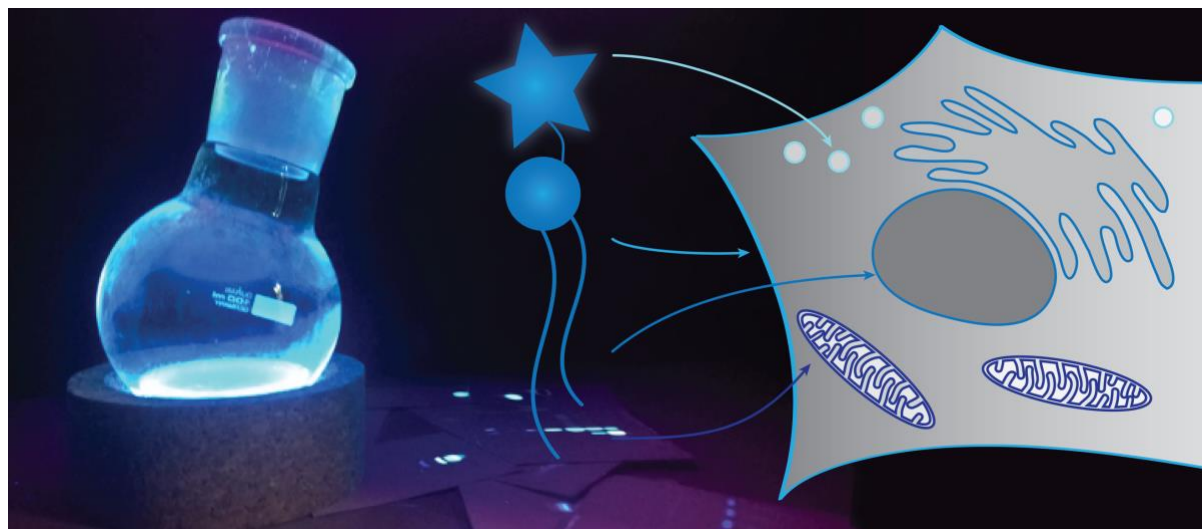


PhD Project



Organelle-targeted signaling lipids to investigate signal specificity in phospholipid signaling

It's all about the lipids: In the Schuhmacher Lab we are interested in answering outstanding questions in membrane biology. It has become more and more apparent that besides their function as crucial structural components of the cell, lipids are involved in numerous signaling pathways and thus actively impact cellular functions.

However, lipids are understudied compared to other biological molecules such as proteins. This is mainly due to a lack of appropriate methodology since compared to proteins, it is very difficult to introduce perturbations such as concentration changes and it is even more challenging to achieve this in an organelle-specific manner. Chemical biology offers the possibility to address this methodological gap and to open the door to investigate the so far mostly invisible and thus secret work of signaling lipids. Work in the Schuhmacher lab comprises the synthesis of lipid probes, that are then used for *in vitro* lipid biochemistry and in cellular systems in order to investigate lipid signaling by fluorescence microscopy or mass spectrometry approaches.

Required profile: Bachelor/Master in chemistry, experience in organic chemistry, highly motivated, interested in interdisciplinary research and with good knowledge in written and oral English

Sounds interesting? Please send a letter of motivation, a CV including a summary of previous research experience and the contact information of referees to milena.schuhmacher@epfl.ch