



## **2019 Mechanisms Specialty Section**



### **Business Meeting and Reception**

**Society of Toxicology 59<sup>th</sup> Annual Meeting and ToxExpo  
March 11<sup>th</sup>, 2019**



# **2019 Mechanisms Specialty Section Awards Announcements**



# Sheldon D. Murphy Student Travel Award



## Sheldon D. Murphy Student Travel Award (5-6 recipients)

- Est. in memory of Sheldon D. Murphy, Charter Member of SOT & 14<sup>th</sup> President
- Selections based on scientific quality of abstract & must be a PhD Candidate at time of Annual Meeting
- ~\$500 (specific amounts vary annually based on Endowment Award contributions)



# Sheldon D. Murphy Student Travel Award



## Elizabeth Corteselli, US EPA

*Supplementation with Omega-3 Fatty Acids Potentiates Oxidative Stress in Human Airway Epithelial Cells Exposed to Ozone.*  
PI: James Samet

## Ludwik Gorczyca, Rutgers University

*Inhibition of cyclic nucleotide efflux by placental MRP transporters enhances trophoblast syncytialization.*  
PI: Lauren Aleksunes

## Tiffanie Hargraves, University of Arizona

*A novel metformin-methylglyoxal imidazolinone metabolite sensitizes cells to insulin; A potential role in alleviating T2DM complications. Pis: Serrine Lau & Terry Monks*

## Archit Rastogi, University of Massachusetts at Amherst

*Mapping Glutathione Utilization in the Developing Zebrafish (Danio rerio) Embryo. PI: Alica Timme-Laragy*

## Argel Isla Robles, University of Arizona

*The General Transcription Factor II-I increase PAR-association during ROS-mediated cell death. Pis: Serrine Lau & Terry Monks*



# Sheldon D. Murphy Student Travel Award



Left to Right: Secretary-Treasurer Martin Ronis, Argel Isla Robles, Elizabeth Corteselli, Tiffanie Hargraves, Archit Rastogi. Pictured Separately: Ludwik Gorczyca

# Ronald G. Thurman Student Travel Award



## Ronald G. Thurman Student Travel Award (2 recipients)

- Selections based on construction & quality of abstract & must be a graduate student SOT member
- ~\$500 (specific amounts vary annually based on Endowment Award contributions)



# Ronald G. Thurman Student Travel Award



## Jephte Akakpo, University of Kansas Medical Center

*Delayed treatment with 4-Methylpyrazole protects against APAP hepatotoxicity by inhibition of c-JUN N-terminal Kinase. PI: Hartmut Jaeschke*

## Monika Roy, University of Massachusetts at Amherst

*The Emerging Contaminant 3,3'-dichlorobiphenyl (PCB-11) Impedes Ahr Activation and Cyp1a Activity To Modify Embryotoxicity of Ahr Ligands In The Zebrafish Embryo Model (Danio rerio). PI: Alicia Timme-Laragy*





# Ronald G. Thurman Student Travel Award



Left to Right: President Donna Zhang, Monika Roy, Jephthe Akakpo



# Postdoctoral Student Travel Award



## Postdoctoral Student Travel Award (2 recipients)

- Postdoctoral scientists must submit abstract and personal statement with two supporting letters
- Applicants must be sponsored by a member of Mechanisms
- ~\$500 (specific amounts vary annually based on Endowment Award contributions)



# Postdoctoral Student Travel Award



## **Lauren Poole Hardy, Michigan State University**

*Tissue Transglutaminase Cross-linking Activity Alters Fibrin(ogen)-mediated Pro-inflammatory Responses in Macrophages. PI: James Luyendyk*

## **Andreas Henriquez, ORISE, NHEERL**

*Stress Hormones as Modulators of Ozone-Induced Effects on the Brain. PI: Urmila Kodavanti*



# Postdoctoral Student Travel Award



Left to Right: Senior Councilor Kristina Wolf, Andreas Henriquez, Lauren Poole Hardy



# Robert J. Rubin Student Travel Award



## Robert J Rubin Student Travel Award (Up to 2 recipients)

- Co-administered with Risk Assessment SS
- Selections based on quality of abstract and application of mechanistic toxicology to risk assessment.
- ~\$750 (specific amounts vary annually based on Endowment Award contributions)



# Robert J. Rubin Student Travel Award



**Robert Freeborn, Michigan State University**

*The synthetic food additive tBHQ impairs host-defense to influenza virus. PI: Cheryl Rockwell*

(award to be given at the RASS Reception on Wednesday)

Platform presentation: Wednesday March 13, 4:00-4:15, Room 321



# Robert J. Rubin Student Travel Award



Left to Right: Robert Freeborn, Vice President Rhiannon Hardwick



# Renal Toxicology Award



## Renal Toxicology Award (3 recipients)

- Applicants may be graduate students or postdoctoral scientists
- Selections based on abstract, 300 word summary of work, and supporting letter from mentor/advisor
- ~\$250-1000 (specific amounts vary annually based on Endowment Award contributions)



# Renal Toxicology Award



## **1<sup>st</sup> Place: Yu-Syuan Luo, Texas A&M University**

*Population-based Analysis of Toxicokinetics and Kidney Toxicodynamics of Tetrachloroethylene in the Mouse.*

*PI: Ivan Rusyn*

## **2<sup>nd</sup> Place: Tarana Arman, Washington State University**

*Microcystin-LR renal toxicity in nonalcoholic fatty liver disease. PI: John D. Clarke*

## **3<sup>rd</sup> Place: Yu-Wei Chang, Texas Tech University**

*Nicotine Induces Malignant Transformation through Oxidative Stress in Human Renal Epithelial Cells.*

*PI: Kamaleshwar Singh*



# Renal Toxicology Award



Left to Right: Vice President-Elect Brian Day, Yu-Syuan Luo, Tarana Arman. Not pictured: Yu-Wei Chang



# Mechanisms Career Achievement Award



- Enacted in 2014 to honor the contributions of an outstanding member to mechanistic toxicological research
- Nominations from Mechanisms membership are extremely important!

**2015**



**Dennis R. Petersen**  
*University of Colorado*

**2016**



**Michael A. Gallo**  
*Rutgers University*

**2017**



**Steven D. Cohen**  
*University of Connecticut*

**2018**



**Debra Laskin**  
*Rutgers University*

# 2019 Mechanisms Career Achievement Award



**Lois Lehman-McKeeman, PhD, ATS**

- **Bristol-Myers Squibb, Vice President, Pharmaceutical Candidate Optimization;** Adjunct Associate Professor, Kansas University Health Sciences Center, Rutgers University; Scientific Advisory Board, US EPA; ILSI Board of Trustees
- Society of Toxicology Achievement Award, James B. D. Palmer Award for Excellence in Drug Development, Many SOT roles including SOT President 2013-2014, Editor-in-Chief Toxicological Sciences 2002-2011, Editorial Boards: Drug Metabolism and Disposition, Current Opinions in Toxicology
- Research Interests:
  - **Mechanistic toxicology applied to drug development**
  - **Mechanisms of Hepatotoxicity**
  - **Metabolomics**
  - **Drug transport**
- Has over 100 publications, book chapters and reviews
- Member of AAAS, NY Academy of Sciences

# 2019 Mechanisms Career Achievement Award



Left to Right: Lois Lehman-McKeeman, Vice President Rhiannon Hardwick



# Gabriel L. Plaa Education Award



## Gabriel L. Plaa Education Award (3 recipients)

- Est. to honor the outstanding contributions of Gabriel L. Plaa
- Dr. Plaa was a notable researcher of chemical-induced liver injury, past SOT President, and leader in graduate student and post-graduate education and mentorship
- Applicants must be postdoctoral trainees and SOT members
- Applicants must submit a cover letter, abstract, CV, and two supporting letters
- Finalists are selected and asked to arrive at the Annual Meeting on Sunday for final interviews
- ~\$750-1500 (specific amounts vary annually based on Endowment Award contributions)



# Gabriel L. Plaa Education Award



## 1<sup>st</sup> Place:

- **Matthew Dodson, University of Arizona**

*The Role of O-GlcN-Acylation in Driving Arsenic-Linked Metabolic Syndrome*

## 2<sup>nd</sup> Place:

- **Aseel Eid, Florida International University**

*DDT Increases Neuroinflammation and Microglial Activation: Role of Microglial Sodium Channels*

## 3<sup>rd</sup> Place:

- **Asmita Pant, Michigan State University**

*De novo fibrinogen synthesis promotes liver repair after APAP overdose in mice*



# Gabriel L. Plaa Education Award



Left to Right: Asmita Pant, Aseel Eid, Matthew Dodson

# Carl C. Smith Graduate Student Award



## Carl C. Smith Graduate Student Award (3 recipients)

- Est. to honor the life and work of Carl C. Smith
- Applicants must submit cover letter, abstract, and personal statement along with two letters of support (mentor & department head)
- Finalists are selected and must submit a full manuscript of their submitted project for final judging
- ~\$750-2000 (specific amounts vary annually based on Endowment Award contributions)





# Carl C. Smith Graduate Student Award



## CONGRATULATIONS TO ALL OF THE FINALISTS!

*Please come forward*

- Jessica Murray – University of Pennsylvania
- Elana Elkin – University of Michigan
- Robert Freeborn – Michigan State University
- Kelly Fader – Michigan State University
- Erica Toth – University of Arizona
- Cody Schmidlin – University of Arizona
- Kelly Hanson – University of Rochester Medical Center



# Carl C. Smith Graduate Student Award



## 1<sup>st</sup> Place

- **Robert Freeborn, Michigan State University**

*The synthetic food additive tBHQ impairs host-defense to influenza infection. PI: Cheryl Rockwell*

## 2<sup>nd</sup> Place

- **Kelly Hanson, University of Rochester Medical Center**

*Apoptosis resistance of fibroblasts precedes progressive scarring in pulmonary fibrosis and is partially mediated by Toll-like receptor-4 activation. PI: Jacob Finkelstein*

## 3<sup>rd</sup> Place

- **Jessica Murray, University of Pennsylvania**

*Nrf2 Induction of Antioxidant Response Increases Bioactivation of the Mutagenic Air Pollutant 3-Nitrobenzanthrone, PI: Trevor Penning*

# Carl C. Smith Graduate Student Award



Left to Right: Elana Elkin, Erica Toth, Jessica Murray, Robert Freeborn, Kelly Hanson, Kelly Fader, Cody Schmidlin