

Transient receptor potential (TRP) channels represent an extended and diverse protein family fulfilling salient roles as versatile cellular sensors and effectors. Over the last few years the new concept has emerged that TRP proteins control an exceptionally broad spectrum of homeostatic physiological functions such as maintenance of body temperature, transmitter release from neurons, mineral and trace element homeostasis and reproduction. The vast majority of TRP channel-related human disorders impinge on development, metabolism and other homeostatic functions. The truly remarkable diversity of pathologies caused by TRP channel dysfunction underscores the wide spectrum of roles these proteins play in vivo.

This symposium brings together leading scientists in the field of ion channel research and offers a discussion platform for select aspects of ion channel structure, function and cell regulation with a special focus on the Transient Receptor Potential (TRP) channel family.



## CONTACT

■ Thomas Gudermann  
■ Thuc Huong Kuno  
Ludwig-Maximilians-University Munich  
Walther Straub Institute of Pharmacology and Toxicology  
Goethestr. 33  
D-80336 München  
Phone +49 89 2180 75705

With generous support by:



**Location:**  
Haus der Bayerischen  
Landwirtschaft,  
Herrsching (near Munich)  
Rieder Str. 70  
82211 Herrsching  
am Ammersee →



TRR 152

TRiPs to Homeostasis  
Maintenance of Body Homeostasis by  
Transient Receptor Potential Channel Modules

INTERNATIONAL SYMPOSIUM

# REGULATION OF CELL FUNCTIONS BY TRANSIENT RECEPTOR POTENTIAL CHANNELS

April 13 – April 15, 2026



[www.sfb-trr152.med.uni-muenchen.de](http://www.sfb-trr152.med.uni-muenchen.de)

**Organizers:** Thomas Gudermann, Ulrich  
Boehm, Christian Grimm, Arthur Neuberger

**Monday – 13<sup>th</sup> April 2026**

- 03:00 pm **Introduction: Thomas Gudermann**
- 03:15 pm **Plenary lecture:**  
 ■ **Craig Montell**, TRP channels and the control of mosquito disease vectors
- Session I Organellar Ion Channels**
- 04:00 pm ■ **Wang Zheng**, Structural and functional basis of mechanosensitive TMEM63 channelopathies
- 04:30 pm ■ **Thomas Jentsch**, Regulation of endosomal anion transport by novel TMEM9 subunits in health and disease
- 05:00 pm ■ **Jun Suzuki**, A coupling system for asymmetrical distributions of ions and lipids
- 05:30 pm ■ **Hyun-Jin Kim**, Dynamic regulation of TRPML channels during autophagy
- 06:00 pm ■ **Christian Grimm**, Endolysosomal TRPMLs/TPCs: New aspects of their disease relevance
- 06:30 – 07:30 pm Dinner*
- 08:00 pm **Evening talk:**  
 ■ **Vera Moiseenkova-Bell**, Advancing the understanding of TRP channels structure and function through cryoEM and cryoET
- Afterwards Welcome Party*

**Tuesday – 14<sup>th</sup> April 2026**

- 07:30 – 09:00 am Breakfast*
- 09:00 am **Plenary lecture:**  
 ■ **Wei Lü**, Temperature Reshapes TRPM4 Pharmacology
- Session II Cell Physiology**
- 09:45 am ■ **Wolfgang Kübler**, TRPV4 as a key regulator of lung endothelial barrier function

- 10:15 am ■ **Sven Erik Jordt**, TRP Channels & Tobacco: Physiology, Toxicology and Insights from Regulatory Science
- 10:45 – 11:15 am Coffee break*
- 11:15 am ■ **Rudi Vennekens**, TRPM Channels in the heart
- 11:45 am ■ **Susanna Zierler**, Targeting the channel-kinase TRPM7 to modulate immunity
- 12:15 pm ■ **Lixia Yue**, TRPM2 in Ischemic Stroke: From Mechanisms to Therapeutic Potential
- 12:45 – 01:45 pm Lunch*  
*02:00 – 05:00 pm Social Activities*  
*05:00 – 06:30 pm Poster Session*  
*06:30 – 07:30 pm Dinner*

- 08:00 pm **Evening talk:**  
 ■ **Jürgen Wess**, Identification of GPCR signaling pathways critical for regulating glucose and energy homeostasis

**Wednesday – 15<sup>th</sup> April 2026**

- 07:30 – 09:00 am Breakfast*
- 09:00 am **Plenary lecture:**  
 ■ **Alexander Sobolevsky**, Structural mechanisms of TRPM7 activation and inhibition
- Session III Sensory and Neuronal Functions**
- 09:45 am ■ **Frank Zufall**, Chemosensation: From ion channels to defense and innate immunity
- 10:15 am ■ **Christoph Schneider**, Visualizing chemosensation in epithelium-immune cell crosstalk
- 10:45 – 11:15 am Coffee break*

- 11:15 pm ■ **Bernd Fakler**, The complexome of ion channels
- 11:45 am ■ **Mike Zhu**, Decoding the sodium and calcium signals of TRPC4
- 12:15 am ■ **Gabriela Krasteva-Christ**, Sensory nerve-tuft cell crosstalk mediates tracheal antimicrobial defense
- 12:45 – 01:45 pm Lunch*

**Session IV Structural and computational biology**

- 02:00 pm ■ **Arthur Neuberger**, Structural pharmacology of TRPV6
- 02:30 pm ■ **Ute Hellmich**, It takes two to tango: lipid-dependent TRP channel regulation in health and disease
- 03:00 – 05:00 pm Coffee break + Poster Session*
- 05:00 pm ■ **Christine Ziegler**, Remodeling the TPC2 Selectivity Filter for Ca<sup>2+</sup> Permeation by an NAADP mimicking agonist
- 05:30 pm ■ **Thomas Schlichthärle**, AI-guided Protein Design to engineer growth factor mimetics
- 06:00 pm ■ **Daniel Bollschweiler**, Method talk: Strengths and Limitations of in-situ Structural Biology by Cryo-electron Tomography
- 06:30 – 07:30 pm Dinner*
- 08:00 pm **Evening talk:**  
 ■ **Thomas Voets**, Pharmacological targeting of TRPM3 for pain and neurological disorders
- Afterwards Good-bye Party*