

## Psychiatry and Neuroscience Seminar Series 2019

**Pr Eva-Maria Krämer-Albers**

(Host G Van Niel)



*Institute for Developmental Biology and Neurobiology  
Johannes Gutenberg University Mainz, Germany*

### **Exosomes as mediators of neuron-glia communication and neuronal homeostasis**

**Friday February 15<sup>th</sup>, 2019, noon**

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

**Pr Eva-Maria Krämer-Albers**

**Institute for Developmental Biology and Neurobiology, University Mainz, Germany**

*She is the head of the team of Extracellular vesicles in cell communication in the Molecular Cell Biology, Johannes Gutenberg University of Mainz since 2001. She works on Axon-glia interaction and molecular mechanisms of myelin formation in development and disease. Myelinated fibres constitute a functional entity between neurons and glial cells dependent on continuous reciprocal metabolic exchange. Myelination is a multi-step process that is controlled by axonal signals and involves glial polarisation, targeted myelin membrane expansion and the assembly of specialised membrane domains. Axonal functionality and long-term integrity in turn depend on glial functions and the orderly formation of glial membrane domains. We aim to elucidate the mechanisms of reciprocal axon-glia interaction and myelin morphogenesis, that we consider essential to conceive and confront pathology of myelin diseases, such as multiple sclerosis and leukodystrophies. We are investigating the molecular machinery of oligodendroglial membrane traffic and the mechanisms of its control. Furthermore, we are studying the secretion of oligodendroglial exosomes and their role in axon-glia interaction.*