



Postdoc Position in Material Chemistry at the Institute of Materials Science of Barcelona (ICMAB–CSIC)

A Postdoc position is available in the Nanostructured Molecular Materials for Biomedicine (NANOMOL–Bio) group (<https://nanomol-bio.icmab.es/>) under the supervision of Dr. Paula Mayorga.

Research Topic:

A multidisciplinary project aiming at developing original photoresponsive nanozymes as enhanced reactive oxygen species (ROS)-generators for cancer treatment. Moreover, specific surface modifications are intended to achieve higher specificity and efficiency. Thus, not only the expertise on material preparation and characterization will be used but also the knowledge on their interplay with cancer cells will be gained. This project has been funded by La Caixa Foundation, Postdoctoral Junior Leader–Incoming Program (ID: 127833), a Ramon y Cajal contract (RYC2023-045821-I), the L'Oréal-Unesco “For Women in Science” 2023 call and a CSIC JAE-PRE grant for funding predoctoral contracts (ref. JAEPR23101).

Main tasks:

- Synthesis and characterization of organic and/or inorganic nanozymes as well as surface functionalization.
- Evaluation of ROS production (photocatalytic and enzymatic activity).
- Analysis of cellular uptake and intracellular ROS generation.

Requirements: Applicants should hold a PhD in Chemistry, Materials Science, or related disciplines. The ideal candidate should have a background in Material Science and physicochemical characterization techniques. Knowledge of chemical synthesis will be highly valued. Publications record will be considered. Good written and spoken English skills are mandatory.

Personal skills & others: We seek outstanding candidates with initiative and team-working abilities.

Conditions:

The position is offered for a fixed term of 12 months, starting as soon as possible, (Gross salary: 38,500 €/year aprox.).

Com sol·licitar la feina/ How to apply:

Submit the following application documents to Dr. Paula Mayorga, pmayorga@icmab.es

- Resume of the CV including a list of publications
- Motivation Letter
- Statement of the applicant's research experience
- List of three references with contact details

About Nanomol group:

NANOMOL Research Unit has extensive experience and recognized excellence in the synthesis, processing and study of molecular and polymeric materials with chemical, electronic,



magnetic and biomedical properties. The research unit currently has around 40 people, including researchers, students and technical support staff and our facilities are located in the UAB (Autonomous University of Barcelona) research park.

About ICMAB :

ICMAB – CSIC is a multidisciplinary global reference centre for the cutting-edge research of functional materials for electronics, energy and health which fosters knowledge transfer and it is characterized by its internationalization and its education, inclusion and diversity policies. ICMAB-CSIC is committed to know-how transfer to productive sectors as well as to participate in educational and outreach activities. Since 2016, ICMAB -CSIC has been awarded for three consecutive periods with the Severo Ochoa Centre of Excellence distinction.

ICMAB-CSIC, with over 250 members from 47 nationalities, is a more than three decades old research institute located at the Universitat Autònoma de Barcelona (UAB) campus, surrounded by other research and technological centres and with access to many state-of-the-art equipment and scientific facilities. Moreover, ICMAB-CSIC has its own scientific services equipped with the newest scientific instrumentation and with highly specialised technical staff available to the scientific community.

ICMAB-CSIC fosters postdoctoral fellows' careers to be future leaders on functional materials for electronics, energy and health. R&D activities are strongly backed up by state-of-the-art scientific instrumentation and specialised technical staff available in our scientific services. Training on technical, scientific and transversal skills are offered to ICMAB-CSIC personnel. ICMAB-CSIC actively participate in all kinds of educational and outreach activities, including teaching at the UAB Master's degree in Nanotechnology and Materials Science and UAB degree on Nanoscience and Nanotechnology.