HFSP fully-funded 4-year PhD Position in

Supramolecular Chemical Biology and Synthetic Biology

The group of Dr. Javier Montenegro is seeking for a **PhD Candidate** with strong interest in **Supramolecular Chemistry, Chemical Biology and Synthetic Biology**. This is an excellent opportunity to join **a Human Frontiers Project**, a cutting-edge research aimed towards the fabrication of a minimal cell and a synthetic cytoskeleton (group website).

The general aim of the project is to prepare and study peptides and other molecules that self-assemble into tubular and fibril networks in the "*out of the equilibrium*" regime.

DESCRIPTION

The applicant will be involved in the preparation of the cytoskeleton of a minimal cell mimic. The research will involve the synthesis of self-assembling peptide building blocks and the biophysical characterization of the resulting ensembles. This project is part of an international project towards a fully synthetic cytoskeleton with self-regulating capabilities. The research groups involved are top-level scientists of the United States (Neal Devaraj) and Japan (Toshihide Takeuchi).

REQUIREMENTS

We seek outstanding individuals with initiative, creativity and team-working ability and with a Master degree in Chemistry, Biophysics, Synthetic Biology, Chemical Biology, Biochemistry or Molecular Biology.
Experience in peptide chemistry, self-assembly, microfluidics and biophysics will be highly considered. Good communication skills and proficiency in written and spoken English are essential.

REFERENCES

"In situ" Functionalized Polymers for siRNA Delivery", Priegue, J. M.; Crisan, D. N.; Martínez-Costas, J; Granja, J. R.; Fernandez-Trillo, F.; Montenegro, J. *Angew. Chem. Int. Ed.* **2016**, *55*, 7492-7495.

"*Cellular Uptake: Lessons from Supramolecular Organic Chemistry",* G. Gasparini, E.-K. Bang, J, Montenegro and S. Matile, *Chem. Commun.* **2015**, *51, 10389-10402.*

"Montenegro, J., Vázquez-Vázquez, *C., Kalinin, A., Geckeler, K. E., & Granja, J. R. Coupling of carbon and Peptide nanotubes. J. Am. Chem. Soc.*, ***2014***, *136, 2484–2491*.

STARTING DATE AND TERM

September 2017 (starting date could be flexible). 4 years of contract (annual evaluation).

APPLICATIONS

All the application procedure will be done online. Applicants must fill out, attach the required documents in a PDF file and submit the online application form available at the jobs section on the CiQUS' website: https://www.usc.es/ciqus/en/application_HFSP-02.

DEADLINE

September 10th, 2017.