## Job Description

### Tenure track 2024 (chaire de professeur junior)

**Faculté des Sciences et Ingénierie**

**Department**: Institut de biologie Paris-Seine (IBPS), Institut du Fer à Moulin (IFM)  
**Partner institutions/organizations**: Institut national de la santé et de la recherche médicale (Inserm), UMRS 1270  
**Location**: Sorbonne Université, Campus Pierre et Marie Curie, 4 place Jussieu 75005 PARIS

### Job Identification

**Discipline**: Neurogenetics / Neurogenomics  
**Corresponding CNU sections**: 65, 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**  
**Etat du poste**: open

### Profil

**Neurogenetics / Neurogenomics**  
**Job Profile**  
**Neurogenetics / Neurogenomics**

### Education

**Summary of teaching project:**  
The successful candidate will take part in the Neuroscience track of the Integrative Biology and Physiology (BIP) master's degree, including the fundamental courses for specialization, such as ‘Development of the nervous system’ and ‘Development and Plasticity of the Nervous System Pasteur Course’. They may also take part in courses dealing with emerging approaches, including organoids and omics, in the international BIP and BMC (Molecular and Cellular Biology) Masters courses, such as ‘Novel technologies applied to human neuropathologies’, ‘Hot topics: transdisciplinary approaches to neurodegenerative and psychiatric diseases’, ‘Vision from retina to primary visual cortex’ and ‘From fundamental molecular biosciences to biotherapy’ as well as ‘Stem cell biology’. The junior professor will also be able to contribute to the core courses of the bachelor’s degree.

### Research

**ERC scientific theme**: Biology and health

**Institutional strategy:**  
This CPJ reinforces the themes in which SU has demonstrated its leadership and which are at the heart of its establishment project, and in particular of the “global approach to health” axis of the ExcellencES SOUND project (PIA 2012). The training and research activities associated with this CPJ are geared to the contributions that can be made to collectively meet society’s challenges.

The nervous system is characterized, on the one hand, by an extraordinary cellular diversity and, on the other, by a complex and highly precise network formed by these cells, enabling the elaboration of behaviors. Deciphering this diversity, how it is set up and its role in the normal and pathological functioning of the nervous system is a major challenge and a major stake in understanding and treating it. This is the aim of genetics and functional genomics, which represent one of the current revolutions in the study of neurodevelopment, and lie at the interface between neuroscience, developmental biology, evolutionary biology (‘evo-devo’), molecular biology and bioinformatics. It opens up immense prospects both for elucidating the mechanisms at play in developmental trajectories and the acquisition of cellular identity, and for discovering the genetic perturbations involved in brain cancers and neurodevelopmental and neurodegenerative diseases.

This field of research in developmental neurogenetics represents a major international challenge, revolutionizing our understanding of the nervous system. It relies in particular on highly specialized skills in molecular genetics and genomics, as well as in developmental neurobiology and bioinformatics. Because of its cross-disciplinary nature, this research theme requires a wide range of skills and a capacity for integration.

**Host laboratory strategy:**  
The exploration of cellular trajectories and identities in neurodevelopment combines many cutting-edge and innovative techniques such as spatial transcriptomics, real-time imaging (super-resolution and 3D) of neural networks, or combined multi-omics approaches. These multi-scale approaches are now required to study...
all dimensions of neurodevelopment, from the gene to the organization of neuronal architecture. IFM-IBPS is currently looking to recruit new talents at the highest international level in the field of developmental neurogenetics. This field has also been identified as one of the 3 priority areas at regional level, as part of the C-BRAINS DIM supported by the Ile-de-France Region. Within IFM-IBPS and more broadly Sorbonne University, this profile will strengthen the fields of neuroscience, developmental biology, genetics, bioinformatics, neurodevelopment, biophysics and synthetic biology.

Summary of scientific project:

The development of the nervous system is characterized by the establishment of an extraordinary cellular diversity and a complex, highly precise network formed by these cells, enabling the elaboration of behaviors. Genetics and functional genomics are revolutionizing the study of neurodevelopment, linking neuroscience, developmental biology, evolution, molecular biology and bioinformatics. They shed light on developmental mechanisms, cellular identity, and genetic abnormalities in brain cancers and neurological diseases. Transcriptomics reveals the cellular mechanisms of the neural network, whether normal or pathological. This field of research in developmental neurogenetics is international in scope and requires skills in genetics, genomics, developmental neurobiology and bioinformatics. This CPJ is designed to strengthen the expertise of the IFM and IBPS in neurogenetics/neurogenomics applied to neuroscience and neurodevelopment in particular. Candidates should have expertise in this field, and the ability to integrate these approaches with other cutting-edge techniques to answer fundamental questions about neurodevelopment.

Scientific dissemination:

Like all research topics, the results obtained in the context of the CPJ will be published in international journals and presented at international conferences and congresses. As this is fundamental research, no knowledge transfer activities other than publications or scientific mediation are envisaged. In research, the junior professor will have the opportunity to interact with researchers at the IFM and in neighboring or partner laboratories. He/she will raise the profile of the discipline, the laboratory and the University by taking part in international conferences and workshops to present results. In terms of supervision, he/she will have the opportunity to recruit a post-doctoral or doctoral student, thanks to the provided funding, and will also be able to co-supervise students and trainees from the research team. In terms of collective investment, the junior professor will be involved in communicating with the general public.

Science and society:

The recipient of this CPJ will be encouraged to take part in a number of communication programs aimed at the general public, such as Brain Week, the Cercle FSER's Déclics program and the many regional initiatives run by the DIM C-BRAINS. The junior professor will thus be able to take part in these various initiatives to inform and raise awareness among the general public of the challenges and opportunities of his or her research.

Breakdown of financial support:

- Support from ANR: 200 000€, including support for a PhD student and operating costs (consumables, reagents, missions, conferences, etc.).

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<tr>
<th>Laboratory</th>
<th>Sigle (UMR, UMRS, etc.)</th>
<th>N°</th>
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<tbody>
<tr>
<td>Institut de biologie Paris-Seine (IBPS)</td>
<td>FR</td>
<td>6361</td>
</tr>
<tr>
<td>Institut du Fer à Moulin (IFM)</td>
<td>UMRS</td>
<td>1270</td>
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### Application procedure

Applications are open until June 28th 4:00 pm (Paris time). Applications must be submitted on the Galaxie website. Candidates who do not have access to this Galaxie application (in particular non-French candidates) may exceptionally submit the complete application electronically according to the established schedule and procedures. Send the application files to sciences-drh-gestioncoEC@sorbonne-universite.fr with the subject "Candidature CPJ". 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).

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. The committee will meet for pre-selections early September and interviews will take place on November 5th 2024 in Paris, according to procedures that will be communicated to the pre-selected candidates.

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.

### Zone à régime restrictif

**ZRR**:

You are hereby informed that this job may be located in a restricted area within the meaning of article R. 413-5-1 of the French penal code, and that you may not be appointed unless you have been granted access to the area.

### Contacts

**Research** : Fiona FRANCIS (fiona.francis@inserm.fr) Julien FERENT (julien.ferent@inserm.fr)

**Education** : Hélène CHEVAL (Helene.cheval@sorbonne-universite.fr); Marco DA COSTA (marco.da_costa@sorbonne-universite.fr)