Radboud Research Rounds

Thursday 30 March

Location: Tuinzaal, route 706

16:00 Reinhard Jahn,
Max Planck Institute, Göttingen
SNARE proteins – mechanisms of action and regulation

17:00 College tour

17:30 Research café



The group of Prof. Jahn is interested in the mechanisms of membrane fusion, with the main emphasis on regulated exocytosis in neurons. Intracellular membrane fusion events are mediated by a set of conserved membrane proteins, termed SNAREs. For fusion to occur, complementary sets of SNAREs need to be present on both of the fusing membranes, which then assemble in a zipper-like fashion to initiate membrane merger. To understand how proteins mediate fusion, they study their properties in vitro with biochemical and biophysical approaches using native and artificial membranes.



Key publications:

- Single-vesicle imaging reveals different transport mechanisms between glutamatergic and GABAergic vesicles. *Science*; 351, 981-984, 2016
- Spring-loaded unraveling of a single SNARE complex by NSF in one round of ATP turnover. *Science*; 347, 1485-1489, 2015
- Phosphatidylinositol 4,5-bisphosphate clusters act as molecular beacons for vesicle recruitment. *Nature Struct Mol Biol*; 20, 679, 2013

These lectures are intended for students, post-docs and staff interested in latest fundamental and clinical research strategies within a particular theme. Registration is not required. This seminar has an ABAN accreditation. This Radboud Research Round is organized by the theme Cancer development and immune defense. Next Radboud Research Round: 6 April is organized by the theme Healthcare improvement science.

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