

**20/11/2014**

THURSDAY

start 14.00Seminar room 1.32, pavilion A11
University campus BohuniceCEITEC STRUCTURAL
BIOLOGY SEMINAR
SERIES*You are cordially invited to the lecture***„A Structural View on the Early Steps
in Rhinovirus Infection“***delivered by***Dieter Blaas**Max F. Perutz Laboratories, Medical University of Vienna,
Institute of Medical Biochemistry, Vienna Biocenter, Austria**Abstract:**

On binding to their respective receptors, rhinoviruses are being taken up into the cell following various pathways. Once in the (acidic) endosome they undergo structural changes preparing the exit of the RNA genome and its transfer into the cytosol for replication. We have analyzed the 3D-structure of the intermediates of this uncoating reaction and determined the polarity of the exit of the RNA by using various physicochemical and molecular biological methods. We show that loss of the pocket factor allows for important re-arrangements of the side chains including the separation of two anti-parallel alpha helices at the two-fold axes giving rise to an opening allowing for the RNA to exit. We localize the N-terminal residues of VP1 in the A-particle and present a 3D model of this subviral structure bound to liposomal membranes suggesting how the RNA might transit through the lipid bilayer.

