

# Transport across and into membranes

Closing conference of the DFG-funded Research Training Group 2202

2025 May 14<sup>th</sup> – 16<sup>th</sup>

Aula, first floor of the University building I (KG I)

Platz der Universität 3  
79098 Freiburg, Germany



# Transport across and into membranes

Welcome to the Albert-Ludwigs-Universität Freiburg, the venue for the final conference of RTG 2202.

Our Research Training Group 2202 started already nine years ago in 2016. Since that time the participating groups were working hard on membrane dynamics, the interaction of membrane proteins with the membrane and the transport of ions, small molecules and even proteins across and into the biological membrane. Thanks to the constant commitment of the group leaders and the doctoral researchers, it feels as if we only started our program yesterday. It is therefore time to express our sincere thanks to all those involved.

The final conference starts with a short welcome and a keynote on Wednesday. The day will be rounded off with a get-together and meeting of alumni doctoral researchers in the aula. On Thursday and Friday we start at 9:30 a.m. with lectures by guests and doctoral researchers of the RTG. Lunch and coffee breaks will be organized at the same location.

We thank you for coming to Freiburg and joining us to celebrate the completion of a successful scientific cooperation. We hope that you will have an enjoyable time and most stimulating discussions! Please accept our thanks and a very warm welcome to Freiburg!

## Wednesday, 14 May 2025

- 16:00 Registration
- 18:00 Welcome by Thorsten Friedrich, Speaker of the RTG 2202
- 18:15 Werner Kühlbrandt, Frankfurt/Main  
Keynote
- 19:00 Get-together & Alumni meeting (ends at 21:00)

## Thursday, 15 May 2025

- 09:30 Welcome coffee
- 10:00 Steffen Wolff, Freiburg  
Coarse-graining ligand and ion transport *via* dissipation-corrected targeted MD and Langevin simulations
- 10:40 Pia Ädelroth, Stockholm  
Terminal oxidases in *Mycobacterium smegmatis*
- 11:20 Kaiwei Shen, Freiburg  
The assembly of cytochrome *cbb3*-type cytochrome oxidase: a complex blueprint
- 11:40 Lunch break & Poster session
- 13:00 Ville Kaila, Stockholm  
Deciphering Molecular Mechanisms Underlying the Biological Energy Currents of Life
- 13:40 Luca Merono, Freiburg  
The role of the distal iron sulfur cluster in complex I
- 14:00 André Schneider, Bern  
Evolution of mitochondrial protein import - lessons from trypanosomes
- 14:40 João Morais-Cabral, Porto  
Exploring the bacterial potassium transport machinery
- 15:20 Coffee break & Poster session
- 16:20 Jetmir Haxhija, Freiburg  
Biological charge transfer far from equilibrium: theory, simulation and applications
- 16:40 Florian Becker, Freiburg  
Regulation of CHP3 and its interaction with NHE1
- 17:00 Ute Hellmich, Jena  
TRPs on a leash - functional regulation of ion channels through their intrinsically disordered regions

## Friday, 16 May 2025

- 09:30 Welcome coffee
- 10:00 Claus Normann, Freiburg  
The GluN2D subunit of the NMDA receptor: properties, modulation and its role in depression
- 10:40 Rémi Peyronnet, Freiburg  
The Hidden Architects: Mechanosensitive Channels in Cardiac Extracellular Matrix Remodelling
- 11:20 Anna-Sophia Kittel, Freiburg  
Effects of *P. aeruginosa* lectin LecB on Piezo1 currents and localization
- 11:40 Lunch break & Poster session
- 13:00 Sandro Keller, Graz  
Native Nanodiscs for Studying Membrane Proteins
- 13:40 Sinja Götz, Freiburg  
Interactions of cyclic lipopeptides with model membranes
- 14:00 Luisa Iommarinini, Bologna  
Deciphering the role of TMEM65 in respiratory Complex I biogenesis
- 14:40 Coffee break & Poster session
- 15:40 Yu Zhang, Freiburg  
Marching into the mist, characterizing an unknown PrrA/PrrB-like TCS in *Mycobacterium smegmatis*
- 16:00 Luisa Munz, Freiburg  
From Structure to Mode of Action: The Novel Natural Product Olikomycin A
- 16:20 Bonnie Murphy, Frankfurt/Main  
Studying relatives of respiratory complex I to understand their conserved coupling mechanism
- 17:00 Closing remarks & farewell