

**Up to 5-years Postdoctoral / Engineering position  
in Bioinformatics (in single cell data analytics applied to neurosciences)  
GODIN Lab, IGBMC, Strasbourg, France**

We are seeking a highly motivated and creative Engineer /postdoctoral fellow in bioinformatics to join the team “Regulation of cortical development in health and disease” at the Institut de Génétique et de Biologie Moléculaire et Cellulaire (IGBMC) in Strasbourg, France. The successful candidate will be part of an interdisciplinary research team focusing on the elucidation of the fundamental mechanisms that dictate cell fate acquisition and neuronal maturation during mammalian corticogenesis. He/She will be involved in an **ERC funded project** that aims to understand how transcriptional priming and translation, through modulation of tRNA abundance and/or modification, control neuronal fate, and thereby regulate neuronal diversity. He/she will develop bioinformatics and statistical methods to analyze, interpret and integrate newly generated high-throughput omic data (scRNA-seq, Ribo-Seq). Main tasks of the candidate will be to **analyze and interpret in vivo genetic perturbation screen (Perturb-Seq), to integrate tRNA abundance measurements with matched quantitative profile of translational efficiency and to address codon usage/optimality in specific cellular or disease context**. He/She will work productively via collaborative interactions with diverse team members. The scope of the missions could be adapted according to the selected profile (postdoc or engineer).

**Education & Experiences:**

- **Ph.D.** in Computational Biology, Bioinformatics, Biostatistics, or a related field or **Engineer** (see <https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000043333734> for eligible engineering schools) + **at least 5 years of experience** in Computational Biology.
- Strong coding skills using python, R, git, Unix/Linux-based command line tools
- Familiar with major NGS analysis algorithms or pipelines (alignment tools, differential expression and pathways analyses, etc.)
- Knowledge / skills in biostatistical analysis
- Prior experience extracting biological insight from NGS data and major bioinformatics databases, as evidenced by publications/presentations
- Prior experience in single-cell sequencing data analysis of 10X Genomics using Seurat will be a plus
- Prior experience on implementing of databases and/or creation of software packages (i.e. shiny apps) will be a plus
- Interest in neurosciences/neurodevelopment

**Skills:**

- Fast learner, critical thinking, can-do attitude, strong problem-solving skills, and agility to adapt approaches to new data and questions
- Excellent interpersonal and teamwork skills
- Strong communication competencies to present computational concepts and explain your work to a wide variety of audiences
- Excellent organizational skills, self-motivation, and creativity
- Excellent verbal and written communication skills in English.

**Key responsibilities**

- Independently develop pipelines for Perturb-seq, Ribo-Seq and codon analysis and perform statistical analyses
- Collaborate with scientists across different disciplines to drive innovation by combining state-of-the-art analytics, data integration, data visualization, and biological domain knowledge.
- Communicate accurately the results to all levels of audiences, and participate in congresses

**Contract:**

We offer up to 5 years of salary upon positive interim evaluation.

**Application:**

The position is available immediately. The recruitment process is open until one candidate is selected.

Application deadline: 31<sup>th</sup> of March 2023.

Applications, including CV, a cover letter describing research interest, and contact information of two references should be sent to Juliette.GODIN@igbmc.fr.

**Contact**

Juliette Godin : godin@igbmc.fr

<https://www.igbmc.fr/equipes/mecanismes-physiologiques-et-pathologique-du-developpement-cortical>