

## PhD Position available

The [Crystal Engineering Lab \(CEL\)](#) team at the Institute of Molecular Science (ICMol) – University of Valencia is taking applications for a PhD position. This position involves pursuing a PhD thesis under the supervision of Dr. Juan F Blandez and Dra. Mónica Giménez-Marqués as part of the project: "*Radiogene, Advancing Mesothelioma Radiosensitization through a Dual-Active Metal Organic Framework Nanoplatfom*" funded by La Caixa Foundation – Junior Leader Retaining program.

### Main tasks:

- Synthesize and characterize porous nanomaterials.
- Evaluate their stability and radiation activity.
- Investigate gene cargo, conduct release assays and evaluate efficiency.
- Assess toxicity and cellular uptake using confocal microscopy and flow cytometry.
- Monitor gene release at the subcellular level and evaluate its effectiveness.
- Analyse nanoplatfom ability to trigger radiosensitivity in 2D cultures.

### Requirements:

- Bachelor´s Degree in Chemistry, Materials Science, Biotechnology or similar.
- Master´s Degree, essential for enrolment in the PhD programme, with strong background in Materials Science, Nanomedicine or related disciplines.
- Fluency in written/spoken English.

### What will also be valued:

- Previous experience in synthesis and characterization of nanomaterials.
- Technical skill in cell culture, experience with confocal and fluorescence microscopy, fluorescence-activated cell sorting (FACS), and proficiency in viability assays.
- Skills in RNA/DNA extraction, qRT-PCR, and western blotting for gene/protein expression analysis are desirable.
- Strong motivation to tackle challenging research questions
- Good attitude to work independently and in a collaboratively way.
- Cognitive Skills such as critical thinking, creativity, and adaptability

### We Offer:

- A full-time contract (specific conditions marked by U. of Valencia).
- Initial appointment for 12 months (+ 2 extra years possible, based on mutual agreement).
- Candidates must enrol or be admitted in a doctoral program prior signature of contract.

### How to apply:

Interested candidates should send an email to [radiogene.candidature@gmail.com](mailto:radiogene.candidature@gmail.com) including CV, Letter of motivation and contact details of at least one reference person.

### Incorporation:

May 2025 (Approx.) but can be agreed with the candidate.

### Important dates:

For best consideration, consider applying before 01/03/2025. A final stage with online interviews will be scheduled with pre-selected candidates. Individual feedback will be provided. All applications will be treated confidentially.