

# EPITHELIAL TRANSPORT GROUP NEWSLETTER

## Spring, 2000

### MESSAGE FROM EDITOR

Let me first introduce myself. I am Carole M. Liedtke, an Associate Professor in the Departments of Pediatrics and Physiology & Biophysics in the School of Medicine at Case Western Reserve University. I have been a member of APS since 1982. My primary research effort is directed to understanding how epithelial electrolyte transport proteins are regulated by hormonal and environmental stimuli. I've been active in the ETG, having organized lectures and symposia. Within the APS, I currently serve on the Editorial Board of the AJP Cell Physiology and on the Women in Physiology Committee, and am often asked to mentor minority fellows, teachers and other trainees at the EB meetings. This is my first attempt at a newsletter for a group this size, which *is to indicate* some past experience with newsletters.

The purpose of this newsletter is to **request your action on two items**, and to share some information with you about our group.

### CALL FOR ETG SYMPOSIA AND FEATURED TOPICS FOR NEXT YEAR (EB2001, FLORIDA)

ETG will have the opportunity to host 1 symposium and 2 Featured Topics at EB 2001 in Orlando, FL. Please **submit** your suggestion for **symposium** and **featured topics** to ETG chair Klaus W. Beyenbach ([kwb1@cornell.edu](mailto:kwb1@cornell.edu)) before March, 31, 2000 (or, the sooner the better). A formal proposal is not required at this time. Simply send tentative plans for 1) Title of session, 2) Name of Session chair, and 3) Names of speakers.

Symposia are 2 hrs duration with 4-5 talks. Featured topics are 2 hr duration with a 30 min presentation by a featured speaker and the remainder of the time allocated to 15 min talks from selected submitted abstracts.

Planning a proposed session begins now. The APS program committee will meet in San Diego (April this year) to start the planning for EB 2001. Final selection of proposals for EB2001 meeting will be made by the Joint Programming Committee in the fall of this year. Early submission of proposals will benefit ETG, allowing us time to discuss and organize the proposals for presentation to the EB Joint Program Committee. If many excellent proposals are submitted, we can argue for more time slots.

A symposium/program proposal form can be found at: <http://www.FASEB.ORG/aps/sympform.pdf>. But this form is not needed at this time.

APS will provide up to \$4,000 for a symposium, and \$ 1,000 for a Featured Topic Session.

### CALL FOR ETG SPEAKER/LECTURER FOR EB2001

In past years, the Epithelial Transport Group sponsored an evening lecture, discussion, or debate on a controversial topic. We want to reestablish "EPITHELIAL TRANSPORT EVENING" at the EB2001 meeting and, accordingly, invite members of ETG to submit a topic and suggested speaker(s) to Carole Liedtke ([cxl7@po.cwru.edu](mailto:cxl7@po.cwru.edu)) by August 1, 2000. It takes only minimal time and effort to think of issues worthy of debate and discussion. For the hesitant few, engage your postdoctoral fellows to help you.

The evening event is a great way to get to the epithelial lowdown and to network. Please submit your suggestion for the lecture/discussion/debate. Your Steering Committee will look after everything else (room, set-up, refreshments, etc.). Note, this is not a dinner event. We will avoid conflicts with the dinners planned by our 'affiliated' sections RENAL and CELL & MOLECULAR.

## MESSAGE FROM ETG STEERING COMMITTEE

Since June 1, 1999, the Epithelial Transport Group has new officers serving terms of 3, 2, or 1 year as follows:

Thomas Kleyman, University of Pennsylvania, **Secretary/Treasurer** to May 31, 2002  
Klaus Beyenbach, Cornell University, **Chair**, to May 31, 2001  
John Cuppoletti, University of Cincinnati, **Past-Chair**, to May 31, 2001  
Carole M. Liedtke, Case Western Reserve University, to May 31, 2001  
Dennis Brown, Massachusetts General Hospital, to May 31, 2000  
David Dawson, University of Oregon, to May 31, 2000  
Kevin Foskett, University of Pennsylvania, to May 31, 2000

ETG has been in existence for some time, starting with chief architect of the group, Sandy Helman, U. Illinois. We are now working on bylaws for ETG. There will an election this year for three seats on the Steering Committee. Ballots will be sent by mail.

## AJP-CELL PHYSIOLOGY CALLS FOR MODEL ORGANISMS

Topic: Model Organisms: New Insights Into Ion Channel and Transporter Function

The American Journal of Physiology-Cell Physiology is seeking the submission of original papers in the area of ion channel and transporter function, regulation, and structure in model organisms. Model organisms are defined broadly as organisms that provide unique molecular, cellular, and genetic experimental advantages for characterizing basic biological processes.

These organisms include, but are not limited to, bacteria, yeast, *Arabidopsis*, *Caenorhabditis elegans*, and *Drosophila*. All papers submitted on this topic will be published under the new Special Topics heading Model Organisms: **New Insights Into Ion Channel and Transporter Function**. Papers of particular interest and importance will be highlighted further by an accompanying editorial comment. When submitting a manuscript in response to this call, please identify it as such in your cover letter.

If you have any questions, please contact Dr. Kim E. Barrett, Editor, at 619-543-7201, fax 619-543-3541, E-mail: kbarrett@ucsd.edu or Dr. Kevin Strange, Associate Editor, at 615-343-7425, fax 615-343-3916, E-mail: Kevin.strange@mcm.vanderbilt.edu.

## REGIONAL MEETING ANNOUNCEMENT

Send announcements and information about regional meetings to Carole Liedtke ([CXL7@PO.CWRU.EDU](mailto:CXL7@PO.CWRU.EDU)).

## PLAN TO ATTEND ALL FOUR DAYS OF EB2000 (Sat.-Tue., April, 15 - 18, 2000)

EB 2000 in San Diego is a meeting of four societies, the American Societies of Physiologists, Anatomists, Pathologists, and Nutrition. Altogether 4550 abstracts were received, 2607 from APS alone. Do not prepare power-point presentations. We will not have the equipment (exorbitant rental fees). Visit <http://www.faseb.org/aps/expbiol.htm> for a look at the program. Below is a preview of sessions of interest to the Epithelial Transport Group (\*sponsored by ETG):

### Sat. April 15, 2000

9:00-12:00 AM. "Imaging Workshop: Confocal Microscopy & Quantitation." **C. Plopper, D. Hyde, & R. Specian.**

1:00-5:00 PM. "Imaging Workshop: Living Tissue". **R. Specian & S. Erlandsen.**

3:15-4:15 PM. "Cellular Mechanisms of Renal Phosphate Handling: Old Questions and Some New Answers." **H. Murer.**

3:15-5:15 PM. "Ion Regulation in Cell Organelles." **T. Machen.**

### **Sun. April 16, 2000**

- 8:00-9:00 AM. "Co-evolution of Proteins and Their Aqueous Milieu: Messages from the Medium". **G.N. Somero.**
- 8:00-10:00 AM\*. "Structure and Regulation of ATP-Driven Pumps". **D.K. Stone.**
- 8:00-10:00 AM. "Impact of Gender and Pregnancy on Renal Function". **C. Bayliss.**
- 10:15-12:15 AM. "Phosphoinositide Signaling: Implications for Transport Regulation". **K. Barrett & B. Blazer-Yost.**
- 10:15-12:15 AM. "MAP Kinases: New Implications for Renal Cell Function". **D. Kültz & D.W. Good.**
- 10:15-12:15 AM. "Aquaporins and Other Members of the MIP Family". **P. Agre & M.J. Chrispeels.**
- 10:15-12:15 AM. "TGF in Renal Disease: Mechanisms and Therapeutic Prospects". **N.J. Laping.**
- 3:15-5:15 PM\*. "Diseases of Protein Trafficking and Expression". **D. Brown & J. v. Adelsburg.**
- 3:15-5:15 PM. "Structure-Function Relationships in Voltage-Gated Ion Channels". **R. Aldrich.**
- 3:15-5:15 PM. "The Neural Control of the Kidney in Health and Disease". **C.F. DiBona.**
- 3:15-5:15 PM. "Physiology of Water Transport". **E.M. Wright.**
- 6:30 PM. "Novel G-Protein Mediated Signaling Pathways Involved in Protein Trafficking." **M. Farquhar.**

### **Mon. April 17, 2000**

- 8:00-9:00 AM. "Cellular Signaling with Nitric Oxide and Cyclic GMP". **F. Murad.**
- 8:00-10:00 AM. "Regulation of Transporters and Channels by Binding Proteins". **D. Rotin.**
- 10:15-12:15 AM. " Genetic Abnormalities of Channels and Transporters ". **S. Alper.**
- 12:30-2:30 PM. "NIH Update: Policies and Practices for 2000 and Beyond". **R. G. Geller, .Dir.,**  
Extramural Programs NIH. Room 4.
- 3:15-5:15 PM. "Structural Biology of Channels". **M. Yeager.**
- 3:15-5:15 PM. "Recent Advances in Comparative Solute Transport and Molecular Biology of Aquatic Organisms". **G.A. Ahearn & M.G. Wheatly.**
- 3:15-5:15 PM. "Extracellular ATP and cAMP as Paracrine and Interorgan Regulators of Renal Function". **L. Bankir & E. Inscho.**

### **Tue. April 18, 2000**

- 8:00-10:00 AM. "Regulation of Transporters and Channels by Binding Proteins". **D. Rotin.**
- 8:00-10:00 AM. "Epithelial-Microbial Interactions: Lessons in Communication". **M.F. Kagnoff.**
- 8:00-10:00 AM. "Oxygen-Sensitive Ion Channels and Second Messengers". **C. Peers & J. Lopez-Barneo.**
- 10:15-12:15 AM\*. "Molecular and Functional Diversity of Epithelial Chloride Channels". **C.M. Fuller & D. Benos.**
- 2:00-3:00 PM. "Molecular Insights Into Intestinal Salt, Sugar, and Water Absorption ". **E.M. Wright.**
- 3:15-5:15 PM. "Regulation of Water and Electrolyte Homeostasis". **F.G. Knox & J.P.Granger.**
- 3:15-5:15 PM. "The Mammalian Distal Tubules: Physiology and Disease". **D.H. Ellison & J.B. Wade**

There are Poster Sessions of interest to us on Sunday through Tuesday.

## POSITIONS OPEN

Professor/Associate/Assistant Professor - The Program for Research and Education in Intestinal Disorders (PREID) of the Division of Pediatric Gastroenterology and Nutrition at Children's Hospital Research Foundation is seeking a Gastrointestinal Physiologist. The research focus of the PREID is in inflammatory and secretory disorders of the intestine. Areas in which further synergy with the current research base can be maximized include:

1. Mechanisms of intestinal infection/diarrheal disease
2. Pathophysiology and therapy of inflammatory bowel disease
3. Pathophysiology and treatment of food allergy

Therefore, we seek a physiologist to develop or continue an independent, extramurally funded research program with skills and interests relevant to one or more of the following:

1. Electrophysiologic studies of epithelial cells and/or bioelectric measurements in mouse intestine
2. Host pathogen interactions in the intestine
3. Developmental biology of the gastrointestinal tract
4. Cellular signaling mechanisms in intestinal epithelial cells

The successful candidate should have a proven track record of support and publications for appointment at the Associate Professor or Professor level or have a high likelihood of continued success in these areas for appointment at the Assistant Professor level.

Candidates should hold one or more of the following degrees: Ph.D., M.D., D.V.M. or equivalent. Investigators associated with the PREID will be expected to train post-doctoral fellows and graduate students. Those individuals with clinical training will contribute in limited measure to the clinical activities of the Division of Pediatric Gastroenterology and Nutrition and will also participate in resident education.

### Post-doctoral Fellowship

Children's Hospital Research Foundation, Cincinnati, Ohio

A 2-year, NIH-supported, post-doctoral fellowship is available to study mechanisms of gene expression and signal transduction using the guanylin ligand system. Areas of investigation include tissue culture and transgenic animal models. The goal is to understand the function and dysfunction of guanylin and uroguanylin in human health and disease.

Experience in molecular biology, cell biology and/or biochemistry is desirable. Interested individuals, who have or will shortly have a Ph.D., should contact:

Mitchell B. Cohen, MD  
Professor, Director of PREID  
Division of Pediatric Gastroenterology and Nutrition  
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## BOOKMARK YOUR FAVORITE PROFESSIONAL SOCIETY

The APS homepage is one of the best in the Internet. Have a look and bookmark it: <http://www.faseb.org/aps/>. The site goes far beyond information about APS, its meetings and publication. As a resource for teaching physiology, it is excellent – for both faculty and students.

**LAKE CUMBERLAND BIOLOGICAL TRANSPORT GROUP**  
**38<sup>th</sup> ANNUAL MEETING**  
**JUNE 11-13, 2000**

Affiliated with the American Physiological Society

**CALL FOR PRESENTATIONS**

Registration & Room Reservation Deadline May 1, 2000.

The Lake Cumberland Biological Transport Meeting is an excellent forum for principal investigators, post-doctoral fellows and graduate students alike to present published data or work in progress. No abstracts or publications are involved. The central theme of the meeting is biological transport, but presentations in related areas (cell biology/physiology, molecular biology, biochemistry) are welcome. Presentations are made in an informal atmosphere with open discussion encouraged. The scientific sessions will be held morning and evening. Afternoons are free to enjoy swimming, fishing, golfing, riding, hiking, or just relaxing in this beautiful 3,000 acre state park. Housing is available in the park and meals are served in the Lodge dining room at a modest cost, families are encouraged and welcome! Visit the Meeting web site at: <http://iupucbio1.iupui.edu/cumberland/>

One- and two-bedroom cabins as well as rooms in the Main Lodge and Pumpkin Creek Lodge are reserved. Tent camping is available for the more adventurous. One-bedroom cabins are \$89/day, two-bedroom cabins are \$95-125/day, and Lodge rooms (Main Lodge or Pumpkin Creek Lodge) are \$66-79/day. Please make reservations as soon as possible because the cabins go fast!! Rooms will be held for until May 1, so it is essential that you make your lodging reservations before that date. When making your reservation, please be sure to mention that you will be attending the Biological Transport Meeting. To make reservations contact:

Lake Cumberland State Resort Park  
Jamestown, KY 42629  
(800) 325-1709  
(502) 343-3111

Registration fee for the meeting is \$15 for graduate students, \$25 for post-doctoral fellows and other professionals, and \$50 for faculty. Please register by May 1 by sending (e-mail encouraged, FAX, or mail accepted too) your Name, academic information, and presentation title along with the number of persons attending to Roger T. Worrell. If you are planning to attend the meeting, but do not plan to present a paper, please send a note to that effect. Registration fee will be collected at the meeting or may be sent by mail to Roger by May 1. Feel free to call one of the persons below if you have any questions or suggestions.

Chair

Roger T. Worrell, Ph.D.  
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## WEST COAST SALT AND WATER CLUB MEETING

Dear Colleague:

It is our pleasure to announce the nineteenth annual official meeting of the West Coast Salt and Water Club. The West Coast Salt and Water Club is a group of physicians and scientists who share common interests in ion and solute transport, epithelial cell biology, and intracellular regulatory mechanisms in a range of systems. Our annual meeting provides a forum for post-graduate Fellows and senior scientists to present their work on a variety of subjects, including membrane biology, ion channels and pumps, and intracellular homeostasis. Presentations are welcome from investigators from many different disciplines and clinical subspecialties representing the entire range of organ, tissue, cell and molecular research.

The venue will again be the Inn at Morro Bay. Located in Morro Bay State Park, far from freeways and adjacent to a large nature preserve, golf, hiking trails, and a protected bay, it has proven to be a magnificent setting for the meeting. The Club's program will start on Saturday, March 11, 2000, and extend through Sunday, March 12, 2000. As is the tradition, a spectacular gala dinner for the Club has been arranged for Saturday night.

This year's program is organized by Dr. Don Loo of the University of California, Los Angeles. We are privileged to have two special guest speakers: **Dr. Cecilia Canessa of Yale University**, who will be giving a talk entitled "**New insights on the regulation of epithelial Na<sup>+</sup> channels**" and **Dr. James Nelson of Stanford University**, who will be giving a talk entitled "**Spatial clues for establishing epithelial polarity.**" If you would like to present a research talk during the program, please be sure to include its title on your registration form.

The registration fee this year is \$115 and covers the gala dinner Saturday night and Continental style breakfast on Sunday. Also included is our annual wine tasting, presented this year by Byron Vineyards. Due to generous funding from the American Digestive Health Foundation, and American Gastroenterological and Heart Associations, a large number of travel grants will be available for postdoctoral fellows and other trainees this year.

Please contact Dr. Lubman via e-mail for registration forms. Please note that the deadline for early registration is February 11, 2000, after which registration increases to \$130. We hope that everyone will make plans to join us at this special event. We look forward to seeing you!

Cordially,

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