

CONFERENCE PROGRAM

Wednesday, Nov. 10

4 p.m.	Arrival and registration	<i>Lobby of High Hampton Inn</i>
5 p.m.	Welcome reception	<i>Wade Hampton Room</i>
6 p.m.	Opening Remarks	<i>Pavilion</i>
6:15 p.m.	Keynote Lecture	<i>Pavilion</i>

Paul Black, Ph.D.

University of Nebraska – Lincoln

Chair & Professor of Biochemistry

“Metabolic Phenotypes Distinguish Fatty Acid Transport Protein Isoforms”

7:30-9 p.m.	Dinner	<i>Dining Room</i>
9 p.m.-12p.m.	Social Time	<i>Wade Hampton Room</i>

Thursday, Nov. 11

7:30-8:30	Breakfast	<i>Dining Room</i>
8:30-10:15	SESSION I:	<i>Pavilion</i>

Lipid Metabolism and Analysis

Co-chairs: Leah Siskind, Stefanka Spassieva

8:30 **Sibali Bandyopadhyay**, Georgia Institute of Technology

Quantitative analysis of typical ceramides and 1-deoxy-ceramides (N-acyl-1-deoxysphinganine and -1-deoxysphingosine) by reverse-phase-liquid chromatography, electrospray-ionization tandem mass spectrometry

8:45 **Jeremy C. Allegood**, Virginia Commonwealth University

Development of an LC-ESI-MS/MS method for the simultaneous analysis of FTY720, phospho-FTY720, sphingoid bases, and sphingoid base phosphates in cells and tissues

- 9:00 **Abdel K. Salous**, University of Kentucky
Mechanism of elimination of bioactive lipids from the circulation of live mice
- 9:15 **Fredrick Onono**, University of Kentucky
Chemical Probes reveal the mechanism of incorporation of exogenous isoprenols into proteins
- 9:30 **Abir Mukherjee**, Virginia Commonwealth University
Activation of lipogenic pathways by lysophosphatidic acid in ovarian cancer
- 9:45 **Marisa Meyers**, Medical University of South Carolina
Regulation of the Human DihydroCeramide synthase 1 (dhCerS1/LASS1) gene in HNSCC
- 10:00 **Sarah Brice**, Medical University of South Carolina
De novo sphingolipid biosynthesis by cardiac myocytes in response to free fatty acids
- 10:15 Coffee Break
- 10:30 **SESSION II:** *Pavilion*
Mechanisms of lipid signaling
Co-chairs:
Christopher Clarke, Shanaka Wijesinghe
- 10:30 **Nadia F. Lamour**, Virginia Commonwealth University
The role of ceramide kinase in the production of tumor necrosis factor alpha
- 10:45 **Aneta Dobierzewska**, University of Kentucky
Regulation of IRAK-1 degradation by PP2A during IL-1B signal transduction: role of Neutral Sphingomyelinase-2
- 11:00 **Nitai C. Hait**, Virginia Commonwealth University
Nuclear Sphingosine Kinase 2 and Sphingosine-1-phosphate regulate STAT3 acetylation and transcriptional activity in breast cancer cells
- 11:15 **Jinhua Wu**, Virginia Commonwealth University

Lysophosphatidic acid signaling is a determinant of growth-inhibitory response to transforming growth factor beta in breast and ovarian cancer cells

11:30 **Kuzhuvilil B. Harikumar**, Virginia Commonwealth University

Sphingosine-1-phosphate: a missing player in TRAF2 mediated K63 ubiquitination of RIP1 and NF-kB activation

11:45 **Brian A. Shapiro**, Virginia Commonwealth University

MDA-7 exerts cytotoxic effects in A549 non-small cell lung carcinoma cells by altering the alternative splicing of Bcl-x pre-mRNA

12:00 **Zachary Fulkerson** and **Tao Wu**, University of Kentucky

The N-terminal tandem somatomedin b-like domain regulates the autotoxin/lysophospholipase D activity by interdomain interactions and integrin binding

12:25-1p.m. Lunch *Dining Room*

1p.m.-4p.m. Free time (hiking, canoeing, walking, golf)

4p.m.-6p.m. Poster Session *Wade Hampton Room*

6-6:15p.m. Presentation of Awards *Pavilion*

6:15-7:15 **Keynote Presentation** *Pavilion*

Susan Henry, Ph.D.

Cornell University

Ronald P. Lynch Dean of the College of Agriculture and Life Sciences
Professor of Molecular Biology and Genetics

Interruption of inositol sphingolipid synthesis triggers Stt4p-dependent protein kinase C signaling

7:30-9 p.m. Dinner *Dining Room*

9 p.m.-12p.m. Local Entertainment and Social Time *Wade Hampton Room*

Friday, Nov. 12

7:30-8:30 Breakfast *Dining Room*

8:30-10:15 **SESSION III:** *Pavilion*

Cell biology of bioactive lipids

Co-chairs: Kauaki Takabe, Tao Wu

- 8:30 **Kacee Sims**, Georgia Institute of Technology
Kdo2-Lipid A, a TLR4 specific agonist, induces de novo sphingolipid biosynthesis in RAW264.7 macrophages, which is essential for induction of autophagy
- 8:45 **Daniel Canals**, Medical University of South Carolina
Opposing regulation of ERM cytoskeletal proteins by ceramide and sphingosine-1-phosphate
- 9:00 **Christopher J. Clarke**, Medical University of South Carolina
Neutral Sphingomyelinase-2 mediates retinoic acid-induced growth arrest of MCF-7 cells by suppressing ribosomal S6 kinase and translation
- 9:15 **Emmanual Adu-Gyamfi**, Notre Dame University
Molecular Architecture of Ebola Virus Assembly
- 9:30 **Haixia Qin**, Medical College of Georgia
Caveolin-1- scaffolding domain peptide inhibits calcium-mediated mouse keratinocyte differentiation through lipid raft disruption
- 9:45 **Patricia K. Tithof**, University of Tennessee
Activation of group IVC phospholipase A2 by polycyclic aromatic hydrocarbons induces apoptosis of human coronary artery endothelial cells
- 10:00-10:15 Coffee Break
- 10:15-12:00 **SESSION IV:** *Pavilion*
Translational research in bioactive lipids
Co-Chairs: Guanghu Wang, Kimberly Paul
- 10:15 **Sahar A. Saddoughi**, Medical University of South Carolina
Targeting I2PP2A/SET oncoprotein by FTY720 relieves ceramide/I2PP2A signaling for cMyc degradation and suppression of lung tumor growth
- 10:30 **Thamarai (Suriyan) Ponnusamy**, Medical University of South Carolina

Regulation of tumor growth and metastasis by Sphingosine-1-phosphate, Sphingosine kinase in vivo

10:45 **Xiaoyong Lei**, University of Alabama Birmingham

Ca²⁺ independent phospholipase A2 (iPA2b)-regulated alternative splicing in beta-cells during the development of diabetes mellitus

11:00 **Tuoyu Geng**, Medical University of South Carolina

Dietary fatty acids differentially regulate hepatic steatosis in diet induced obesity through modulation of CD36 and SCD1 expression

11:15 **Hujun Chen**, Medical College of Georgia

Rac Activation by Lysophosphatidic Acid Determines Ovarian Cancer Metastasis

11:30 **Xiaoqin Ye**, University of Georgia

LPA3-receptor mediated function in female reproduction

11:45 **Ding Xie**, Medical College of Georgia

The potential application of phosphatidylglycerol as a topical treatment for Psoriasis

12:00-12:15	Business Meeting	<i>Pavilion</i>
12:15-1p.m.	Lunch	<i>Dining Room</i>
1pm	Conference Adjourns	