

# **Postdoctoral Fellow - Human Gut single-cell RNAseq and Spatial Transcriptomics**

**Salary in the region of 29-35K Euros/year (dependent on experience) + benefits**

We are looking to appoint a highly motivated postdoctoral fellow to join the laboratory of Dr. Azucena Salas at the Inflammatory Bowel Disease Unit (IDIBAPS, Barcelona, Spain). The IBD Unit is a highly interdisciplinary team leading translational and clinical research in IBD. Our research group possesses the know-how to characterize the mechanistic aspects of drug response in humans and experimental models of IBD, using a variety of approaches including gene expression in bulk, and single-cell RNA sequencing studies, tissue and primary cell cultures, flow cytometry, Immunostaining and spatial transcriptomics.

Our team has national and international funding for different projects involving single-cell transcriptomics and spatial 'omics data. The candidate will be responsible for defining, conducting and disseminating high-impact research, and promoting best practices in collaborative open science within the team, and with local, national and international collaborators.

The candidate will engage with collaborative projects in single-cell genomics that includes academic, clinical and industry partners from across Europe, North and South America. The successful candidate should have demonstrated experience in the analysis of transcriptomic data, preferably from clinical research studies.

## **Research**

Work with in-house large single-cell transcriptomics and spatial omics datasets, as well as from collaborators and public repositories.

Contribute to the research programme of the Department under the general guidance of the project Principal Investigator.

Share research results with collaborators using interactive web applications (preferably using Shiny webs in R) on our dedicated server.

Work in a collaborative environment and conduct collaborative research.

Determine appropriate methodologies for research, with advice and support as appropriate.

Assess research findings for the need/scope for further investigations.

Translate knowledge of advances in the subject area into research activity (publications, software packages, presentations etc).

## **Research Management**

Work independently and in a timely fashion with meticulous attention to detail in all aspects of the job to obtain valid research results.

Work with individuals from various backgrounds and fields of expertise.

Manage own personal and research resources (including where required, laboratories, and specialist equipment) appropriately.

Write up results from his/her own research activity.

Contribute to the research project's dissemination including, but not limited to, publication of software packages, websites, reports, research articles or book chapters.

Present information on research progress and outcomes; e.g., to bodies supervising research; conferences, steering groups, other team members, as agreed with the PI/Project Leader.

### **Supervision**

May act as co-supervisor or be a member of a supervision panel of PhD students.

May act as mentor to students on undergraduate placement policy & standards.

### **Essential Criteria**

Must have a doctoral degree in bioinformatics, data science, biostatistics, computer science, machine learning, mathematical modeling, data analytics or a closely related discipline.

Must have bulk RNA-seq and single-cell sequencing analysis expertise.

Excellent communication and interpersonal skills including excellent oral and written English skills.

Must know how to work in a clinical setting within data protection and confidentiality boundaries.

### **Desirable Criteria**

Experienced in analyzing molecular data from clinical samples derived from the colon and/or inflammation human research.

Experience in managing and analyzing large transcriptomic datasets.

Experience using high-performance computing or cloud computing environments, ideally in a transcriptomics environment.

Strong creative interest in developing a research agenda within the scope of the project.

Excellent interpersonal and communication skills with a proven ability to disseminate research to the public; e.g., presentations, workshops, etc..

Demonstrated experience of working effectively, independently and as part of a research team or collaborative project.

Candidates should submit a CV and letter of presentation, including 3 potential references to [AGARRIDOG@recerca.clinic.cat](mailto:AGARRIDOG@recerca.clinic.cat).