

ENP ACTIVITY REPORT

2013 - 2015

www.paris-neuroscience.fr

April 2015

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The École des Neurosciences de Paris Île-de-France (ENP)

The ENP is a non-profit private foundation with a total capital close to 18M€ created in 2007 by the Ministry of Research and Higher Education.

The institution is devoted to the development, promotion and outreach of neuroscience research through dedicated programs –Scientific events, Invited scientists, Starting grant, International internship and Graduate program.

Founders and Partners

Three research agencies: CEA, CNRS, Inserm and two universities: Pierre et Marie Curie University and Paris Sud.

Since 2008 ENP partners are Okayama University, the Institut du Cerveau et de la Moelle épinière (ICM), Fondation Voir et Entendre, Paris Descartes University, and Labex Biopsy.

The Network

In 2014, the ENP gathers a network of 111 teams located in 23 research centers of the Paris region.

7 multidisciplinary main research themes

Neurogenetics/ neurodevelopment	Neurophysiology/ systems neuroscience
Neuropharmacology/ cell signaling	Neurological and psychiatric diseases
Interface physics / technology/ robotics	Computational neurosciences/ neural theory
Cognitive neurosciences/ neuropsychology/ neuroeconomy	

Strategy

- Developing ENP international training and guest professors, by way of new national and international partnerships :
 - Centro Estudios Científicos Santiago (Chile)
 - Edmond and Lily Safra Center for Brain Research Jerusalem (Israel)
 - Instituto Cajal CSIC Madrid (Spain)
 - Ludwig Maximilians University, Munich (Germany)
- Supporting synergy and multidisciplinary between teams by fostering scientific meetings on innovative topics
- Promoting neuroscience laboratories locally and supporting events aimed at the general public
- Generating collaborations between academic neuroscience research and businesses

In 2015, the ENP commits to carrying out its actions with a budget of 7 million euros.

Governance

The ENP is managed by several committees.

The Board of Trustees takes legal decisions and manages finances.

Chair: François Ailleret. Honorary President: Bernard Esambert.

20 members representing founders and partners : CNRS, CEA, Inserm, UPMC, Paris Sud University, one representative of researchers and professors, one representative of the entrepreneurial world, one representative of the Paris Education Authority, and one representative of the Île-de-France Region.

The Steering Committee evaluates and takes decisions on programs' scientific contents.

Director: Serge Charpak and 10 ENP team leaders of complementary expertise.

Gilles Bonvento - Neurodegenerative Diseases, Institute of Biomedical Imaging - MIRCen, Inserm

Serge Charpak - Imaging and Neurovascular physiology of the olfactory bulb, Centre des Saints-Pères- Inserm/ CNRS

Alain Chedotal - Role of axon guidance molecule, Institut de la Vision - Inserm/UPMC

Alain Destexhe - Computational Neuroscience, INAF, UNIC - CNRS

Alexandra Durr - Molecular basis, physiopathology and treatment of neurodegenerative diseases, ICM- AP-HP

Philippe Faure - Neurobiologie des Processus Adaptatifs -Equipe Neurophysiologie et Comportement - Neuroscience Paris Seine / UPMC

Thierry Galli - Membrane traffic in Neuronal & Epithelial Morphogenesis, Institut Jacques Monod - Inserm/CNRS

Catherine Tallon-Baudry - Cognitive neuroscience and brain imaging, ENS - Inserm / UPMC / CNRS

Laurent Venance - Dynamic and Pathophysiology of Neuronal Networks, CIRB Collège de France - CNRS

Philippe Vernier - Neurobiology & development, INAF, N&D - CNRS

Bernard Zalc - Neurodegenerative diseases, ICM - Inserm/UPMC

The Scientific Advisory Board provides evaluation of new teams and applications, and advice on scientific approaches. It is composed by 10 eminent scientists from international research centers.

Pascal Fries - Ernst Strüngmann Inst. for Neuroscience in coop. Max Planck Society, Frankfurt, Germany

Seth Grant - Wellcome Trust Sanger Institute, Genes to Cognition Programme, Hinxton, U.K.

Corinne Houart - MRC Centre for Developmental Neurobiology, King's College London, U.K.

Benedikt Grothe - Max Planck Institute of Neurobiology, Ludwig-Maximilians University, Munich, Germany

Gilles Laurent - Max Planck Institute for Brain Research, Frankfurt, Germany

Andreas Luthi - Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland

Pierre J. Magistretti - Brain Mind Institute, Lausanne, Switzerland

Michela Matteoli - Dept of Biotechnology and Translational Medicine, University of Milano, Italy

Maria-Grazia Spillantini - Department of Clinical Neurosciences, University of Cambridge, UK

Frank S. Walsh - University science Center, Philadelphia, USA.

Peter Hagoort - Max Planck Institute for Psycholinguistics, Nijmegen, Netherlands

The Administrative Team implements actions in finances, communication, and graduate program management.

General Secretary: Y. Hénin, and 3 full-time employees.

ENP Programs

The ENP support programs are meant to help the affiliated teams of the network.

Since 2007, ENP has launched, recruited and / or supported:

15 **Invited international scientists** hosted by ENP teams.

56 **Scientific events** supported and/or organized by ENP.

5 **Starting Grant**: start-up support for young group leaders.

29 **Post-Docs** received short-term support.

58 **Graduate students**, now 21 Alumni.

19 International **Interns**

Resulting as of 2013 in **4 000 papers** in international peer-reviewed journals, 270 of which in strong impact journals and 375 in well established ones.

See detailed results in the 2007-2012 Activity Report.

Applications to programs 1 to 4 ought to be made by ENP team leaders.

1 Invited Scientists

- Sabbatical stays of 3-6 months
- Call open all year round, no deadline
- Flexible financial support
- Selection by Steering committee based on the CV of candidate and scientific program

2 Scientific Events

- Helping ENP teams to meet, create and maintain multidisciplinary exchanges
- Supporting multidisciplinary responding to an increasing need for sponsorship
- Contributing to national and international collaborations
- One call per year
- Selection by Steering committee

3 Starting Grant

- Support for incoming outstanding young researchers
- Call open all year round, no deadline
- 2 steps: 1. Initial selection by a research center director
2. Application transmitted by an ENP team leader of the aforementioned center
- Selection by Steering committee and Board of Trustees
- Financial Support for up to 350 K €

4 Post Docs

- Buffer solution to cover salary expenses for a limited period of time, up to 6 months.
- Call open all year round, no deadline
- Selection by Steering committee

5 Graduate Program

- A 4 - year program open to all students having obtained their last degree outside France
- Working language : English
- One call per year
- A 4 - year ENP global package of 150 K €
- Selection by a committee of ENP researchers

6 Interns

- An introduction to neuroscience for undergraduate students
- Hosting international students in Paris for up to 6 months
- Exclusively with academic international partners
- Initial selection by local committee

ENP Graduate Program

The ENP Graduate Program is the lead action of the ENP. With about 500 applications / year and only a few recruitments, it is a selective program with competitive students' benefits and high-level resources.

Graduate Program Directors manage the interviews and recruitment process with a board of experts and a dedicated assistant.

In 2012, **49 students** have been following the ENP Graduate Program. Please refer to the 2007-2012 Activity report to see the list of recruited students.

2013 Students

Maria Julia CARBAJAL, University of Buenos Aires, Argentina
Hannah METZLER, University of Vienna, Austria
Anna PTUKHA, Moscow Institute of Physics and Technology, Russia
Ralitsa TODOROVA, University of Edinburgh, Scotland

2014 Students

Bence BAGO, University of Edinburgh, Ireland
Sebastian CEBALLO, Universidad austral de Chile
Cristina DONATO, Università degli studi di Genova, Italy
Alessandra GALLO, Sapienza University of Rome, Italy
Jimmy OLUSAKIN, University of Ibadan, Nigeria
Soham SAHA, Homi Bhabha National Institute, India
Katarzyna SIUDA, Jagiellonian University, Poland
Arturo TORRES HERRAEZ, Universidad Autónoma de Madrid, Spain
Ana UZQUIANO, King's College London, United Kingdom

Statistics

Total of students	58
Gender	69% Female / 31% Male

The Graduate Program was opened in 2012 to collaborators and co- financers

 DIM & Cerveau
& Pensée

Sabah MOZAFARI, "Molecular and cellular approaches of myelin repair" (B. Nait Oumesmar and A. Baron-Van Evercooren), ICM.

 * île de France

Shauna KATZ, "Zebrafish Neurogenetics" (L. Bally-Cuif), Institut de Neurobiologie Alfred Fessard.

Heike BLOCKUS, "Role of axon guidance molecules " (A. Chedotal), Institut de la Vision.

Flora BOUCHACOURT, "Dynamical neural theory group" (B. Gutkin), École Normale Supérieure.

Maria TELENCZUK, "Cortex et épilepsie" (R. Miles), ICM.

Hannah METZLER, "Social Cognition Group" (J. Grèzes), École Normale Supérieure.

Anna PTUKHA, "Vision Group" (P. Mamassian), École Normale Supérieure.



Ralitsa TODOROVA, "Spatial Memory and Navigation" (S. Wiener, M. Zugaro), Collège de France.



Marie Louise Dongelmans, "Neurophysiology and behaviors" (Ph. Faure), Neuroscience Paris Seine.

And external financers



Jenna STERNBERG, "Lights-on Locomotion: optogenetic dissection of spinal circuits underlying locomotion in Vertebrates " (C. Wyart), ICM.



Andrea TINTERRI, "Brain development and plasticity" (S. Garel) École Normale Supérieure.



Lauriane Harrington, "Integrative neurobiology of cholinergic systems" (U. Maskos) Institut Pasteur

Mariana Ramos-Brossier, "Genetics and physiopathology of neurodevelopmental disorders" (P. Billuart & J. Chelly), Institut de Recherche Biomédicale Cochin

ALUMNI

Since 2011, ENP students started to graduate in Neuroscience from our partner universities. They keep in touch and form a network of alumni all over the world, both in the private and public sectors.

Overview of the current professional situations of Alumni:

7 Post docs in Europe

- Collège de France, France
- University of Geneva, Switzerland
- University of Cambridge, United Kingdom
- Netherlands Institute for Neuroscience, the Netherlands
- University of Sussex, United Kingdom
- Institut de la Vision, Paris, France
- Institut Pasteur, Paris, France

9 Post docs in the Americas

- Caltech, Pasadena, California
- Douglas Institute, Montreal, Canada
- Northeastern University, Boston
- Harvard's Wyss Institute, Boston.
- Harvard Medical School, Boston
- University of Minnesota, Minneapolis.
- University of California, San Francisco
- Salk Institute for Biological Studies in La Jolla, California

1 Post-doc in Asia

- Institute of Neuroscience of the Chinese Academy of Sciences

2 positions in the private sector (R&D, France, USA).

1 reorientation

1 unknown

Starting Grant

The Starting Grant program's ambition is to attract and support international scientists starting their careers, to allow them to develop their research project freely and set up their team rapidly.

2013 - 2014

No Starting Grant was attributed.

Interns

2013 - 2014

No intern was hosted.

2015

Diego Candia (Civil Engineering and Biotechnology, University of Chile) hosted by Catherine Tallon Baudry, "Visual Cognition Group", ENS.

Javier Palma (Electric Engineering, University of Santiago) hosted by Serge Picaud, "Retinal information processing: pharmacology and pathologies", Institut de la Vision.

Susana Paredes (Engineering in Biotechnology, University of Chile) hosted by German Sumbre, "Neuroethology of the Zebrafish", IBENS.

Estefani Saint-Jour (Biochemistry, Catholic University of Valparaiso) hosted by Jocelyne Caboche, "Neuronal signaling and gene regulation", Neuroscience Paris Seine.

Bryon Silva (Biochemistry, Catholic University of Chile) hosted by Thomas Pr eat, "Genes and dynamics of memory systems", ESPCI Paris Tech.

Invited Scientists

The Invited Scientists program strengthens collaborations between ENP teams and renowned international scientists.

2013

Hongjun Song (John Hopkins University, Baltimore) for 2 months,
"Perception and memory" Pierre Marie Lledo, Genes, Synapses, Cognition at Institut Pasteur

2014

Pierre-Gilles Henry (Center for Magnetic Resonance Research, Minneapolis) for 4 months,
"Normal and abnormal motor control" St ephane Leh eric at ICM
"Cell-cell interactions in neurodegenerative diseases" Gilles Bonvento at MIRcen

Terri Wood (Dept. Neurology and Neuroscience, Rutgers New Jersey Medical School, Newark, USA) for 9 months,
"Molecular and Cellular approaches of myelin repair" Brahim Nait Oumesmar at ICM

Post Docs

ENP's flexibility gives the opportunity to ENP members to hire young and talented scientists at the very beginning of their career. The ENP Post Doc Program is a short-term solution to cover salary expenses for a limited period: it acts as a buffer before the team receives other grants and long-term support.

2013

Alessia Usardi (PhD: University of King's College, London, UK) for 6 months in "Mice, Molecule and Synapse formation" (Fekrije Selimi), CIRB - Collège de France

Kei Yamamoto (PhD: University of Tennessee, Memphis, USA) for 11 months in "Development, evolution, plasticity of the nervous system» (Philippe Vernier) – INAF Campus de Gif-sur-Yvette

Giselle Cheung (PhD : Universtätsmedizin, Berlin, Germany) for 4 months in "Neuroglial interactions in cerebral physiopathology" (Nathalie Rouach), CIRB - Collège de France

Lisa Scheunemann (PhD : Freie Universität Berlin, Germany) for 4 months in "Gènes et dynamiques des systèmes de mémoire" (Thomas Prät), Laboratoire Plasticité du Cerveau – ESPCI Paris Tech

Thorfinn Riday (PhD : University of North Carolina-Chapel Hill, USA) for 5 months "Glia Glia and Glia Neuron interactions in neurophysiopathology" (Cendra Agulhon), UFR Biomédicale - Université Paris Descartes.

2014

Michael Graupner (PhD: New York University) for 6 months in "Gabaergic synapses in the cerebellum" (Alain Marty) Laboratoire de Physiologie Cérébrale - Université Paris Descartes

Scientific Events

Symposia, colloquia, conferences and thematic schools give our members opportunities to contribute to national and international research.

Responding to an increasing need for sponsorship, the ENP meets scientists' requests in supporting their workshops and presence in large international symposia.

2013

Organized by ENP

International ENP Spring School: "Optical Imaging and Electrophysiological methods in Neuroscience", June 18 – 28th 2013, Université Paris Descartes.

Organized by Brandon Stell, Federico Trigo, David Ogden (ENP), Stéphane Dieudonné (ENP) et Boris Barbour (ENP).

18 selected students and 41 speakers.

ENP DAYS 2013, September 16 – 17th 2013, Grand Hôtel le Touquet – Paris – Plage.

Lectures : "The Cerebellar Circuit : from Synapse to Behavior" by M. Carey, "Dynamics of Olfactory Memory Phases in Drosophila" by T. Prémat.

Workshops: "Nervous System Development". Speakers: L. Bourdieu, J.-F. Brunet, F. Del Bene, V. Chevalyere, L. Maroteaux, "Pathology" : L. Naccache, C. Lubetzki, J. L. Martinot.

Poster session presented by Graduate Program students and guests.

103 attendees.

Semaine du cerveau, March 11 – 17th 2013, Cité internationale universitaire de Paris & ICM.

Organizers : European Dana Alliance for the Brain, FRC, Société des Neurosciences. ENP events:

"Miam miam ! Odeurs, goûts et plaisir de manger" presented by H. Gurden (CNRS) et B. Beaugé (Food critic), 144 attendees.

"Musique en Tête" presented by H. Blockus, U. L. Böhm, E. Cahill, A. Mohebiany, V. Skvortsova, A. F. Teixeira Borges, D. Trübtschek (ENP Graduate students) and A. Destexhe (CNRS).

170 attendees.

Society for Neuroscience annual meeting, November 9 – 13th 2013, San Diego

Organizers: Inserm, the Ecole des Neurosciences de Paris Ile de France, Aviesan ITMO Neuroscience, Cognitive Science and Psychiatry, the French Society for Neuroscience, the scientific department of the Embassy of France in the U.S.

Over 600 visitors at the "French Neuroscience from Education to Research" booth.

Supported by ENP

Conference on "**Interactions between Space, Time and Number: 20 Years of Research**" on 26th February 2013, Auditorium of Collège de France

Organizers: Stanislas Dehaene (CEA Saclay, Cognitive Neuroimaging Unit), Martin Fischer (University of Postdam, Germany) - Marco Zorzi (University of Padova, Italy) - Samuel Shaki (Ariel University Center, Israel)

450 attendees.

EMBO WORKSHOP: "Semaphorin function and mechanism of action" from 29th to 31st October 2013, Abbaye des Vaux de Cernay

Organizers: Alain Chedotal (Institut de la Vision, "Role of axon guidance molecules"), Alex Kolodkin (John Hopkins School of Medicine, Baltimore, USA), Jeroen Pasterkamp (University Medical Center, Utrecht, Netherlands)

82 attendees and 16 speakers.

"22nd Annual Computational Neuroscience Meeting CNS 2013" from 13th to 18th July 2013 - Paris Descartes

Organizers: Alain Destexhe (INAF "Oscillatory and stochastic dynamics in thalamo-cortical networks")
Nicolas Brunel - Gianluigi Mongillo (Paris Descartes) and Boris Gutkin (ENS, "Groupe de neurosciences théoriques" GNT)
787 attendees

"Brains and Roses, 2nd International Symposium on Olfaction" from 19th au 20th September 2013, Collège de France

Organizers: Alexander Fleischmann (Collège de France "Neural Circuits and Behaviour") Dr. Andreas Schaefer (Max Planck Institute in Heideberg, Germany) and Mr. Sandeep R. Datta (Harvard University, Boston, USA)
100 attendees.

"International Conference on Spastic Paraplegia and Ataxia" Colloque Spatac from 11th to 13th June 2013, ICM

Organized by Ataxia Study Group Durr, Stevanin, Grassner, Pandolfo
More than 200 attendees.

2014

Organized by ENP

Semaine du cerveau, March 10 – 16th 2014, Cité internationale universitaire de Paris & ESPCI Paris Tech.

Organizers : European Dana Alliance for the Brain, FRC, Société des Neurosciences. ENP events:
"Sens à science, musique et olfaction" presented by C. Martin (CNRS) et L. Assoulen (composer, perfume creator) 90 attendees.

"Améliorez vos performances cognitives !" presented by Ph. Faure (Neuroscience Paris Seine) and V. Bercier, M. Dongelmans, J. Fuentealba, S. Mozafari, M. Ramos-Brossier, R. Todorova (ENP Graduate students). 170 attendees.

FENS Forum of Neuroscience, biannual meeting organized by the Federation of European Neuroscience Societies in Milan, July 5th to 9th, booth 83 of the Exhibition Hall of the Milano Congressi.

Over 640 visitors

Society for Neuroscience annual meeting, November 15 – 19th 2014, Washington DC

Organizers: Inserm, the Ecole des Neurosciences de Paris Ile de France, Aviesan ITMO Neuroscience, Cognitive Science and Psychiatry, the French Society for Neuroscience, the scientific department of the Embassy of France in the U.S.

Over 850 visitors at the "French Neuroscience from Education to Research" booth.

Over 200 visitors at the ENP booth of the Graduate School Fair

Supported by ENP

"13th Cognitive Science Forum", March 22nd, Couvent des Cordeliers, Paris.

Organizer: Cognivence students' association

Public and specialized conferences, exhibition, movies, workshops.

"4th International Symposium on The Biology of Decision Making", May 13-14th, ICM, Paris.

Organizers : Mathias Pessiglione (Inserm / ICM), Thomas Boraud (CNRS / Univ. Bordeaux 2), Sacha Bourgeois-Gironde (Université d'Aix-Marseille / Institut Jean Nicod), Mehdi Khamassi (CNRS / UPMC)
14 international speakers.

"Multielectrode Systems and Signal Processing for Neuroscience Annual Meeting", October 13-15th, Gif-sur-Yvette

Organizers : Pierre Meyrand (U. Bordeaux 1), Daniel Shulz (UNIC-CNRS, Gif sur Yvette), Clément Léna (ENS, Paris), Karim Benchenane (ESPCI, Paris), Thomas Boraud (MAC, U Bordeaux 2), Frédéric Chavane (INT, Marseille), Jean-Marc Edeline (CNPS, Orsay), Valérie Ego-Stengel (UNIC-CNRS, Gif sur Yvette), Samuel Garcia (U. Lyon 1), Régis Guillemaud (CEA LETI, Grenoble), Xavier Leinekugel (U. Bordeaux 2), Alexa Riehle (INT, Marseille)

150 participants, including 85 participants to the minischool

"Emerging Imaging Technologies in Neuroscience. Neuroscience Workshop Saclay (NeWS) ",

December 4-5th, Imagif, Gif-sur-Yvette, sponsoring the lecture of Dr Florian Engert (Harvard)

Organizers: Brice Bathellier (INAF, UNIC), Philippe Vernier (CNRS)

130 participants.

"INC Days : Neurodevelopmental disorders",

December 4th, Salle du Conseil, Paris Descartes University

Organizers : T. Jay and M-O. Krebs (CPN, INSERM - Paris Descartes), J. Gervain (LPP, CNRS – Paris

Descartes), P. Gressens (NACD, INSERM - Paris Diderot), C. Meunier (CNPP, CNRS – Paris Descartes).

100 participants.

2015

Organized by ENP

ENP DAYS La CLusaz, January 21st-23d 2015, Hôtel Alpen Roc, La Clusaz.

Lectures : "The natural history of spatial hearing" by B. Grothe, "xxx" by P. Hagoort. Workshops:

"Workshop Integrated and Cellular Neurophysiology" Speakers: M. C. Angulo, B. Bathelie, K.

Benchenane." Cognisciences" Speakers: N. George, C. Tallon-Baudry and E. Dupoux.

Poster session presented by Graduate Program students and guests.

99 attendees.

Supported by ENP

"The Brain, beyond neurons",

May 11th-12th, Centre des recherche des Cordeliers

Organizers : Maria Cecilia Angulo, Etienne Audinat, Serge Charpak.

"Optical Imaging and electrophysiological methods in Neuroscience", in June 2015, Paris Descartes University.

Organizers: ENP members David Ogden, Boris Barbour and Brandon Stell.

18 selected students –

"Association for the scientific study of Consciousness",

July 7th-10th, Centre universitaire des Saints-Pères

Organizers: Sid Kouider, Elisabeth Pacherie, Catherine Tallon-Baudry

"Basal ganglia in health and disease",

October 2nd, Réfectoire des Cordeliers, Université Pierre et Marie Curie

Organizers : Jean-Antoine Girault, Jocelyne Caboche, Jean-Christophe Corvol, Denis Hervé

New ENP Teams year by year

Each year, a call is issued to invite Neuroscience teams from all fields to apply and join in for a 4 years period.

2014

24 teams applied to the 2014 call. 9 new teams were selected, and 8 teams from year 2009 were renewed.

In 2014 the ENP is composed by a total of 113 teams from 21 research centers.

Principal Investigators of 2014 teams

New Teams

ARLEO Angelo	Ageing in Vision and Action, Institut de la Vision
BELLIVIER Frank	Biomarkers of relapse and therapeutic response in addictions and mood disorders, Inserm UMR-S1144
BILLUART Pierre	Genetics, pathophysiology and therapeutics of mental spectrum disorders, Institut Cochin
BRETTE Romain	Computational neuroscience of sensory systems, Institut de la Vision
DECLEVES Xavier	Pathophysiology and therapeutic targets of the blood-brain barrier, Inserm UMR-S1144
JANKE Carsten	Regulation of microtubule dynamics and function, Institut Curie
LENKEI Zsolt	Neuronal Structure and Dynamics, ESPCI-ParisTech
RETAUX Sylvie	Team DECA: Développement et Evolution du Cerveau Antérieur (Development and Evolution of the Forebrain), NeuroPSI Neuroscience Paris-Saclay Institute
ZUGARO Michaël	Spatial Memory and Navigation, Collège de France

Renewals:

AUDINAT Etienne	Neuron-Glia Interactions, Fédération de recherche en Neurosciences
BACHOUD-LEVI Anne-Catherine	Interventional neuropsychology, Institut Mondor de Recherche Biomédicale
BALLY-CUIF Laure	Zebrafish Neurogenetics team, NeuroPSI Neuroscience Paris-Saclay Institute
HANSEL David	Cerebral Dynamics, Learning and Memory, Fédération de recherche en Neurosciences
MALLET Luc	Behavior Emotion and Basal Ganglia BEBG, ICM CHU Pitié Salpêtrière
MAMASSIAN Pascal	Equipe Vision, ENS
SHERRARD Rachel	Brain Development Repair and Ageing, Institut de Biologie Paris Seine
ZYTNIKI Daniel	Spinal Physiology and Pathophysiology Team, Fédération de recherche en Neurosciences

2013

80 teams applied to the 2013 call. 18 new teams were selected, 49 teams from years 2007 and 2008 were renewed.

In 2014 the ENP is composed by a total of 111 teams from 23 research centers.

Principal Investigators of 2013 teams

New Teams

ANGULO Maria Cecilia	Physiology of NG2 cells, Centre universitaire des Saints Pères
BAL Thierry	Neurocybernetics of thalamic and cortical networks, INAF, UNIC
BATHELLIER Brice	Cortical dynamics and multisensory processing, INAF, UNIC
BENCHENANE Karim	Memory, Oscillations and Brain states (MOBs), ESPCI Paris Tech
DARMON Michèle	Cellular Mechanisms of Neurotransmission, Centre de Psychiatrie et Neurosciences - Centre Hospitalier Sainte Anne
DUPOUX Emmanuel	Computational Mechanisms of Cognitive Development, ENS
GASNIER Bruno	Membrane Transport, Centre Universitaire des Saints-Pères
GEORGE Nathalie / FOSSATI Philippe	Social and Affective Neuroscience team (SAN team), ICM CHU Pitié Salpêtrière
GREZES Julie	Social Cognition Group, ENS
HOUDÉ Olivier	Laboratory for the Psychology of Child Development and Education, Institut de Psychologie de l'Université Paris Descartes
JARRAYA Béchir	Équipe Avenir, CEA, Neurospin
KOUIDER Sid	Brain and Consciousness, ENS
LANFUMEY Laurence	Pathophysiology of Mood Disorders and Addiction, Centre de Psychiatrie et Neurosciences - Centre Hospitalier Sainte Anne
LEGENDRE Pascal / MANGIN Jean-Marie	Development of the Spinal Cord Organization, Neuroscience Paris Seine
NACCACHE Lionel / COHEN Laurent BARTOLOMEO Paolo	PICNIC LAB (Physiological Investigations of Clinically Normal & Impaired Cognition), ICM CHU Pitié Salpêtrière
SUMBRE German	Zebrafish neuroethology, ENS
TALLON BAUDRY Catherine	Visual Cognition Group, ENS
TRONCHE François	Gene Regulation and Adaptive Behaviors, Neuroscience Paris Seine

Renewed Teams

BONVENTO Gilles	Cell-cell interactions in neurodegenerative diseases, MIRCent
BRICE Alexis	Molecular basis, physiopathology and treatment of neurodegenerative diseases, ICM CHU Pitié Salpêtrière
CABOCHE Jocelyne / VANHOUTTE Peter	Neuronal signaling and gene regulation, Neuroscience Paris Seine
CARTIER Nathalie / AUBOURG Patrick	Genetics and biotherapy of neurodegenerative diseases of the central nervous system and of endocrinologic and developmental diseases, Hôpital Bicêtre - Paris Sud
CHARPAK Serge	From sensory processing to functional hyperaemia, Centre universitaire des Saints Pères
CHEDOTAL Alain	Role of axon guidance molecules, Institut de la Vision
CHNEIWEISS Hervé / JUNIER Marie-Pierre	Glial Plasticity, Neuroscience Paris Seine
DESTEXHE Alain	Computational Neuroscience, INAF, UNIC
DI GREGORIO David	Dynamic Neuronal Imaging, Institut Pasteur
EI MESTIKAWY Salah	Normal and pathological Glutamatergic systems, Neuroscience Paris Seine
EMILIANI Valentina	Wavefront-engineering microscopy, Centre universitaire des Saints Pères
FAURE Philippe	Neurophysiology and Behavior, Neuroscience Paris Seine
FONTAINE Bertrand / NICOLE Sophie	Neurogenetics and Physiology, ICM CHU Pitié Salpêtrière
FORTIN Gilles	Hindbrain Integrative Neurobiology, INAF, N&D
FRANCIS Fiona / GOUTEBROZE Laurence	Cortical development and pathology, Institut du Fer à Moulin
FREGNAC Yves	Visual Cognisciences, INAF, UNIC
GALLI Thierry	Membrane traffic in health and pathology, Institut Jacques Monod
GASPAR Patricia / METIN Christine REBSAM Alexandra	Developmental mechanisms of brain disorders, Institut du Fer à Moulin
GIAUME Christian	Junctional communication and neuro-glio-vascular interactions, Collège de France
GIRAULT Jean-Antoine / DENIS Hervé	Neurotransmission and signaling, Institut du Fer à Moulin
GIROS Bruno	Pathophysiology of Psychiatric Diseases, Neuroscience Paris Seine
GUTKIN Boris / OSTOJIC Srdjan	Dynamical Neural Theory Group, ENS
HAIK Stéphane / POTIER Marie-Claude	Alzheimer and Prion Diseases, ICM CHU Pitié Salpêtrière
HIRSCH Etienne / HUNOT Stéphane	Experimental therapeutics of Parkinson disease, ICM CHU Pitié Salpêtrière
KOECHLIN Etienne	Frontal lobe functions group, ENS
LAMBOLEZ Bertrand / CAULI Bruno	Cortical Network & Neurovascular Coupling, Neuroscience Paris Seine
LAROCHE Serge	Cellular and Molecular Mechanisms of Plasticity and Memory, Centre de Neurosciences Paris Sud - Orsay
LEBOYER Marion / JAMAIN Stéphane	Psychiatry Genetic, Institut Mondor de Recherche Biomédicale
LEGUERN Eric / BAULAC Stéphanie	Genetics and physiopathology of epilepsies, ICM CHU Pitié Salpêtrière
LEHÉRICY Stéphane	Centre for NeuroImaging Research IRM, ICM CHU Pitié Salpêtrière
LÉVEILLARD Thierry	Rod-derived Cone Viability Signaling for the Treatment of Inherited Retinal Degenerations, Institut de la Vision
LIVET Jean	Development of neuronal circuits, Institut de la Vision
LLEDO Pierre-Marie	Perception and Memory, Institut Pasteur
MARTINOT Jean - Luc	Imaging & Psychiatry, Service Hospitalier Frédéric Joliot
MARTY Alain	Gabaergic synapses in the cerebellum, Centre universitaire des Saints Pères
MASKOS Uwe	Integrative Neurobiology of Cholinergic Systems, Institut Pasteur

NAIT OUMESMAR Brahim / BARON VAN EVERCOOREN Anne	Molecular and cellular approaches of myelin repair, ICM CHU Pitié Salpêtrière
PESSIGLIONE Mathias / DAUNIZEAU Jean / BOURET Sébastien	Motivation, Brain and Behavior, ICM CHU Pitié Salpêtrière
PETIT Christine	Genetics and Physiology of Hearing, Institut Pasteur
PICAUD Serge	Retinal information processing : pharmacology and pathologies, Institut de la Vision
PONCER Jean Christophe / LEVI Sabine	Plasticity in Cortical Networks and Epilepsy, Institut du Fer à Moulin
RAMUS Franck	Cognitive development and pathology, ENS
RONDI - REIG Laure	Cerebellum, navigation and memory, Neuroscience Paris Seine
ROUYER François	Molecular genetics of circadian rhythms, INAF, N&D
SELIMI Fekrije	Mice, Molecules and Synapse formation, Collège de France
THOMAS Jean-Léon / ZALC Bernard	Development of oligodendrocytes and neurovascular interactions, ICM CHU Pitié Salpêtrière
VENANCE Laurent	Dynamic and Pathophysiology of Neuronal Networks, Collège de France
VERNIER Philippe	Development and evolution of neurotransmission, INAF, N&D
VIDAILHET Marie / LEHÉRICY Stéphane	Normal and abnormal motor control, ICM CHU Pitié Salpêtrière
VINCENT Pierre	Cellular Integration of Neuromodulatory Processes, Campus de Jussieu Quai Saint Bernard

The ENP Network

113 research teams / 21 research centers

Teams by Centers

Centre de Psychiatrie et Neurosciences - Centre Hospitalier Sainte Anne U 894

DARMON Michèle, Cellular mechanisms of neurotransmission
KREBS Marie-Odile / JAY Thérèse, Pathophysiology of Psychiatric disorders
LANFUMEY – MONGREDIEN Laurence, Pathophysiology of mood disorders and addiction
SIMONNEAU Michel, Vulnerability of Psychiatric and Addictive Disorders

Collège de France

Center for Interdisciplinary Research in Biology UMR 7241-U 1050

FLEISCHMANN Alexander, Neural Circuits and Behavior
GIAUME Christian, Junctional communication and neuro-glio-vascular interactions
ROUACH Nathalie, Neuroglial Interactions in Cerebral Physiopathology
PROCHIANTZ Alain, Development & Neuropharmacology
SELIMI Fekrije, Mice, Molecules and Synapse formation
VENANCE Laurent, Dynamic and Pathophysiology of Neuronal Networks
ZUGARO Michael, Spatial memory and navigation

École Normale Supérieure

Institut de Biologie de l'École Normale Supérieure UMR 8197-U 1024

BARBOUR Boris, Cerebellum group
BOURDIEU Laurent, Cortical dynamics and coding mechanisms
BRUNET Jean-François, Development and Evolution of Neural Circuits
DIEUDONNE Stéphane / SUPPLISSON Stéphane, Inhibitory Transmission
GAREL Sonia, Brain development and Plasticity
SUMBRE German, Zebrafish Neuroethology

Laboratoire de Physique Statistique UMR 8550

NADAL Jean-Pierre / HAKIM Vincent, Complex networks and cognitive systems

Laboratoire de Neurosciences Cognitives-U 960

GREZES Julie, Social Cognition Group
GUTKIN Boris / OSTOJIC Srdjan, Dynamical Neural Theory Group
KOECHLIN Etienne, Frontal lobe functions group

TALLON-BAUDRY Catherine, Visual Cognition Group

Laboratoire de Sciences Cognitives et Psycholinguistique UMR 8554

DUPOUX Emmanuel, Computational Mechanisms of Cognitive Development

KOUIDER Sid, Brain and Consciousness

RAMUS Franck, Cognitive development and pathology

Laboratoire des Systèmes Perceptifs UMR 8248

MAMASSIAN Pascal, Vision Group

ESPCI Paris Tech

Laboratoire de Plasticité du Cerveau UMR 8249

BENCHENANE Karim, Memory Oscillations and Brain States (MOBS)

PREAT Thomas, Genes and Dynamics of Memory Systems

LENKEI Zsolt, Neuronal Structure and Dynamics

Faculté de Pharmacie de Paris UMRS 1144

BELLIVIER Frank, Biomarkers of relapse and therapeutic response in addiction and mood disorders

DECLEVES Xavier, Pathophysiology and therapeutic targets of the blood-brain barrier

Fédération de recherche en neurosciences

Centre de Neurophysique, Physiologie et Pathologie UMR 8119

HANSEL David/ LEVENES Carole, Cerebral Dynamics, Plasticity, Learning

ZYTNIKI Daniel, Spinal physiology and pathophysiology

Laboratory of Brain Physiology UMR 8118

CHEVALEYRE Vivien / PISKOROWSKI Rebecca, Synaptic plasticity and neuronal circuits

OGDEN David / AUGER Céline, Advanced optics for neuroscience

OHEIM Martin / ROPERT Nicole, Biophysics of gliotransmitter release

MARTY Alain, Gabaergic synapses in the cerebellum

Neurophotonic Laboratory UMR 8250

EMILIANI Valentina, Wavefront-Engineering Microscopy

GASNIER Bruno, Membrane Transport

Neurophysiology and New Microscopies Laboratory U 1128

ANGULO Maria Cecilia, Physiology of NG2 Cells

AUDINAT Etienne, Neuron-Glia Interactions

CHARPAK Serge, From sensory processing to functional hyperaemia

UFR Biomédicale FR 3636

AGULHON Cendra, Glia-Glia and Glia-neuron interactions group

Institut du Cerveau et de la Moelle épinière CHU Pitié Salpêtrière UMRS 1127-UMR 7225

BACCI Alberto, Cellular Physiology of Cortical Microcircuits
BRICE Alexis, Molecular basis, physiopathology and treatment of neurodegenerative diseases
FONTAINE Bertrand / NICOLE Sophie, Neurogenetics and Physiology
GEORGE Nathalie / FOSSATI Philippe, Social and affective neuroscience Team (SAN)
HAIK Stéphane / POTIER Marie Claude, Alzheimer's and Prion diseases
HIRSCH Etienne / HUNOT Stéphane, Experimental therapeutics of Parkinson Disease
LE GUERN Eric / BAULAC Stéphanie, Genetics and physiopathology of epilepsies
MALLET Luc, Behavior, Emotion and Basal Ganglia
NACCACHE Lionel / COHEN Laurent / BARTOLOMEO Paolo, PICNIC lab Physiological Investigations of Clinically Normal & Impaired Cognition
NAIT OUMESMAR Brahim / BARON VAN EVERCOOREN Anne, Molecular and cellular approaches of myelin repair
PESSIGLIONE Mathias / DAUNIZEAU Jean / BOURET Sébastien, Motivation, Brain and Behavior
THOMAS Jean-Léon / ZALC Bernard, Development of oligodendrocytes and neurovascular interactions
VIDAILHET Marie / LEHERICY Stéphane, Normal and abnormal motor control
WYART Claire, Lights-on Locomotion: optogenetic dissection of spinal circuits underlying locomotion in Vertebrates

Centre de Neuro-Imagerie de Recherche UMRS 1127-UMR 7225

LEHÉRICY Stéphane, Centre for NeuroImaging Research IRM

Imagen Service Hospitalier Frédéric Joliot U 1000

MARTINOT Jean-Luc, Imaging and Psychiatry

Imagerie et Modélisation en Neurobiologie et Cancérologie IMNC UMR 8165

GURDEN Hirac, Metabolism, Imaging and Olfaction

Institut Curie – Centre de recherche

Genetics and developmental biology U 934-UMR 3215

DEL BENE Filippo, Neuronal circuit Development Group

Genotoxic stress and cancer UMR 3348

CARSTEN Janke, Regulation of microtubule dynamics and function

Institut de Biologie Paris Seine FR3631

CABOCHE Jocelyne / VANHOUTTE Peter, Neuronal Signaling and Gene Regulation

CHNEIWEISS Hervé / JUNIER Marie-Pierre, Glial Plasticity

EL MESTIKAWY Salah, Normal and pathological Glutamatergic system
FAURE Philippe, Neurophysiology and Behavior
GIROS Bruno, Physiopathology of Psychiatric Disease
LAMBOLEZ Bertrand / CAULI Bruno, Cortical Network and Neurovascular Coupling
LEGENDRE Pascal / MANGIN Jean – Marie, Development of the Spinal Cord Organization DSCO
RONDI REIG Laure, Cerebellum, Navigation and Memor
SCHNEIDER-MAUNOURY Sylvie, Morphogenesis of the vertebrate brain
SHERRARD Rachel, Brain development, repair and ageing
TRONCHE François, Gene Regulation and Adaptive Behaviors
VINCENT Pierre, Cellular integration of neuromodulatory processes

Institut de la Vision - Fondation Voir et Entendre UMR 968

ARLEO Angelo, Aging in vision and action
BRETTE Romain, Computational neuroscience of sensory systems
CHEDOTAL Alain, Role of axon guidance molecules
LÉVEILLARD Thierry, Rod-derived cone viability signaling for the treatment of inherited retinal degenerations
LIVET Jean, Development of neuronal circuits
PICAUD Serge, Retinal information processing: pharmacology and pathologies

Institut de Psychologie Université Paris Descartes U 3521

HOUDÉ Oliver, Laboratory for the Psychology of Child Development and Education

Institut de recherche biomédicale Cochin U 1016-UMR 8104

BILLUART Pierre, Genetics and pathophysiology of mental spectrum disorders

Institut du Fer à Moulin UMRS 839

FRANCIS Fiona / GOUTEBROZE Laurence, Cortical development and pathology
GASPAR Patricia / METIN Christine, Developmental mechanisms of brain disorders
GIRAULT Jean-Antoine / HERVE Denis, Neurotransmission and signaling
MAMELI Manuel, Synapses in the pathophysiology of reward
MAROTEAUX Luc, Serotonin signaling in plasticity and disease
PONCER Jean / LÉVI Sabine, Plasticity in Cortical Networks and Epilepsy

Institut Jacques Monod UMR 7592

GALLI Thierry, Membrane traffic in health and pathology
PIERANI Alessandra, Genetics and Development of the Cerebral Cortex

Institut Mondor de Recherche Biomédicale U 955

BACHOUD-LEVI Anne Catherine, Interventional neuropsychology
LEBOYER Marion / JAMAIN Stéphane, Psychiatry genetic

Institut Pasteur

Département de Neurosciences UMR 3571

DI GREGORIO David, Dynamic Neuronal Imaging
LLEDO Pierre-Marie, Perception and Memory
MASKOS Uwe, Integrative Neurobiology of Cholinergic Systems

PETIT Christine, Genetics and Physiology of Hearing, UMRS 1120

Molecular Imaging Research Center (MIRCent)

Laboratoire des Maladies Neurodégénératives URA 2210

BONVENTO Gilles, Cell-cell interactions in neurodegenerative diseases

Neuroscience Paris Saclay-Institute NeuroPSI UMR 9197

Neurobiology and Development (UPR 3294)

BALLY CUIF Laure, Zebrafish Neurogenetics (ZEN)
FORTIN Gilles, Hindbrain Integrative Neurobiology
GRANON Sylvie, Neurobiology of decision making
LAROUCHE Serge, Cellular and Molecular Mechanisms of Plasticity and Memory
PERRON Muriel, SCanR Stem cells & Neurogenesis in the Retina
RETAUX Sylvie, Development and evolution of the forebrain (DECA)
ROUYER François, Molecular genetics of circadian rhythms
VERNIER Philippe, Development and evolution of neurotransmission

Unit of Neuroscience Information and Complexity UNIC (UPR 3293)

BAL Thierry, Neurocybernetics of Thalamic and Cortical Networks
BATHÉLLIER Brice, Cortical Dynamics and Multisensory Processing
DESTEXHE Alain, Computational Neuroscience
FREGNAC Yves, Visual cognisciences
SHULZ Daniel, Neural Processing, Neuromodulation and sensory plasticity

Neurospin U 562

DEHAENE Stanislas, Cognitive Neuroimaging Unit
DEHAENE LAMBERTZ Ghislaine, Developmental Neuroimaging
JARRAYA Béchir, Équipe Avenir



**ÉCOLE DES NEUROSCIENCES
DE PARIS ÎLE-DE-FRANCE**

15 rue de l'École de Médecine
Réfectoire des Cordeliers
75006 Paris

Tél. 01 71 18 31 51
Fax. 01 71 18 31 50

www.paris-neuroscience.fr
enp@paris-neuroscience.com



Fondation de coopération scientifique
SIRET 498 142 553 00029