LAKE CUMBERLAND BIOLOGICAL TRANSPORT GROUP 2014

SUNDAY JUNE 8 – WEDNESDAY JUNE 11

CHAIR: Norma Adragna
VICE CHAIRS: Eric Delpire, Roger Worrell
CHAIR EMERITUS: Silvia Dossena

SUPPORTED BY:

Thermo
Scientific

Fisher Scientific

Department of Pharmacology and Toxicology

Boonshoft
School of Medicine
Wright State University
Greetings and Registration
Sunday June 8th
Pumpkin Creek Lodge

5:00 – 7:00 PM (Central Daylight Time)

Bring your family/colleagues and something to share
(Fruit, vegetables, cheese, dessert or entrée)

Beverages & table service will be provided
LAKE CUMBERLAND BIOLOGICAL TRANSPORT GROUP 2014
SESSION LOCATION: PUMPKIN CREEK LODGE

SUNDAY, JUNE 8

6:50 – 7:00 PM  Welcoming Remarks: Norma Adragna
Session Chair: Eric Delpire

7:00 – 8:00 PM  Human Clostridium difficile infection
Roger T. Worrell
Department of Molecular and Cellular Physiology, University of Cincinnati, Cincinnati, Ohio.

8:00 – 9:00 PM  Aldosterone activation of K secretion in colon of BK channel knockout mice.
Dan Halm and Susan Halm
Department of Neuroscience, Cell Biology, and Physiology, Wright State University, Dayton, Ohio.

9:00 – 9:15 PM  Break

Session Chair: Norma Adragna

9:15 10: 15 PM Epinephrine Stimulation of Cl Secretion in the Calu-3 Cell Line.
Stephanie Flaig, Seth Winfree, Bonnie Blazer-Yost
Biology Department, Physics Department, Indiana University Purdue University Indianapolis

MONDAY, JUNE 9 (MORNING)

8:00 - 8:45 AM  Breakfast (Pumpkin Creek Lodge)
Session Chair: Roger Worrell

8:45 – 9:45 AM  Effects of Media Glucose and Insulin Concentrations on Transepithelial Sodium Transport in a Distal nephron cell line.
Ellen Maue, Stephanie Flaig, Bonnie Blazer-Yost
Biology Department, Indiana University Purdue University Indianapolis; Department of Cellular and Integrative Physiology, IU School of Medicine

9:45 – 10:45 AM  Renal Cystic Diseases: Current understanding of Inversin in Type II Nephronophthisis.
Nalini Kulkarni and Bonnie Blazer-Yost
Biology Department, Physics Department, Indiana University Purdue University Indianapolis
Session Chair: **Dan Halm**

### Monday, June 9 (EVENING)

Session Chair: **Bonnie Blazer-Yost**

**6:30 – 7:30 PM**

**Identification of DNPEP, a cystosolic aminopeptidase that cleaves SPAK in the kidney.**

*Nicolas Markadieu, Eric Delpire*

Department of Anesthesiology, Vanderbilt University School of Medicine

**7:30 – 8:30 PM**

**A Putative Model for K-Cl Cotransporter 3 (KCC3) in the control of K and Cell Volume Homeostasis in Double-Alanine Mutant HEK 293 Cells.**

*Norma C. Adragna*, *Nagendra Ravilla*, *Kristopher Kahle* and *Peter Lauf*

1Cell Biophysics Group Departments of Pathology, and Pharmacology & Toxicology, Wright State University, Dayton, OH, and Department of Neurosurgery, MGH/HMS, Boston, MA.

**8:30 – 8:45 PM**

Break

Session Chair: **Rebecca Murray**

**8:45 – 9:45 PM**

**Effect of carbon nanotubes on gramicidin channels in artificial lipid membranes.**

*Pin (Tina) Li, Horia Petrache, Bonnie Blazer-Yost*

Department of Biology, Indiana University-Purdue University at Indianapolis, IN

**9:45 – 10:15 PM**

**BUSINESS MEETING**

**TREASURER’S REPORT:**

**ELECTIONS:**
**TUESDAY, JUNE 10 (MORNING)**

8:00 - 8:45 AM  Breakfast (Pumpkin Creek Lodge)

Session Chair:  *Norma Adragna*

8:45 – 9:45 AM  **Apelin Regulation of K-Cl Cotransport is Dependent on Expected and Unexpected Physiological Factors**

*Norma Adragna*¹ ², *Neelima Sharma*¹ ² ⁴ and *Peter Lauf*³ ³

¹ Cell Biophysics Group, Departments of ²Pharmacology & Toxicology and ³Pathology, Boonshoft School of Medicine, and ⁴Biomedical Sciences Ph.D. Program, Wright State University, Dayton, OH.

9:45 – 10:45 AM  **Does diet-induced obesity disrupt neuronal Cl-homeostasis in the hypothalamus?**

*Kristen O’Connell, Alana Smith*

Department of Physiology and Neuroscience Institute, University of Tennessee Health Science Center.

10:45 – 11:00 AM  Break

Session Chair:  *Roger Worrell*

11:00 – 12:00 AM  **Canonical Bcl-2 Motifs Confer Sensor Role upon Na/K ATPase (NKA) for Bcl-2 Signaling of Cellular Functional State: Current Progress.**

*Peter K Lauf*² ³, *Tariq alqahtani*³ ³, *Karin Flues*¹ ³ and *Norma C. Adragna*¹ ³.

¹ Cell Biophysics Group, Departments of ²Pathology and ³Pharmacology & Toxicology, Boonshoft School of Medicine, Wright State University, Dayton, OH.

**TUESDAY, JUNE 10 (EVENING)**

Session Chair:  *James Clack*

6:30 – 7:30 PM  **D1R regulation in Aging and spontaneous hypertension: Role of NHERF-1**

*Syed Jalal Khundmiri*¹ ² ³, *Eleanor D. Lederer*¹ ² ³, *Utpal Sen*¹, *Amanda LeBlanc*¹, *Pedro Jose*⁴ and *Edward Weinman*⁴

¹ Robley Rex Veterans Administration Medical Center, Louisville, KY, ² Department of Medicine, Kidney Disease Program, University of Louisville, Louisville, KY ³ Department of Physiology and Biophysics, University of Louisville, Louisville, KY, ⁴ Department of Medicine, University of Maryland, Baltimore, MD.
7:30 – 8:30 PM  **Endogenous Ouabain and AT1R: Co-conspirators of Hypertension?**  
*Clayton D. Conner¹, Eleanor D. Lederer¹,²,³ and Syed J. Khundmiri¹,²,³*

¹Department of Physiology and Biophysics, University of Louisville, Louisville, KY,  
²Department of Medicine, Kidney Disease Program, University of Louisville, Louisville, KY,  
³Veterans Administration Medical Center, Louisville, KY

8:30 – 8:45 PM  Break

**Session Chair: Eric Delpire**

8:45 – 9:45 PM  **Are we there yet? NpT2a Forward Trafficking and NHERF1**  
*Corey J. Ketchern¹, Syed J. Khundmiri¹,², Barbara J. Clark³, Rebecca Murray³ and Eleanor D. Lederer¹,²,⁴*

Departments of ¹Physiology & Biophysics, ²Medicine, ³Biochemistry & Molecular Biology, University of Louisville, Louisville, KY, ⁴Robley Rex VAMC, Louisville, KY.

9:45 – 9:55: PM  **CLOSING REMARKS:**  
*Eric Delpire and Roger Worrell*

**FUTURE MEETINGS:**

2015: Sunday June 21 – Tuesday June 23; Chairs: E. Delpire ___; Vice Chair: ______________

& R. Worrell

2016: Sunday June 19 - Tuesday June 21; Chair: ______________; Vice Chair: ______________

2017: Sunday June 17 - Tuesday June 20; Chair: ______________; Vice Chair: ______________