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MESSAGE FROM THE CHAIR

Greetings from snow covered Colorado. This newsletter should reach you just before this year's EB meeting in the Nation's capital. As outlined in the Fall newsletter, this year ETG is sponsoring 1 symposium and 2 featured topic sessions. The symposium on ***Epithelial Development, Disease and Regeneration*** will be chaired by Caroline Sussman, and will feature talks by Ian Drummond, Todd Evans, Michael Levin and Marc Hammerman. Our ***Ion Channels*** topic session will be co-chaired by Peter Snyder and Estelle Cormet-Boyaka, and the ***Renal Transporters*** session will be co-chaired by Alicia McDonough and Nuria Pastor-Soler. The talks for the topic sessions are selected from the many excellent abstracts we have received for these sessions.

This year the ETG Steering Committee has selected 4 pre-doctoral and post-doctoral awardees for abstract submission. Each awardee will receive \$500 towards the cost of attending the EB meeting. The award winners in the Epithelial Ion Channels session are Mads Vaarby Sorensen and Melissa Palmer. For the Transporter session, the award winners are Gillian Goddard and Peng Sun. The awards will be presented during oral sessions on Sunday April 29 and April 30.

Elections for the 4 available positions on the ETG Steering Committee were held this past December and January. I am pleased to announce that the new members are Michael Caplan, Mark Knepper, Peter Snyder and Alicia McDonough. Congratulations to our new committee members!

It may seem early, but now is the time to start planning for an exciting programme for EB2008. If you have any ideas for 1) symposia, 2) featured topics or 3) how the abstract categories should be reformatted please let me know as soon as possible.

See you in Washington DC.

Regards

Moshe



ETG STUDENT AND YOUNG INVESTIGATOR AWARD

We offer congratulations to the recipients of this years ETG awards. These awards are made for the best abstracts submitted by a pre-doctoral trainee and a post-doctoral fellow. This years winners are:

Epithelial Ion Channels:

Mads Vaarby Sorensen *Aarhus Univ. Abs. 2158* Aldosterone up-regulates Kca1.1 (BK) channel-mediated colonic K secretion

Melissa Palmer *U. of Minnesota, Abs 4358* Estrogen and progesterone differentially regulate UTP-stimulated anion secretion in endometrial epithelial cells by altering expression of P2Y receptors and basolateral K channels



Epithelial Transporters:

Gillian Goddard *Mount Sinai School of Med. Abs 6087* Regulation of Cytosolic Malate dehydrogenase expression by extracellular DNA

Peng Sun *New York Medical Coll. Abs 2077* High K intake enhanced the inhibition of ENaC induced by arachidonic acid



The presentations will be made at the start of the relevant Featured Topic Sessions. **Epithelial Ion Channels** awards will be presented on Sunday April 29, 2007 10:30 AM-11:30 AM, and the **Epithelial Transporters** awards will be presented on Monday, April 30, 2007 8:00 AM-10:00 AM. Check programme for room locations.

Please join us in congratulating these awardees on their excellent abstracts.

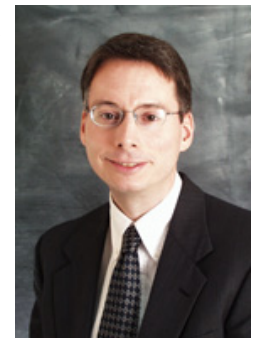
ETG STEERING COMMITTEE

We are pleased to announce the four new members of the ETG Steering Committee. All four are outstanding epithelial biologists, and we look forward to their contributions to the ETG.



Michael Caplan: Professor of Cellular & Molecular Physiology. Yale University

Peter Snyder: Professor of Medicine and Molecular Physiology and Biophysics. University of Iowa.



Alicia McDonough: Professor of Physiology and Biophysics, Keck School of Medicine, University of Southern California

Mark Knepper: Principal Investigator.
Lab of Kidney and Electrolyte
Metabolism NHLBI



ETG SYMPOSIUM: TUESDAY MAY 1ST 10:30AM, RM 145B

This years ETG sponsored symposium is “**Epithelial development, disease and Regeneration**” to be help on Tuesday May 1 at 10:30 am to 12:30 pm.

Washington, DC Convention Center—Room 145B

It has been predicted that regenerative medicine will revolutionize the clinical practice of medicine on a level similar to that by the development of antibiotics. Clearly, the ability to grow new health tissue either within a patient or in the lab for transplantation from a patient’s own cells would save many lives and/or improve quality of life for those afflicted with a wide range of diseases. In response to this exciting developing area of research and medicine many institutions have already initiated or have plans to initiate centers for regenerative medicine usually incorporating some component of embryonic development and stem cell research. few years.

This symposium will address the issue of epithelial regeneration from a variety of perspectives contributing to the development of this field, including disease-oriented basic studies of embryonic development and regeneration, and applied studies directly examining mammalian organ regeneration.

Epithelial Development, Disease and Regeneration

Tue May 1st
10:30-12:30 pm

EB2007
Washington
Convention
Centre,
Washington DC



“Epithelial development, disease and Regeneration

Sponsored by the APS Epithelial Transport Group

Tues May 1— 10:30 AM—12:30 PM

Chaired Caroline R. Sussman, Mayo Clinic.

- | | |
|----------|--|
| 10:30 AM | Zebrafish as a model of kidney development and disease— Iain Drummond , Mass General Hosp |
| 11:00 AM | From stem cells to organs with Gata transcription factors— Todd Evans , Albert Einstein Col. Of Med. |
| 11:30 AM | Bioelectrical control of embryonic development and regeneration— Michael Levin , Harvard Med. Sch. |
| 12:00 PM | Organogenesis of kidney and endocrine pancreas: growing new organs in situ— Marc Hammerman , Washington Univ Sch Med. |

ETG FEATURED TOPICS

This year our two Featured Topics Sessions are in the **Ion Channels** track and **Transporters** track.

EPITHELIAL TRANSPORTERS

Monday, April 30 Washington Convention Centre—Room 154B

CHAired: *Alicia McDonough and Nuria Pastor-Soler*

8:00 The carboxyl terminus of WNK4 suppresses forward trafficking of the thiazide-sensitive cotransporter

Arohan Subramanya OHSU

8:15 Phosphorylation of focal adhesion kinase (FAK) at Tyrosine 407 and integrin β 1 regulate NKCC cotransporter in *Fundulus heteroclitus*

Fumi Katoh Xavier University, Canada

8:30 Protein Kinase A (PKA) regulates vacuolar H-ATPase (V-ATPase) recycling in epididymal clear cells

Nuria Pasor-Soler Univ Pittsburgh

8:45 High K intake enhanced the inhibition of ENaC induced by arachidonic acid (AA)

Peng Sun New York Medical College **ETG AWARDEE**

9:00 Functional regulation of K-Cl cotransport (COT) by the nitric oxide (NO) pathway, vasoconstrictors (VCs) and inhibitors of the contractile apparatus (ICA) in vascular smooth muscle cells.

Norma Adragna Wright State

9:15 *Regulation of cytosolic malate dehydrogenase expression by extracellular DNA*

Gillian Goddard Mt Sinai **ETG AWARDEE**

9:30 Effects of the sodium-hydrogen exchange inhibitor (EIPA) on chloride secretion in permeabilized monolayers of chick renal proximal tubule cells

Ashley Anttila University of Iceland

9:45 pH sensitivity of ammonium transport by Rhbg

Nazih Nakhoul Tulane Univ.



EPITHELIAL ION CHANNELS

Sunday April 29 Washington Convention Centre-Room 145B

CHAired: *Peter Snyder and Estelle Cornet-Boyaka*

10:30 Regulation of CFTR by serum- and glucocorticoid-inducible kinase (SGK1)

Bruce Stanton Dartmouth Medical School

10:45 Visualizing the CFTR and ENaC association in living cells

Bakhrom Berdiev Univ Alabama at Birmingham

11:00 Quantifying RhoA facilitated trafficking of ENaC to the plasma membrane with TIRF-FRAP

Oleh Pochynyuk Univ Texas San Antonio

11:15 Cigarette smoke condensate inhibits expression of ENaC α -subunit in lung epithelial cells

Shijian Chu Virginia Commonwealth Univ

11:30 Nedd4-2 isoforms polyubiquitinate ENaC subunits and reduce subunit expression of the sodium channel

Nandita Raikwar Univ Iowa

11:45 Missorting to late endosomes/lysosomes due to increased phosphorylation by protein kinase C and mono-ubiquitination of the aquaporin-2 mutant E258K might explain its role in dominant nephrogenic diabetes insipidus

Peter Deen Univ Utrecht

12:00 Aldosterone up-regulates KCa1.1 (BK) channel-mediated colonic K secretion

Mads Sorensen Univ. Tuebingen **ETG AWARDEE**

12:15 Estrogen and progesterone differentially regulate UTP-stimulated anion secretion in endometrial epithelial cells by altering expression of P2Y receptors and basolateral K channels

Melissa Palmer Univ. Minnesota **ETG AWARDEE**



OTHER SESSIONS OF INTEREST

Novel Technologies in Physiology and Medicine Novel Approaches to Structure-Function Relations in Membrane Transport Proteins

Sunday April 29 3:15 PM Rm 146A

Interrelations between Transcellular Ion Transport Function and Paracellular Tight Junctional Properties in Lung Epithelial and Endothelial Barrier

Sunday April 29 8:00 AM Rm 145B

Molecular Regulation of Renal Epithelial Transport in the Nephron: Lessons from Ontogeny and Disease

Monday April 30 10:30 AM Rm 146C

Interrelations between Transcellular Ion Transport Function and Paracellular Tight Junctional Properties in Lung Epithelial and Endothelial Barrier

Sunday April 29 8:00 AM Rm 145B



Washington Convention Centre

SECTION DISTINGUISHED LECTURESHIPS THAT MAY BE OF INTEREST

Henry Pickering Bowditch Award Lecture

James D. Stockand, Univ. Texas, San Antonio.

Horace W. Davenport Distinguished Lectureship

Mark Donowitz Johns Hopkins
NHE3 and its signaling complexes: How a transporter is regulated.

Hugh Davson Distinguished Lectureship

David Clapham *Ion channels: Bacteria to Brain*



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Experimental Biology 2007
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