



**UNIVERSITÉ
DE GENÈVE**
FACULTÉ DE MÉDECINE

PhD position in Cell Physiology University of Geneva, Switzerland



The Demaurex lab is seeking to recruit a highly motivated PhD student to study the role of mechanosensitive PIEZO1 channels in phagocytosis. The phagocytic process exerts substantial forces on the PM as cells ingest solid particles into intracellular vacuoles. The project on which you will embark will use a range of biophysical and cellular imaging approaches to establish the contribution of PIEZO1 channels in sensing membrane forces during phagocytosis.

Qualifications: Applicants must hold a master's degree in natural or life sciences. Experience in cell physiology and with imaging techniques are highly valued. Proficiency in French is not necessary. Experience in immunology-related topics is a plus.

The lab is located in an international environment with state-of-the-art platforms. SNF-funded CANDOC position, starting immediately.

Applications: Please send your application including CV, graduate transcripts, a brief statement of research experiences and interests, and the names of 2 references as a single pdf file to Nicolas.demaurex@unige.ch

References:

1. The lipid transfer proteins Nir2 and Nir3 sustain phosphoinositide signaling and actin dynamics during phagocytosis. DOI: 10.1242/jcs.260902.
2. S-acylation by zDHHC20 targets ORAI1 channels to lipid rafts for efficient Ca²⁺ signaling by Jurkat T cell receptors at the immune synapse. DOI: 10.7554/eLife.72051
3. Molecular Mechanisms of Calcium Signaling During Phagocytosis. doi: 10.1007/978-3-030-40406-2_7
4. STIM1 promotes migration, phagosomal maturation and antigen cross-presentation in dendritic cells. doi: 10.1038/s41467-017-01600-6.
5. STIM1 juxtaposes ER to phagosomes, generating Ca²⁺ hotspots that boost phagocytosis. DOI: 10.1016/j.cub.2012.08.049