

Fundació de Recerca Clínic Barcelona-Institut d'Investigacions Biomèdiques August Pi i Sunyer (FRCB-IDIBAPS)

R2A-Postdoctoral Researcher (G1-Researchers) (FU-293-2024)



Fundació de Recerca Clínic Barcelona - Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS) is a leading biomedical research center located at the Clínic Campus in Barcelona, known for its strong international presence. At IDIBAPS, you will join a vibrant research community of over 2,000 professionals and about 100 multidisciplinary groups conducting groundbreaking research. Each year, our teams publish more than 1,500 original articles, placing us at the forefront of biomedical research in Spain. We manage over 1,100 competitive projects, with more than 220 receiving international funding.



HR EXCELLENCE IN RESEARCH

The Clínic Campus offers an exceptional environment for research and innovation, featuring the Hospital Clínic of Barcelona, a top-tier hospital dedicated to comprehensive healthcare, research, and education across almost all medical and surgical specialties. The campus also includes the Faculty of Medicine and Health Sciences of the University of Barcelona, established in 1843, and recognized as one of the most prestigious health faculties in Spain and globally.



IDIBAPS has been accredited with the [HR Excellence in Research](#) by the European Commission since 2015, renewing commitments and actions to advance the alignment of our human resources policies with the 40 principles of the Charter and Code, based on a personalised action plan/HR strategy.



At IDIBAPS, nearly 100 clinical research groups work closely with laboratory scientists to drive original, translational, and multidisciplinary research. Our collaborative approach aims to solve significant biological and clinical challenges that impact human health.

We are proud to have been accredited with the HR Excellence in Research by the European Commission since 2015. This accreditation reflects our commitment to aligning our human resources policies with the 40 principles of the Charter and Code, guided by a personalized HR strategy and action plan.

IDIBAPS is a CERCA center and accredited as a health research institute by the Instituto de Salud Carlos III (ISCIII).

We are looking for a R2A-Postdoctoral Researcher to join:

- The “Characterization of neural substrates of vulnerability to psychosis, and relationship with clinical manifestations, in youth in the early stages of psychosis” research line.
- In the research project “Avances clave para la investigación de impacto en biomedicina en FRCB-IDIBAPS (KAIROS)”
- At the “Neuroimatge multimodal en psicosi recent i d’alt risc” research group.
- Funded by Instituto de Salud Carlos III (ISCIII) a través del "Programa FORTALECE del Ministerio de Ciencia, Innovación y Universidades"
- Grant agreement number: FORT23/00002_SUGR_G6

Job Description

- **Responsibilities**
 - Develop multimodal models using advanced AI computational methods aimed at predicting clinical outcome and identifying biotypes in youth with high risk and first episode psychosis.
 - Integrate neurobiological data from different modalities (structural, functional, and molecular imaging techniques and blood based markers) in samples of neuropsychiatric patients with autoimmune synaptopathies and across stages of risk for psychosis, aimed at understanding pathophysiology and identifying treatment targets.
 - Conduct validation of findings within animal and human models of NMDA receptor dysfunction; in human samples within international consortia/open-source data.
- **Required Education Level:** PhD.
- **Master/PhD:** Biomedical engineering.
- **Experience**
 - MSc in Computational Biomedical Engineering or equivalent.
 - Doctoral studies using deep generative models for neuroimaging applications.
 - Work experience in brain imaging data analysis.

- Experience using other computational methodologies such as brain simulations, graph theory, radiomics, classic machine learning approaches and other deep learning architectures in academic settings.
- Experience using Python, Pytorch, Tensorflow, Matlab, R, Linux.
- Experience preparing and writing manuscripts and giving presentations in the field of neuropsychiatry.
- Experience teaching and supervising students, preferably in the field in biomedical engineering.

- **Knowledge**

- Catalan and Spanish native. English C1.

- **What we offer**

- **Contract:** Indefinite scientific-technical contract.
- **Workday:** Full time (37,5 hs/week).
- **Continuous training provided by the company.**
- **Working conditions:** 22 vacation days + 6 personal days, 16 available hours, flexible schedule, and flexible remuneration program (medical insurance, transportation, meal vouchers, etc.).
- **Be part of a dynamic work environment:** we are a team with proven experience, a good working atmosphere, and we collectively value ideas and strategies, and prioritises work-life balance life.

- **Application Submission**

All applications must include the reference code of the job offer (located in the upper left corner of this call).

✓ **Candidates are required to:**

- Enclose a motivation letter and their Curriculum Vitae (including contact details).
- Include proof of the merits stated and the degree obtained.
- Sign and attach the authorization request for personal data - European Regulation (UE) 2016/679 (see page 5).

✓ **Place of submission:**

(clearly indicating the reference code of the job offer at the upper left corner of this call)

1. By email to the address: fcrbrhh@recerca.clinic.cat

✓ **Application Deadline: 08/12/2024**

- 1.1.** The recruitment will be carried out according to the provisions of Article 15 of the Royal Legislative Decree 1/1995, of 24 March, which approves the text of the law of the Statute of workers, in accordance with the provisions of art. 2 of the Royal Decree 2720/98, of 18 December (BOE of 8 January 1999), law 12/2001, of 9 July (B.O.E. of 10 July) and concordant provisions.

The principle of equal treatment between men and women will be considered, according to article 14 of the Spanish Constitution, the Community Directive of 9 February 1976 and what is foreseen in the agreement of the Council of Ministers of 4 March 2005, which approves the plan for gender equality in the General Administration of the State.

The universal accessibility for disabled persons will be considered according to the second paragraph of Article 1 of the law of December 2 51/2003 of equality of opportunities; 5% of the vacancies are preserved when candidates' pass the selection process and disabilities are proved. Also, compatibility with the tasks associated to the job must be proved so that progressively we reach 2% of all workforces.

- 1.2.** Link to [Regulation \(EU\) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data.](#)

Barcelona, July 29th, 2024

Authorization Request

I AUTHORIZE:

Fundació de Recerca Clínic Barcelona – Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS) to process my data for personnel selection purposes. This data will only be transferred in cases where legally required, in accordance with Regulation (EU) 2016/679 and its corresponding implementing regulations.

Name and Surname:

DNI / NIE:

Signed:

Barcelona,