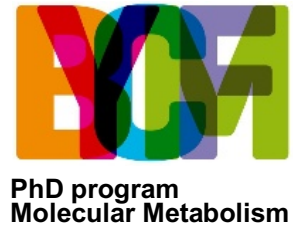


Guest lecture



Invitation to an interesting talk given by...

Prof. Damian Ekiert

Assistant Professor, Department of Cell Biology and Department of Microbiology, Skirball Institute; NY, USA

Title: **Bridges, Tunnels, and Ferries: How bacteria move lipids between membranes**

Date: Friday, February 26th 2021, 2:30 p.m.

Venue: Via WebEx;
If you are interested please send an email to doc.fund.mobiles@uni-graz.at with the subject: "Guest lecture Ekiert" for registration. You will get an invitation link a day before the presentation.

host: DocFund MOBILES

Abstract

Gram-negative bacteria are surrounded by an outer membrane composed of phospholipids and lipopolysaccharide, which acts as a barrier and contributes to antibiotic resistance. The transport systems that drive phospholipid translocation across the periplasm, such as the MCE (Mammalian Cell Entry) systems, have not been well characterized at the molecular level. Using Cryo-EM and other approaches, we have begun to unravel some of the mechanisms of lipid transport across the bacterial envelope by MCE systems, particularly focused on the Mla, Pqi, and Let transporters from *E. coli*. Our lab is interested in understanding how these systems drive the insertion/extraction of lipids from membranes, facilitate transport across the envelope, and how this entire process is regulated. I will present our latest work on this intriguing family of transporters, and discuss our working model for how they facilitate the maintenance of the Gram-negative outer membrane.