

## Predoctoral researcher at the Nanobioelec Research Group

### Introduction to the vacant position:

The Nanobioelec Group ([www.ibecbarcelona.eu/nanobioelec](http://www.ibecbarcelona.eu/nanobioelec)) is looking for a PhD student to develop his/her PhD thesis project on the modelling of organic electronic biosensors. The contract will be within the framework of the Organic Bioelectronics Research Line of the group, whose objective is to develop theoretical and experimental methods to understand the mechanisms of action of organic biosensors and to develop applications based on them.

### The successful candidate will develop research involving:

- Analytical and/or numerical physical models of organic field effect transistors for bioelectronic applications (EGOFETs and OECTs).
- Time and frequency response analysis.
- Models for electrophysiological recordings with organic field effect biosensors
- Models for scanning dielectric microscopy on organic field effect biosensors
- Comparison of theoretical predictions with experimental results

### Requirements for candidates:

#### Essential:

- Bachelor (BSc) and Master (MSc) on Physics/Mathematics/Engineering and related fields
- Self-critical, capacity to learn and bring knowledge
- Competencies and skills: Communication, Teamwork, Proactivity, Commitment, Collegiality, Integrity, Critical and Analytical thinking
- High level of English

#### Advantageous:

- Background on theoretical physics, applied mathematics, solid-state physics or electronics are a plus.
- Programming and/or finite element numerical methods skills are a plus.

### We Offer:

- Number of available positions: 1
- Starting date: From 1st January 2023
- Working conditions:
  - Full time 4-year contract paid in accordance with the Spanish PhD rules
  - Measures to reconcile work and family life (maternity and paternity leave, flexible schedule working hours, teleworking, 23 working days of paid holidays, 9 leave days for personal matters, among others).
- IBEC ensures equality of access to professional development opportunities irrespective of employment status, length at IBEC or other factors. The IBEC's yearly training catalogue offers a wide range of training in technical and transferable skills including mobility grants and a Mentoring programme for predoctoral and postdoctoral researchers.
- Stimulating, interdisciplinary research and high-quality international scientific environment.

- Induction programme to facilitate incorporation at IBEC and additional support is provided for foreigners to obtain Visa-working permit and to install in Barcelona.

### How to apply:

**Until 30th November** an online application form is available through IBEC dedicated site: <https://careers.ibecbarcelona.eu/>  
Only those applications submitted before the deadline will be evaluated.

### Reference: PhD-GG.

If you have any further question regarding your application, please contact us at [jobs@ibecbarcelona.eu](mailto:jobs@ibecbarcelona.eu)

### Principles of the selection process:

IBEC 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).

IBEC'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."

### Protection of personal data:

IBEC 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 Institute for Bioengineering of Catalonia, IBEC is an interdisciplinary research center focused on Bioengineering and Nanomedicine based in Barcelona. IBEC is one of the top research institutions named as a Severo Ochoa Research Centre by the Ministry of Science, Universities and Innovation, which recognizes excellence at the highest international level in terms of research, training, human resources, outreach and technology transfer.

IBEC's mission is to develop international high-quality interdisciplinary research that, while creating knowledge, contributes to making a better quality of life, improving health and creating wealth. A close link with key universities, reference hospitals and corporations, are assets that facilitate achieving the mission.

IBEC was established in 2005 by the Generalitat de Catalunya (Autonomous Government of Catalonia), the University of Barcelona (UB) and the Technical University of Catalonia (UPC).

IBEC is located within the Barcelona Science Park and is managing 3.800 square meters facilities, with an annual budget of 13 Mio€; 3.800 square meters of facilities; 21 research groups and a team of researchers and support services of 350 people from 30 different countries.  
[www.ibecbarcelona.eu](http://www.ibecbarcelona.eu)



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