UNIVERSITAT DE BARCELONA

Dept. of Biomedical Sciences
Cell Biology Unit
Faculty of Medicine and Health Sciences
University of Barcelona

A one-year **Postdoctoral position** is available in the Cell Biology Unit of the Department of Biomedical Sciences, at the University of Barcelona School of Medicine. The **main goal of this research is to determine the mechanisms by which SNX13 regulates lysosomal cholesterol egress via an NPC1 bypass pathway.**

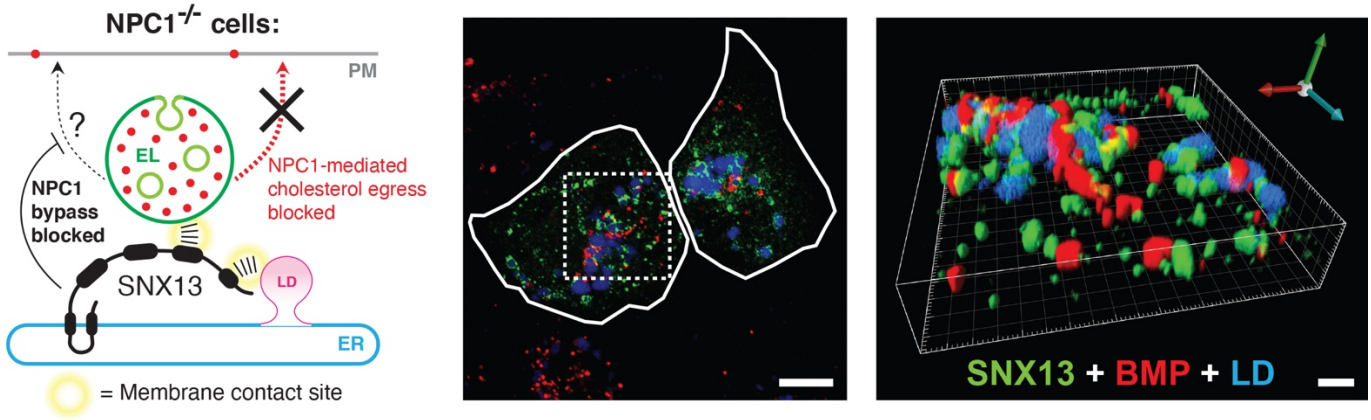

Figure. (**Left panel**) In NPC1-/- cells, colesterol accumulates in endolysosomes (EL) and SNX13 represses a putative NPC1 bypass pathway. In the absence of both NPC1 and SNX13, upregulation of an NPC1-independent pathway allows cholesterol egress from ELs towards the PM. (**Middle panel**) U2OS cells visualized by confocal microscopy; green, SNX13; red, BMP; blue, LDs. Scale bar, 10 µm. (**Right panel**) 3D rendering image of boxed area in middle panel. Image shows multiple contacts between BMP-positive lysosomes (red), SNX13-positive endoplasmic reticulum domains (green) and lipid droplets (blue). Scale bar, 2 µm.

This interdisciplinary project will use molecular, cell biology and biochemical approaches to unravel how SNX13 regulates cholesterol export from lysosomes in the absence of NPC1 function. Understanding how these alternative cholesterol transport routes operate has potential implications for the design of novel NPC therapeutic strategies. The project has been founded by Ara Parseghian Medical research Foundation and the candidate will work under the supervision of Dr. Albert Lu and Dr. Francesc Tebar. *Possibility of contract extension depending on funding and performance.*

Candidates with training and interest in cell and molecular biology are encouraged to apply as soon as possible. **Please send curriculum vitae to: albertlu@ub.edu.**