





# Doctoral Position (4 yr.) in **Biochemistry** ERC - Starting Grant project / HFSP Project



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The group of Dr. Javier Montenegro is seeking for a Doctoral candidate with strong interest in Biochemistry and Chemical Biology. This is an excellent opportunity to join a young research team working on cutting-edge projects funded by the ERC-Starting Grant ("DYNAP") and a HFSP ("Cytoskeleton").

The general aim of DYNAP project is to identify, at the molecular level, the minimal topological and structural motifs that govern the membrane translocation of peptides and proteins.



Recent breakthroughs of the group have triggered new opportunities in the field of nanotechnology applied transport of functional and therapeutic proteins.

#### **DESCRIPTION**

The applicant will be involved in several biochemical characterization techniques of membrane penetrating and bioactive molecules, including transfection, microscopy, internalization pathways, localization, function, etc. Special focus will be in novel systems for the delivery of functional proteins such as CRISPR/Cas9 and other genome eddition techniques.

### **REQUIREMENTS**

We seek outstanding individuals with initiative, creativity and team-working ability and with a diploma in Biology, Chemical Biology, Biochemistry or Molecular Biology.

Experience in cell biology and proteins and/or peptide delivery 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*.

"Dynamic Amphiphile Libraries To Screen for the "Fragrant" Delivery of siRNA into HeLa Cells and Human Primary Fibroblasts." Gehin, C.; Montenegro, J.; Bang, E.-K.; Cajaraville, A.; Takayama, S.; Hirose, H.; Futaki, S.; Matile, S.; Riezman, H. J. Am. Chem. Soc., 2013, 135, 9295–9298.

**STARTING DATE AND TERM:** September 2017 (flexible). 4 years of contract (annual evaluation).

**RESEARCH CENTER**: The research will be carried out at the CIQUS (www.usc.es/ciqus/en).

## **APPLICATIONS**

Applications should be sent directly to Dr. Montenegro, javier.montenegro@usc.es, including a CV (maximum 2 pages), with undergraduate numeric marks for the different modules and the name and the e-mail of one (or two) contact person(s), indicating in the subject DYNAP-04.

DEADLINE: June 25th, 2017.