

## PhD Fellowship (FPI-MINECO) at UPC – IMEM group

4 years PhD position to join the “Innovation in Materials and Molecular Engineering” (IMEM) Group at the Universitat Politècnica de Catalunya (UPC) located in Barcelona (Spain).

Candidates are expected to carry out a PhD within the large project “Intelligent Electronic Skin” (Grant RETOS MAT2015-69367-R) which includes experimental and theoretical studies (50%/50%) related to experimental nanotechnology and theoretical simulations close to the experiments.

The main aim of the whole project is the integration of individual devices in intelligent and electronic multifunctional platforms, denoted as “artificial skin”. It must respond towards stimuli related with detection, tissue engineering and/or actuation, should bear some specific properties such as, for example, flexibility, deformability, biocompatibility, in some cases biodegradability and, in addition, be self-supported from an energetic point of view. For this purpose, It will be created a suitable substrate, an integrated network of sensors (physical, chemical and/or biological), stimuli-responsive actuators (device s to stimulate cell adhesion and proliferation, deliver drugs and transform electrochemical energy into mechanical energy) and energy harvesting and energy storage devices (organic dye-sensitized solar cells, batteries and/or supercapacitors) based on 2D (films) and 3D (fibers and hydrogels) architectures.

### Funding

MINECO program “contratos predoctorales para la formación de doctores” (former FPI). Annual salary of 16.422 euros plus a unique travel assistance of 6.250 euros.

### Eligibility

The applicants must have a BS degree in Chemistry, Biochemistry, Physics, Materials Engineering or Chemical engineering (MS students or applicants with MS degree are also welcome).

For more details, please visit Grants for predoctoral training contracts: <http://www.idi.mineco.gob.es/portal/site/MICINN>

### Application and Deadline

The deadline for applications is from **September 13th to September 27, 2016, at 15:00**

Interested applicants should contact and send their CV (in Spanish or English) and academic record by e-mail to Carlos Alemán ([carlos.aleman@upc.edu](mailto:carlos.aleman@upc.edu)) or Juan Torras ([joan.torras@upc.edu](mailto:joan.torras@upc.edu)) as soon as possible.