Physiology and Biophysics
Department of Biological Sciences
and Pathobiology

XXXIV WORKSHOP

Recent research on mitochondrial carriers in artificial and cellular systems

Thursday, February 27, 2025
Seminar room of Physiology and Biophysics (HA05 P51)

9:00 – 9:05	Opening remarks	Olga Jovanovic
Session I: **New methods and recent results in the study of mitochondrial carrier – substrate interactions** Chairs: G. Roticiani, J. Kreiter		
9:05 – 9:35 (20 + 10)	New experimental approaches for the investigation of mitochondrial carriers	Jürgen Kreiter
9:35 – 10:05 (20 + 10)	Optimizing mitochondrial carrier synthesis in cell-free systems	Sarah Bardakji
10:05 – 10:35 (20 + 10)	Enhancing the study of membrane proteins with nanodisc technology	Deniz Hofbauer
10:35 – 10:45 (10)	Coffee break	
10:45-11:15 (20 + 10)	Fatty acid sliding in UCP1 is driven by specific amino acid residues as revealed through electrophysiological experiments	Giorgia Roticiani
11:15 – 11:45 (20 + 10)	Comparison of the uncoupling efficiency of 2,4-dinitrophenol in the model of the inner mitochondrial membrane and in the mitoplast	Olga Jovanovic
11:45 – 12:15 (20 + 10)	Molecular dynamics simulations of UCP3-UCP5 proteins	Mario Vazdar UCT Prague
12:15-13:05 (50)	Lunch break	

Session II: **The availability and adaptation of mitochondrial carriers to the metabolic needs of the cell** Chairs: C. Abobocioae, T. Beikbaghban		
13:05 – 13:35 (20 + 10)	The Role of the Solute Carrier 25 Proteins in Pathologies	Taraneh Beikbaghban
13:35 – 14:05 (20 + 10)	Comparison of Tissue-Specific Effects of a C8/C10 Medium-Chain Fatty Acid supplemented ketogenic diet with Intermittent and Sustained Caloric Restriction in Mice	Felix Sternberg
14:05 – 14:15 (10)	Coffee break	
14:15 – 14:45 (20 + 10)	Topology of The Mitochondrial Inner Membrane Protein LETM1	Clara Abobocioae
14:45 – 15:15 (20 + 10)	Transcriptome analysis of tissue resident macrophages in mouse	Sara Chitgaran
15:15 – 15:45 (20 + 10)	Macrophages tune UCP2 to match their metabolic needs	Jila Nasirzade Rajiri
15:45 – 16:00 (15)	Coffee break	
Invited lecture Chair: Olga Jovanovic		
16:00 – 17:00 (45 + 15)	Unlocking protein function with single-molecule & microfluidic approaches	Georg Krainer University of Graz
17:00	Closing remarks	Elena E. Pohl
17:30	Get together: Restaurant “Dschunke”	

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