

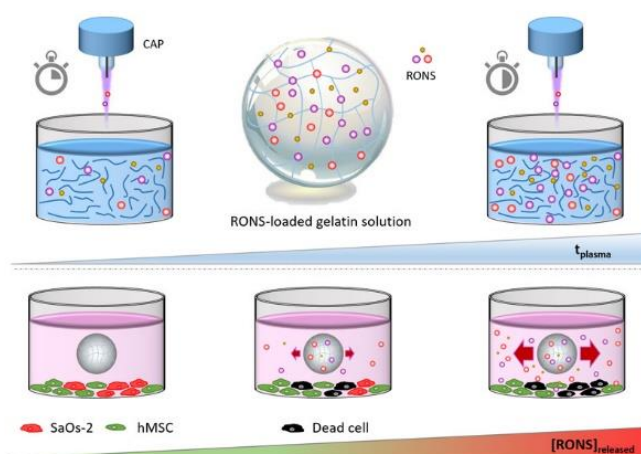
PREDOCTORAL RESEARCHER

on the effects of Atmospheric Plasmas on Biomaterials and Liquids for Cancer Therapy

OFFER DESCRIPTION

We are looking for a highly motivated and creative PhD candidate to work in the field of plasma medicine and investigate the synthesis of biocompatible hydrogels, and the effects of atmospheric plasmas on them and on liquids.

The ultimate goal of the research line is to gain fundamental understanding on the lethal effects of atmospheric pressure plasmas and plasma-treated liquids and hydrogels on cancer cells, and being able to implement new strategies for local and minimally invasive cancer therapy.



(C. Labay et al. *ACS Appl. Mater. Interfaces*, 2020)

If selected, you will work in the “Plasmas for BioMedical Applications” laboratory ([PlasmaMED lab](#)), a highly interdisciplinary research line headed by Dr. Cristina Canal, within the Biomaterials, Biomechanics and Tissue Engineering Research Group ([BBT](#)) group, at the Universitat Politècnica de Catalunya ([UPC](#)) in Barcelona. The PhD studies will be taken at Campus Diagonal-Besòs in Barcelona, offering a dynamic ecosystem with enthusiastic colleagues.

You will be working in a vibrant interdisciplinary research environment involving plasma physics and chemistry, biomaterials science and cell biology. You will have access to state-of-the-art experimental facilities. You will be expected to deliver top quality research, commit to the project and the research group and participate in paper drafting.

In addition to acquiring broad scientific multidisciplinary knowledge, you will access the soft skill courses offered at BBT. Participation to national/international conferences and international research stays will be encouraged. You will gain communication and technology transfer skills and will be trained from the beginning to get familiar and follow the Good Laboratory Practice and Responsible Research and Innovation principles.

REQUIREMENTS

Education

In possession of, or about to finish, a Master degree in physics, chemistry, material science/engineering, biomedical science/engineering or closely related fields.

Competencies and skills

Communication, Teamwork and collaboration, Commitment, Proactivity, Integrity, Critical and Analytical thinking. The candidate is expected to be proficient in English, spoken and written.

Specific Requirements

A good knowledge of chemistry and material science, both theoretical and practical is required. Previous exposure to non-thermal plasmas, polymeric biomaterials and / or biology is desirable but not essential. However, willingness and motivation to expand your expertise by reaching out to other disciplines is required.

SELECTION PROCESS

How to apply and deadline

The evaluation will be on the basis of the academic record and credentials, previous research experience, exposure to relevant disciplines and proficiency in English.

Besides online interviews, it is possible to arrange on-site visits to the lab at the [Barcelona East School of Engineering](#).

Financial support will be obtained upon successful application to various institutional fellowships within the project Plasma4KidsCancer. Thus, a minimum overall grade score of 7.5 is required. Starting date is second quarter 2023.

If you are interested, you are encouraged to apply as soon as possible by sending a CV, a list of up to 3 references, a short (max one page) statement describing your past research experience and interests and your academic transcripts. This and specific inquiries should be addressed to Dr. Cristina Canal (plasmamedlab@upc.edu) with "*Predoctoral candidate - NAME SURNAME*" in the subject line.

ADDITIONAL INFORMATION

About the PlasmaMED lab team

Lead by Dr. Cristina Canal, the PlasmaMed Lab is formed by an interdisciplinary team of chemists, physicists, materials scientists, engineers and biologists with expertise in tissue engineering and cancer biology. The team focus its research activities on the development and application of new biomaterials that, in conjunction with cold plasma technology, can provide novel cues for tissue regeneration or for cancer therapy.



About UPC

The Universitat Politècnica de Catalunya · BarcelonaTech (UPC) is a public institution of research and higher education in the fields of engineering, architecture, sciences and technology, and one of the leading technical universities in Europe. Every year, more than 6,000 bachelor's and master's students, more than 500 doctoral students graduate and 3,067 graduates in lifelong learning. The UPC's approach to research is highly varied and covers applications and basic research in many knowledge areas. The impact of this research makes the UPC one of the main European technology universities.