

Colloquia in Membrane Transport

Venue: Medical University Vienna, Center for Physiology and Pharmacology,
Institute of Physiology, Schwarzspanierstraße 17, 1. floor, 1090 Vienna,

"Big Lecture Hall Physiology"

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Friday 20.11.2015 14.00 s.t. **Dirk Slotboom** (host: H. Sitte)

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"Mechanisms of vitamin transport"

Dirk Slotboom (d.j.slotboom@rug.nl)

Energy-coupling factor (ECF) transporters belong to the ATP-binding cassette (ABC)-transporter family and mediate the uptake of essential micronutrients in many prokaryotic species. Crystal structures of bacterial ECF transporters have recently been obtained and suggest that transport involves an unprecedented re-orientation ("toppling") of a membrane protein in the lipid bilayer during catalysis. I will present new structural insights, discuss the uniqueness of the toppling mechanism of transport, and consider the more general implications of these findings for our understanding of membrane transporters.