Génétique et clinique des proliférations lymphoïdes

Rapport Hcéres

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

Section des Unités de recherche

AERES report on the research unit

Génétique et clinique des proliférations lymphoïdes

From the

University of Rouen

November 2010

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Le Président de l'AERES

Didier Houssin

Section des unités de recherche

Le Directeur

Pierre Glorieux

November 2010

Research Unit

Name of the research unit : Génétique et clinique des prolifération lymphoïdes

Requested label : UMR_S INSERM

N° in the case of renewal : U918

Name of the director : Mr Fabrice JARDIN

Members of the review committee

Committee chairman

Mr Eric DELABESSE, University Paul Sabatier, Toulouse, France

Other committee members

Mr Jose A MARTINEZ-CLIMENT, University of Navarra, Pamplona, Spain

Mr Mauro DELORENZI, Swiss Institute of Bioinformatics, Lausanne, Switzerland

Mr Serge ROMANA, University René-Descartes, Paris, France

Ms Florence NGUYEN-KHAC, University Denis-Diderot, Paris, au titre du CNU

Ms Valérie GOUILLEUX-GRUART, Université François Rabelais, Tours, au titre des CSS de l'INSERM

Observers

AERES scientific advisor

Mr Jean ROSENBAUM

University, School and Research Organization representatives

Mr Cafer OSKUL, Université de Rouen

Mr Pierre VERA, Centre Henri Becquerel

Mr Pierre FREGER, Université de Rouen

Ms Christine TUFFEREAU, INSERM

Report

1 • Introduction

- Date and execution of the visit

The visit took place in Rouen on November 25, 2010 in the comprehensive cancer center building, Centre Henri Becquerel. The site visit began at 8:45 am with a meeting of the committee with the AERES representative.

At 9h15 am, the group leader first briefly introduced the general strategy of the lab. This was followed by 3 short presentations by several scientists from the team until 11h15 am. The committee then split into 3 subgroups in order to meet separately the PhD students, the technicians, and the scientists. The committee then met University, INSERM and other local representatives during 30 minutes. At 1:30 pm, the committee met for debriefing and drafting the report. The visit ended at 3:30 pm.

- History and geographical localization of the research unit, and brief presentation of its field and scientific activities

The INSERM unit U918 has been created in 2008 and directed by Hervé Tilly. The unit is located in the medical area of Rouen, inside the Centre de Lutte contre le Cancer of Rouen (centre Henri-Becquerel), next to the CHU of Rouen. The surface of the lab is 382 m2. The focus of the group is to identify and characterize recurrent genetic abnormalities in lymphomas.

- Management team

The unit is currently directed by Mr Hervé Tilly and assisted by Mr. Fabrice Jardin, Mr. Christian Bastard and Mr Philippe Ruminy. The direction will move to Mr. Fabrice Jardin due to the retirement of Hervé Tilly.

- Staff members

	Past	Future
N1: Number of researchers with teaching duties (Form 2.1 of the application file)	3	2
N2: Number of full time researchers from research organizations (Form 2.3 of the application file)	2	2
N3: Number of other researchers including postdoctoral fellows (Form 2.2 and 2.4 of the application file)	4	4
N4: Number of engineers, technicians and administrative staff with a tenured position (Form 2.5 of the application file)	5	5
N5: Number engineers, technicians and administrative staff without a tenured position (Form 2.6 of the application file)	0	
N6: Number of Ph.D. students (Form 2.7 of the application file)	5	
N7: Number of staff members with a HDR or a similar grade	3	4

2 • Overall appreciation on the research unit

- Summary

Good scientific production coming from a small team specialized in deciphering the genetic abnormalities of diffuse large B-cell (DLCBCL) and follicular (FL) lymphomas with relevance to the clinical practice.

- Strengths and opportunities

- Expertise of genetic abormalities
- Large collection of lymphoma annotated samples
- Strong collaboration between clinicians, cytogeneticists and pathologists
- Good position in national networks

- Weaknesses and threats

- Lack of functional studies to validate the results regarding the genetic abnormalities identified by the group
- Few scientific students
- Small team
- Only one full time scientist

- Recommendations

We recommand to focus on the leading diseases investigated by the team (DLBCL, FL) and on the mechanistic consequences of mutations unraveled by them (functional studies, molecular therapeutics, etc). By this way, the team should be able to attract PhD students and post-doctoral fellows.

- Production results

A1: Number of permanent researchers with teaching duties (recorded in N1) who are active in research	2
A2: Number of permanent researchers without teaching duties (recorded in N2) who are active in research	2
A3: Ratio of members who are active in research among staff members [(A1 + A2)/(N1 + N2)]	100%
A4: Number of HDR granted during the past 4 years	1
A5: Number of PhD granted during the past 4 years	1

3 • Specific comments

- Appreciation on the results

The team is a leader in France in the molecular characterization of lymphoma oncogenes. The scientific production of the team is very solid. Overall, the publishing scientific contribution of the group during the last four years was 17 papers (with 69 additional papers published within clinical and biological networks).

The papers have been published in top journals of the specialty : 2 Blood, 8 Leukemia and 1 Oncogene papers among the 17 published as first and/or last author by a team member.

Among the additional 69 papers, top rank journals were also present such as J Clin Oncol, Blood and J Exp Med. The team is regularly presenting their results to the American Society of Hematology annual meetings. Only one PhD thesis was presented during the last 4 years, but five PhD students are currently in training.

- Appreciation on the impact, the attractiveness of the research unit and of the quality of its links with international, national and local partners

Since the cloning and identification of the BCL6 oncogene in 1993 by the team, they established strong collaborative studies between genetics and clinics either in the clinical center Henri-Becquerel or inside the GELA (Groupe d'Etude des Lymphomes de l'adulte) network, a leader in the treatment of these diseases. The team was able to participate in and for some of them to coordinate large national networks, getting a share of these competitive fundings (such as INCa). However, the team recognizes its difficulties to attract students and scientists to their labs. A post-doc student just arrived. The leaders of the team participate to international meetings such as ASH (6 oral communications as first author from 2006 to 2010). The former leader was regularly invited to give talks. The team has good national visible collaborations, but the international collaborations have not been very active during the last four years.

- Appreciation on the management and life of the research unit

The new director is efficiently leading his team. Regular meetings are scheduled every two weeks (bibliography reviews and progress of the projects). The team seems to benefit from a good collaborative attitude of all members. Some people of the lab are teaching either in the Faculty of Medicine or at the Ecole Doctorale of Rouen.

- Appreciation on the scientific strategy and the project

The projects are mainly focused on translational research, combining a unique collection of samples and clinical annotations with the genetic data identified through diverse technological approaches. The scientific project is dedicated to diffuse large B cell lymphoma (DLBCL) and follicular lymphomas (FL) oncogenes, centered on the characterization of the genomic abnormalities of the B-cell receptor genes. This is a promising project, original, feasible and clinically relevant. This team reported an exciting observation of the IgM expression at the cell surface in activated B-cell (ABC) subtype of DLBCL (ABC-DLBCL). The detection of IgM expression might become a strong diagnostic marker for ABC-DLBCL and subsequently may represent a predictive marker of response to therapies inhibiting the NF-kB pathway. The other projects regarding these diseases are mainly collaborative studies and could be fruitful in the future for new developments of the lab and for maintaining collaborative integration with other French groups. Beside DLBCL and FL, two projects are aiming to investigate specific genetic abnormalities in very rare diseases.

It seems important that the lab develops either by itself or in collaboration with other groups functional studies to decipher the basis of the genomic abnormalities detected in their translational studies and their physiological relevance to the disease.

Intitulé UR / équipe	C1	C2	C3	C4	Note globale
GÉNÉTIQUE ET CLINIQUE DES PROLIFÉRATIONS LYMPHOÏDES.	A	A	A	A	A

C1 Qualité scientifique et production

C2 Rayonnement et attractivité, intégration dans l'environnement

C3 Gouvernance et vie du laboratoire

C4 Stratégie et projet scientifique

Statistiques de notes globales par domaines scientifiques

(État au 06/05/2011)

Sciences du Vivant et Environnement

Note globale	SVE1_LS1_LS2	SVE1_LS3	SVE1_LS4	SVE1_LS5	SVE1_LS6	SVE1_LS7	SVE2 _LS3 *	SVE2_LS8 *	SVE2_LS9 *	Total
A+	7	3	1	4	7	6		2		30
A	27	1	13	20	21	26	2	12	23	145
B	6	1	6	2	8	23	3	3	6	58
C	1					4				5
Non noté	1									1
Total	**42**	**5**	**20**	**26**	**36**	**59**	**5**	**17**	**29**	**239**
A+	16,7%	60,0%	5,0%	15,4%	19,4%	10,2%		11,8%		12,6%
A	64,3%	20,0%	65,0%	76,9%	58,3%	44,1%	40,0%	70,6%	79,3%	60,7%
B	14,3%	20,0%	30,0%	7,7%	22,2%	39,0%	60,0%	17,6%	20,7%	24,3%
C	2,4%					6,8%				2,1%
Non noté	2,4%									0,4%
Total	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

*** les résultats SVE2 ne sont pas définitifs au 06/05/2011.**

Intitulés des domaines scientifiques

Sciences du Vivant et Environnement

• SVE1 Biologie, santé
- **SVE1_LS1 Biologie moléculaire, Biologie structurale, Biochimie**
- **SVE1_LS2 Génétique, Génomique, Bioinformatique, Biologie des systèmes**
- **SVE1_LS3 Biologie cellulaire, Biologie du développement animal**
- **SVE1_LS4 Physiologie, Physiopathologie, Endocrinologie**
- **SVE1_LS5 Neurosciences**
- **SVE1_LS6 Immunologie, Infectiologie**
- **SVE1_LS7 Recherche clinique, Santé publique**

• SVE2 Ecologie, environnement
- **SVE2_LS8 Evolution, Ecologie, Biologie de l'environnement**
- **SVE2_LS9 Sciences et technologies du vivant, Biotechnologie**
- **SVE2_LS3 Biologie cellulaire, Biologie du développement végétal**