

Appel à manifestation d'intérêt - Chaire de professeur junior

Fiche projet type

Établissement/organisme porteur : Université Paris Cité

Nom du chef d'établissement/d'organisme : Christine CLERICI

Site concerné : Institute of Psychiatry and Neuroscience of Paris (IPNP, INSERM UMR_S1266)

Région académique : Région Académique Île-de-France

Établissements/organismes partenaires envisagés : Inserm and Sainte Anne Hospital of the GHU Psychiatry & Neuroscience

Nom du projet : Signaling pathways and psychiatric diseases

Éventuellement acronyme : 'SignalPsy'

Mots-clés : Autism, Depression, Genetics, Signaling, Pharmacology

Durée visée : 5 years

Thématique scientifique : Psychiatry

Section (s) CNU/CoNRS/CSS correspondante (s) : 69, Neuroscience

Stratégie d'établissement : *décrire en quoi le recrutement est en lien avec la stratégie de l'établissement (15 lignes maximum)*

This project will be in line with the Université Paris Cité (UPC) commitment to support research in psychiatry. The location of the position, within the joint Inserm/Université Paris Cité research institute, on the site of the Sainte Anne Hospital of the Paris Psychiatry & Neuroscience University Hospital Group, is emblematic in respect to the historic and modern-day reputation of this hospital as France 's most eminent psychiatric care center. The research pursued by the candidate should correspond to the institute's mission of translationally oriented research and enable strong links between the IPNP's preclinical and Sainte Anne Hospital's clinical research. In particular, the proposed research program should benefit from the expertise of and allow collaborations with clinicians at the Regional Research and Diagnostic Center for Autism and neurodevelopmental disorders (CREDAT) at the Sainte Anne Hospital. The candidate should also bring significant teaching experience at Bachelor and Master's levels since she will teach in the Fundamental and Biomedical Sciences Department of the Université Paris Cité as well as in other departments.

Stratégie du laboratoire d'accueil : *décrire en quoi le recrutement est en lien avec la stratégie du laboratoire d'accueil (15 lignes maximum)*

The Institute of Psychiatry and Neuroscience of Paris (IPNP) is a mixed research unit of the Université Paris Cité and Inserm with 10 accredited research teams, 3 emerging teams and an ATIP-Avenir team to be installed in summer 2022, aiming at a mechanistic understanding of biological processes in the healthy brain and in neurological and psychiatric diseases. The projects addressed by the teams belong to the following scientific areas: 1/ Neurodevelopment and psychiatry, 2/ Memory, behavior and emotions, 3/ Neurovascular system, 4/ Molecular and cellular mechanisms of the aging brain.

The main approaches include genetics, epigenetics, biochemistry, biophysics, cell biology, developmental biology, electrophysiology, neurovascular physiology, optogenetics, behavior, brain imaging, clinical neuroscience, innovative therapeutics and pharmacology with the support of common services and facilities: rodent and zebrafish animal facility, microscopy, bioinformatics, electrophysiology and imaging, biochemistry. Multidisciplinary research is reinforced by collaborations with clinicians in psychiatry, neurovascular diseases, brain tumors and brain imaging. The IPNP aims to attract international researchers and world-class leaders.

Résumé du projet scientifique : 15 lignes maximum

The research project will align with a research domain that is central to the mission of the joint program of the IPNP and Sainte Anne University Hospital: to better understand kinase signaling mechanisms in neurodevelopment and, more specifically, in the recently described Okur-Chung and Poirier-Bienvenu* autism spectrum-type neurodevelopmental disorders that are caused by gene variants encoding different subunits of the kinase CK2, known to be important in brain development and angiogenesis (*Thierry Bienvenu is a MD and researcher at IPNP).

The candidate is expected to liaise with clinical staff to relate genetic and patient information to symptomatology and underlying biochemical signaling pathways and should use genomics, transcriptomic and/or proteomic approaches. The candidate will have a strong background in cellular biology and biochemistry to be in an ideal position to study disease-driving mechanisms in patient derived primary tissue, such as iPS cells. Furthermore, the candidate should be qualified to make maximal use of existing state-of-the-art core facilities at the IPNP: the rodent behavioral, the imaging and biochemistry platforms.

CK2-driven angiogenesis and neurovascular coupling events, involved in neurodevelopmental as well as neurodegenerative conditions, such as Parkinson’s disease, are also accessible for study in the functional ultrasound imaging platform.

Résumé du projet d’enseignement : 15 lignes maximum

Teaching will be carried out within the Fundamental and Biomedical Sciences Department as well as in other departments interested in the profile of the applicant. The chair will instruct 1/ medical students in genetics, biochemistry, neurosciences, psychiatry and network connectivity, and 2/ students of the Neuroscience Master’s program (Université Paris Cité) where he/she will be in charge of theoretical and practical teaching on signaling pathways in the central nervous system, genetics of autism spectrum diseases and neurodegenerative diseases. The chair will be able to take advantage of the tools available at the IPNP, in particular the platforms, to set up innovative practical work for the Master students.

Synthèse financière : à réaliser à partir de la fiche financière jointe, décrire les besoins financiers et leur répartition pour mener à bien le projet scientifique (doctorant, post-doctorant, IT, équipement, ...)

Total financé sur CPJ (package ANR)	200 000 €
Co-financement	€
Total du projet	€

Diffusion scientifique : préciser les résultats attendus en termes de diffusion scientifique (publications, communications, ...)

The candidate will publish his/her research results in prominent scientific journals of Psychiatry and Neuroscience and will participate in the courses “Genetics and proteomics of autism spectrum disorders” and “Network connectivity in the healthy and diseased brain” within the outreach programs of the IPNP and the “Institut Hors Mur” Institut Neurosciences and Cognition of the Université Paris Cité.

The candidate will also be in close contact with the clinical community at the University Hospital Paris Psychiatry and Neurosciences/ Sainte Anne (GHU) and will be involved in lecture series addressing the medical public.

Science ouverte : le projet s’inscrit-il dans une démarche de science ouverte ? Si, oui décrire sa mise en œuvre.

The candidate’s publications will be in line with general policy of open science at INSERM and Université Paris Cité, including the use of the publication platform HAL-INSERM for systematic dissemination of manuscripts that are accepted for publication. Whenever possible, the candidate is expected to publish in open access journals and to adhere to principles of transparency, data and reagent sharing.

Science et société : le projet envisage-t-il une communication auprès du grand public ? Si oui : préciser de quelle manière et à quelle échéance

The IPNP is very active in communicating with the general public. This communication is carried out through several channels, in particular its website, the institutional communication of Inserm, the Université Paris Cité and the GHU. IPNP staff are also regular presenters/ instructors during the nationwide initiative, termed “La semaine du Cerveau” (“Brain week”) and the candidate is expected to participate in this initiative.

The IPNP has also successfully realized outreach programs for younger generations, such as conducting an "Escape game", hosting high school students, and carrying out open lab days and a Science Festival.

The candidate will be fully involved in these activities and will bring previous experience in the field of science outreach and popularization in order to successfully participate in such initiatives and events within the framework of the efforts of the IPNP, the Université Paris Cité and the Sainte-Anne Hospital.

Indicateurs : préciser les indicateurs de suivi du déploiement du projet et la méthodologie de leur suivi

The candidate is expected to acquire external funding that will allow for the realization of research projects including the hiring of scientific personnel and post-docs. He/she will be evaluated by the IPNP’s international scientific advisory board, on a regular basis, and will be subject to HCERES/Inserm/Université Paris Cité accreditation.