

SENIOR RESEARCHER FOR THE FRAUNHOFER CENTER FOR APPLIED TERAGNOSTICS (SR02-FCAT)

1. Introduction to the position:

The Fraunhofer Spain Research foundation is looking for a SENIOR RESEARCHER to develop different research projects at the Fraunhofer Center for Applied Theragnostics in Catalonia (Fraunhofer CAT).

The contract will be within the framework of the Fraunhofer CAT project, whose objective is the development of new diagnostic, prognostic and therapeutic tools in the field of precision medicine. For example, the development of new technologies for i) the establishment of biomimetic organ and tissue models for *in vitro* testing, ii) the development of sensors and electronic devices, iii) the design and validation of therapeutic strategies for personalized medicine, and iv) the production and validation of new biological models.

This project is funded by: Ministerio de Ciencia, Innovación y Universidades, Generalitat de Catalunya and Ajuntament de Barcelona.

2. Main duties and responsibilities:

Under the supervision of the Fraunhofer CAT direction, the applicant will carry out the following research activities:

- Development of research projects on the establishment of biomimetic organ and tissue models for *in vitro* testing by 3D bioprinting, microengineered culture platforms and advanced bio-materials. This includes leading and/or co-leading project concept, writing and implementation, supervising team members, monitoring project time and project economic resources and leading and/or co-leading project outputs (publications, intellectual property or other outputs).
- Contribute to research agenda, including literature survey to identify research gaps, formulation of research questions and design and implementation of exploratory research.
- Contribute to research dissemination and outreach, including writing papers, patents or other outputs and to be actively presenting at conferences, fairs or other relevant stakeholders' forums.
- Supervision and/or co-supervision of undergraduate, master and/or PhD students, including experimental design and practice, analysis of results and dissemination of results.
- Management of specialized laboratory equipment, including training of new users, writing standard operation protocols, installation, repairing, calibration, location and records of the use.
- Ensure compliance with good laboratory practices in coordination with safety officers.
- Collaboration in knowledge retention, including reading and reviewing of specific material, learning from other positions and participation in trainings.

3. Requirements for candidates

Essential

- PhD in Biomedical Engineering, Biomedicine or equivalent interdisciplinary field related to bio-engineering
- Previous experience as senior researcher (minimum 10 years of postdoctoral research experience) in biomaterials, biomimetic systems or bioengineered tissue models.

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- Excellent skills for project conceptualization, writing and management.
- Ability to prioritize tasks, multitask, and manage time effectively.
- Knowledge of biosafety and chemical safety protocols.
- Extensive experience in the design and development of biomimetic in vitro models, including hydrogel-based systems, engineered extracellular matrices, microfabricated culture platforms and advanced cell culture models (e.g. organoid-derived systems or epithelial tissues).
- Experience in the fabrication and characterization of soft biomaterials (hydrogels), microfabrication techniques, and quantitative analysis of engineered tissue models.
- Competencies and skills: Communication, Teamwork and collaboration, Commitment, Proactivity, Integrity, Critical and Analytical thinking
- Excellent level of English

Advantageous:

- Prior experience in microfluidics or microengineered systems for biological applications.
- Experience in the fabrication and characterization of soft biomaterials (hydrogels), microfabrication techniques, and quantitative analysis of engineered tissue models.

We Offer:

- Number of available positions: 1
- Starting date: as soon as possible
- Working conditions:
 - Full time permanent contract. Attractive salary
 - Measures to reconcile work and family life (maternity and paternity leave, flexible schedule working hours, 23 working days of paid holidays, 6 leave days for personal matters, among others).
- Fraunhofer Spain Research ensures equality of access to professional development opportunities irrespective of employment status or other factors.
- Stimulating, interdisciplinary research and high-quality international scientific environment.
- Induction programme to facilitate incorporation at Fraunhofer Spain Research and additional support is provided for foreigners to obtain Visa-working permit and to install in Barcelona.

How to apply:

Until the 10th of April, by sending a CV and motivation letter to info@fraunhofer.es with the reference "SR02-FCAT" as subject of the email.

Only those applications submitted before the deadline will be evaluated.

Reference: SR02-FCAT

If you have any further questions regarding your application or the application process, please get in touch with us at info@fraunhofer.es

Principles of the selection process:

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Fraunhofer Research Spain Foundation is committed to the principles of the Code of Conduct for the Recruitment of Researchers of the European Commission and the Open, Transparent and Merit based Recruitment principles (OTM-R).

Fraunhofer Research Spain Foundation's commitment on equal opportunity: our strength and excellence as an international transdisciplinary research institute are based on diversity. Being an equal opportunity employer, we are committed to diversity and inclusion, so that we support employees irrespective of their gender, nationality, religion, disabilities, age, sexual identity or cultural and socioeconomic background.

Fraunhofer Research Spain Foundation aims for a representative gender balance at all levels of staff, so we strongly encourage women to apply. At least 40% of shortlisted applicants invited to interview have to be women with comparable level of CVs as the male candidates.

Protection of personal data:

Fraunhofer Spain Research Foundation guarantees that candidates' personal data are processed in accordance with the requirements of the EU General Data Protection Regulation (GDPR) and Law 3/2018 on Data Protection.

Personal data will be processed solely for the purposes of the selection process.

Who we are?

The Fundación Fraunhofer Spain Research (Fraunhofer Spain) is a non-profit private Spanish Foundation, established in Barcelona in 2025 as an affiliate of Fraunhofer-Gesellschaft, Europe's leading organization for applied research (<https://www.fraunhofer.es/>).

Our mission is to conduct independent research activities, including training, knowledge dissemination, and technology transfer. These activities range from basic research to prototype development and small-scale production, strengthening the internationalization of applied research and connecting academia with productive sectors.

Fraunhofer Spain Research has launched its first program in applied bioengineering for health: the Fraunhofer Center for Applied Theragnostics (Fraunhofer CAT). This initiative is dedicated to developing innovative diagnostic, prognostic, and therapeutic tools within the field of precision medicine. The program aims to generate significant academic, industrial, and healthcare impact, ultimately contributing to societal well-being.

Fraunhofer Spain was founded by Fraunhofer-Gesellschaft, the largest organisation for applied research in Europe with the economic support of the Spanish Government (Ministerio de Ciencia, Innovación y Universidades), the Barcelona City Council (Ajuntament de Barcelona), and the Catalan Government (Generalitat de Catalunya), as well as the academic collaboration of Barcelona University, the Institute for Bioengineering of Catalonia (IBEC) and Fraunhofer Institute for Biomedical Engineering (Fraunhofer IBMT).

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