

IPNP

Institute of Psychiatry and Neuroscience of Paris

Institute of Psychiatry and Neuroscience of Paris
Institut de Psychiatrie et Neurosciences de Paris

102-108 rue de la Santé, 75014 Paris (France)
https://cpn.paris5.inserm.fr/

200 people
10 senior teams
4 junior teams

Lead expertise in psychiatry and neuroscience

Multi-disciplinary community

Translational science from bench to bedside

State of the art techniques in neuroscience

Located in the heart of Paris within the Sainte-Anne psychiatric hospital

High-tech core facilities

Located since 2017 in a new building of 4300m²

"Bridge the gap between basic and clinical research in a setting which has historical roots in understanding psychiatric and neurological problems via researching the central nervous system."

Inserm
La science pour la santé
From science to health

Université de Paris

Institute of Psychiatry and Neuroscience of Paris

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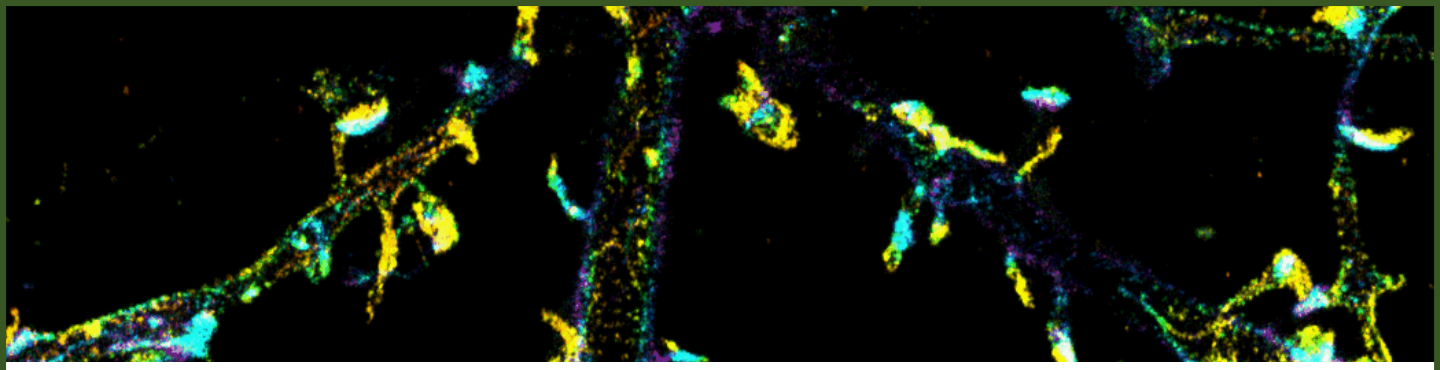
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ABOUT THE INSTITUTE

The IPNP is located in a new building of 4300 m² within the Sainte-Anne hospital since fall 2017.

Under the leadership of Thierry Galli since September 2015, the IPNP is a multi-disciplinary community of over 200 basic and clinical neuroscientists, as well as faculty members working on:

- Neurodevelopment and Psychiatry
- Behavior, Memory and Emotions
- Neurovascular system
- Multiscale imaging (from molecules to whole brain)
- Translational Neuropsychiatry
- Molecular and Cellular Mechanisms in Aging Brain

The IPNP hosts junior and senior researchers, as well as spin-off firms to support the promotion of research and technology transfer.

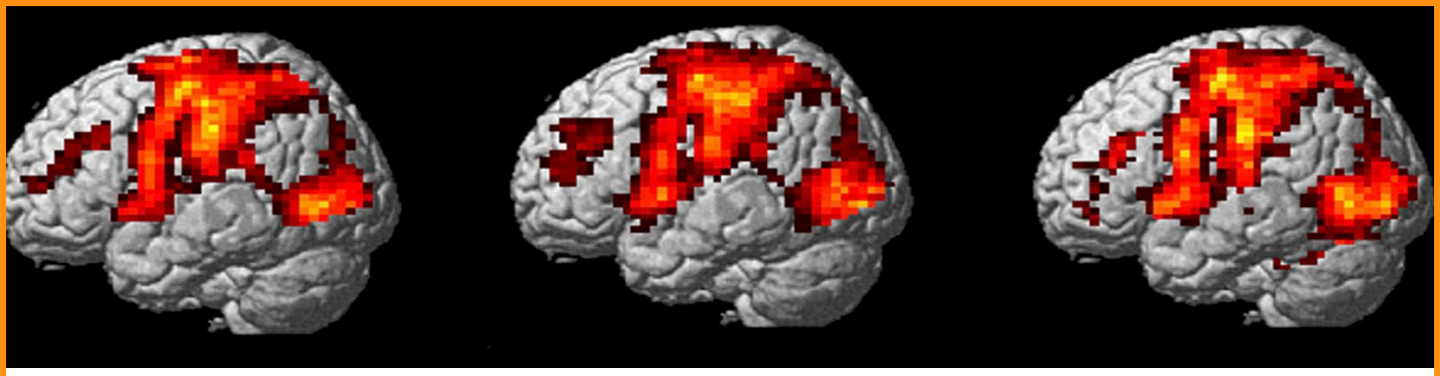
The IPNP provides core facilities and services to ensure that its teams have access to the most advanced technologies, allowing the development of modern psychiatric and neuroscience research projects.

OUR GOALS

I. To understand how the brain works at all levels, from molecular mechanisms to cells, neuronal networks and whole organ through innovative and interdisciplinary researches.

II. To promote the transfer of research and discovery into medical advances for neurological and psychiatric diseases, such as the development of new therapeutics, devices or diagnostics.

III. To train the next generation of physicians and scientists to conduct collaborative and creative science.



RESEARCH TEAMS

SENIOR TEAMS

Maria Cecilia ANGULO
Interactions between neurons and oligodendroglia in myelination and myelin repair

Thierry GALLI
Membrane Traffic in Healthy & Diseased Brain

Gilles HUBERFELD
Neuronal Signaling in Epilepsy and Glioma

Anne JOUTEL
Pathogenesis of small vessel diseases of the brain

Marie-Odile KREBS
Pathophysiology of Psychiatric disorders: Development and Vulnerability

Zsolt LENKEI
Dynamics of the Neuronal Structure in Health and Disease

Catherine OPPENHEIM
Imaging Biomarkers of Brain Development and Disorders

Alessandra PIERANI
Genetics and Development of the Cerebral Cortex

Nicolas RAMOZ and Philip GORWOOD
Vulnerability of psychiatric and addictive disorders

Guillaume TURC
Stroke: from mechanisms and determinants of outcome to randomized clinical trials

JUNIOR TEAMS

Fany KOUKOULI
Cholinergic modulation of cortical inhibitory circuits in health and disease

Maria Belén PARDI
Neuronal Circuits for Memory and Perception

Heike REBHOLZ
Signaling mechanisms in neurological disorders

Guillaume VAN NIEL
Endosomal dynamics in neuropathies

RESEARCH DOMAINS

SCIENTIFIC DOMAINS:

- Neuro-Development and Psychiatry
- Memory, Behavior and Emotions
- Neuro-Vascular System
- Intracellular Trafficking, Cytoskeleton and Intercellular Communication in Aging Brain

CROSS-CUTTING DOMAINS:

- Brain Tumors with both clinical and basic research
- Multiscale Imaging from molecules to whole brain
- Translational Neuropsychiatry

HIGH-TECH CORE FACILITIES

Animal Housing
Juliette Forget (Scientific manager)
4 zootechnicians

BIPN: Bioinformatics for Image Analysis
Nicolas Ramoz & Boris Chaumette (Scientific directors)
Ingeneer to recruit (Technical manager)

B&B: Biochemistry and Biophysics Facility
David Tareste (Scientific director)
Erwan Boedec (Technical manager)
Kristina Niort (Engineer)

NeurImag imaging
Lydia Danglot (Scientific director)
Philippe Bun (Image analysis manager)
Laurianne Beynac (Technical manager)
Ingeneer to recruit (Technical manager)

Phenobrain
Gwenaelle Le-Pen (Scientific director)
Ludivine Therreau (Technical manager)

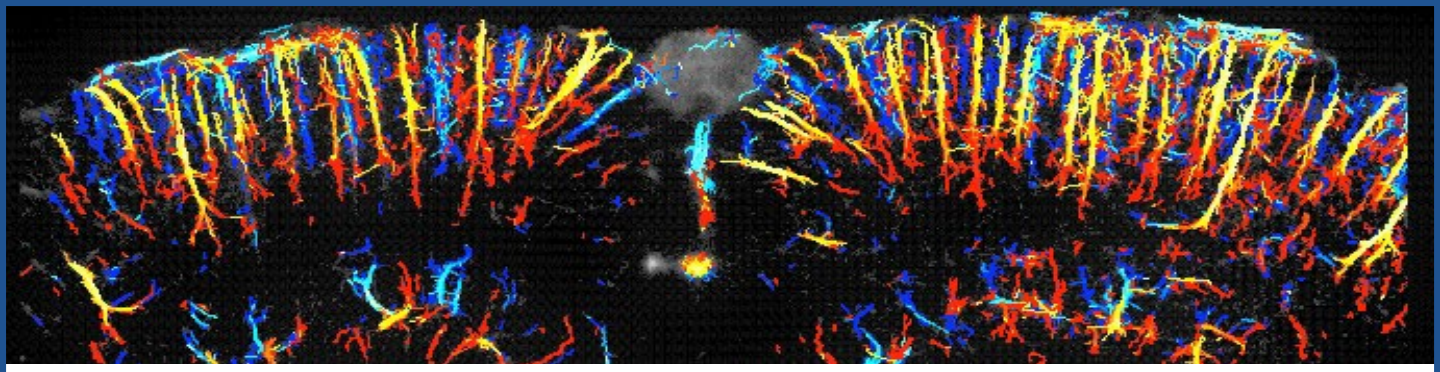
ZebraFish Facility
Guillaume van Niel (Scientific director)
Dominique Dumoulin (Technical manager)

DIRECTOR
Thierry GALLI

EXECUTIVE DIRECTOR
Elisabeth DAVENAS

SCIENTIFIC OFFICER
Clara MARTINEZ RICO

COMMUNITY MANAGER
Heike REBHOLZ



HIGH-TECH CORE FACILITIES & COMMON SERVICES

Animal House

The animal housing facility contains state of the art technology to ensure the well-being of specified pathogen free rodents with individually ventilated cages and an automatic water-delivery system, software for colony and environmental management and automated measurement, washing, sterilizing and decontamination equipment.

BIPN

BIPN aims to formalise user needs, to process data and to interpret the results in the specific field of neuroscience and psychiatry. The platform is able to develop omics' analyses (genomics, methylomics, trancriptomics, proteomics). Another mission of the platform is to maintain the adequate informatic resources to manage data flows, storage and accessibility.

B&B

The B&B facility is dedicated to the purification and analysis of proteins (both native and recombinant), the characterization of protein-protein and protein-lipid interactions, and the production of nucleic acids (including DNA vectors and mRNA). This facility manages the equipment for ultracentrifugation (Optima XPN-80 and Optima MAX-XP, Beckman), protein purification (Emulsiflex, Avestin; ÄKTA Pure 25M, GE Healthcare), protein and nucleic acid analysis (BioDrop µLite, Biochrom; Odissey CLx, LI-COR; ChemiDoc Touch, Bio-Rad; E-Box, Vilber), particle distribution and molecular interaction measurements (Envision, Perkin Elmer; Microtrough XL, Kibron; Zetasizer Ultra, Malvern Panalytical; J-1500, JACSO).

NeurImag

The NeurImag Facility combines both microscopy and primary culture services. It addresses imaging techniques form whole organism to single molecule level covering a wide range of spatiotemporal resolution, ranging from video-microscopy (muliple color spining disk with Gemini2c and 2 CMOS Flask 4 camera) and confocal microscope (Leica SP8 and Zeiss 880 equiped with Airyscan) to super-resolution imaging (SIM, 3Dx STED, and 3D PALM/dSTORM) on rodents and human samples.

PhenoBrain

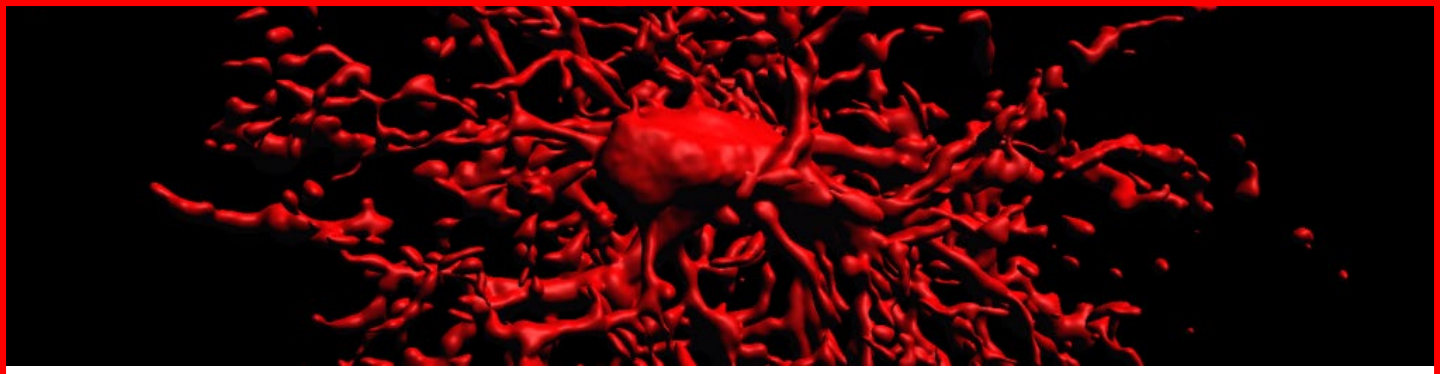
PhenoBrain provides a wide variety of behavioral tasks for studies in genetic, environmental, and pharmacological models of neurodegenerative and neuropsychiatric disorders, and for preclinical efficacy testing of novel therapeutic agents. The Core includes a state-of-the-art technology for the behavioral evaluation of rodents (both mice and rats) in the fields of anxiety, depression, reward, eating behaviors, motor behaviors, sensorimotor gating, communication, social behaviors and cognition.

ZebraFish

The ZebraFish facility provides housing tanks in two stand-alone racks for a total of 330l or >1500 fish capacity and a quarantine facility of 100l (500 fishes). The facility provides support for research with microinjectors, needle puller, incubators and all aquarium associated equipment. The Core benefits from a state-of-the-art expertise in embryo imaging at subcellular scale (live and electron microscopy) .

Common Services

Many other services are proposed to all teams of the IPNP, which will further benefit from the services of engineers dedicated to molecular biology, genetics and real-time PCR, histology, cell culture as well as lab store, IT service, building maintenance and central dishwashing for the general support of their research.



START-UPs, CONSORTIA & SOCIO-ECONOMIC INTERACTIONS

Start-UPs

AiiNTENSE is a solution using advanced technologies such as artificial intelligence, blockchain and tele-expertise to improve the prognostic assessment of intensive care patients.

AtmosR's*,** mission is to develop innovative treatments for patients with rare, severe and sometimes fatal disorders of the central nervous system.

Dextrain develops manual dexterity technology and machine learning analysis to improve neuro-recovery and prediction, enhancing daily life of millions of individuals.

Iconeus designs, manufactures and commercializes functional ultrasound (fUS) to image whole-brain activity in real time.

Panntherapi* is a pharmaceutical company dedicated to the development of innovative drugs, aiming for better efficacy and tolerance than current ones for the treatment of brain and nervous diseases.

*Settled at IPNP. ** External Start-Up

Consortia

C-Brains is a DIM dedicated to Neuroscience and Cognitive Sciences in the Paris Region.

The INC comprises 80 neuroscience and cognitive science research teams from the UPC Faculties, the Institut Pasteur Neuroscience Department and the Institut de l'Audition. It also includes study programs such as EURs and Masters

Socio-Economic Interactions

The PEPR Biotherapies & Bioproduction aims to accelerate research, engineering and deployment of biotherapies: gene, cell and tissue therapy, extracellular vesicles, mRNA, therapeutic antibodies.

The FHU Neuro-Vascs goal is to promote excellence in care, research and teaching in the field of cerebrovascular diseases.

The Treat SVD program supported by the FHU NeuroVasc, aims to develop innovative therapies, using the genetic forms of these diseases, and in particular CADASIL, the most common, as a paradigm.

The PEPR 'Propsy' programme focuses on four of the most disabling disorders namely bipolarity, major depressive disorders, schizophrenia and autism spectrum disorders. 'Propsy's objective is to provide solutions for rolling out precision medicine in the field of psychiatry.

The IHU Prometheus is the world's first integrated research, training and care center for overcoming sepsis.

The RHU PsyCARE is dedicated to early intervention in psychosis: towards preventive and personalized psychiatry.

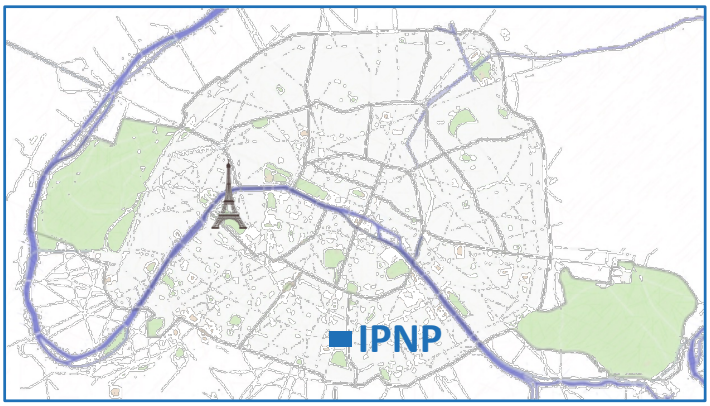


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Subway

- M 4 Denfert-Rochereau Alésia
- M 6 Denfert-Rochereau Glacière

Train

- RER B Denfert-Rochereau Cité Universitaire

Bus

Lines 62 and 21

