Job description
Tenure track 2025 (chaire de professeur junior)

☒ Faculté des Sciences et Ingénierie	☐ Faculté de Santé

Department : NeuroSU (CNRS UMR 8265 - NSERM 1341) Institut de Biologie Paris-Seine (CNRS 3631**)**
Location : Sorbonne Université, Faculté des Sciences et Ingénierie ,Campus Pierre et Marie Curie, 4 place Jussieu, 75005 PARIS

Job Identification

Discipline : Neuroscience
Corresponding CNU sections : 69

Job title: Tenure track
Duration of the contract : 3 years
Quotity : 100 %
The minimum monthly remuneration is fixed by decree at 3,443.50 euros gross

Etat du poste : open

Profil

Environmental Stress and Brain Function: A Neuroethological Approach Using the Bee Model

Job Profile

Environmental Stress and Brain Function: A Neuroethological Approach Using the Bee Model

Education

The person recruited will outsource teaching in the field of neuroscience, including comparative neurobiology and ethology, in accordance with the existing curriculum. The possibility of incorporating “environmental neuroscience” courses into these curricula, focusing on neural responses to changing environments resulting from anthropogenic action, would be an asset for the neuroscience pathway at the UFR and Sorbonne University.

In addition, the person recruited will play an important role in the new multidisciplinary “Introduction aux Enjeux Environnementaux” (Introduction to Environmental Issues) course being set up by Sorbonne Université from 2025-2026, the aim of which is to provide a foundation of knowledge on environmental issues, including the human origin of the collapse of biodiversity and ongoing climate change, based on scientific consensus.

Research

This tenure track reinforces the themes in which SU excels and which are at the heart of its establishment project, in particular the “Global Approach to Health” axis of the ExcellencES SOUND project. It meets the strategic priorities defined by SU for this type of recruitment, particularly in the One Health axis, and aims to address major societal challenges by combining fundamental research and environmental issues.

This project, centered on the “Brain and Environment” theme, places SU in a leading position to respond to urgent environmental issues requiring solutions based on fundamental science. It opens up prospects for potential policy and conservation applications in the face of anthropogenic impacts on animals and ecosystems.

To understand how nervous systems adapt to unprecedented environmental changes, it is crucial to analyze behavioral and neural mechanisms in a natural context.
While human activity leads to behavioral modifications and species extinction, the cellular and molecular processes underlying these changes remain little explored. This tenure track will address these gaps by studying the impact of environmental perturbations (climate change, pollutants, etc.) on the brain, its adaptation and resilience.

This research, carried out on the honey bee as a model species, will explore how brain connectivity, dynamics and functions are affected by the multiple stressors generated by our modern societies. This

project will contribute to a better understanding of the brain's adaptation mechanisms in a changing environment.

Host laboratory strategy :

The candidate will join the NeuroSU-IBPS unit (CNRS UMR8265/Inserm U1341/SU), whose scientific mission is to understand the fundamental mechanisms underlying the physiology of the central nervous system - brain and spinal cord - during development and into adulthood. This research is aimed at establishing preclinical models to better understand and treat human psychiatric and neurological disorders.

This position will reinforce the dynamics of the ICON (Insect Cognitive Neuroethology) team, the driving force behind the new field of neuroethology, whose international visibility and need for support have been recognized by various assessment bodies. This reinforcement is in line with the laboratory's priority strategy, based on the theme of “The Brain in its Environment”. This axis explores brain function and dysfunction in response to environmental stresses, offering an innovative and essential perspective in the context of current challenges.

Summary of scientific project:

Anthropogenic environmental changes are having a profound impact on the nervous system. A neuroethological approach linking behavior and brain in a natural context is essential to understand its adaptation to these disturbances. The aim of this project is to study the impact of environmental stresses (climate, pollutants) on the brain, its adaptation and resilience. The honey bee, a key model for its economic role and the threats to which it is exposed, provides a precise analysis of the links between environment, behavior and survival. The architecture and functioning of its brain show parallels with those of vertebrates. Using advanced tools (imaging, electrophysiology, molecular analysis), the host team is exploring its cognition. The recruited person will open a new line of research, examining the impact of pesticides and other environmental stresses (warming, noise and light pollution) on the bee's behavior and nervous system.

Strategy in terms of international attractiveness:

The research field associated with this tenure track has been very attractive to PhD students in recent years, and there is now a rich pool of bright young researchers from abroad who are potential candidates. SU has also strengthened its strategic international partnerships and research and training initiatives with the European 4EU+ alliance. These partnerships with leading universities provide a pool of students and collaborators on research topics related to this tenure track.

Scientific dissemination:

The results obtained in the context of this tenure track will be published in international journals and presented at international conferences and congresses. The person recruited will promote the discipline, the laboratory and the University by taking part in international conferences and workshops to present his/her results. In terms of supervision, he/she will have the possibility of recruiting a post-doctoral fellow thanks to the “package” provided, and will also be able to co-supervise students and trainees.

In addition, the results obtained will be actively disseminated on a national and European scale, among citizens' associations and national, regional and European beekeepers' federations. The aim is not only to bring science closer to these communities, but also to show how environmental threats, including pesticides, can affect bee behavior and their nervous systems.

Laboratory	Sigle (UMR, UMRS, etc.)	N°
NeuroSU	CNRS UMR	8265
	INSERM U	1341
	UMPC UMCR	18
Institut de Biologie Paris-Seine	CNRS FR	3631

Application procedure

Applications are open from July 4th 2025 10:00 am (Paris time) to September 5th 2025 4:00 pm (Paris time). Applications must be submitted on the ODYSSÉE website.

The documents to be attached to the application file are set by the decree of February 6, 2023, as amended, concerning the general terms and conditions for the transfer, secondment and recruitment by competition of lecturers, university professors and junior professors (see in particular Title III - articles 24 to 27 and Title IV - articles 28 to 31).

You should also submit this application form (French version or English version) to Odyssée or attach it to the submitted file in the Titles and Works section of the submission of documents when submitting your application.

Candidates who do not hold a doctorate must have their university diplomas, qualifications and titles recognized as equivalent to a doctorate, in accordance with one of the procedures provided for in article 5 of decree no. 2021-1710 of December 17, 2021 concerning the junior professorship contract provided for in article L. 952-6-2 of the Education Code and article L. 422-3 of the Research Code. Any incomplete application by the above-mentioned deadline will be declared inadmissible.

Only candidates who have been selected by the selection committee based on their applications will be invited to an interview, according to a timetable and procedures that will be communicated shortly.

Professional simulation : NO

The aforementioned decree n° 2021-1710 of December 17, 2021 determines the conditions of renewal of the contract, the modalities of assessment, before the tenure, of the scientific value and the aptitude to carry out the missions of each body, the modalities of appointment of the members of the selection and tenure commissions and the conditions of the commitment to serve.

Contacts

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