and/or project by project

Given that these teams are not involved directly in research, but are rather providing support service to research, no grades were given.

- **Proteomic platform :**

The proteomic platform provides support in two distinct areas : (a) two-dimensional fractionation of proteins by electrophoresis and (b) protein identification and characterization by mass spectrometry. In addition to the FRC1589, this activity is organized in common with other units located on the same campus, namely the CNRS UPR2357 and UMR7156. This platform appears to provide service of very good quality. It has consequently a strong local impact (75% of its activity is performed for the FRC1589, UPR2357 or UMR7156). However, these activities also provide support to other local laboratories of the public and private sectors as well as to units outside Strasbourg (Pasteur Paris, Venezuela,...). In the latter case, this occurs through well established collaborations supported by the international relation department of the CNRS (DREI). Overall, the committee was impressed by the high number of analyses performed and the quality of the results. The committee strongly supports maintaining and improving the action of this platform.

- **Computing platform :**

The computing platform provides core computing services to the “Institut de Biologie Moléculaire et Cellulaire”. Its activities are essentially local but support many actions of the FRC constituting units including its high visibility at the international level and its contribution to several international entities (e.g., the RNA Society). This service is crucial (but costly). In a dynamic area, the computing platform should clearly be maintained and upgraded to maintain its activities at the best achievable level.

- **Animal experimentation platform :**

The animal experimentation platform provides support to the FRC1589, but also to the CNRS UPR2357 and UMR7156 situated on the same campus. This platform is located in a building just outside the main building of the “Institut de Biologie Moléculaire et Cellulaire”. This platform houses three types of animals: Rabbits (mainly used for antibody production by all associated CNRS units); Mice that are exclusively used by researchers at the FRC1589 for various projects (autoimmune diseases (UPR9021), selenoprotein synthesis (UPR9002), mosquito feeding (UPR9022)); Mosquitoes used in particular to propagate the malaria pathogen. The services provided by this platform appear to be of good quality. They have essentially a local impact but contribute to the high-standard research projects developed at the FRC1589. They are essential for the activity of UPR9021 and UPR9022 and some teams at UPR9002. The evaluating committee had only limited competence to assess the proposal to remodel the animal experimentation platform, especially to increase its capacity and to provide space for the handling and analysis of insects involved in the transmission of human diseases (malaria, chikungunya, ...) in an environment that meets the necessary biosafety conditions. Thus, the assessment relies on the observation transmitted by the committee that had evaluated specifically this project during the visit of CNRS unit UPR9022, concluding: « The UPR9022 has been developing for several years a research project to elucidate the ability of the mosquito *Anopheles* to serve as a diseases vector. The follow-up of this research program with strong implication for human health requires, in the near future, the building of an « insectarium » for the handling of pathogens such as *Plasmodium falciparum*. » The UPR9022 evaluation committee supported without reserve such a proposal that is of national importance, suggesting this building to become a platform of the « IBISA » type or a « European technological core » that could be integrated with other infrastructures having similar goals, such as the one located at the Pasteur Institute or the one planned to be built in Montpellier. The new building, of an estimated cost of 4 millions €, could be constructed near the IBMC and the UPR9022. From what was presented, the committee evaluating the FRC1589 agrees with the conclusion of the committee that evaluated the CNRS UPR9022 unit and thus strongly supports the project to build a new animal experimentation platform.



4 • Appreciation of resources and of the life of the research unit

Overall, the FRC appeared well organized with good sharing of resources and well-defined strategic plans. Its activity contributes to provide a stimulating atmosphere for the development of scientific projects in the three constituting UPR units. The committee recommends maintaining and improving this situation.

5 • Recommendations and advice

- **Strong points :**

Well-managed services that truly support the FRC-constituting units.

- **Weak points :**

Limited resources require economic focusing of FRC activities.

- **Recommendations :**

The FRC1589/UPR9022 evaluation committee strongly supports the projects submitted by the FRC, in particular the proposal to build a new animal house with specific capacities for handling insects (including pathogens).