Reference: C.I.I.06/2017

Position title: Postdoctoral researcher

Group: Polymer Therapeutics Laboratory

Job description (function and tasks):

The objective of the ERC-Consolidator grant-MyNano is to engineer tumor targeted polymer-based combination therapies specifically designed to treat metastatic breast cancer in a patient personalized manner. Therefore, novel multicomponent polymer conjugates with precise control over size, shape, solution conformation, multifunctionality, and bioresponsiveness will be obtained while in parallel their structure activity relationships (SAR) to underlying proposed mechanisms of action in clinically relevant models will be studied. Polyglutamates obtained by controlled NCA polymerization and self-assembly strategies will be the carriers. Primary breast cancer patient tissue will be used to generate cell and in vivo tumor models representing different molecular subtypes. MyNano will also investigate new combination strategies using current treatments together with drugs interfering on tumor-derived exosome release pathways, phenomenon arose as related to many metastasis triggers as well as tumor drug resistance mechanisms.

The aim is to provide a novel reiterative methodological approach that would allow to optimize the design of the next generation nanoconjugates for the treatment of specific metastatic cancer clinical subtypes. MyNano will be a breakthrough as it introduces a paradigm shift in the strategy to design nanomedicines in areas of unmet clinical need.

The tasks associated with a chemistry background will be the rational design, synthesis and exhaustive physico-chemical characterization of polyglutamate-based combination conjugates with controlled self-assembly behavior, bioresponsiveness and therefore controlled drug(s) release kinetics. The selected person would apply the synthesized synthesis in immune-oncological applications-

Research Center description:

The Prince Felipe Research Centre, CIPF, was created to develop first-rate, competitive and internationally relevant research in the fields of Neurobiology, Advanced Therapies, Rare & Genetic Diseases, Molecular Mechanisms of Disease and Computational Genomics. The research centre, located in Valencia, occupies an area of 32,000 m2 and it is equipped with the most advanced infrastructures, facilities and technological equipment.
Basic requirements of the position:

- The candidate must hold studies related to biomedical sciences
- High level of English both spoken and written
- Experience in the field of drug delivery systems, polymer therapeutics, nanomedicine or materials sciences.
- Knowledge of organic synthesis and polymerization techniques.

Merits:

- Dr in chemistry, pharmacy or material sciences
- At least 2 year of experience in the field of drug delivery systems, polymer therapeutics, nanomedicine or materials sciences.
- Experience would be an asset in biological evaluation of nanosystems.
- Technical experience will be assessed on physicochemical characterization of macromolecules and / or polymeric systems including conformational studies.
- Good communicator, assertive and ability to work in a multidisciplinary team
- Ability to supervise students

Contract

- Professional category: Research Collaborator I
- Salary Level: (Salary level as stipulated in the Convenio de Sanidad Privada de la Provincia de Valencia)
- Funding Source/Project: 648831MyNano
- Duration: 1 year (renewable upon evaluation up to 5 years)
- Starting date: 8th January 2018
- Working day: Full time
- The deadline for receipt of resumes will be open until 15th December 2017

How to present your candidacy?

Interested candidates should send their CV, cover letter and references only by email to the following address: selection@cipf.es.

In order to comply with Law 15/1999 of December 13, for The Protection of Personal Data, we inform you that the personal data contained in your resume will be included in a personal data file owned by the Foundation Prince Felipe Research Centre, CIPF, to enable you to participate in our recruitment process, and if appropriate, it may be used for processing appropriate aid, grants and funding to enable this recruitment.

By submitting your resume, you agree to your personal data to be treated in the commented terms, allowing CIPF to share this data with other public and private institutions with the exclusive aim of applying for grants for the financial funding of this institution and its research projects linked to your data.

You may exercise your rights of access, rectification, cancellation and opposition by writing to CIPF, Calle Eduardo Primo Yúfera, 3, CP 46012 Valencia.
Please indicate the offer reference number in the subject field. If you have any questions about this offer, please contact the Human Resources Department by email to: recursoshumanos@cipf.es