

10th INTERNATIONAL PODOCYTE CONFERENCE

FROM MOLECULAR UNDERSTANDING TO NOVEL THERAPIES

June 4th – 6th, 2014 in Freiburg, Germany

Program

CHAIRS

**Tobias B. Huber, Freiburg
Thomas Benzing, Cologne**

VENUE

Aula Albert-Ludwigs University, Freiburg, Germany

International Scientific Podocyte Advisory Committee

**Harry Holthöfer • Lawrence B. Holzman • Karl Skorecki • Wilhelm Kriz • Peter Mathieson •
Susan E. Quaggin • Jochen Reiser • Stuart Shankland**

Further information:

www.podoconf.org

Organized in collaboration with
NephCure Kidney International

WEDNESDAY – JUNE 4th, 2014

Registration will be open from 2:00 p.m. - 7:00 p.m.

SATELLITE SYMPOSIUM

9:30 a.m. – 3:00 p.m. **Research Accelerator Meeting** organized by NephCure
Chairs: Matthias Kretzler - *University of Michigan, Ann Arbor, USA*
Marilyn Hailperin – *NephCure Kidney International, Philadelphia, USA*

SESSION I: OPENING & KEY NOTE LECTURE

4:00 p.m. - 4:15 p.m. **Welcome & Opening Remarks**
Tobias B. Huber
Chair of the Conference

4:15 p.m. – 5:00 p.m. **Key Note Lecture: “VEGF and Glomerular Biology”**
Susan E. Quaggin
Northwestern University, Chicago, USA

SESSION II: GLOMERULAR CROSSTALK

Chairs: Susan E. Quaggin – *Northwestern University, Chicago, USA*
Peter Mathieson – *University of Hongkong, Hongkong, China*

5:00 p.m. - 5:20 p.m. **“PEC – podocyte-endothelial interactions”**
Pierre Louis Tharaux
Paris Cardiovascular Research Center (PARCC), Paris, France

5:20 p.m. - 5:40 p.m. **“GBM - podocyte interactions”**
Jeffrey H. Miner
Washington University, St. Louis, USA

5:40 p.m. - 6:00 p.m. **“Coupling Filtration to Function”**
Marcus J. Möller
University Hospital Aachen, Germany

6:00 p.m. - 6:07 p.m. **Abstract Talk 1: “Molecular characterization of podocyte-endothelial cell signaling crosstalk in glomerular diseases”** by I. Daehn et al.

6:07 p.m. - 6:15 p.m. **Abstract Talk 2: “VEGF₁₆₅b protects against albuminuria in the podocyte-specific VEGF KO model of glomerular disease”** by M. Stevens et al.

6:15 p.m. - 8:00 p.m. **Get Together**
Fingerfood & Drinks

THURSDAY - JUNE 5th, 2014

SESSION III: NEW INSIGHTS FROM PODOCYTE GENETICS I (MONOGENETIC DISEASES)

Chairs:	Michelle Winn – <i>Duke University, Durham, USA</i> Franz Schäfer – <i>University Hospital Heidelberg, Germany</i>
8:00 a.m. - 8:20 a.m.	“Genetics of late onset FSGS: where are we?” Martin Pollak <i>Harvard Medical School, Boston, USA</i>
8:20 a.m. - 8:40 a.m.	“Single-gene mutations reveal disease mechanisms of nephrotic syndrome” Friedhelm Hildebrandt <i>Harvard Medical School, Boston, USA</i>
8:40 a.m. - 9:00 a.m.	“New insights from the EUReNOMICS Consortium” Corinne Antignac – <i>Necker Hospital, Paris, France</i>
9:00 a.m. - 9:07 a.m.	Abstract Talk 3: “A homozygous missense mutation in the ciliary gene TTC21B causes familial FSGS” by E.H. Cong et al.
9:07 a.m. - 9:15 a.m.	Abstract Talk 4: “Monogenic cause of steroid-resistant nephrotic syndrome can be revealed in 28% of cases worldwide” by S. Lovric et al.
9:15 a.m. - 9:45 a.m.	Coffee Break

SESSION IV: TRANSLATIONAL GLOMERULAR MEDICINE

Chairs:	Thomas Benzing – <i>University Hospital Cologne, Germany</i> Julie R. Ingelfinger – <i>Deputy Editor NEJM, Boston, USA</i>
9:45 a.m. - 10:05 a.m.	“Preeclampsia” Ravi Thadhani <i>Harvard Medical School, Boston, USA</i>
10:05 a.m. - 10:25 a.m.	“miRNA & FSGS” Dontscho Kerjaschki <i>Medical University Vienna, Austria</i>
10:25 a.m. - 10:45 a.m.	“Biomarker-guided personalized treatment of proteinuria” Peter Mundel <i>Harvard Medical School, Boston, USA</i>
10:45 a.m. - 11:05 a.m.	“Angptl4 in nephrotic syndrome” Sumant Chugh <i>UAB School of Medicine, Birmingham, USA</i>
11:05 a.m. - 11:25 a.m.	“suPAR & FSGS” Jochen Reiser <i>Rush University Medical Center, Chicago, USA</i>
11:30 a.m. - 12:45 p.m.	Lunch Break

SESSION V: PODOCYTES & CYTOSKELETON	
Chairs:	Gerd Walz - <i>University Medical Center, Freiburg, Germany</i> Jie Ding - <i>Peking First Hospital, Beijing, China</i>
12:45 p.m. - 1:05 p.m.	“Dynamamin oligomerization: a novel mechanism for the regulation of the actin cytoskeleton” Sanja Sever <i>Harvard Medical School, Boston, USA</i>
1:05 p.m. - 1:25 p.m.	“Key-regulators of the actin cytoskeleton in injured podocytes: putative therapeutic targets in CKD?” Mario Schiffer <i>Hannover Medical School, Germany</i>
1:25 p.m. - 1:45 p.m.	Special topic: “Actin branching & foot process organization” Christoph Schell <i>University Medical Center, Freiburg, Germany</i>
1:45 p.m. - 1:52 p.m.	Abstract Talk 5: “Defining the glomerular matrisome” by M.J. Randles et al.
1:52 p.m. - 2:00 p.m.	Abstract Talk 6: “ChIPseq of WT1 Coupled with mRNA Expression Analysis in Podocytes in vivo identifies the Focal Adhesion Pathway as a Novel WT1 Target” by M. Kann et al.
2:00 p.m. – 2:15 p.m.	Short Coffee Break
SESSION VI: CELL METABOLISM, mTOR & GLOMERULAR BIOLOGY	
Chairs:	Erwin P. Böttinger - <i>Mount Sinai Hospital, New York, USA</i> NN
2:15 p.m. – 2:35 p.m.	“Insulin signaling & podocytes” Richard Coward <i>Academic Renal Unit, Bristol, UK</i>
2:35 p.m. - 2:55 p.m.	“mTORC1 & podocytes” Ken Inoki <i>University of Michigan, Ann Arbor, USA</i>
2:55 p.m. - 3:15 p.m.	“Akt2/mTORC2 & podocytes” Fabiola Terzi <i>Institute Necker-Enfants Malades, Paris, France</i>
3:15 p.m. - 3:35 p.m.	“Mitochondrial metabolism & podocytes” Paul Brinkkötter <i>University Hospital Cologne, Germany</i>
3:35 p.m. - 3:42 p.m.	Abstract Talk 7: “Lack of protein fatty-acylation can cause focal segmental glomerulosclerosis (FSGS)” by S. Porubsky et al.
3:45 p.m. - 5:00 p.m.	Coffee Break & Poster Session I

SESSION VII: PODOCYTE REGENERATION	
Chairs:	Wilhelm Kriz - <i>Institute of Anatomy, Heidelberg, Germany</i> Hermann Pavenstädt – <i>Medical Division D, Münster, Germany</i>
5:00 p.m. - 5:20 p.m.	“How podocyte regeneration occurs and how to enhance it” Paola Romagnani <i>University of Florence, Italy</i>
5:20 p.m. - 5:40 p.m.	“Cells of renin lineage serve as adult glomerular epithelial cell progenitors” Stuart Shankland <i>University of Washington, Seattle, USA</i>
5:40 p.m. - 5:50 p.m.	Brief communication: “Quantifying regeneration” Nicola Wanner <i>University Medical Center, Freiburg, Germany</i>
5:50 p.m. - 6:00 p.m.	Closing Remarks & Announcements
7:30 p.m.	Conference Dinner at the Historical Merchants Hall “Marilyn Farquhar” Podocyte Science Award Best Abstract Award

FRIDAY - JUNE 6th, 2014

SESSION VIII: SLIT DIAPHRAGM (SD) & GLOMERULAR FUNCTION	
Chairs:	Karl Tryggvason – <i>Department of Medical Biochemistry and Biophysics, Karolinska Institute, Stockholm, Sweden</i> Agnes Fogo – <i>Associate Editor JASN, USA</i>
8:15 a.m. - 8:45 a.m.	“Guest lecture: NEPH-NEPHRIN protein family - Conserved structure and diverse functions” Kang Shen <i>Stanford University, Stanford, USA</i>
8:45 a.m. - 9:05 a.m.	“Synchronized signaling from the NEPHRIN signaling endosome” Lawrence B. Holzman <i>University of Pennsylvania, Philadelphia, USA</i>
9:05 a.m. - 9:25 a.m.	“NEPH-NEPHRIN proteins: SD structure and function” Florian Grahammer <i>University Medical Center, Freiburg, Germany</i>
9:25 a.m. - 9:40 a.m.	Special topic: “Drosophila Nephrocyte: a new model for glomerular diseases” Zhe Han <i>Children's National Medical Center, Washington DC, USA</i>
9:40 a.m. - 9:47 a.m.	Abstract Talk 8: “Patch clamp and calcium measurements: new old tools to study TRPC function in the podocytes of the freshly isolated glomeruli” by D.V. Ilatovskaya et al.
9:47 a.m. - 9:55 a.m.	Abstract Talk 9: “The molecular architecture of podocyte foot processes and slit diaphragm” by H. Suleiman et al.
9:55 a.m. - 10:30 a.m.	Coffee Break

SESSION IX: NEW INSIGHTS FROM GENETICS II (EPIGENETICS, POPULATION GENETICS & GENETICS)	
Chairs:	Harry Holthöfer – <i>Haartman Institute, Helsinki, Finland</i> Randy S. Levinson – <i>Editor Nature Medicine, New York, USA</i>
10:30 a.m. - 11:00 a.m.	“Guest Lecture on epigenetics & podocytes” Asifa Akthar <i>Max Planck Institute of Immunobiology and Epigenetics, Freiburg, Germany</i>
11:00 a.m. - 11:20 a.m.	“Renal epigenetics” Katalin Susztak <i>University of Pennsylvania, Philadelphia, USA</i>
11:20 a.m. - 11:40 a.m.	“APOL1: Recent findings in populations, cohorts, and laboratory models” Jeffrey B. Kopp <i>National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), Bethesda, USA</i>
11:40 a.m. - 12:00 p.m.	“A novel gene associated with glomerular disease and de novo membranous nephropathy post-transplantation.” Rachel Lennon <i>University of Manchester, UK</i>
12:00 p.m. - 1:30 p.m.	Lunch Break
SESSION X: WILL NEW TECHNIQUES LEAD THE PATH?	
Chairs:	Jürgen Floege - <i>University Hospital Aachen, Germany</i> Detlef Schlöndorff - <i>Editor in Chief Kidney International, New York, USA</i>
1:30 p.m. - 1:50 p.m.	“Intravital 2-Photon Imaging” Janos Peti Peterdi <i>University of Southern California, Los Angeles, USA</i>
1:50 p.m. - 2:10 p.m.	“Using human exome sequencing data to understand FSGS” Andrey Shaw <i>Washington University School of Medicine, St. Louis, USA</i>
2:10 p.m. - 2:30 p.m.	“NEPTUNE: A resource to define nephrotic syndrome along the genotype-phenotype continuum” Matthias Kretzler <i>University of Michigan, Ann Arbor, USA</i>
2:30 p.m. – 2:45 p.m.	Special topic: “Glomerular Functional Proteomics” Markus Rinschen <i>University Hospital Cologne, Germany</i>
2:45 p.m. - 2:52 p.m.	Abstract Talk 10: “Podocyte protein turnover analysis by combining high throughput podocyte purification protocols with SILAC mouse models” by M. Gödel et al.
2:52 p.m. - 3:00 p.m.	Abstract Talk 11: Live intracellular calcium dynamics during podocyte development and injury in Zebrafish by R. Tomar et al.
3:00 p.m. - 4:30 p.m.	Coffee Break & Poster Session II

SESSION XI:	LATE BREAKING NEWS & IMMUNOLOGICAL PODOCYTE DISORDERS
Chairs:	Suheir Assady – <i>Rambam Health Care Campus, Haifa, Israel</i> Lorenz Sellin – <i>University Hospital Düsseldorf, Germany</i>
4:30 p.m. - 4:50 p.m.	“Coagulation proteases and podocyte disease” Berend Isermann <i>University of Magdeburg, Germany</i>
4:50 p.m. - 5:10 p.m.	“BDNF & podocyte” Maria Pia Rastaldi <i>Renal Research Laboratory, Milano, Italy</i>
5:10 p.m. - 5:25 p.m.	Special topic: “Ion channels as targets for novel experimental therapeutics in proteinuric kidney disease” Anna Greka <i>Harvard Medical School, Boston, USA</i>
5:25 p.m. - 5:40 p.m.	Special topic: “Lipids in podocyte biology” Sandra Merscher-Gomez <i>Miller School of Medicine, Miami, USA</i>
Closing Remarks:	Tobias B. Huber & Thomas Benzing <i>Chairs of the Conference</i>
7:30 p.m.	Speakers Dinner

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