

NANOTOXICOLOGY SPECIALTY SECTION

ANNUAL REPORT: 2017-2018

May 1, 2017 to April 30, 2018

I. Officers/Committees:

Officers	2016-2017	2017-2018
President:	Robert L Tanguay	Timothy R Nurkiewicz
Vice President:	Timothy R Nurkiewicz	Aaron Erdely
Vice President-Elect:	Aaron Erdely	Flemming R Cassee
Secretary/Treasurer:	Brian D Thrall	Brian D Thrall
Past President	James Christopher Bonner	Robert L Tanguay
Councilors:	Tara Sabo-Attwood	Jenny R Roberts
	Joel M Cohen	Joel M Cohen
PDA Representative:	Donna Christine Davidson	Valerie Minarchick
GSLC Representative:	David Harold Ellis	Katherine Duke
Vice Graduate Student Representative:	Katherine Duke	Mark David Ihrie

Committees: The NANO SS has been operating on Executive Committees and assigned officer duties.

II. Activities:

2018 SOT Annual Meeting Reception was held in San Antonio, Texas on 13 March 2018.

Approximately 75 people were in attendance.

Dr. Nurkiewicz called the meeting to order at 6:00 PM on 13 March 2018.

Meeting Minutes: The meeting began with a network session. Dr. Nurkiewicz then highlighted the impact of the NANO SS at SOT. Other topics covered by the Executive Committee included Member Achievements, Secretary-Treasurer's Report, Incoming and Outgoing Officers, Award Presentations, Redefining the Specialty Section, and a Mentee Raffle.

NANO SS Member Achievements:

Phoebe Stapleton accepted an Assistant Professor position at Rutgers University's Environmental & Occupational Health Sciences Institute

Salik Hussain accepted an Assistant Professor position at West Virginia University in the Department of Physiology, Pharmacology, & Neuroscience.

Matthew Campen from the University of New Mexico, College of Pharmacy, serves as the Vice-President Elect of the Inhalation and Respiratory Specialty Section and was the corresponding author of the Impact Award from the Cardiovascular Toxicology Specialty section for a paper published in PNAS (114(10):E1968-E1976, 2017).

Secretary-Treasurer's Report:

• Net assets at beginning of FY2017:	\$12,828
• Total Income:	\$ 6,256
• Registration, misc:	\$ 1,642
• Dues:	\$ 4,090 (Jun 2017)
• Interest:	\$ 525
• Expenses:	\$ 8,065
• Awards (including plaques, misc)	\$ 1,573
• Reception:	\$ 6,120
• Executive Committee Meeting	\$ 372
• Revenue over Expenses	\$ 1,809
• Net assets beginning of FY2018:	\$11,019
• Contributions FY2018	\$ 2,500
• Registration FY2018	\$ 1,523
• Expenses for 2018 Annual Meeting	\$ 7,959
• Net Assets from April 2018 Financials	\$ 7,083

New Officers:

- Vice President-Elect: Jenny R. Roberts
- Secretary-Treasurer: Jonathan H. Shannahan
- Councilor: Lisa Truong
- Councilor: Salik Hussain
- Post-Doctoral Representative: Katelyn J. Siegrist
- Graduate Student Representative: Candace Wong

New Sponsors Acknowledged:

- Ampersand Biosciences
- DSI
- RJ Lee Group

NANO SS Awards:**Graduate Student Award (First Place)**

Kelly Smith (Fraser): Comparative assessment of in vivo toxicity induced by multi-walled carbon nanotubes and nanofibers from U.S. facilities

Mentor: Aaron Erdely, Ph.D.

Institution: WVU/NIOSH



Graduate Student Award (Second Place - Tie)

Lisa Kobos: Individual Variability and the Influence of Exercise in the Composition of the Nanoparticle-Biocorona

Mentor: Jonathan Shannahan, Ph.D.

Institution: *Purdue University*



Graduate Student Award (Second Place - Tie)

Katherine A. Roach: Comparative assessment of *in vivo* toxicity induced by multi-walled carbon nanotubes and nanofibers from U.S. facilities

Mentor: Jenny R. Roberts, Ph.D.

Institution: *WVU/NIOSH*



Post-Doctoral Award

Yi-Hsien Cheng: A general physiologically based pharmacokinetic model for gold nanoparticles of different sizes with multiple administration routes in rats / Probabilistic risk assessment of gold nanoparticles by integrating *in vitro* and *in vivo* toxicity with physiologically based pharmacokinetic modeling

Mentors: Zhoumeng Lin Ph.D. / Jim E. Riviere DVM, Ph.D.

Institution: *Kansas St. University*



Best Publication

Lindsey Bishop: *In Vivo* Toxicity Assessment of Occupational Components of the Carbon Nanotube Life Cycle To Provide Context to Potential Health Effects
Authors: Bishop L, Cena L, Orandle M, Yanamala N, Dahm MM, Birch ME, Evans DE, Kodali VK, Eye T, Battelli L, Zeidler-Erdely PC, Casuccio G, Bunker K, Lupoi JS, Lersch TL, Stefaniak AB, Sager T, Afshari A, Schwegler-Berry D, Friend S, Kang J, Siegrist KJ, Mitchell CA, Lowry DT, Kashon ML, Mercer RR, Geraci CL, Schubauer-Berigan MK, Sargent LM, Erdely A.

ACS Nano, 2017, 11 (9), pp 8849–8863

**2018 SOT Annual Meeting Courses/Sessions:**

- 1) **NANO SS Mentor-Mentee Match**
- 2) **The NIEHS Nanotechnology Health Implications Research (NHIR) Consortium.**
Chairs: Robert Tanguay and Sri Nadadur
- 3) **Nanotoxicology: State of the Science and the Path Forward.** Chairs: Treye Thomas and Aaron Erdely
- 4) **Nanoparticles: Exposure Methods and Safety Regulation**
- 5) **Nanoparticles: Protein Biocorona**
- 6) **Nanotoxicity: Immunology**
- 7) **Nanotoxicity: Inhalation**
- 8) **Nanoparticles: Mechanisms of Toxicity**
- 9) **Nanotoxicity: In Vitro**
- 10) **Nanotoxicity: In Vivo**

Newsletters: Nanotoxicology Specialty Section Fall 2017 Newsletter

******Specialty Section Name Change:**

The discipline of Nanotechnology is approaching two decades of extensive research into application and the potential for toxicity. The Specialty Section was approved at the 10 January 2007 SOT Council Meeting. The 2018 Meeting of the NANO SS marked year 12 representing a good point to reflect and discuss the path forward. 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 have now 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. Subsequent actions will involve developing a committee representing industry, government, and academia primarily consisting of founding members and the Executive Committee to develop a name change to reflect the evolving discipline of Nanotechnology.