



**4th Annual University of Kentucky
Postdoctoral Research Symposium**

June 1st, 2018

Don and Cathy Jacobs Science Building, room 121

PROGRAM

8:30 a.m. – *Registration opens & Breakfast*

9:00 a.m. – *Welcome, Emily Hankosky, Ph.D., Chair of the SOPS Research Symposium Committee*

9:05 a.m. – *Opening Remarks, Patricia Bond, Ph.D., Senior Assistant Dean, Office of Graduate Admissions & Recruitment*

9:10 a.m. – *Keynote Address, Desirée Salazar, Ph.D., Program Director, Division of Training, Workforce Development, and Diversity, NIGMS/NIH. “Leveraging postdoctoral training to achieve career success: My journey to science administration.”*

10:00 a.m. – *Postdoctoral Oral Presentations, moderated by Catalina Velez, Ph.D.*

10:00 a.m. – **Lindsey Hammerslag, Ph.D., UK Psychology**

“Fentanyl demand decreases after activation or blockade of mu opioid receptors in male rats”

10:15 a.m. – **Vishnu Modur, Ph.D., Cincinnati Children’s Hospital Medical Center**

“Defective transcription elongation in a subset of cancers confers immunotherapy resistance”

10:30 a.m. – *Break*

11:00 a.m. – *Panel Discussion, moderated by Stephanie Davis, PhD: “Speaking My Language: Effectively Communicating Your Research”.*

Featured panelists include:

Desirée Salazar, Ph.D., NIGMS/NIH

Carmen Agouridis, Ph.D., UK Department of Biosystems and Agricultural Engineering

Cagney Coomer, Founder, NERD SQUAD

Mike Pennell, Ph.D., UK Department of Writing, Rhetoric & Digital Studies

12:00 p.m. – *Networking Lunch (JSB Atrium)*

12:30 p.m. – *Poster Session & Judging (JSB Atrium)*

1:30 p.m. – *Panel Discussion, moderated by Emily Hankosky, Ph.D.: “The New Scholarly Communications Landscape: What to Look for (and Avoid) in Book and Journal Publishing”.*

Featured panelists include:

C. Sean Burns, Ph.D., Assistant Professor, UK School of Information Science

Melissa Hammer, Senior Editor, University Press of Kentucky

David C. Randall, Ph.D., Professor of Physiology, UK College of Medicine

Patrick O’Dowd, Editor, University Press of Kentucky

2:00 p.m. – *Postdoctoral Oral Presentations*, moderated by Emily Hankosky, Ph.D.

2:00 pm – **Mark J. Garcia, PhD**, UK Entomology

“Neuromuscular Performance as Measures of Thermal Tolerance”

2:15 pm – **Mike Petriello, Ph.D.**, UK Cardiovascular Research Center

“Serum levels of dioxin-like pollutants are positively associated with the cardiometabolic disease risk biomarker TMAO in leaner individuals”

2:30 pm – **Kenton Sena, Ph.D.**, UK Forestry and Natural Resources

“Phytophthora cinnamomi Colonized Reclaimed Surface Mined Sites in Eastern Kentucky: Implications for the Restoration of Susceptible Species”

2:45 pm – **Shogo Mori, Ph.D.**, UK Pharmaceutical Sciences

“How are nonribosomal peptides methylated? A tale of interrupted adenylation domains”

3:00 pm – *Break*

3:15 pm – *Postdoctoral Oral Presentations*, moderated by Lindsey Hammerslag, Ph.D.

3:15 pm – **Naser Pourakbar Sharifi, Ph.D.**, UK Civil Engineering

“Application of a PCM-Rich Concrete Overlay to Control Thermal Induced Curling Stresses in Concrete Pavements”

3:30 pm – **Keisha Nicole Hardeman, Ph.D.**, Vanderbilt University

“Proliferation and Bioenergetics Are Uncoupled in BRAF-mutated Melanomas”

3:45 pm – **Melise C. Lecheta, Ph.D.**, UK Entomology

“Insects help to solve crimes: a real use case from Brazil”

4:00 pm – **Yasir Alsiraj, Ph.D.**, UK Pharmacology and Nutritional Sciences

“Inhibition of neprilysin attenuates AngII-induced abdominal aortic aneurysms (AAAs) and atherosclerosis in hypercholesterolemic male mice”

4:15 pm – **Megan Johnstone, Ph.D.**, Cincinnati Children’s Hospital Medical Center

“DEK Over-Expression in Breast Epithelial Tissue Creates a Pro-Oncogenic Environment”

4:30 pm – *Closing Remarks and Awards*

5:00 pm – *Research Symposium Party @ Pazzo’s Pizza Pub*

Please join us for a social after the event at Pazzo’s Pizza Pub! (Located at the corner of South Limestone and Avenue of Champions)

Funding for the 4th Annual SOPS Research Symposium was kindly provided by:

UK Office of the Vice President of Research, UK Student Government Association, UK Graduate School, UK International Center, UK College of Medicine

KEYNOTE SPEAKER

Desirée Salazar, Ph.D.

Program Director,

Division of Training, Workforce Development and Diversity, NIGMS/NIH



Desirée Salazar, Ph.D., is a program director in the Division of Training, Workforce Development, and Diversity. She administers Innovative Programs to Enhance Research Training (IPERT) and Building Infrastructure Leading to Diversity (BUILD) grants and Institutional Research and Academic Career Development Awards (IRACDA) awards. Dr. Salazar also manages Research Supplements to Promote Diversity in Health-Related Research and Research Supplements to Promote Re-entry into Biomedical and Behavioral Research Careers program and oversees predoctoral T32 cellular, biochemical and molecular sciences grants. She also manages research grants in the area of stem cell biology and regeneration in the Division of Genetics and Molecular, Cellular, and Developmental Biology.

Dr. Salazar was most recently a scientific program manager at the American Society for Cell Biology. Formerly, she was a program education coordinator for the Institutional Research and Academic Career Development Awards (IRACDA) program at the University of California, San Diego. She earned a B.S. in neuroscience from the University of California, Los Angeles, and a Ph.D. in biological sciences from the University of California, Irvine. Salazar conducted postdoctoral research and was an IRACDA fellow at the University of California, San Diego.

PRINTED POSTERS

(Poster Judging from 12:30 to 1:20 p.m.)

1. **Naser Jafari, Ph.D., University of Kentucky**
De novo fatty acid synthesis driven sphingolipid metabolism promotes metastatic potential of colorectal cancer
2. **Kai Zhang, University of Kentucky**
Inhibition of MCP-1/CCR2 Signaling Protects Developing Brain Against EtOH-Induced Damage
3. **Jiaying Weng, University of Kentucky**
Fourier Transform in Sufficient Dimension Reduction
4. **Vira Pravosud, University of Kentucky**
Hepatitis C Virus and Risk of Chronic Kidney Disease: A Systematic Review
5. **Marion Coe, University of Kentucky**
Still too Drugged to Drive: Nighttime Use of Alprazolam Results in Next-Day Driving Impairment
6. **Hsuan Peng, University of Kentucky**
Biodegradable Polymer Enhance Stem Cell Retention After Transplant
7. **Laura Peterson, University of Kentucky**
The potential role of ribosome specialization in striated muscle
8. **Christina Savage, University of Kentucky**
*Nucleic acid-binding proteins SpoVG and c-di-GMP-binding PlzA modulate response to environmental cues in the Lyme disease spirochete *B. burgdorferi**
9. **Yalda Khosravi, Ph.D., The Ohio State University**
Management of Oral Biofilms by Microspray Disruption of Pathogenic Microenvironments
10. **Namal Wanninayake, University of Kentucky**
Cellulose - Graphene Quantum dot composite membranes using ionic liquid
11. **Praveen Kumar Chintakunta, Ph.D., University of Kentucky**
Synthetic Stereoisomers of Western Corn Rootworm Pheromone: A Sustainable Defense Against the Billion-Dollar Beetle.
12. **Rakshamani Tripathi, Ph.D., University of Kentucky**
Abl and Arg mediate cysteine cathepsin secretion to facilitate melanoma invasion and metastasis
13. **Fei Liu, University of Kentucky**
Numerical Simulation and Testing of Explosion Strain Waves

- 14. Cagney Coomer, University of Kentucky**
Loss of function of Her9 causes retinal, craniofacial, and digestive system abnormalities
- 15. Robert-Marlo Bautista, University of Kentucky**
Pharmacological cAMP induction induces melanization of the skin and improves recovery from UV injury in MC1R heterozygous skin
- 16. Ahmed Al-Darraj, University of Kentucky**
Azithromycin as Cardiovascular Immunotherapy
- 17. Nader El Seblani, University of Kentucky**
Neuro-Avatar: A reverse translational model of an ongoing cell therapy clinical trial for Parkinson's disease
- 18. Erin Jackson, Ph.D., University of Kentucky**
Sex differences in response to PCB-induced toxicity and AhR deficiency in obese mice during weight loss
- 19. Eva Gatineau, Ph.D., University of Kentucky**
The prorenin receptor and its soluble form stimulate hepatic triglyceride and cholesterol metabolism in male mice
- 20. Caleb Calvary, University of Louisville**
Synthesis and Characterization of New Bis(thiosemicarbazonato)Ni(II) Complexes for Electrocatalytic Hydrogen Evolution
- 21. Madhur Agrawal, Ph.D., University of Kentucky**
Diet high in fat and salt recapitulates the type 2 diabetes-predictive human Th17 cytokine profile in mice
- 22. Mohamed AboAly, M.D., University of Kentucky**
Percutaneous Coronary Intervention vs Coronary Artery Bypass Grafting in coronary artery disease: Meta-analysis.
- 23. Kayla Titillii, University of Kentucky**
Elucidating the effects of embryonic hyperglycemia on retinal development in Danio rerio
- 24. Huangjie Gong, University of Kentucky**
Optimal Battery Sizing for Net Zero Energy Homes Operating as Constant Sources or Sinks of Power
- 25. Wen Wen, Ph.D., University of Kentucky**
MANF Protects Neurons from Alcohol Induced Neurodegeneration
- 26. Qi Ying, Ph.D., University of Kentucky**
HDAC6 plays a critical role in Sulfiredoxin-mediated activation of the epidermal growth factor receptor signaling in human colorectal cancer
- 27. An-Hsuan Lin, Ph.D., University of Kentucky**
Mechanisms underlying the stimulatory effect of sulfur dioxide on rat vagal bronchopulmonary sensory neurons

28. Narges Taran, University of Kentucky

A Novel Optimization Algorithm for Electric Machines with 3D FEA, Differential Evolution and Surrogate Models

29. Hossam El-Sheikh Ali, Ph.D., University of Kentucky

Characterization of Myometrial Gene Expression Associated with Equine Placentitis by RNA sequencing

30. Monica Chau, Ph.D., University of Kentucky

Microenvironmental Homing of Glioblastoma Stem Cells in the Brain

31. Adina Cox, Ph.D., University of Kentucky

Bronfenbrenner's Bioecological Model and Children's Independent Mobility

32. David J Braun, Ph.D., University of Kentucky

Targeting neuroinflammation in the context of Alzheimer's disease with comorbid vascular pathology

33. Marc Aaron Guest, University of Kentucky

Aging in Kentucky: The LGBTQ Needs Assessment

34. Magda Javakhishvili, University of Kentucky

The Long Arm of Infancy Socialization on the Development of Self-Control

35. Dan Liu, University of Kentucky

Bedtimes, Self-Control, and Deviance among Rural Adolescents

36. Oluwaseun M Akeyo, University of Kentucky

The Largest Multi-MW PV System in Kentucky Integrated with Battery Energy Storage

42. Taylor Kessinger, University of Kentucky

Valley crossing in rapidly adapting asexual populations

DIGITAL POSTERS

(Poster Judging from 12:30 to 1:20 p.m.)

37. Farshid Etaee, University of Kentucky

Junctional ectopic rhythm after atrioventricular nodal reentrant tachycardia ablation: An underrecognized complication

38. Jake Hutton, University of Kentucky

Diet Composition Explains Reductions in Stream Salamander Occupancy and Abundance along a Conductivity Gradient

39. Sana Naheed, University of Kentucky

Exploration of Possible Links between Sella Turcica Morphology, Palatally Displaced Canine Impaction and Insulin-like Growth Factor-1 Genetics (IGF1)

40. Yatta Boakari, University of Kentucky

Serum concentration and mRNA expression of Serum Amyloid A and Serum Amyloid A1 in mares and their fetuses after experimental induction of placentitis

41. Nirmalya Thakur, University of Cincinnati

An Emotion Recognition Algorithm for Implementation of Affect Aware Systems in a Smart Home Context

DON AND CATHY JACOBS SCIENCE BUILDING

680 Rose St. 40506

TALKS: 1st floor, room 121

POSTERS: Atrium