Karl Friedrich Bonhoeffer Lecture

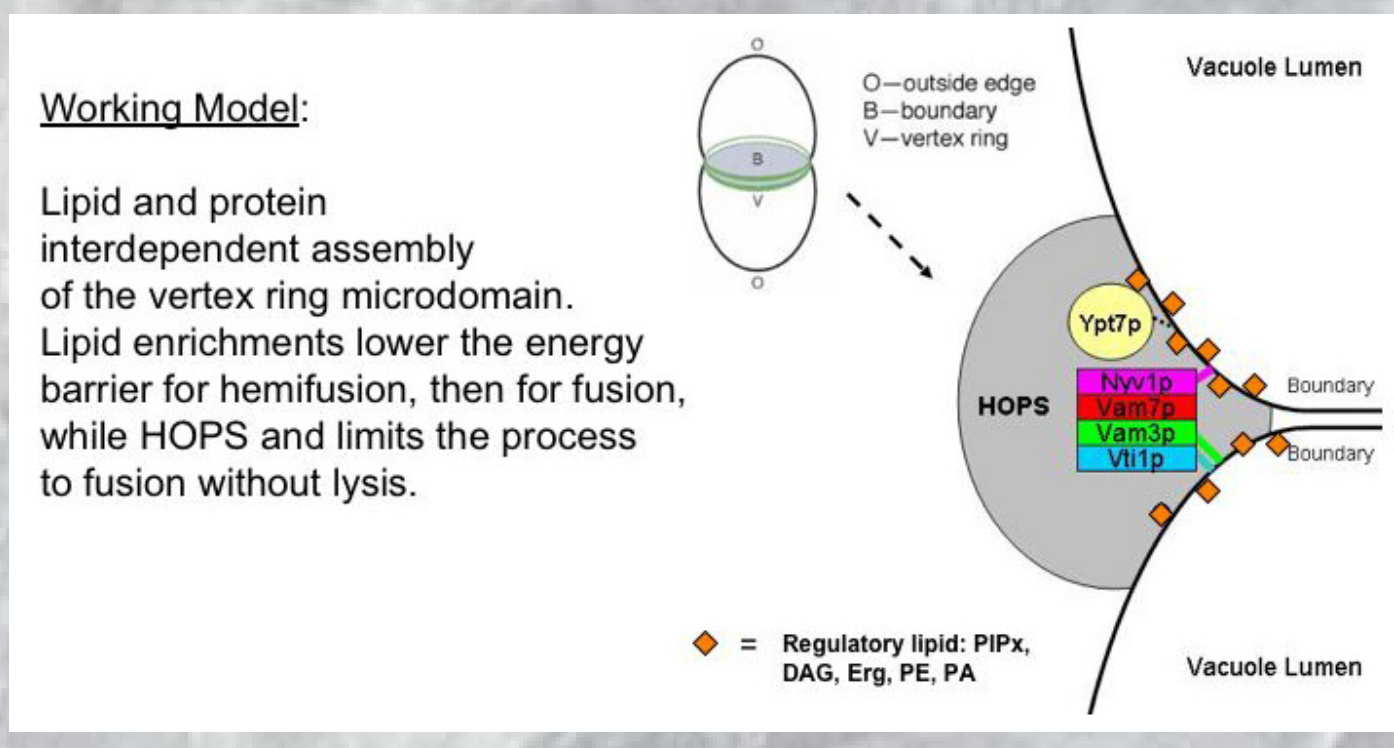
Donnerstag, den 14.5.2009 -17:00 Uhr

MPI für Experimentelle Medizin

Hermann-Rein-Str. 3, Hörsaal

Prof. Dr. William T. Wickner
Dartmouth Medical School
Hanover, NH, USA

Studying Membrane Fusion with Yeast Vacuoles: 5 lipids, 4 SNAREs, 3 chaperones, 2 nucleotides, and a Rab, all Dancing in a Ring!



Pairs of docked vacuoles (lysosomes) from yeast assemble a ring-shaped microdomain, enriched in specific proteins and lipids, to drive fusion. The proteins (SNAREs, a Rab GTPase, and SNARE chaperones) and lipids (phosphoinositides, diacylglycerol, sterol, phosphatidylethanolamine, and phosphatidic acid) are interdependent for assembly of this fusion microdomain. Fusion can require extensive trans-SNARE complex remodeling, guided by the HOPS complex and powered by an ATP-driven SNARE complex-disassembly system. Reconstitution of this fusion with all-pure components reveals the role of the Rab, a synergy among the SNARE chaperones, and a striking diversity of fusion-promoting lipids.

Gastgeber: Prof. Dr. Reinhard Jahn

Bitte beachten Sie, dass wegen Umbauarbeiten im Manfred-Eigen-Hörsaal die Lecture dieses Mal NICHT im Max-Planck-Institut für biophysikalische Chemie stattfindet.