

FINAL RESUME ON THE RESEARCH UNIT:
Grenoble Institute of Neurosciences (GIN)

UNDER THE SUPERVISION OF THE
FOLLOWING INSTITUTIONS AND
RESEARCH BODIES:

Université Grenoble-Alpes - UGA

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

EVALUATION CAMPAIGN 2019-2020
GROUP A



In the name of Hcéres¹:

Nelly Dupin, Acting
President

In the name of the experts committee²:

Sabine Lévi, Chairwoman of the committee

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

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

² 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:	Grenoble Institute of Neurosciences
Unit acronym:	GIN
Current label and N°:	U 1216
ID RNSR:	200716488W
Application type:	Renewal
Head of the unit (2019-2020):	Mr Frédéric SAUDOU
Project leader (2021-2025):	Mr Frédéric SAUDOU
Number of teams and/or themes:	12

EXPERTS COMMITTEE MEMBERS

Chair:	Ms Sabine LEVI, CNRS Paris
Experts:	Ms Marianne AMALRIC, CNRS Aix-Marseille Université Ms Olivia BEAUDOIN, CNRS Paris (supporting personnel) Mr Luc DUPUIS, Inserm, Université de Strasbourg Mr Xavier GOLAY, University College London, United Kingdom Mr Dominique GUEHL, CHU Bordeaux Mr Stephane HUNOT, CNRS Paris (representative of Inserm CSS) Mr Pascal LEGENDRE, Inserm Paris Mr Franck PICHAUD, University College London, United Kingdom Mr Alain TREMBLEAU, Sorbonne Université (representative of CNU)

HCÉRES REPRESENTATIVE

Ms Sandrine BERTRAND

REPRESENTATIVES OF SUPERVISING INSTITUTIONS AND BODIES

Mr Hervé COURTOIS, UGA
Mr Jocelyn DUTIL, CHU Grenoble Alpes (partenaire)

Mr Etienne HIRSCH Inserm

Mr Patrice MORAND, UGA

Mr Dominique PELLA, INSERM

Mr Hervé PELLOUX, UGA

Ms Monique SORRENTINO, CHU Grenoble Alpes (partenaire)

INTRODUCTION

HISTORY AND GEOGRAPHICAL LOCATION OF THE UNIT

The "Grenoble Institute Neurosciences" (GIN) is affiliated with Inserm and University Grenoble Alpes (UGA). The "Centre Hospitalier Universitaire de Grenoble" (CHUGA), the CEA and the CNRS are partners. The GIN is housed in a building in the neighbourhood of the Hospital Departments of Neurology, Magnetic Resonance Imaging (MRI), Neurosurgery, Psychiatry and clinical investigation, and of many high level research centers.

The GIN was created in 2007 and headed by Claude FEUERSTEIN until October 2013. In September 2013, following an international call, Frédéric SAUDOU (PUE-PH, UGA-CHUGA) was nominated as Director of the GIN, and in September 2014, Marylin VANTARD (DR1 CNRS) was nominated as deputy director.

In 2014, the GIN was composed of 13 research teams studying molecular and cellular neurosciences, neuroimaging and clinical neurosciences. Due to the marked reorganization of the GIN in 2014-2015, 6 teams have been relocated or closed, 2 joined the GIN given the nomination of the new Director and 4 Junior teams have been created. Over the last 5 years, several international calls and interviews for group leaders have been conducted with audition by the SAB, that led to the recruitment of 2 "in-house" candidates 2 CR Inserm (CR1) and 1 UGA Chair of excellence. For the next contract, the departure of a PI and the closure of two senior teams in 2021 allows the GIN to hire two new PIs: a senior scientist who leads a team ("Neurotechnology and Network Dynamics") at the BrainTech Laboratory (Inserm U1205) and an assistant-professor (UGA).

During the last years, the GIN developed several national and international research networks.

For the development of clinical and medical research, the GIN interacts with the "Centre Hospitalier Universitaire de Grenoble" (CHUGA), the Clinical Investigation Center (CIC) and with laboratories located on the health campus (TIMC, IAB, HP2...). On the same line, the GIN is a founding member of NeuroPsyNov, a "Fédération Hospitalo-Universitaire" labeled in 2015 for a 5-year duration. The GIN is also a founding member of GREEN (GREnable Excellence in Neurodegeneration), a federative research structure recognized as a center of excellence in the field of neurodegenerative disorders with the objective to develop translational research on HD. The GIN is also a founding member of the NeuroCoG network created in 2016 for a 4-years duration at UGA (National Excellence Initiative - Idex), that brings together 48 interdisciplinary Grenoble research teams and facilities which aims at understanding the biological, neurophysiological and functional basis of behavioral and cognitive processes in normal and pathological conditions. The GIN is also a member of the MyoNeurAlp alliance, which gathers the community of researchers and clinicians of Auvergne-Rhone-Alpes developing research on neuromuscular diseases.

For the development and use of new advanced techniques applicable to neurological questions and/or new therapeutic approaches, the GIN benefits from interactions with laboratories specialized in physics, optics, nanosciences, engineering and cognition (LiPhy, Institut Néel, GIPSA-Lab, LPNC, IBS, BIG-CEA...), health technologies (Clnatec, BrainTech...) and from international facilities and laboratories such as the European Synchrotron Research Facilities (ESRF) or EMBL. GIN is also a member of France Life Imaging (FLI), the national infrastructure dedicated to *in vivo* imaging, which gathers 6 physical nodes (Bordeaux, Grenoble, Lyon, Marseille, Paris, South Paris) and one transverse node dedicated to image analysis and management (IAM). GIN is a partner of ISdV ("Imagerie en Sciences du Vivant") that gathers Grenoble imaging facilities and academic laboratories dedicated to imaging.

More recently, the GIN also developed international research networks with the Brain Mind Institute (BMI) of Geneva/Lausanne, and the Neurosciences and Cognition Institute (Barcelona University). GIN is also engaged in a partnership between Keio University (Japan) and ComUE UGA, which aims to establish collaborations on neurosciences, sleep medicine, artificial intelligence and Big Data.

MANAGEMENT TEAM

In September 2013, Frédéric SAUDOU was nominated as Director of the GIN and in September 2014, Marylin VANTARD was nominated as deputy director.

HCÉRES NOMENCLATURE

SVE2 : Biologie cellulaire, imagerie, biologie moléculaire, biochimie, génomique, biologie systémique, développement, biologie structurale

SVE4 : Neurosciences

SVE5 : Physiologie, physiopathologie, cardiologie, pharmacologie, endocrinologie, cancer, technologie médicales

THEMATICS

The GIN aims at understanding the functioning of both central and peripheral nervous system in order to increase scientific knowledge on brain complexity and to develop new therapeutics strategies for neurodevelopmental disorders (psychiatric disorders, epilepsy), neurodegenerative disorders (Alzheimer, Parkinson, Huntington diseases), neurovascular disorders and brain traumas.

The mission of GIN researchers is to decipher the mechanisms underlying the development, function and dysfunction of neural networks from neural cells, synapses, neural networks to brain and cognition. For this purpose, they use and develop complementary approaches based on cellular and molecular neurosciences, integrative neurosciences and neurophysiology, technologies for health, as well as translational neurosciences and innovative therapies.

UNIT WORKFORCE

Grenoble Institut Neurosciences		
Active staff	Number 06/30/2019	Number 01/01/2021
Full professors and similar positions	12	
Assistant professors and similar positions	22	
Full time research directors (Directeurs de recherche) and similar positions	11	
Full time research associates (Chargés de recherche) and similar positions	20	
Other scientists ("Conservateurs, cadres scientifiques des EPIC, fondations, industries, etc.")	0	
High school teachers	0	
Supporting personnel (ITAs, BIATSSs and others, notably of EPICs)	57	
Permanent staff	122	0
Non-permanent professors and associate professors, including emeritus		
Non-permanent full time scientists, including emeritus, post-docs (except PhD students)	22	
PhD Students	41	
Non-permanent supporting personnel	19	
Non-permanent staff	82	
Total	204	0

GLOBAL ASSESSMENT OF THE UNIT

The GIN was created twelve years ago. The original institute has been profoundly reorganized in a successful manner. The GIN is now composed of 13 independent and interactive teams. Several facilities (photonic imaging and behavioral) and technical platforms have been recently opened. The equipment is state-of-the-art and fully available to all scientists. The scientific life is very active with internal conferences and workshops and external seminars. The internal informal interactions and collaborations are strong and productive. The GIN is quite attractive, as evidenced by the number of new young groups joining since its start. Importantly the proportion of international scientists, including group leaders, students and post-docs is high, also attesting to the attractiveness of the Institute. Overall, the scientific output is excellent and has benefitted from numerous interactions between groups facilitated by the reorganization of the GIN. GIN team leaders have been very successful at obtaining competitive funding at the national (e.g., ANR) and international (e.g., ERC, EU grants)

levels. The GIN is deeply involved in national and international networks.

The unit is also very active in public outreach activities, through participation to local-, regional- and national-wide events, patients associations, social network (Twitter, LinkedIn and YouTube), and interviews in public journals, radio and TV (e.g., L'Express, La Recherche, France Inter, France 3).

During the next contract, the GIN wants to recruit at least two new groups. Applications are of an excellent level. The unit also wants to further develop interactions with the hospital and be instrumental in structuring translational and clinical research in neurosciences in Grenoble. This evolution should increase the international visibility of the GIN and permit to increase collaborations and thereby the number of articles published in high rank journals, and financial support from international call projects.

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