

### Research evaluation

FINAL RESUME ON THE RESEARCH UNIT: Stem Cell and Brain Research Institute - SBRI

UNDER THE SUPERVISION OF THE FOLLOWING INSTITUTIONS AND RESEARCH BODIES:

Université Claude Bernard Lyon 1 - UCBL

Institut national de la santé et de la recherche médicale - Inserm

**EVALUATION CAMPAIGN 2019-2020**GROUP A

Rapport publié le 25/06/2020



In the name of Hcéres1:

Nelly Dupin, Acting President In the name of the experts committee<sup>2</sup>:

Alfonso Represa, Chairman of the committee

Under the decree No.2014-1365 dated 14 November 2014,

<sup>&</sup>lt;sup>1</sup> The president of Hcéres "countersigns the evaluation reports set up by the experts committees and signed by their chairman." (Article 8, paragraph 5);

<sup>&</sup>lt;sup>2</sup> The evaluation reports "are signed by the chairman of the experts committee". (Article 11, paragraph 2).



Tables in this document were filled with data submitted by the supervising body on behalf the unit.

## **UNIT PRESENTATION**

**Unit name:** Stem Cell and Brain Research Institute

Unit acronym: SBRI

Current label and N°: UMR\_S 1208

**ID RNSR**: 200716495D

**Application type**: Renewal

Head of the unit (2019-

2020): Ms Colette Dehay

Project leader (2021-2025): Ms Colette Dehay

Number of teams and/or

themes:

6 teams

## **EXPERTS COMMITEE MEMBERS**

Chair: Mr Alfonso Represa, Inserm Marseille

**Experts:** Mr Yves-Alain Barde, Cardiff University, United Kingdom

Mr Vania Broccoli, San Raffaele Scientific Institute, Milano, Italy

Ms Delphine Duprez, CNRS, Paris (representative of Inserm CSS)

Mr Christophe Pallier, Inserm Gif-sur-Yvette

Mr Alain Trembleau, Sorbonne Université (representative of CNU)

# **HCÉRES REPRESENTATIVE**

Ms Nadia Soussi-Yanicostas

## REPRESENTATIVES OF SUPERVISING BODIES

Mr Étienne Hirsch, Inserm

Mr Xavier Nesme, INRA

Mr Fabrice Vallée, University Lyon 1



### INTRODUCTION

#### HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The Stem cell and Brain Research Institute (SBRI) is a multidisciplinary research institute that was created in 2007 by Henry Kennedy and is directed since 2011 by Colette Dehay with Dr Kennedy as deputy director. SBRI is affiliated to INSERM and the University of Lyon 1 and has strong links with INRA and CNRS.

SBRI is located at the "Groupement Hospitalier Est de Lyon", in an INSERM building. One of his platforms (StemGamE) is located at the Hospital "Femme Mère Enfant" (HFME) (Lyon-Est campus) and the Faculty of "Medecine Laenec". The platform "Connectomics", created in 2017, is associated to Shanghai (IoN) mirror connectome platform.

The StemGamE platform coordinates 4 regional and national multicentric PHRC, in interaction with SFR Santé Lyon-Est and the HFME and the Hospital La Croix-Rousse.

SBRI is involved in two regional LabEx: Cortex, founded by Dr Kennedy and DEVweCAN. "Cortex" has been playing an important role on the structuration of the Neuroscience community in Lyon and develops with the University of Lyon 1 a new innovative Master program on computational neuroscience.

SBRI members developed many interactions and collaborations with regional labs (CIRI, INMG, CRN).

#### MANAGEMENT TEAM

For the next contract SBRI will be directed by Dr Colette Dehay.

#### **HCÉRES NOMENCLATURE**

SVE4\_1 Neurologie.

SVE2\_3 Biologie cellulaire, biologie du développement animal.

#### **THEMATICS**

SBRI develops multidisciplinary research on three main areas: i) stem cell biology, with a strong emphasis on the comparisons between different animal species including non-human primates); ii) Neuroscience with a focus on both non-human primate cortical development and brain plasticity and repair throughout manipulation of NSCs or *in situ* reprogramming of brain cells. Iii) integrative and cognitive neuroscience and chronobiology and affective disorders. Research teams are also involved on clinical research exploring sensory integration, motion perception, cognitive adaptation and depression.

Through the activities of the StemGamE platform, a biotechnology research platform, joint funded by INSERM and INRA, SBRI also develops clinical research being responsible for several regional and national multicentric PHRC (FERTIPRESERVE; CLOMINOA, CHACRY, TESTIS). The unit is also involved in clinical projects with INCa (Institut National pour le Cancer), the ANSM (Agence Nationale de Sécurité du Médicament) and the company BioMérieux targeting the preservation of fertility in humans.



#### **UNIT WORKFORCE**

Stem Cell and Brain Research Institute (SBRI)		
Active staff	Number 06/30/2019	Number 01/01/2021
Full professors and similar positions	4	4
Assistant professors and similar positions	7	8
Full time research directors (Directeurs de recherche) and similar positions	6	10
Full time research associates (Chargés de recherche) and similar positions	7	11
Other scientists ("Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.")	0	
High school teachers	0	
Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)	17	17
Permanent staff	41	50
Non-permanent professors and associate professors, including emeritus		NA
Non-permanent full time scientists, including emeritus, post-docs (except PhD students)		NA
PhD Students		NA
Non-permanent supporting personnel		NA
Non-permanent staff	0	NA
Total	41	50

## GLOBAL ASSESSMENT OF THE UNIT

SBRI is a joint research unit of INSERM and University of Lyon 1. SBRI teams developed and propose original and ambitious projects to improve our knowledge on the development, functioning and pathology of the brain. During the reporting period SBRI teams dedicated efforts to the investigation of stem cells and neural progenitors in different species, including non-human primates and to investigate the development, structure and function of adult human and non-human primate cortex, also involving the contribution of different teams. The activities of SBRI also evolved to clinical research projects in association with local clinical units.

SBRI published a high number of reports with an excellent impact in the field and some of them displaying a high number of citations. SBRI has also been quite active on translational activities as illustrated by the number of patents acquired and the creation of a new start-up. SBRI also published the macaque cortical atlas via a dedicated website containing important data of cortical area and connectome.

SBRI is extremely well integrated in the regional ecosystem playing a major role on the Lyon Neuroscience community thought the coordination of LabEx Cortex and the development of a new teaching module on computational neuroscience. At the international level SBRI created mirror connectome platforms with IoN Shanghai, that will play an important role for the development of future projects.

SBRI has been extremely active and effective in raising funds from national and European agencies (including 2 ERCs) and national associations and foundations.



The governance of SBRI is inclusive, involving the staff in the chain of decisions. The contribution of all personnel to the life and evolution of the unit ensures democracy, transparency and facilitates internal collaborations.

For the next period SBRI proposes a project structured on 6 research teams. Two main common objectives are proposed that target again stem cells and cortical progenitors with an exciting new focus on repairing damaged brain and a brain primate task force covering different aspects from development to connectome and brain dysfunction. The project report identifies the generation of new transgenic models for research of normal and pathological brain function. This challenging project will be developed thanks to the expertise of SBRI members and platforms, the funding support from Ingestem and the collaboration with IoN Shangay.

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