



Psychiatry and Neuroscience Seminar Series 2020



Pr Volker Haucke

(Host T Galli)

Department Molecular Pharmacology and Cell Biology, Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP), Freie Universität Berlin, Germany

Control of presynaptic function by the autophagy- endosomal system

Friday March 6th, 2020, noon

R04-45, 102-108 rue de la santé - 75014 Paris

Pr Volker HAUCKE

Molecular Pharmacology and Cell Biology, Leibniz-Forschungsinstitut für Molekulare Pharmakologie (FMP), Freie Universität Berlin, Germany

Aims of the lab are to understand how cellular membranes and membrane-enclosed compartments dynamically exchange materials between them and its implications for cell signaling in health and disease. We focus on the endocytic and endolysosomal system that is studied in genome-engineered cell lines and in nerve cells or tissue. The laboratory uses a broad range of techniques including biochemical and molecular biology approaches, super-resolution light and electron microscopy, chemical biology and screening technology, electrophysiology as well as genetic and genome engineering at the cellular or organismic levels in vivo. The overarching goal of these studies is to provide a mechanistic understanding of the assembly of protein-lipid scaffolds that support exo-endocytosis coupling and endolysosomal functions, and to use this know-how to develop novel strategies for pharmacological or genetic interference. Our studies thereby provide important and novel insights into the molecular mechanisms underlying a broad range of diseases, including epilepsy, neurodegeneration, lysosomal disorders, myopathies and cancer.

Molecular Biology

Cell Biology

Cell Culture

Biochemistry

Immunohistochemistry

Cell Signaling

Neuroscience

Molecular Cell Biology

Immunofluorescence

Western Blot Analysis