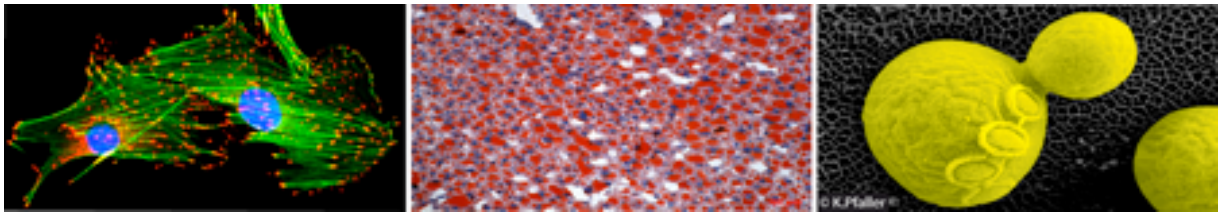

PhD position at the Division of Cell Biology @ Biocenter, Innsbruck

A PhD Position is available immediately in the 'Membrane Traffic and Signaling' research group (PI: David Teis), Division of Cell Biology (http://www.i-med.ac.at/cellbio/) at the BIOCENTER @ Innsbruck Medical University, Innsbruck, Austria (http://www.i-med.ac.at/biocenter/).

The uptake of glucose, amino acids and nucleobases via nutrient transporters is essential for controlled cell growth and survival. How these processes are regulated in response to changes in the extracellular environment is poorly characterized.

The goal of the thesis is to identify the '**Molecular mechanism of nutrient dependent plasma membrane remodeling'.** We have recently shown that nutrient limitation induces global but selective remodeling of the plasma membrane proteome in yeast, including the lysosomal degradation of many different nutrient transporters. This process cooperates with autophagy in a catabolic cascade that mediates entry into quiescence and is required to survive nutrient limitation (Mueller et al., *eLife* 2015).

Now we aim to characterize how cellular homeostasis and signaling networks regulate the ubiquitin dependent degradation of nutrient transporters. Therefore we will combine yeast genetics with quantitative proteomics and imaging approaches. Our results will help to understand how cells adjust their nutrient transporter repertoire on the cell surface in response to nutrient availability and thus have important general biological implications for the regulation of cellular growth.

Applicants should be highly motivated, with a strong background in cell- and molecular biology and/or biochemistry.

Please send your application (CV and two contacts for reference) per email to David Teis (david.teis@i-med.ac.at).

References:

1. Huber, L.A., and Teis, D. (2016). Lysosomal signaling in control of degradation pathways. Curr Opin Cell Biol *39*, 8-14.
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