LAKE CUMBERLAND BIOLOGICAL TRANSPORT GROUP 2013

SUNDAY JUNE 16 – TUESDAY JUNE 18

CHAIR: Silvia Dossena
VICE CHAIR: Norma Adragna
CHAIR EMERITUS: Eleanor Lederer

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MEDIZINISCHE PRIVATUNIVERSITÄT

Forschung Land Salzburg

SEVENTH FRAMEWORK PROGRAMME

MARIE CURIE ACTIONS

Greetings and Registration
Sunday June 16th
Pumpkin Creek Lodge

5:00 – 6:30 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 2013
SESSION LOCATION: PUMPKIN CREEK LODGE

SUNDAY, JUNE 16

6:30 – 6:40 PM Welcoming Remarks: *Silvia Dossena*

Session Chair: *Markus Paulmichl and Charity Nofziger*

6:40 – 7:15 PM **Effect of very low dose PPARγ agonists in the treatment of polycystic kidney disease.**
Stephanie Flaig, Vincent Gattone, Alex Carr, Bonnie Blazer-Yost
Biology Department, Indiana University Purdue University Indianapolis; Department of Anatomy and Cell Biology, IU School of Medicine

7:15 – 7:50 PM **Characterization of LPA-stimulated ion flux in the mpkCCDcl4 cell line.**
Gabe Martinez, Stephanie Flaig, Bonnie Blazer-Yost
Biology Department, Indiana University Purdue University Indianapolis

7:50 – 8:25 PM **PKA-independent signaling controlling AQP2 trafficking: possible association with the syndrome of inappropriate antidiuresis.**
Giovanna Valenti, Grazia Tamma, Marianna Ranieri, Annarita Di Mise, Olivier Devuyst, Maria Svelto, Peter Deen
Department of Biosciences, Biotechnologies, Biopharmaceutics; Institute of Physiology, University of Zurich, Switzerland; Department of Physiology, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands

8:25 – 8:40 PM Break

Session Chair: *Norma Adragna and Silvia Dossena*

8:40 – 9:15 PM **Proteomic changes in epithelial cells in response to carbon nanotube exposure.**
Pin Li, Frank Witzmann, Bonnie Blazer-Yost
Biology Department, Indiana University Purdue University Indianapolis; Department of Cellular and Integrative Physiology, IU School of Medicine

9:15 – 9:50 PM **Effects of carbon nanotubes on epithelial cell membranes: studies in artificial lipid bilayers.**
Shanta Lewis, Horia Petrache, Bonnie Blazer-Yost
Biology Department, Physics Department, Indiana University Purdue University Indianapolis

9:50 – 10:25 PM **Effects of *Pelagia noctiluca* crude venom on cell viability and volume regulation.**
Rossana Morabito, Roberta Costa, Valentina Rizzo, Angela Marino, Silvia Dossena, Markus Paulmichl and Giuseppina La Spada
Department of Human and Social Sciences, Department of Biological and Environmental Sciences, University of Messina, Italy; Institute of Pharmacology and Toxicology, Paracelsus Medizinische Privatuniversität Salzburg, Austria

MONDAY, JUNE 17 (MORNING)

7:45 – 8:30 Breakfast (Pumpkin Creek Lodge)

Session Chair: *Peter Lauf*

8:30 – 9:05 AM **ICln protein interaction with 4.1R80 and 4.1R135: effect on cell morphology and cell volume regulation.**
Davide Antonio Civello, Simona Rodighiero, Claudia Bazzini, Maria Lisa Garavaglia, V. Rossetti, L. Benedetti, D. Marchesi, Markus Paulmichl, Giuliano Meyer
Department of Biosciences, University of Milan and Fondazione Filarete, Milan, Italy; Institute of Pharmacology and Toxicology, Paracelsus Medizinische Privatuniversität Salzburg, Austria

9:05 – 9:40 AM **Molecular interaction and subcellular localization of ICln and LIPT2, part I.**
Giada Scantamburlo, Charity Nofziger, Simona Rodighiero, Maura Francolini, Silvia Dossena, Markus Paulmichl
Institute of Pharmacology and Toxicology, Paracelsus Medizinische Privatuniversität Salzburg, Austria; Fondazione Filarete, Milan, Italy

9:40 – 10:15 AM **Molecular interaction and subcellular localization of ICln and LIPT2, part II.**
Silvia Dossena, Emanuele Bernardinelli, Janet To, Charity Nofziger, Markus Paulmichl
Institute of Pharmacology and Toxicology, Paracelsus Medizinische Privatuniversität Salzburg, Austria; School of Biological Sciences, Nanyang Technological University, Singapore

10:15 – 10:30 AM Break

Session Chair: *Bonnie Blazer-Yost*

10:30 – 11:05 AM **A dithiothreitol-sensitive protease in the regulation of Na^+ transport.**
Nicolas Markadieu and Eric Delpire
Department of Anesthesiology, Vanderbilt University Medical School, Nashville, Tennessee

11:05 – 11:40 AM **Direct and indirect roles of WNK4 in the modulation of NKCC1 function.**
José Ponce-Coria, Lindsey Flammang, Kerri Rios, and Eric Delpire
Department of Anesthesiology, Vanderbilt University Medical School, Nashville, Tennessee

11:40 – 12:15 AM **Critical role for NHERF1 in forward trafficking of Npt2a.**
Eleanor Lederer, M. Dedl, Nina Lesousky, Rebecca Murray, Syed Jalal Khundmiri
University of Louisville, Departments of Physiology & Biophysics, Medicine and Biochemistry

12:15 AM **GROUP PHOTO: PUMPKIN CREEK LODGE**

5:00 – 6:15 PM **FAMILY DINNER: "THE LODGE" dining room**

MONDAY, JUNE 17 (EVENING)

Session Chair: *Eleanor Lederer*

6:30 – 7:05 PM **In vivo studies of rod background adaptation: effects of incremental and decremental stimulus duration.**
James W. Clack
Indiana University – Purdue University

7:05 – 7:40 PM **Surface-enhanced Raman Spectrophotometric (SERS) tracking of chelerythrine, a Na^+/K^+ pump inhibitor, into cytosol and membrane fractions of lens epithelial cells.**
Kevin M. Dorney, Ioana Pavel-Sizemore, Norma C. Adragna and Peter K. Lauf

Departments of Chemistry, Pathology, and Pharmacology & Toxicology, Wright State University, Dayton, OH

7:40 – 8:15 PM **Dopamine regulation of Na^+/K^+ ATPase – Role of NHERF-1.**
Syed Jalal Khundmiri, Sarah Salyer, Eleanor D. Lederer
University of Louisville

8:15 – 8:30 PM Break

Session Chair: *Mauricio Di Fulvio*

8:30 – 9:05 PM **Post-transcriptional regulation of type IIa sodium-phosphate cotransporter mRNA by parathyroid hormone.**
Rebecca Murray, Nina Lesousky, Dr. Barbara J. Clark, Dr. Syed J. Khundmiri, Eleanor D. Lederer
University of Louisville, Departments of Physiology & Biophysics, Medicine and Biochemistry; Robley Rex VAMC

9:05 – 9:40 PM **Imaging lung cancer metastasis with the sodium iodide symporter.**
Kenneth Gagnon
Department of Anatomy and Cell Biology, University of Saskatchewan, Saskatoon, SK, CANADA

9:40 – 10:10 PM BUSINESS MEETING
TREASURER'S REPORT: *Roger Worrell*
ELECTIONS: *Silvia Dossena*

TUESDAY, JUNE 18 (MORNING)

7:45 – 8:30 Breakfast (Pumpkin Creek Lodge)

Session Chair: *Eric Delpire*

8:30 – 9:05 AM **Pendrin transcriptional regulation.**
Simone Vanoni, Charity Nofziger, Markus Paulmichl
Institute of Pharmacology and Toxicology, Paracelsus Medizinische Privatuniversität Salzburg, Austria

9:05 – 9:40 AM **Identification of potential pendrin ligands by Shannon-Entropy-Descriptor (SHED) and meta-analysis.**
Emanuele Bernardinelli, Silvia Dossena, Robert Konrat, Markus Paulmichl
Institute of Pharmacology and Toxicology, Paracelsus Medizinische Privatuniversität Salzburg, and Max F. Perutz Laboratories, University of Vienna, Austria

9:40 – 10:15 AM **Role of betaine transport in the liver.**
Stephen Kempson
Physiology Department, Indiana University School of Medicine, Indianapolis

10:15 – 10:30 AM Break

Session Chair: *Kenneth Gagnon*

10:30 – 11:05 AM **Functional expression of transfected KCC3 wild type (WT) in HEK293 cells.**
Nagendra B. Ravilla, Peter K. Lauf, Kristopher T. Khale and Norma C. Adragna
Departments of Pharmacology/Toxicology & Pathology, Boonshoft School of Medicine, Wright State University, Dayton OH, and Neurosurgery, MGH/HMS, Boston, MA

11:05 – 11:40 AM **Functional expression of a constitutively active double alanine KCC3 mutant (AA) in HEK293 cells.**
Norma C. Adragna, Nagendra B. Ravilla, Kristopher T. Khale and Peter K. Lauf
Departments of Pharmacology/Toxicology & Pathology, Boonshoft School of Medicine, Wright State University, Dayton OH, and Neurosurgery, MGH/HMS, Boston, MA

11:40 – 12:15 AM **talk title: TO BE ASSESSED**
Mauricio Di Fulvio
Department of Pharmacology and Toxicology, Boonshoft School of Medicine, Wright State University, Dayton OH

TUESDAY, JUNE 18 (EVENING)

Session Chair: *James W. Clack*

7:00 – 7:35 PM **Aldosterone activation of colonic K^+ secretion: ion channels and signaling pathway.**
Dan Halm
Wright State University

7:35 – 8:10 PM **Acidic conditions in the $NHE2^{-/-}$ mouse intestine results in microbial dysbiosis in the mucosa-associated bacterial population with change in mucus oligosaccharides.**
Melinda A. Engevik
Department of Molecular & Cellular Physiology, University of Cincinnati, Digestive Health Center of Children's Hospital

8:10 – 8:25 AM Break

Session Chair: *Stephen Kempson*

8:25 – 9:00 PM **Galursan HF 7K in diet alters the gut microbiota in mice.**
Melinda A. Engevik
Department of Molecular & Cellular Physiology, University of Cincinnati, Digestive Health Center of Children's Hospital

9:00 – 9:35 PM **Mechanisms of ammonium transport in intestine.**
Roger T. Worrell, Melinda A. Engevik, M.S.
Department of Molecular & Cellular Physiology, University of Cincinnati, Digestive Health Center of Children's Hospital

9:35 – 9:45 PM CLOSING REMARKS: *Norma Adragna*

FUTURE MEETINGS:

2014: Sunday June 22 – Tuesday June 24; Chair: Norma Adragna; Vice Chair:_____
2015: Sunday June 21 – Tuesday June 23; Chair: _____; Vice Chair: _____
2016: Sunday June 19.- Tuesday June 21; Chair: _____; Vice Chair: _____