1st International NephGen Symposium

September 18 - 21, 2023
Historical Merchants' Hall, Freiburg im Breisgau

Monday, September 18, 2023

8.30 - 9.00 am	**Registration**
9.00 - 9.30 am	**Lutz Hein, Anna Köttgen** Welcome & Opening Remarks
9.30 - 10.10 am	***Plenary lecture:*** **Anna Greka** From rare to common: mechanisms of disrupted membrane biology in the kidney and beyond

Session 1

Chairs: Kai Schmidt-Ott, Anna Köttgen

10.10 - 10.40 am	**Tobias Hermle** Nephrin endocytosis and cellular dynamics: insights from a Drosophila podocyte model
10.40 - 11.10 am	*Coffee break*
11.10 - 11.40 am	**Anna Köttgen** Population-based genetic analyses of complex human kidney traits
11.40 - 11.50 am	***Selected short talk:*** **Max Warncke** Immune cell landscaping reveals a protective role for regulatory T cells during kidney injury and fibrosis
11.50 - 12.20 pm	**Emilie Cornec-Le Gall** The expanding spectrum of ADPKD
12.20 - 12.50 pm	**Felix Knauf** Combining physiology with genetics to better understand tubulorenal diseases
12.50 - 1.50 pm	*Lunch break*

Session 2

Chairs: Amandine Viau, Carola Hunte

1.50 - 2.20 pm	**Jens Leipziger** The molecular physiology of renal base excretion

2.20 - 2.50 pm	**Helle Prætorius** Appetite regulating GPR39 agonist reduces renal urinary concentration capacity by interfering with AVP-induced AQP2 trafficking
2.50 - 3.20 pm	**Carsten Bergmann** Characterization of new proteins in polycystic kidney disease and related ciliopathies
3.20 - 3.30 pm	***Selected short talk:*** **Carlotta Pioppini** Genetic interaction between XBP1 and Pkd1 modulates ADPKD progression
3.30 - 4.00 pm	*Coffee break*

Session 3

Chairs: Karen Lopez-Cayuqueo, Anke Schumann

4.00 - 4.30 pm	**Bernd Fakler** High-resolution complexome of the mouse brush-border membrane
4.30 - 5.00 pm	**Dorothee Günzel** Claudinopathies and renal function
5.00 - 5.10 pm	***Selected short talk:*** **Anke Schumann** Renal phenotype in a hypomorphic murine model of propionic aciduria
5.10 - 5.40 pm	**Carsten Wagner** Phosphate and the kidney
6.30 - 8.00 pm	*Historical city tour*

Tuesday, September 19, 2023

Session 4

Chairs: Athina Ganner, Christoph Schell

9.00 - 9.30 am	**Ian Frew** Recruitment of myeloid cells by tumour cells underlies immune checkpoint therapy resistance in a mouse model of ccRCC
9.30 - 10.00 am	**Peter Boor** Deep Learning 4 Nephropathology… and beyond…
10.00 - 10.10 am	***Selected short talk:*** **Frank Bienaimé** Primary cilia drive inflammatory responses to urinary flow obstruction and pathogens

10.10 - 10.40 am	**Heymut Omran** Genetic defects affecting primary and motile cilia
10.40 - 11.10 am	*Coffee break*

Session 5

Chairs: Constanze Kainz, Kai-Uwe Eckardt

11.10 - 11.40 am	**Elke Neumann-Haefelin** Translational aspects of the VHL research consortium in Freiburg: Establishment and comprehensive characterization of the von Hippel Lindau disease Registry
11.40 - 11.50 am	***Selected short talk:*** **Mojca Adlesic** Kif3a heterozygous and homozygous mutations reveal sex-specific differences in the evolution of ccRCC in a mouse model
11.50 - 12.20 pm	**Volker Haase** Dissecting oxygen and mitochondrial metabolism in the kidney
12.20 - 12.50 pm	***Patient representative presentation:*** **Louisa Merscher**
12.50 - 1.50 pm	*Lunch break*

Session 6

Chairs: Tobias Huber, Pascal Schlosser

1.50 - 2.20 pm	**Christoph Kuppe** Using single cell genomics to dissect mechanisms of kidney diseases
2.20 - 3.00 pm	***Plenary lecture:*** **Katalin Susztak** From kidney function mapping to kidney disease causing genes and cell types
3.00 - 3.30 pm	*Coffee break*
3.30 - 3.50 pm	**Poster Flash I**
3.50 - 5.50 pm	**Poster Discussion I**
7.00 pm	*Group dinner* *Restaurant "Waldsee"*

Wednesday, September 20, 2023

Session 7
Chairs: Julia Höfele, Daniela Braun

9.00 - 9.30 am	**Adriana Hung** APOL1 and precision nephrology
9.30 - 10.00 am	**Rachel Lennon** Basement membrane genes and kidney phenotypes - a widening spectrum
10.00 - 10.30 am	**Catherine Meyer-Schwesinger** Podocyte proteostasis in membranous nephropathy: a creative new concept
10.30 - 10.40 am	***Selected short talk:*** **Bayram Edemir** The enriched expression of aquaporin-2 in the renal inner medulla is mediated by increased chromatin accessibility
10.40 - 11.10 am	*Coffee break*

Session 8
Chairs: Matias Simons, Corinne Antignac

11.10 - 11.40 am	**Miriam Schmidts** Implication of FOXD2 dysfunction in syndromic congenital anomalies of the kidney and urinary tract (CAKUT)
11.40 - 12.10 pm	***Patient representative presentation II:*** **Alexander Richter**
12.10 - 12.40 pm	**Paola Romagnani** Personalized management of steroid-resistant nephrotic syndrome
12.40 - 12.50 pm	***Selected short talk:*** **Pascal Schlosser** Integrated proteomic and metabolomic modules associated with risk of kidney function decline
12.50 - 1.50 pm	*Lunch break*

Session 9
Chairs: Ralph Witzgall, Ulla Schultheiß

1.50 - 2.20 pm	**Michael Köttgen** Loss of co-chaperone function causes ADPKD
2.20 - 2.50 pm	***Björn Buchholz*** Calcium-dependent cyst growth in polycystic kidney disease

2.50 - 3.30 pm	***Plenary lecture*:** **John Maraganore** Advancing RNAi therapeutics for rare and common diseases
3.30 - 4.00 pm	*Coffee break*
4.00 - 4.20 pm	**Poster Flash II**
4.20 - 6.20 pm	**Poster Discussion II**
7.00 pm	*Speakers' dinner* *Restaurant "Der Kaiser"*

Thursday, September 21, 2023

9.00 - 10.00 am	**Round table talk with the editor:** Olivier Devuyst, Editorial Board, Kidney International

Session 10

Chairs: Ian Frew, Stefan Haug

10.00 - 10.10 am	***Selected short talk:* Stefan Haug & Oleg Borisov** Characterization of the urine proteome in 769 patients with early-stage chronic kidney disease
10.10 - 10.40 am	**Thomas Benzing** Molecular design of the kidney filtration barrier
10.40 - 11.10 am	*Coffee break*
11.10 - 11.40 am	***Matthias Wuttke*** Large-scale exome sequencing studies highlight kidney-function related genes and variants
11.40 - 11.50 am	***Selected short talk:* Ioanna Tachmazidou** Whole-exome sequencing analysis identifies genes associated with kidney function and damage in multi-ancestry participants of the UK Biobank
11.50 - 12.30 pm	***Plenary lecture:*** **Melissa Little** Applying kidney organoids to disease modelling and drug development
12.30 - 12.45 pm	**Anna Köttgen** Closing remarks
12.45 pm	*Lunch and farewell*

Poster Discussion I - 19.09.2023

ID #	Author	Title
100	**Karl Kunzelmann**	Modulation of inflammation by TMEM16J/ANO9
101	**Pascal Schlosser**	Integrated Proteomic and Metabolomic Modules Associated with Risk of Kidney Function Decline
102	**Stefan Haug**	Characterization of the Urine Proteome in 769 Patients with Early-Stage Chronic Kidney Disease
103	**Oleg Borisov**	Colocalization of genetic associations with plasma and urine proteins provide insights into renal protein handling and related clinical outcomes.
104	**Nora Scherer**	Exome sequencing reveals genes shaping the plasma and urine metabolome and connections to human diseases
105	**Hassan Saei**	Genotyping coding-VNTR in the MUC1 gene using k-mer frequency based alignment-free method allows genetic diagnosis of MUC1-related autosomal dominant tubulointerstitial kidney disease
106	**Jessica Kachmar**	Steroid-Resistant Nephrotic Syndrome due to NPHS2 Variants is Not Associated with Post-Transplant Recurrence
107	**Matias Simons**	Targeting RNF145 in renal proximal tubular cells protects against lipotoxicity in diabetes
108	**Anna Klawonn**	Deciphering the role of the ciliary Intraflagellar Transport (IFT)- dynein-complex mediated cell signaling network for vertebrate development
109	**Julian Milosavljevic**	Modeling TBC1D8B-associated FSGS in Drosophila nephrocytes.
110	**Dominik Spitz**	mTor-dependent autophagy regulates slit diaphragm density in podocyte-like Drosophila nephrocytes
111	**Björn Neubauer**	Loss of co-chaperone function causes ADPKD
112	**Miriam Schmidts**	IFT74 variants cause reno-skeletal ciliopathy and motile cilia defects in mice and humans
113	**Niklas Ayasse**	Trimethoprim inhibits renal H+/K+ ATPase in states of K+ deprivation
114	**Toma Antonov Yakulov**	Investigating genetic compensation and robustness in nephronophthisis using zebrafish models
117	**Max Warncke**	Immune cell landscaping reveals a protective role for regulatory T cells during kidney injury and fibrosis
118	**Haihua Guo**	ADP-ribosylation factor interacting protein 2 acts as a novel regulator of mitophagy and autophagy in podocytes in diabetic nephropathy
119	**Magali Ferro**	Kidney organoid to model podocytopathies and identify novel therapeutic targets
120	**Konrad Lang**	The distinctive functions of endocytic mechanisms within the maintenance of slit diaphragms in Drosophila nephrocytes
121	**Céline Schaeffer**	Dissecting heterogeneity and common pathogenetic pathways in Autosomal Dominant Tubulointerstitial Kidney Disease due to mutations in REN

Poster Discussion I - 19.09.2023

ID #	Author	Title
122	**Antonella Catalano**	Vhl and Rassf1a tumour suppressors cooperatively maintain genomic stability in ccRCC
123	**Max Bergen**	Calcium signaling drives actin network formation in multiciliated cells
124	**Marc Brettel**	Stable genetic deletion of Gapvd1 in Drosophila results in a nephrocyte-restricted phenotype
125	**Lukas Westermann**	Analysis of Pkd1 gene function in a 3D tubuloid assay
126	**Marc Timmers**	Epigenetic control in VHL-dependent clear cell renal cell carcinoma
127	**Shuang Cao**	Single cell CRISPR screening as a powerful tool for gene regulatory networks studies in kidney collecting ducts
128	**Andre Kraus**	Knockout of P2Y2R inhibits cyst growth in an ADPKD mouse model
129	**Ioanna Tachmazidou**	Whole-exome sequencing analysis identifies genes associated with kidney function and damage in multi-ancestry participants of the UK Biobank
130	**Tobias Staudner**	Generation und electrophysiological analysis of a gain-of-function polycystin-1/polycystin-2 heteromeric ion channel
131	**Pascal Kleindienst**	Novel interacting proteins of ciliary TZ localized CBY1, TMEM218 and PATJ in PKD and ciliopathies
132	**Sahar Ghasemi**	Unraveling the Genetic Basis of CKD: Insights from CKDGen Round 5 GWAS Project
134	**Henrike Berns**	WNT11 loss of function results in renal hypodysplasia, complex heart defects, and laterality defects in humans
135	**Carlotta Pioppini**	Genetic interaction between XBP1 and Pkd1 modulates ADPKD progression
140	**Evgeny V. Mymrikov**	Structural basis for the specific interaction between scaffold protein PDZK1 and ion transporter URAT1
149	**Florian Becker**	Calcineurin B homologous protein 3 anchors the regulatory domain of human sodium/proton exchanger 1 to the membrane through novel target-myristoyl switch

Poster Discussion II - 20.09.2023

ID #	Author	Title
133	**Frederic Arnold**	Unravelling autoimmunity and tissue residency in a model of CD8 T cell-driven nephritis
136	**Miriam Schmidts**	Investigating the role of epigenetic factors in congenital anomalies of the kidney (CAKUT)
137	**Jagriti Pal**	Nonstop extension mutations inactivate tumor suppressor genes in ccRCC
138	**Luise Hennicke**	Mouse Models of Familial Hyperaldosteronism
141	**Constantin Dickel**	Stem-cell derived proximal tubule cells as a novel model to study chloride-oxalate transport
142	**Peter Walentek**	Tra2b – a new paradigm in coordinated post-transcriptional control of ciliogenesis
143	**Clara Naomi Thomas**	Short-chain-fatty acid Butyrate inhibits intestinal oxalate transport in Caco2 cells
144	**Sarah Wendlinger**	Establishing methods for renal base editing in-vivo
145	**Caroline Maria Ebersbach**	The role of Wnt signaling in distal nephron development and autosomal-recessive polycystic kidney disease
146	**Shruti Naik**	The Gb3 paradox in proximal tubular injury
147	**Claire Leroy**	A nephrocyte model for the glomerular basement membrane
148	**Lea Gerstner**	Genome sequencing improves diagnostic yield in genetic kidney disease
150	**Mojca Adlesic**	Kif3a heterozygous and homozygous mutations reveal sex-specific differences in the evolution of ccRCC in a mouse model
151	**Salómon Christer**	A Drosophila model for Dent's disease unveils a role for chloride/proton exchanger Clc-c in regulating the cortical actin cytoskeleton
152	**Janek Jonathan Haus**	Novel Candidate Disease Gene for Familial Hyperaldosteronism
153	**Petra Stöbe**	Tackling undiagnosed patients by long-read genome sequencing
154	**Kathrin Skoczynski**	Potential relevance of ATP and calcium-mediated chloride secretion via P2Y2R and TMEM16A in human ADPKD kidneys
155	**Annika Merz**	Role of cell-ECM interactions for renal tubular epithelial cell phenotypes in the context of progressive chronic kidney disease
156	**Miriam Schmidts**	Prostaglandin synthesis defects resulting from PLA2G4A loss of function causes a phenotype resembling NSAID-nephropathy
157	**Maximilian Wess**	Subcellular localisation patterns of ANXA4 influence migratory modes in ccRCC
158	**Athina Ganner**	Elucidating new mechanisms of mTOR regulation in VHL-dependent clear cell renal cell carcinoma
159	**Manuel Rogg**	Methodological toolbox for the analysis of the cancer matrisome in urogenital malignancies

Poster Discussion II - 20.09.2023

ID #	Author	Title
160	**Gerlineke Hawkins-van der Cingel**	A triple threat to tubular phosphate reabsorption
161	**Amandine Viau**	Primary cilia drive inflammatory responses to urinary flow obstruction and pathogens
162	**Jefferson Lorenzo Triozzi**	Genetic proxies of thiazide diuretics lower the risk of kidney stones in a Mendelian randomization meta-analysis
163	**Jefferson Lorenzo Triozzi**	Accelerating Drug Discovery for CKD and ESKD through Mendelian Randomization Analyses of Druggable Proteins
164	**Tobias Feilen**	Proteomic signatures in sporadic progressive and non-progressive clear cell renal cell carcinoma
165	**Frank Bienaimé**	Basement membrane remodelling links cilia signaling to tubule mechanics in autosomal dominant polycystic kidney disease
166	**Constanze Kainz**	Contribution of obesity to the initiation and promotion of clear cell renal cell carcinoma
167	**Manuel Andreas Anderegg**	Prevalence and characteristics of monogenic disease in adult kidney stone formers
168	**Todd Alexander**	Clinical and Molecular Characterization of Monoallelic and Biallelic SLC34A3 c.1248_1249del Variants
169	**Jasmina Ćomić**	Exome sequencing in a large cohort of individuals with VATER/VACTERL association as a modern tool to identify phenocopies
170	**Edemir Bayram**	The enriched expression of aquaporin-2 in the renal inner medulla is mediated by increased chromatin accessibility
171	**Dariush Ghasemi-Semeskandeh**	Phenome-wide, metabolomic and proteomic association scan of SHROOM3 haplotypes based on imputed exonic variants