



PROGRAM

ISN Forefronts in Nephrology

Renal and Extrarenal Regulation of Potassium

September 8 – 11, 2005

Ittingen, Switzerland

Thursday, 8 September, 2005

12:00-17:00h Arrival of guests

17:00-17:10h **Welcome & Tribute to the Memory of Robert W. Berliner**

Remise *Gerhard Giebisch, Yale University School of Medicine, USA*

17:10-18:00h **Sensing with K⁺ Channels**

Michel Lazdunski, Centre National de la Recherche Scientifique, France

18:00-19:30h **Welcome Reception in the Barcockgarten (weather permitting)**

Friday, 9 September, 2005

07:30-09:00h **Breakfast**

Kornschütte

09:00-10:20h **Session 1: Transport Mechanisms of Potassium**

Remise *Chair: Steven Hebert, Yale University School of Medicine, USA*

Properties and Regulation of Na⁺,K⁺-ATPase
Torben Clausen, Institute of Physiology, Denmark

The Apical, Renal-Specific Na-K-2Cl Cotransporter
Gerardo Gamba, National Institute of Nutrition, Mexico

10:20-10:40h **Coffee break**

10:40-12:00h **Molecular Regulation and Physiology of the H⁺, K⁺- ATPases in Kidney**

Thomas DuBose, Wake Forest University School of Medicine, USA

Routes of K⁺ Secretion Across the Distal Nephron
Lawrence Palmer, Weill Medical College of Cornell University, USA

12:00-14:00h **Lunch**

14:00-14:40h **Session 2: Control of Internal K Balance**

Chair: Donald Seldin, University of Texas Southwestern Medical Center, USA

Extrarenal Regulation of K Distribution
Jang H. Youn, USC Keck School of Medicine, USA

14:40-15:20h Session 2: The Kidney in K-Homeostasis

Renal Tubule Transport of K
Steven Hebert, Yale University School of Medicine, USA

15:20-15:40h Coffee break

15:40-17:15h Luminal Factors Regulating K Transport
Gerhard Malnic, Instituto de Ciencias Biomedicas USP, Brazil

Superoxide is Involved in the Regulation of ROMK Channel Activity
WenHui Wang, New York Medical College, USA

A Mathematical Model of Rat Distal Convoluted Tubule: Potassium Secretion along the Connecting Segment
Alan Weinstein, Weill Medical College of Cornell University, USA

17:15-18:30h Poster Viewing Session

Remise

19:30-21:00h Dinner

Saturday, 10 September, 2005

07:30-08:30h Breakfast

Kornschütte

08:30-09:00h Session 3: The Kidney in K-Homeostasis
Remise
Chair: Shigeaki Muto, Jichi Medical School, Japan

Developmental Aspects of Renal K Transport
Lisa Satlin, Mount Sinai School of Medicine, USA

09:00-10:00h Session 3: Role of K in Gastric & Colonic Transport

Role of K in Gastric Acid Secretion
Michael Caplan, Yale University School of Medicine, USA

Colonic K⁺ Transport
Richard Warth, University of Regensburg, Germany

10:00-10:30h Coffee break

10:30-12:00h Session 3: Role of K in Circulation

Potassium and Hemodynamics
Stuart Linas, Denver Health Medical Center, USA

Role of K in Glomerular Mesangium
Steven Sansom, University of Nebraska Medical Center, USA

12:00-14:00h Lunch

14:00-16:45h Session 4: Physiology and Pathophysiology of Renal K Handling
Chair: Robert Alpern, Yale University School of Medicine, USA

Regulation of K⁺ Excretion in Chronic Kidney Disease
F. John Gennari, University of Vermont College of Medicine, USA

Interaction of Tubule K-NH₄ Transport
Susan Wall, Emory University School of Medicine, USA

Steroid Effects on Renal K Transport
Laurent Schild, Institute of Pharmacology & Toxicology, Switzerland

Genetic Derangements of Renal K Transport
Richard Lifton, Yale University School of Medicine, USA

17:15-18:30h (Optional) Monastery and Museum Tour
Departure from entrance Remise

18:30-19:30h Poster Viewing Session
Remise

20:00-21:30h Dinner

Sunday, 11 September, 2005

07:30-09:00h Breakfast
Kornschütte

09:00-10:00h Session 5: The Kidney in K-Homeostasis
Remise *Chair: Gianni Capasso, Second University of Napoli, Italy*

Control of the Excretion of Potassium (K) In Vivo Using Diagnostic Tests: Lessons Learned from A 70-Kg Rat Using Non-Invasive Techniques to Evaluate the K Secretory Process
Mitchell Halperin, St. Michael's Hospital, Canada

Role of K in Cardiovascular Protection
David Young, University of Mississippi, USA

10:00-10:25h Coffee break

10:25-12:00h Session 5: Newer Developments

Tubular Acidosis and Renal K Transport
Robert Unwin, Middlesex Hospital, UK

Role of SGK1 in Renal Sodium and Potassium Transport
Florian Lang, Physiologisches Institut, Germany

Trafficking of K channels
Paul Welling, University of Maryland, USA

12:00-12:15h Concluding Remarks
Gerhard Giebisch, Yale University School of Medicine, USA

12:15-13:30h Farewell lunch