



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

Section des Unités de recherche

AERES Report on
the Research Federation:

Necker

Under the supervision of
the following institutions
and research bodies:

Institut national de la santé et de la recherche
médicale

Centre national de la recherche scientifique

Université Paris Descartes

Assistance Publique-Hôpitaux de Paris





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

Research Units Department

President of AERES

Didier Houssin

Research Units Department

Department Head

Pierre Glaudes



Federation

Federation name: Necker
Label requested: SFR
Present no. : IFR 94
Name of Project Leader : Ms Claude-Agnès REYNAUD

Expert committee members

Experts:
Mr Marc BONEVILLE, Inserm, Nantes
Mr Michel COGNE, Université de Limoges

Scientific delegate representing the AERES:
Mr David DOMBROWICZ



Report

1 • Introduction:

• *Progress of the evaluation:*

Because the 2 main buildings that will be the core of SFR Necker are currently under construction (IMAGINE) or being under complete refurbishing (INEM), no site visit was organized. A remote evaluation was performed by the 2 presidents of the AERES evaluation committee for the IMAGINE (A. Fischer) and INEM (X. Nassif) structures on the basis of the report provided for the SFR and on the basis of the general presentations made by A. Fischer and X. Nassif about their respective structures.

• *Historical aspects of the Federation, geographical location of researchers and brief description of its field of activity:*

The Necker site gathers within its two geographical areas, the Necker-Enfants Malades hospital and the Necker-Paris Descartes Medical School, over 250 scientists, 245 engineers, technicians and administrative staff, 150 students and 85 post-docs within 16 Inserm, CNRS and Paris Descartes University research units, together with 9 clinical poles and two Centres d'Investigations Cliniques.

The IFR Necker-Enfants Malades (IRNEM) has two main tasks: a scientific role, in the coordination of scientific policies to foster exchanges between these different research units and organize the local scientific animation and diffusion of information; and a second role in setting up, coordinating and organizing technological platforms opened to all Necker users.

Scientific themes developed at Necker are grouped around five main axes, having all a strong link with clinical activities present within the hospital: genetics, immunology, infectiology, hematology and physiopathology of cell growth and signaling. Accordingly, core facilities have been developed and upgraded to meet the needs of the users: a large animal facility, core facilities for flow cytometry, cell imaging, and, more recently, genomics and bioinformatics that represent a major stake for genetic studies, but also for small animal imaging, proteomics and gene transfer with viral vectors, and a DNA biobank.

• *Management team:*

The SFR is managed by a Director, who is responsible for the general direction of the IFR/SFR and is its official representative. He/she is president of the Executive Committee (13 members from the constituent units as well as from the IMAGINE foundation and hospital) and of the Committee of Directors, made of the Director and deputy-Director, and of the directors of all constituent research teams (or their representatives). The deputy-Director in charge of the strategy and scientific policy assists the Director in directing the IFR/SFR. The Director can delegate responsibility to him/her for certain tasks. The deputy-Director in charge of scientific and administrative coordination is a full-time, permanent staff member. He/she is in charge of the operational management of the IFR/SFR, in particular the development and management of platforms. He/she is also responsible for the management of the staff of the core facilities, the scientific animation and communication, the various financial operations necessary to develop the platforms and to foster scientific collaborations at the local (Necker campus), regional (University Paris-Descartes, Région Ile de France) or national (Inserm, CNRS, national networks) levels.

• *Own staff of the Research Federation:*

The current staff is composed of 35 technical personnel (ITA) from Paris Descartes University (12), CNRS (1) Inserm (20) and others (2) as well as a researcher from CNRS.



2 • Assessment of the federative structure

- *Overall opinion:*

This is a very strong project, with the aim to assemble, reinforce and coordinate in new settings all the various state-of-the-art core facilities that have been previously built and run under difficult conditions in Necker. Indeed, the 16 INSERM, CNRS and University research teams (i.e. 680 scientists, clinicians, engineers, technicians, administrative personnel, post-docs and students), were all housed on the Necker Campus but were spread over several old buildings and highly constrained laboratory space and means to run common core facilities.

- *Strengths and opportunities:*

The mean scientific level of all the constitutive teams is very high. They share several scientific aims in the fields of immunology, infections, nephrology, genetics and developmental disorders...

They have multiple and fruitful collaborations.

Despite the lack of adequate laboratory space, the previous federative Institute IFR Necker-Enfants Malades (IRNEM) has been successful in setting up state-of-the-art technologies, acquiring, sharing and upgrading some equipments and recruiting dedicated staff. They were also very successful recently in raising funds (notably with the Imagine Foundation, granted as an "IHU" during the 2011 call of Investissements d'Avenir).

Current core facilities include: a 4000-cage rodent animal facility, facilities for cytometry, cell imaging, genomics, bioinformatics, proteomics, viral vector and gene transfer, DNA biobank, library, iconography, quantitative PCR, X-ray irradiator.

The new Imagine building will open in 2013. The other new Necker research institute, INEM (the Institut Necker-Enfants Malades), will be hosted in the renovated and re-furbished Faculty of Medicine building in 2015.

- *Weaknesses and threats:*

The situation with lab space will still be difficult for the next two years.

Many technicians and engineers working in core facilities are non-permanent staff and will need solutions in order for them to run core facilities on the long term.

- *Recommendations:*

Keep on applying to national calls for buying and/or upgrading equipments. Both the SFR as a whole and the participating teams deserve to be strongly supported. Secure the human resources of the Institute and their exceptional know-how via the creation of permanent positions for technicians and engineers in charge of common facilities.



3 • Detailed assessments:

- *Scientific activity generated by the synergistic action of the research federation:*

A huge cumulated scientific production of IMAGINE and INEM teams (4950 publications), with multiple publications in the highest-ranking scientific journals (Nature, Science, Nature Medicine, New Engl. J. Med, Immunity, J. Exp. Med, Hum. Mutations, Blood, Proc. Natl Acad Sci. USA, EMBO J, etc.

- *Reality and quality of scientific animation:*

Regular seminars were organized despite very difficult conditions recently encountered. Lab retreats were regularly organized. The new settings will obviously strongly facilitate scientific animation in the future.

- *Relevance and quality of common technical services:*

Core facilities have recently been upgraded at a very high level, in full adequation with the needs of the teams.

- *Reality and extent of the pooling of resources units:*

IFR IRNEM has demonstrated, at least since 2007, that the teams in the Necker campus were willing and able to pool funding and human resources in order to run efficiently up to date core facilities.

- Valorization of research results:

Excellent. Patents have been filed ; a start-up company has been launched.

- *Relevance of the strategic scientific project, complementarity / integration with respect to other federal structures locally present on this site:*

The strategy of the SFR seems totally adapted to the scientific projects of the teams.

Institut Fédératif de Recherche
Necker-Enfants Malades
Directeur : Gérard FRIEDLANDER
Directeur Adjoint : Alain FISCHER
Administration-gestion : Stéphanie MASSARE



Monsieur le Président
Université Paris Descartes
12, rue de l'école de médecine
75270 Paris cedex 06

Paris le 4 juin 2013

Monsieur le Président,

Nous avons bien reçu le rapport de l'AERES concernant l'évaluation de la SFR Necker et vous en remercions. Une seule correction nous semble nécessaire.

La SFR Necker qui succèdera à l'actuel IFR 94 compte quatre tutelles et non pas trois. Nous proposons donc d'ajouter à la 1^{er} page du rapport **l'Assistance Publique-Hôpitaux de Paris** comme partenaire de la SFR au même titre que le CNRS, l'Inserm et l'Université Paris Descartes.

Je vous prie d'agréer, Monsieur le Président, l'expression de nos sentiments les meilleurs.

A handwritten signature in black ink, consisting of a large, stylized 'G' followed by a series of loops and a long horizontal stroke.

Gérard Friedlander

A handwritten signature in black ink, featuring a large, circular initial 'C' followed by several loops and a long horizontal stroke.

Claude-Agnès Reynaud

IRNEM – IFR 94, 96 rue Didot - CS61431 - 75993 Paris Cx 14
Pavillon Leriche - Porte 9 – 4^{ème} étage, bureau 402
Tél. : 01.72.60.63.27 – Fax : 01. 72.60.63.30
stephanie.massare@inserm.fr