

Annual Meeting of the Austrian Physiological Society

Friday, June 30, 2023

*Karl Landsteiner University of Health Sciences,
Building Y, Festsaal and Auditorium*

08:30 – 09:00 Registration

09:00 – 09:15 Welcome note

09:15 – 10:15 Symposium I – Cellular and systemic homeostasis

(max. 15 min presentation + 5 min discussion)

Chairs: Elena Osto and Jakob Völkl

- 1) Jakob Völkl (JKU Linz)
 - Mineral stress and cardiovascular disease
- 2) Markus Ritter (Paracelsus Medical University, Salzburg)
 - Aspects of hydration from cell to whole body and to population
- 3) Elena Osto (Medical University of Graz)
 - Role of gastrointestinal hormones in the metabolic control of endothelial function

10:15 – 10:45 Coffee break

10:45 – 11:45 Symposium II – Membrane proteins and nervous system disorders

(max. 15 min presentation + 5 min discussion)

Chairs: Michaela Kress and Michael Fischer

- 1) Michael Fischer (Medical University of Vienna)
 - TRPA1 activation by commonly used preservatives



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- 2) Michaela Kress (Medical University of Innsbruck)
 - Neuroimmune communication related to lipid storage dysfunction
- 3) Gerald Obermair (Karl Landsteiner University of Health Sciences, Krems)
 - Disease mechanisms underlying brain disorders linked to $\alpha_2\delta$ proteins

11:45 – 13:45 Lunch break and poster presentations

13:45 – 15:30 Oral Presentations

(max. 12 min presentation + 3 min discussion)

Chairs: Judith Lechner and Margarethe Geiger

- 1) Azmat Sohail (JKU Linz)
 - Association of Zinc/copper with mineral stress in CKD
- 2) Cosmin Ionut Ciotu (Medical University of Vienna)
 - LPA-induces functional and structural changes in peripheral nerves
- 3) Sandra Postic (Medical University of Vienna)
 - High-resolution analysis of the cytosolic Ca^{2+} events in pancreatic β cell collectives in situ
- 4) Andraž Stožer (University of Maribor)
 - Calcium oscillations in islets of Langerhans from control and diabetic humans: implications for understanding normal and pathological β cell function
- 5) Johannes Pfabe (Medical University of Vienna)
 - cAMP-dependent modulation of calcium oscillations in pancreatic β cells



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- 6) Matthias Ganglberger (University of Innsbruck)
 - Analysis of mouse retinas carrying a Cav1.4 variant with impaired C-terminal modulatory function
- 7) Manuel Hessenberger (Karl Landsteiner University of Health Sciences, Krems)
 - Alternative epitope-tag positions and nanobodies – a new love-story?

15:30 – 15:45 Awards

15:45 – 16:00 Coffee break

16:00 – 17:00 Workshop: Teaching Physiology at Austrian Universities

Chair: Gerald Obermair

- MU Graz (Helmut Lackner)
- MU Innsbruck (Judith Lechner)
- KL Krems (Gerald Obermair)
- MU Wien (Michael Fischer)

17:00 – 18:00 Annual General Meeting of the Austrian Physiological Society



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Poster presentations:

- 1) Clarissa Eibl (Karl Landsteiner University of Health Sciences, Krems)
 - Elucidating the role of $\alpha_2\delta$ proteins in synapse organization
- 2) Sabrin Haddad (Karl Landsteiner University of Health Sciences, Krems)
 - Functional characterization of homozygous mutation in CACNA2D2 associated with early-infantile epileptic encephalopathy and cerebellar atrophy
- 3) Clara Höbart (Medical University of Vienna)
 - A remote cell conditioning model improves cardiomyocyte survival in ischemia-reperfusion
- 4) Lydia Riehl (Medical University of Innsbruck)
 - Post-operative cognitive dysfunction and the gut microbiome
- 5) Mehdi Razazian (JKU Linz)
 - Procalcific effects of leukemia inhibitory factor discover a novel role for TYK2 in vascular calcification
- 6) Felix Resch (Medical University of Vienna)
 - Infusion-based human pain models
- 7) Marjan Slak Rupnik (Medical University of Vienna)
 - The role of AVP in cytosolic Ca²⁺ homeostasis in beta cell collectives
- 8) Ilaria Sanvido (Medical University of Innsbruck)
 - Molecular mechanisms and physiological importance of a novel interaction between Kv channels across families

- 9) Dominik Schubert (Medical University of Vienna)
- Changes in calcium-signalling in acute pancreatic islets by inhibiting mitochondrial metabolism
- 10) Stephan-Matthias Schulreich (Karl Landsteiner University of Health Sciences, Krems)
- Subcellular localization of the calcium channel Cav2.3 in cultured hippocampal neurons
- 11) Ruslan Stanika (Karl Landsteiner University of Health Sciences, Krems)
- Nanobodies targeting $\alpha_2\delta$ proteins to study the molecular synaptic organization
- 12) David Zimmermann (Medical University Innsbruck)
- Biophysical Essentials – An open-source software framework for conserved and advanced analysis of patch clamp recordings