



**Nadler Lab**

**Membrane Chemical  
Biology**

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**MSc Thesis: Development and characterization of novel lipid biosensors**

Lipids are of crucial importance for biological systems by forming biological membranes, storing energy and acting as second messenger molecules triggering distinct cellular events. The investigation of their cellular roles is often limited due to their small size and physicochemical properties. One possible way to study e.g. lipid distribution in cellular systems is to use fluorescently tagged lipid binding proteins. In this project, you will work on the purification and characterization of novel lipid biosensors. Hereby, you will apply a broad array of fundamental biochemical methods, ranging from protein to lipid biochemistry and afterwards use these biosensors in biological systems.

We are looking for a highly motivated student with a bachelor's degree in biochemistry or related field of studies and a strong interest and drive in method development. Hands-on experience in protein biochemistry is desirable but not essential.

We are offering a highly interdisciplinary environment in the interphase of organic chemistry, cell biology and biochemistry.

If you are interested in doing your master thesis with us, please send a motivation letter, CV and transcript of records to Pavel Barajtjan ([barajtjan@mpi-cbg.de](mailto:barajtjan@mpi-cbg.de)) until 31.12.2021. Please indicate 'MSc thesis – Application' in the subject line. The duration of the thesis depends on the student's university regulations and can start at the earliest from February 2022. The working language is English.

