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 (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)
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 Faktor 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, Jephte Akakpo
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 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 (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)
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
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
Left to Right: Elana Elkin, Erica Toth, Jessica Murray, Robert Freeborn, Kelly Hanson, Kelly Fader, Cody Schmidlin