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FAKULTÄT FÜR CHEMIE

Einladung zum Vortrag von

Associate Professor Dr. Stephan Pless
University of Copenhagen, Denmark

Engineering of ion channels to study ligand-receptor interactions and the effects of post-translational modifications

Membrane proteins such as ion channels play crucial roles in human physiology and their dysfunction is associated with a variety of disease states. Despite recent advances in our understanding of both their structure and function, many aspects of their function and pharmacology remain elusive because we lack methods capable of elucidating their complex molecular function. Here, I will present two distinct chemical biology approaches that enable the incorporation of synthetic amino acids and post-translational modifications into ion channels: genetic code expansion to investigate the binding of anti-epileptic drugs to voltage-gated potassium channels and split intein-mediated protein semi-synthesis to probe the ATP-binding site of ligand-gated P2X receptors and the functional consequences of post-translational modifications in voltage-gated sodium channels.

Mini biography: Undergraduate degree in biochemistry and molecular biology at the University of Hamburg Germany. PhD studies at the University of Queensland, Australia and postdoctoral work at the University of British Columbia, Canada on biophysical and chemical biology approaches to study ion channels. Associate Professor at the University of Copenhagen, Denmark, since 2014. Focus on using and developing novel chemical biology tools to study ion channel function and pharmacology.

Mittwoch, 24. April 2019, 16:15 Uhr
Hörsaal 3 der Fakultät für Chemie
Boltzmanngasse 1, 1090 Wien

Christian F. W. Becker
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