

NAME OF SPECIALTY SECTION Nanoscience and Advanced Materials

ANNUAL REPORT: 2018-2019

May 1, 2018 to April 30, 2019

I. Officers/Committees:

| <u>Officers</u> | <u>2017-2018</u> | <u>2018-2019</u> |
|---------------------------------------|----------------------|----------------------|
| President: | Timothy R Nurkiewicz | Aaron Erdely |
| Vice President: | Aaron Erdely | Flemming R Cassee |
| Vice President-Elect: | Flemming R Cassee | Jenny Roberts |
| Secretary/Treasurer: | Brian D Thrall | Jonathan Shannahan |
| Past President | Robert L Tanguay | Timothy R Nurkiewicz |
| Councilors: | Jenny R Roberts | Salik Hussain |
| | Joel M Cohen | Lisa Truong |
| PDA Representative: | Valerie Minarchick | Katelyn Siegrist |
| GSLC Representative: | Katherine Duke | Mark Ihrie |
| Vice Graduate Student Representative: | Mark David Ihrie | Candace Wong |

Committees:

Program Committee: Timothy Nurkiewicz, Aaron Erdely (chair), Flemming Cassee, Jenny Roberts

Committee for the SS name change: David Warheit; Annette Santamaria; Treye Thomas; Nigel Walker; Alison Elder; Robert Tanguay; Andrea Haase; Flemming Cassee; Timothy Nurkiewicz; Jenny R. Roberts; Aaron Erdely

Awards committee for the annual meeting: Zhenquan Jia, Alexandra Noel, Jonathan Shannahan, Lisa Truong, and Jenny Roberts (chair).

II. Activities:

2019 SOT Annual Meeting Reception was held in Baltimore, Maryland on March 11, 2019.

Approximately 50 people were in attendance.

Dr. Aaron Erdely called the meeting to order 6:00 PM on March 11, 2019

Meeting Minutes: The meeting began with a networking session. Dr Erdely then called the meeting to order and began the presentation. The name change of the specialty section from Nanotoxicology to Nanoscience and Advanced Materials Specialty Section was announced to the membership. The topics covered included sponsored sessions, member achievements, the

treasurers report, officer elections, future meetings, a special journal issue, future webinars, and awards. Dr. Cassee gave a presentation and update on the OECD Malta Initiative.

Awards:

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| <p>Graduate Student Award (Honorable mention) Candace Wong: The Impact of Neuroinflammatory Disease and Environmental Exposures on Gold Nanoparticle Accumulation in the Mouse Brain Mentor: Alison Elder, Ph.D. Institution: University of Rochester Medical Center</p> |  |
| <p>Graduate Student Award (Honorable mention) Christopher G. Canal: Exosomes as a systemic mediator of nanotube induced dysfunction Mentor: Andrew K. Ottens, PhD Institution: Virginia Commonwealth University</p> |  |
| <p>Graduate Student Award (First Place - Tie) Katherine A. Roach: Evaluation of the Skin Sensitizing Potential of Gold Nanomaterials and the Impact of Established Dermal Sensitivity to Gold on the Pulmonary Immune Response with Respect to Dose Mass and Surface Area Mentor: Jenny R. Roberts, Ph.D. Institution: WVU/NIOSH</p> |  |
| <p>Post-Doctoral Award Valerie C. Minarchick: Polyethylene Glycol (PEG) Coated Liposomes Increase Oxidative Stress in Endothelial Cells Mentor: Jared M. Brown, PhD Institution: University of Colorado Denver</p> |  |

Best Publication

Todd Stueckle: Short-Term Pulmonary Toxicity Assessment of Pre- and Post incinerated Organomodified Nanoclay in Mice. Todd A. Stueckle, Donna C. Davidson, Ray Derk, Tiffany G. Kornberg, Lori Battelli, Sherri Friend, Marlene Orandle, Alixandra Wagner, Cerasela Zoica Dinu, Konstantinos A. Sierros, Sushant Agarwal, Rakesh K. Gupta, Yon Rojanasakul, Dale W. Porter, and Liying Rojanasakul
ACS Nano, 12:2292–2310, 2018



2019 SOT Annual Meeting Courses/Sessions:

Sponsored Sessions:

Understanding the Impact on the Immune System of Occupationally Relevant Exposures to Multiwalled Carbon Nanotubes
CC Room 308; 8:00am - 10:45am; Wed, Mar 13

Risk Assessment of Consumer Products and Articles: Critical Considerations and Case Studies for Characterizing and Quantifying Consumer-Relevant Exposures to Chemicals and Nanomaterials
CC Room 309; 1:30pm - 4:15pm; Wed, Mar 13

Nanotoxicology: In Vitro Test Platform
CC Room 308; 8:30am - 11:15am; Thu, Mar 14

Poster Sessions:

Nanotoxicology In Vitro: Alternative Testing Strategies
CC Exhibit Hall; 9:15am - 4:30pm; Tue, Mar 12

Nanotoxicology In Vitro: Mechanism, Uptake, and Cellular Response
CC Exhibit Hall; 9:15am - 4:30pm; Tue, Mar 12

Nanotoxicology: In Vivo
CC Exhibit Hall; 9:15am - 4:30pm; Tue, Mar 12
Late-Breaking 3: Model Systems; Nanotoxicology
CC Hall A; 8:30am - 11:30am; Thu, Mar 14

Endowment Fund Details: None

Newsletters: Winter newsletter 2018/2019

Teleseminars: None

White Papers: None

Contributions to SOT website: None

Other Specialty Section 2018-2019 Activities:

Specialty Section Name Change:

The discipline of Nanotechnology is approaching two decades of extensive research into application and the potential for toxicity. The breadth of the field has evolved to great degree over those two decades. The executive council proposed a name change to reflect the growing field of study at the 2018 Annual Meeting of the NANO SS. An open discussion was had by the membership concerning the changing landscape of Nanotechnology and whether the NANO SS was properly positioned for the future of the discipline. The members voted in two separate polls in favor of updating the Specialty Section by changing the name, once prior to the 2018 meeting and once following. A committee representing industry, government, and academia primarily consisting of founding members and the Executive Committee was developed to establish potential names for a final poll to the membership including an option for no name change. 88% of those that responded favored a name change. Ratification of the name change occurred in February, 2019, and the Nanotoxicology Specialty Section became the Nanoscience and Advanced Materials Specialty Section.