

R2A-Postdoctoral Researcher (G1) at the Translational genomics & Targeted therapies in Solid tumors group.

Code: FU-131/2025

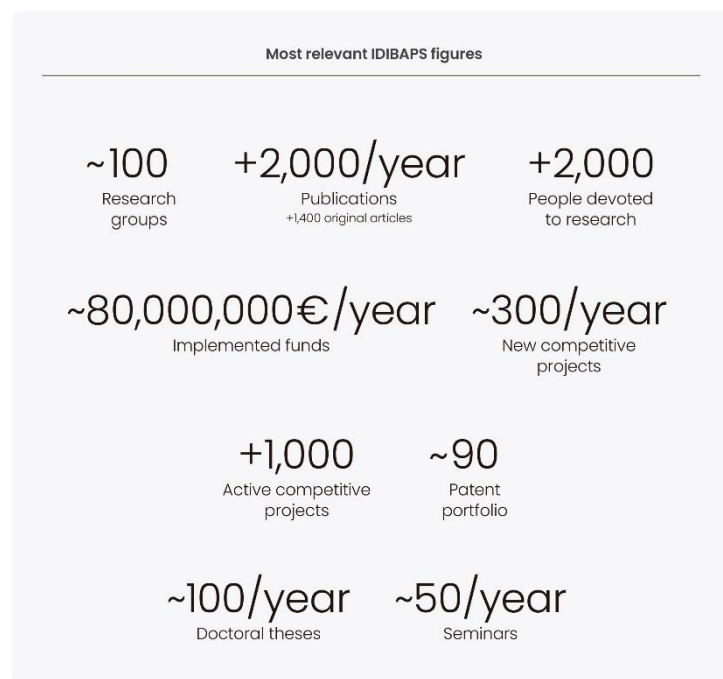
About the institution

The Barcelona Clinical Research Foundation-August Pi i Sunyer Biomedical Research Institute (IDIBAPS) is a biomedical research centre of excellence, located on the Barcelona Clinic Campus and with a clear international focus.

The IDIBAPS research community includes over 2,000 professionals and a hundred multidisciplinary groups that carry out high-impact translational research aimed at addressing biological and clinical questions relevant to human health, as evidenced by the more than 1,500 original articles published each year that make the institution one of the main biomedical research centres in Spain.

The Clínic Campus offers a high-level research and innovation environment, which includes the Hospital Clínic of Barcelona, a referral hospital committed to care, research and teaching, which covers practically all medical and surgical specialties, plus the University of Barcelona's Faculty of Medicine and Health Sciences. The latter dates from 1843 and is today one of the most prestigious health sciences faculties in Spain and worldwide.

Since 2015, IDIBAPS has had [HR Excellence in Research](#) accreditation from the European Commission. It is a CERCA centre and is accredited as a Health Research Institute by the Carlos III Health Institute (ISCIII).



Job description

Main Responsibilities:

- AI & Machine Learning Development: Implement deep learning models, explainability techniques, and predictive analytics for lung cancer research.
- Biomarker Discovery & Risk Assessment: Develop digital twins and predictive models to identify vulnerable patient profiles and optimize treatment strategies.
- Multimodal Data Integration: Apply AI to clinical, imaging, molecular, and exposome data for improved lung cancer characterization.
- Clinical Collaboration: Work closely with oncologists, radiologists, and pathologists to integrate AI into clinical decision-making.
- Research & Publications: Contribute to high-impact research projects, including RADIUS, EXPOSOME & Precision Medicine in Lung Cancer, and LINDA.
- Grant Writing & Scientific Communication: Support the preparation of research proposals and publications in leading AI and medical journals.
- Meetings & Academic Engagement: Participate in tumor boards, AI research meetings, and translational oncology discussions.

About our Laboratory

The clinical fellow will join the Laboratory of Translational Genomics and Targeted Therapies in Solid Tumors, led by Prof. Aleix Prat. The fellow will be part of the MECA team (Environment & Cancer) - supervisor: Dr. Mezquita.

The main MECA projects involves:

- a) Precision Medicine: Molecular characterization of thoracic tumors and Precision Medicine
- b) Immunoncology: Immunological profiling of lung cancer and cancer immunotherapy
- c) Exposome in cancer: Environmental and Occupational cancer & genetic predisposition in lung cancer

<https://www.clinicbarcelona.org/idibaps/areas-de-investigacion/oncologia-y-hematologia/genomica-traslacional-y-terapias-dirigidas-en-tumores-solidos>

To be eligible for this position, the candidate must have a PhD in Artificial Intelligence, Computer Science, Bioinformatics, or a related field. Experience in deep learning, explainability, and predictive modelling applied to biomedical research is required. Fluency in Spanish and English (spoken and written) is also necessary.

Additional info:

ABOUT HOSPITAL CLINIC

The Hospital Clínic of Barcelona, linked third party of IDIBAPS, is a university tertiary hospital. It is a public institution with a long reputation of excellence in care provision, training and research at national and international level. Hospital Clínic is a community hospital that employs around 4000 workers (23% doctors). As a tertiary hi-tech hospital, the goals are around consolidating an

organization that stimulates knowledge and its translation to mainstream services, together with an adequate innovation in technology that ensures the development of the most advanced work practices. Hospital Clínic of Barcelona has pursued the creation of an integrated care model of service integration aiming at maximizing cooperation among professionals, levels of care and institutions.

About Medical Oncology Department

In the Hospital Clínic, the Clinical Fellow will be part of the Medical Oncology Department. It is one of the main Departments in the Hospital (2000 new patients, 25.000 consultations/year), with a Day Care Hospital for cancer treatments (40 places), a Day Care Hospital specific for early clinical trials (13 places) and a hospitalization floor (35 beds). As clinical research activity, 200 clinical trials are currently opened (40% phase 3, 40% phase 2, 20% phase 1), with 200 patients enrolled by year. The research team has obtained several competitive and non-competitive grants, with a highly productive activity (129 publications were reported in 2022).

The clinical fellow will join the Thoracic Tumors Group, led by Dr. Laura Mezquita; it is integrated by a multidisciplinary team working on the management of thoracic oncology patients, but also in teaching activities and in research. This team is part of the Thoracic Tumors Committee that involves clinical care specialist, such as thoracic surgeons, medical oncologist, radiotherapist, pathologist, pulmonologist, nuclear medicine doctors, radiologist, pharmacist and molecular biologist, and researchers. The clinical activity of the medical oncology team includes: 4 days-consultations (280 new patients, 3000 follow-up visits/year) and the visit to patients hospitalized.

<https://www.clinicbarcelona.org/>

Required qualifications

- Degree in Computer Science/ Informatic engineering.
- Postdoctoral Researcher – Artificial Intelligence in Lung Cancer.

Experience and knowledge

- PhD in Artificial Intelligence, Computer Science, Bioinformatics, or a related field with expertise in AI for biomedicine.
- Strong background in deep learning, graph neural networks (GNNs), explainability methods, and predictive modelling.
- Experience with clinical and molecular data analysis in oncology or related fields.
- Proven track record of scientific publications in AI and medicine.
- Ability to work in a multidisciplinary environment, collaborating with clinical and research teams.
- Spanish & English.

IDIBAPS offers

- **Type of contract:** Indefinite contract for scientific-technical activities.
- **Working hours:** Part time (18,75 hours / week).
- **Line of research:** Breast cancer / Cancer immunotherapy / Urologic cancer / Lung cancer / Thoracic oncology and environmental-related cancer / Melanoma / Upper gastrointestinal tumors / Colorectal cancer / Brain tumors / Head Neck Tumors / Early drug development (Clinical Trial Unit).
- **Project:** Decoding the Molecular, Immune landscapes and Mutational signatures of Radon-associated lung cancer in patients with non-small cell lung cancer: A Research Roadmap for Precision Medicine [BIORADON_01]
- **Funder and official project code:** FUNDACION CRIS DE INVESTIGACION PARA VENCER EL CANCER - TRANSPHYSTALENT24_08
- **Incorporation into IDIBAPS:** A research centre of excellence in the city of Barcelona. Excellent research results and competitive project grant awards, both national and international.
- Long-life training offered by the institute.
- **Working conditions:** Holiday entitlement of 22 days + 6 days for personal affairs, flexible working hours and flexible remuneration (health insurance, transport, meal vouchers, training).
- **The chance to form part of a dynamic work environment:** We are a team with a wealth of experience that jointly evaluates ideas and strategies and promotes a healthy work-life balance.

Applications

- **Presentation letter:** explicitly mentioning the call reference and explaining the candidate's personal reasons for applying.
- **Curriculum Vitae:** including a list of publications, where applicable.
- **Documentation accrediting** the credentials set out and the required qualifications.
- **Obligatory:** the duly signed Authorisation relating to EU Regulation 2016/679 on the protection of personal data (*attached document, page 6*) must be attached to the application.

Submission and deadline

- Candidates shall submit their applications, indicating the call reference for the position for which they are applying, by email to the address: FCRBRRHH@recerca.clinic.cat
- **Deadline:** From the publication of this call until 22/05/2025

The employment contract will be in accordance with the provisions of Legislative Decree 1/1995, of 24 March, approving the text of the Workers' Statute Law, of Law 14/2011, of 1 June, on science, technology and innovation in accordance with the provisions of Art. 2 of Royal Decree 2720/98, of 18 December (BOE of 8 January 1999), Law 12/2001, of 9 July (BOE of 10

July) and concordant provisions.

The principle of equal treatment between men and women fundamental, in accordance with Article 14 of the Spanish Constitution, the European Community Directive of 9 February 1976, and the provisions of the Agreement of the Council of Ministers of 4 March 2005, approving the Plan for Gender Equality in the General State Administration.

The universal accessibility of people with disabilities is fundamental according to section 2 of Article 1 of Law 51/2003, of 2 December, on equal opportunities, and 5% of vacancies are reserved as long as candidates pass the selection processes and accredit their disability and compatibility with the tasks to be carried out, so that we progressively reach 2% of the total workforce.

The gross annual remuneration relating to the position that is the subject of this call will be established based on each candidate's experience and aptitudes.

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

Barcelona, on May 08, 2025

Authorisation request

I hereby authorise:

The **FUNDACIÓ DE RECERCA CLÍNIC BARCELONA – INSTITUT D'INVESTIGACIONS BIOMÈDIQUES AUGUST PI I SUNYER (IDIBAPS)**, to process my data for personnel recruitment purposes, transferring them only in cases where legally required, in line with the provisions of Regulation (EU) 2016/679, and the corresponding regulations that develop it.

Name and Surname:

DNI/NIE/ID:

Signed:

Barcelona,