

## Postdoctoral position at the Targeted Therapeutics & Nanodevices Research Group

### Introduction to the vacant position:

The Targeted Therapeutics and Nanodevices Group led by Prof. Silvia Muro at the Institute for Bioengineering of Catalonia (IBEC) is looking for a Postdoctoral candidate to collaborate in a research project focused on the identification, characterization, and application of “universal” monoclonal antibodies capable of recognizing specific cell-surface receptors in a variety of species, as primary tools to then develop targeted drug delivery applications (nanoparticles and antibody-drug conjugates) for the treatment of neurodegenerative diseases.

The contract will be within the framework of the project “*CROSSTARGET: Development of new translational cross-species tools for therapeutic targeting with organ and subcellular precision*”, funded by the Ministerio de Ciencia, Innovación y Universidades under its RETOS program.

### Main tasks and responsibilities of the successful candidate will be:

- Help in the design of an antibody library against a particular cell-surface receptor.
- Biopanning of said library against diverse cells to identify tissue-specific and cell-compartment specific antibodies.
- Cloning, production, and characterization of recombinant antibodies from best hits.
- Participation in studies where said antibodies will be coupled to polymer nanoparticles or drug conjugates, to characterize their binding to, uptake by, and effects in cellular and mouse models of neurodegenerative diseases.
- Contribute to regular lab keeping tasks, safety compliance, record keeping, training of students, external collaborations, writing of publications and project applications, attendance to lab meetings, and other general assistance to the GL and the lab.

### Requirements for candidates:

#### Essential:

- PhD in Biomedicine, Biotechnology, Molecular Biology, Immunology, Bioengineering or any field directly related to the experimental tasks described above, primarily 1-3.
- Familiar with antibody design, biological libraries, biopanning, recombinant technology, protein purification, antibody modification, mammalian cell cultures, confocal microscopy, and image analysis software.
- Good skills on communication, teamwork, proactivity, commitment, resilience, collegiality, integrity, multitasking and time management, critical and analytical thinking, and operational independence.
- High level of English for daily use in oral and written form.

#### Advantageous:

- Previous postdoctoral experience.
- Authorization and experience in working with laboratory animals.
- Knowledge and experience on the handling of radioisotopic samples.

### We Offer:

- Number of available positions: 1

- Starting date: From September 16<sup>th</sup> to October 16<sup>th</sup>, 2019
- Working conditions:
  - Full time 2-year contract. Competitive salary, commensurate with academic level and experience.
  - 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. Mobility grants for first stage researchers, as well as a Mentoring programme for Postdoctoral researchers are offered.
- 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:

Interested applicants should send **1 single pdf file** containing (**in this order**) a cover letter, their CV, one publication which most significantly represents their expertise, and the contact of two referees. Lists of Papers, abstract, etc. in the CV should be **numbered** and **research articles should be clearly separated** from any other publication (review articles, chapters, books, conference proceedings, etc.). The application file should be sent to: [jobs@ibecbarcelona.eu](mailto:jobs@ibecbarcelona.eu) & [smuro@ibecbarcelona.eu](mailto:smuro@ibecbarcelona.eu) (Reference: **PD-SM**).

### Principles of the Selection Process:

Our Recruitment and Selection Policy is based on the OTM Strategy (Open, Transparent and Merit-based recruitment) [www.ibecbarcelona.eu/jobs/](http://www.ibecbarcelona.eu/jobs/) and accept applications without distinction on any grounds. Candidates with disabilities are strongly encouraged to apply. Our commitment to OTM-R principles can also be found in our Gender and Diversity plan.

IBEC 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 will be women.



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### Protection of personal data:

IBEC ensures that applicants' personal data are processed as required by EU General Data Protection Regulation (GDPR) and Spanish Law 3/2018 on Data Protection. Personal data shall thus be processed solely for the purpose of the selection procedure.

### 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 Ministry of Economy and

Competitiveness (in charge of research and innovation policy in Spain), 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, 21 research groups and a team of researchers and support services of 300 people from 30 different countries. [www.ibeccatalonia.eu](http://www.ibeccatalonia.eu)