



58TH ANNUAL MEETING
& ToxExpo • MARCH 10-14, 2019

2019 Mechanisms Specialty Section



Business Meeting and Reception

Society of Toxicology 59th Annual Meeting and ToxExpo
March 11th, 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 & 14th 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: Alicia 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



1st Place: Yu-Syuan Luo, Texas A&M University

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

PI: Ivan Rusyn

2nd Place: Tarana Arman, Washington State University

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

3rd 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



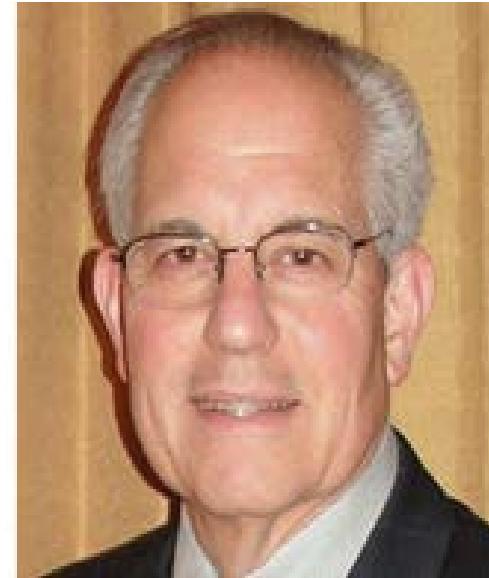
Dennis R. Petersen
University of Colorado

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 Squib, 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



1st Place:

- **Matthew Dodson, University of Arizona**

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

2nd Place:

- **Aseel Eid, Florida International University**

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

3rd 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



1st Place

- **Robert Freeborn, Michigan State University**

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

2nd 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

3rd 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