Scientific program

45TH SANDBJERG MEETING ON MEMBRANE TRANSPORT

Monday May 27th - Wednesday May 29th 2013

Sandbjerg Estate
Sønderborg
Denmark

MONDAY MAY 27TH

13.30-14.30 **Arrival and coffee**

14.30-14.40 **Welcome and introductory remarks**

SESSION 1: Ion transport alterations in human diseases

Coordinators:
Helle Praetorius, Aarhus, Denmark and Richard Warth, Regensburg, Germany

14.40-15.10 **Richard Warth**, University of Regensburg, Germany
Adrenal aldosterone-producing adenomas: A consequence of membrane depolarization and disturbed ion homeostasis?

15.10-15.40 **Bente Vilsen**, Aarhus University, Denmark
Somatic mutations in ATP1A1 and ATP2B3 lead to aldosterone-producing adenomas and secondary hypertension

15.40-16.10 **Coffee**

16.10-16.40 **Laurent Counillon**, Universite Nice Sophia Antipolis, France
The Na^+/H^+ exchangers expressed in intracellular compartments. Their selectivity, regulation and cerebral localization. Relation with attention deficit and autism-spectrum disorders

16.40-17.10 **Nicole Schmitt**, University of Copenhagen, Denmark
Ion channel mutations in lone atrial fibrillation

17.10-17.40 **Boye L. Jensen**, University of Southern Denmark, Denmark
ENaC – a new culprit in the pathophysiology of preeclampsia

18.00-19.00 **Dinner**

20.30-21.30 **Keynote speaker:**
Karsten Kristiansen, University of Copenhagen, Denmark
You'll never walk alone – you and your gut microbiota and why it matters

TUESDAY MAY 28TH

SESSION 2: Intracellular calcium

Coordinators:
Jens Leipziger and Henning Tidow, Aarhus University, Denmark

9.00-9.30 **Jesper Nylandsted Larsen,** Danish Cancer Society
Plasma membrane repair in metastatic breast cancer cells depends on S100A11

9.30-10.00 **Anne Marie Lund Winther,** Pcovery, Frederiksberg, Denmark.
The sarcolipin-bound calcium pump stabilizes calcium sites exposed to the cytoplasm

10.00-10.30 **Coffee**

10.30-11.00 **Ebbe Bødtkjer,** Aarhus University, Denmark.
Ca^{2+}-dependent regulation of intracellular pH control in arteries

11.00.11.30 **Jesper Vuust Møller**, Aarhus University, Denmark
Thapsigargin analogues, their interaction with SERCA and effects on prostate cancer cells

11.30-12.00 **Henning Tidow,** Aarhus University, Denmark
A bimodular mechanism of calcium control in eukaryotes

12.00 - 13.00 **Lunch**

SESSION 3: Free communications in membrane transport

Coordinator: Ebbe Boedtkjer, Aarhus University, Denmark

13.00-13.20 **Mads Sørensen,** Aarhus University, Denmark
Rapid dephosphorylation of the renal sodium chloride cotransporter in response to oral potassium intake in mice

13.20-13.40 **Eva Arnspang Christensen,** Aarhus University, Denmark
Measuring diffusion coefficients of proteins in live cells using image correlation

13.40-14.00 **Manoj Puthia**, University of Lund, Sweden
Treatment of colon cancer by peroral HAMLET (human α-lactalbumin made lethal to tumor cells).

14.00-14.20 **Sofia Hammami Bomholtz**, University of Copenhagen
Genotype-phenotype correlation of novel KV7.1 mutations identified in patients with Long QT syndrome

14.20-14.40 **Coffee**

14.40-15.00 **Sonia Aits**, Danish Cancer Society Research Center, Denmark
Identification of cytoskeleton-associated proteins essential for cancer cell survival and lysosomal stability

15.00-15.15 **Lisbeth Bonde**, Aarhus University, Denmark
Extracellular acidification inhibits Na^+,HCO_3^- cotransport activity

15.15-15.30 **Brian Roland Larsen**, University of Copenhagen, Denmark
Mechanisms of K^+-clearance in the brain: The Na^+/K^+-ATPase as the key contributor

15.30-15.45 **Justyna Kowal,** University of Copenhagen, Denmark
ATP release response to physiological and pathophysiological stimuli in pancreatic duct cell

15.45-16.00 **Søren Poulsen,** Aarhus University, Denmark
Inactivation of epithelial sodium channel (ENaC) in renal connecting tubule: effects on sodium and potassium homeostasis

16.00–17.00 **Free time**

17.00-18.00 **Keynote speaker:**
Kai Kaila, Dept. of Biosciences, University of Helsinki, Finland
Mechanism of birth asphyxia seizures: the roles of blood brain barrier and brain alkalosis

18.00-19.00 **Dinner**

SESSION 4: Posters and wine: 19.00 -21.00

Poster contributions are listed alphabetically, after first author.
Numbers refer to the poster board assignment.
Please hang up your poster in the morning, and let it remain up all of Tuesday.

Poster contributions will be listed in the final program

22.00- **Natmad (Traditional late-night open sandwiches snack)**

WEDNESDAY MAY 29TH

SESSION 5: Ion transport in cancer

Coordinators:
Albrecht Schwab, University of Münster, Germany, and Stine Falsig Pedersen, University of Copenhagen, Denmark

8.45-8.50 **Introductory remarks**

8.50-9.20 **Karl Kunzelmann**, Universität Regensburg, Germany
TMEM16 family Cl^- channels in cancer

9.20-9.50 **Dominique Lagadic-Gossmann**, University of Rennes, France
NHE1 and membrane remodeling in cancer cell death/survival regulation

9.50-10.20 **Peter Ruth**, University of Tübingen, Germany
Mouse models of KCa^{2+} function in cancer

10.20-10.50 **Coffee**

10.50-11.05 **Kateryna Kondratska,** INSERM U 1003, France
Store-operated channels in pancreatic cancer

11.05-11.20 **Katrine Zeeberg**, University of Bari, Italy
Use and comparison of 3D culture techniques to study a new regulatory target of pancreatic ductal adenocarcinoma development

11.20-11.35 **Daniel Sauter**, University of Copenhagen, Denmark
Cl^- channels in human pancreatic ductal adenocarcinoma (PDAC) cells

11.35-11.50 **Angela Zaccagnino**, University of Kiel, Germany
Data mining strategy for ion channel expression in PDAC

11.50-11.55 **Final remarks**

12.00 - 13.00 **Lunch**

Departure

Sponsors

We are very grateful for generous financial support for this year's Sandbjerg meeting from:

- Aarhus Universitets forskningsfond (AUFF)
- Aarhus University graduate school of health sciences
- MEMBRANES