

Transport across and into membranes

Closing conference of the DFG-funded Research Training Group 2202

2025 May 14th – 16th

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 Iommarinni, 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