

27TH WEDNESDAY

- 15:00 Registration & Coffee Break
- 16:00 **Welcome:**
Felix Knauf & Kai-Uwe Eckardt
- 16:15 **Student Poster Presentation Day**
Andre Kraus (Universitätsklinikum Erlangen), Ana Najenson (Charité - Universitätsmedizin Berlin)
All former TRENAL stipends and students/postdocs attending the conference
- 18:00 **KEYNOTE LECTURE**
Aquaporins and precision medicine in dialysis
Olivier Devuyst (University of Zurich, CH)
- 18:45 Informal get together, finger food & drinks

28TH THURSDAY

- 08:00 Registration
- 08:30 **Welcome:** Felix Knauf, Kai-Uwe Eckardt, Richard Warth, Mario Schiffer, Carsten Wagner, Anna Köttgen
- SESSION I – Introduction to kidney physiology**
-  Pontus Persson (Charité - Universitätsmedizin Berlin)
Mario Schiffer (Universitätsklinikum Erlangen)
- 09:00 **Vascular tubular integration and homeostasis**
Matthew Bailey (University of Edinburgh, UK)
- 09:35 **Epithelial structure and function**
Richard Warth (Universität Regensburg)
- 10:10 Coffee Break
- SESSION II – Sodium handling, microbiome and hypertension**
-  Kerstin Amann (Universitätsklinikum Erlangen)
Nina Görlich (Charité - Universitätsmedizin Berlin)
- 10:40 **Genetics of renal sodium handling and hypertension**
Michael Köttgen (Universitätsklinikum Freiburg)
- 11:15 **Microbiota and sodium**
Nicola Wilck (ECRC / Charité - Universitätsmedizin Berlin)
- 11:50 **Control of ion homeostasis by renal and extrarenal phosphatases**
David Penton (University of Zurich, CH)
- 12:10 Lunch Break
- SESSION III – Potassium handling – basic and clinical**
-  Miriam Schmidts (Universitätsklinikum Freiburg)
Robert Kleta (University College London, UK)
- 13:30 **The essence of K**
Johannes Loffing (University of Zurich, CH)
- 14:05 **Clinical perspective on K disorders**
Ralph Kettritz (ECRC / Charité - Universitätsmedizin Berlin)
- 14:40 **Kir4.1/Kir5.1 related genetic diseases**
Anna-Lena Forst (Universität Regensburg)
- 15:10 Coffee Break
- SESSION IV – Divalents and the kidney**
-  Kai Schmidt-Ott (Charité - Universitätsmedizin Berlin)
Anke Schumann (Universitätsklinikum Freiburg)
- 15:40 **An integrative view of phosphate**
Carsten Wagner (University of Zurich, CH)
- 16:15 **The role of claudins in the kidney**
Dorothee Günzel (Charité - Universitätsmedizin Berlin)
- 16:50 **Regulation of magnesium handling**
Markus Bleich (Universität Kiel)

Followed by: Berlin Street Art-Tour

29TH FRIDAY

- SESSION V – Water handling, hypernatremia, hyponatremia**
-  Frank Schweda (Universität Regensburg)
Gerlineke Hawkins-van der Cingel (Charité / UCL)
- 08:30 **Hyponatremia**
Ewout Hoorn (ERASMUS Medical Center Rotterdam, NL)
- 09:05 **Hypernatremia**
Wolfgang Kühn (Universitätsklinikum Freiburg)
- 09:40 **Does sodium talk to our immune cells and the endothelium?**
Dominik Müller (ECRC / Charité - Universitätsmedizin Berlin)
- 10:10 Coffee Break
- SESSION VI – Acid-base, RTA and CKD progression**
-  Stephen Walsh (University College London, UK)
Ulla Schultheiss (Universitätsklinikum Freiburg)
- 10:40 **Introduction to acid-base physiology**
Peter Aronson (Yale School of Medicine, USA)
- 11:15 **Classical acid-base vs. base excess**
Fred Luft (ECRC / MDC / Charité - Universitätsmedizin Berlin)
- 11:50 **Renal tubular acidosis**
Detlef Bockenhauer (University College London, UK)
- 12:20 Lunch Break
- SESSION VII – Cystic diseases – basic and clinical**
-  Martin Reichel (Charité - Universitätsmedizin Berlin)
Michael Wiesener (Universitätsklinikum Erlangen)
- 13:30 **Cystic kidney diseases**
Steve Somlo (Yale School of Medicine, USA)
- 14:05 **Cystic liver disease**
Whitney Besse (Yale School of Medicine, USA)
- 14:40 **Novel approaches to treat cystic diseases**
Björn Buchholz (Universitätsklinikum Erlangen)
- 15:00 Coffee Break
- SESSION VIII – Case-based discussions**
- 15:30 **Interactive cases**
Stephen Walsh (University College London, UK)
Felix Knauf (Charité - Universitätsmedizin Berlin)
Robert Kleta (University College London, UK)
- 19:00 Dinner and concert evening

30TH SATURDAY

- SESSION IX – Novel approaches to predict kidney disease**
-  Felix Knauf (Charité - Universitätsmedizin Berlin)
Harald Nusser (Gilead Sciences Inc.)
- 09:00 **Machine learning to predict kidney injury**
Perry Wilson (Yale School of Medicine, USA)
- 09:45 **Elucidating genes that influence kidney disease**
Anna Köttgen (Universitätsklinikum Freiburg)
- 10:15 Coffee Break
- SESSION X – Novel approaches to treat kidney disease**
-  Kai-Uwe Eckardt (Charité - Universitätsmedizin Berlin)
Madeleine Schorr (Charité - Universitätsmedizin Berlin)
- 10:45 **Engineering kidney cells**
Michael Kaminski (BIMSB / Charité - Universitätsmedizin Berlin)
- 11:30 **Cardiac xenotransplantation on its way into the clinic**
Jan Abicht (Ludwig-Maximilians-Universität München)
- 12:00 **Farewell**