

# FBS Seminar

Date: 16:00-17:00 on Friday, October 28

Place: 2F Seminar Room, Biosystems Building

## Dr. Doron Rapaport

Professor  
Interfaculty Institute of Biochemistry  
University of Tuebingen  
Tuebingen, Germany



### Title: Biogenesis of mitochondrial outer membrane proteins in evolutionary context

#### Abstract

The mitochondrial outer membrane (MOM) mediates multiple interactions between the mitochondrial systems and the rest of the eukaryotic cell. Biogenesis of this membrane involves integration of newly synthesized proteins into the lipid bilayer. Among these precursor proteins are those that span the membrane once, twice or with multiple segments. In our studies we define the biological processes and molecular mechanisms that underlie the biogenesis of MOM proteins.

#### Recent publications

Hoseini H, Pandey S, Jores T, Schmitt A, Franz-Wachtel M, Macek B, Buchner J, Dimmer KS, Rapaport D. (2016). The cytosolic cochaperone Sti1 is relevant for mitochondrial biogenesis and morphology. **FEBS J.**, 283: 3338-3352.

Jores T, Klinger A, Groß LE, Kawano S, Flinner N, Duchardt-Ferner E, Wöhnert J, Kalbacher H, Endo T, Schleiff E, Rapaport D. (2016). Characterization of the targeting signal in mitochondrial  $\beta$ -barrel proteins. **Nat. Commun.**, 7: 12036.

Sinzel M, Tan T, Wendling P, Kalbacher H, Özbacı C, Chelius X, Westermann B, Brügger B, Rapaport D., Dimmer KS. (2016). Mcp3 is a novel mitochondrial outer membrane protein that follows a unique IMP-dependent biogenesis pathway. **EMBO Rep.**, 17: 965-981.

Zabehzhinsky D, Slobodin B, Rapaport D., Gerst JE. (2016). An essential role for COPI in mRNA localization to mitochondria and mitochondrial function. **Cell Rep.**, 15: 540-549.

Host: **Koji Okamoto**, Laboratory of Mitochondrial Dynamics, Graduate School of Frontier Biosciences

Tel: 06-6879-7970 Email: kokamoto@fbs.osaka-u.ac.jp

Note: This seminar will be presented in English.