

## DIPC PhD STUDENT GRANTS

The Donostia International Physics Center DIPC is currently accepting applications for PhD students. This is a unique opportunity for highly motivated students, recently graduated from the University in physics or related fields, to develop a research career joining some of the DIPC high-profile research teams.

DIPC PhD grants last for just 12 months. An extension of the grant may be accepted just in some exceptional cases. DIPC PhD grants are intended to support the student during the first steps of his/her research career. Further financial aid to continue the PhD research project after this period should be obtained from other institutions.

Interested candidates please send an updated CV including an academic transcript with the obtained marks, a brief statement of interest, and contact information to [phd@dipc.org](mailto:phd@dipc.org). Reference letters are welcome but not indispensable. The particular PhD position(s) to which the candidate is applying should be stated as well.

**Applicants are advised to hold, or be in the final year of a master's degree in physics, chemistry or material science.**

Next review of applications is scheduled for March 3<sup>th</sup> 2017. Applications will be evaluated by a Committee designed by the DIPC board on the basis of the following criteria (with point weights indicated in parentheses):

- CV of the candidate (60%)
- Adequacy of the candidate's scientific background to the project (20%)
- Statement of interest and reference letters (10%)
- Others: Diversity in gender, race, nationality, etc. (10%)

Evaluation results will be communicated to the candidates soon after. Positions will only be filled if qualified candidates are found.

## PhD OPENINGS

### **- Photocatalytic Upconverting Nanomaterials For Metal-based Photochemotherapy**

Contact person: Luca Salassa ([lsalassa@dipc.org](mailto:lsalassa@dipc.org)). Reference: 2017/2.

Photoactivatable transition metal complexes as anticancer agents are promising alternatives to photodynamic therapy photosensitizers. However, shifting excitation wavelengths of metal complexes to the near infrared (NIR) is imperative to advance this class of agents towards preclinical and clinical stages.

This project proposes an original and multidisciplinary strategy to achieve such a goal, that is integrating upconversion nanoparticles (UCNPs) and biocatalysis to provide efficient photoactivation of metal-based prodrugs upon NIR light irradiation.

The PhD candidate will gain hands-on experience on a range of techniques such as UV-Vis, NMR, optical spectroscopy, MS, ICP-MS, XPS, and electron microscopy. In collaboration with Dr. Elixabete Rezabal (Gasteiz, UPV-EHU), the student will also receive training in computational chemistry, with the aim of improving the design of photoactive prodrugs and obtain fundamental insights in their photochemistry.