

2017 Seminar Series



Wednesday 19th of July
12-1pm

Bio21 Institute Auditorium
30 Flemington Road, Parkville

Prof Ludger Johannes

Institut Curie, PSL Research University, France.

Lectin-driven and glycosphingolipid-dependent construction of endocytic pits

Ludger Johannes (PhD) is Research Director (DR1) at INSERM. Since the beginning of his biochemistry undergraduate studies in 1987, he is member of the *Studienstiftung des Deutschen Volkes* (German organization of the academically gifted), and since 1993 of Boehringer Ingelheim Fonds. Between 2001 and 2013, he directed the *Traffic, Signaling and Delivery Group* in the Cell Biology Department (UMR144 CNRS) of *Institut Curie*. Since January 2014, he is heading the *Chemical Biology of Membranes and Therapeutic Delivery* unit (U1143 INSERM — UMR3666 CNRS). His research aims at establishing fundamental concepts of endocytosis and intracellular trafficking. The Johannes group has made two major contributions in this context: the discovery of a membrane trafficking interface between early endosomes and the Golgi apparatus, and the demonstration that dynamic protein-induced glycosphingolipid reorganization acts as a driving force for membrane invagination in clathrin-independent endocytosis. These studies are well cited and have been published in several high-ranking journals, including *Cell*, *Nature*, *Nature Cell Biology*, *Developmental Cell*, and *The Journal of Cell Biology*. He also aims at exploiting these discoveries in fundamental membrane biology research for the development of innovative cancer therapy strategies. His basic studies have allowed him to validate the B-subunit of Shiga toxin (STxB) as a "pilot" for the delivery of therapeutic compounds to precise intracellular locations of dendritic and tumor cells (10 patent families, 5 of which are delivered in the US, Europe and other countries). These findings are the basis for a translational research program on intracellular delivery at the Curie Institute, and for the creation of biotech companies. Ludger Johannes serves on the INSERM study section on cell and developmental biology, on editorial boards of several international journals (including *PLoS One* and *Traffic*), and is EMBO member since 2012. His group is member of LabEx CelTisPhysBio, and he currently holds an ERC senior grant (2014-2019).

ALL WELCOME. Please join us for a light lunch after the seminar!
Further information: Matthew Dixon (matthew.dixon@unimelb.edu.au)