

## Nanoscience and Advanced Materials

### ANNUAL REPORT: 2022–2023

May 1, 2022 to April 30, 2023

#### I. Officers/Committees

| <u>Officer</u>                    | <u>2022–2023</u> | <u>2023–2024</u> |
|-----------------------------------|------------------|------------------|
| President:                        | Salik Hussain    | Christie Sayes   |
| Vice President:                   | Christie Sayes   | Phoebe Stapleton |
| Vice President-Elect:             | Phoebe Stapleton | Marusia Popovech |
| Secretary Treasurer:              | Vamsi Kodali     | Vamsi Kodali     |
| Past President:                   | Jared Brown      | Salik Hussain    |
| Councilors:                       | Zhoumeng Lin     | Marusia Popovech |
|                                   | Marusia Popovech | Andrew Ottens    |
| Postdoctoral Representative:      | Kelly Fraser     |                  |
| Graduate Student Representatives: | Rebekah Kendall  | Talia Seymore    |
|                                   | Matthew Gibb     |                  |

#### Committees:

##### Awards Committee:

Phoebe Stapleton (Chair)  
Christie Sayes  
Jared Brown  
Zhoumeng Lin  
Mariana Farcas

#### II. 2022 Membership total: 135

#### III. Key Outcomes in 2022–2023:

- A. The organization served as a focal point for interaction with SOT members interested in nanoscience and advanced materials.
- B. During the SOT 2023 meeting in Nashville, we organized a symposium and mixer discussion around the most appropriate and validated screening tests for evaluating the toxicity of nanoscale materials and for extrapolating the findings from *in vitro* studies to *in vivo* exposures.

#### IV. Activities

- A. SOT Annual Meeting Activities (e.g., courses, scientific sessions, receptions):

NAMSS Mixer Reception at the 2023 SOT meeting in Nashville, TN.

- B. 2023 Awards Recipients:

- Outstanding Graduate Student:  
Saeed Alqahtani, Purdue University
- Outstanding Graduate Student (Runners-Up):  
Chelsea Cary, Rutgers University  
Erin Huber, Saint John's University
- Best Publication: Nairrita Majumder, Murugesan Velayutham, Dimitrios Bitounis, Vamsi K. Kodali, Md Habibul Hasan Mazumder, Jessica Amedro, Valery V. Khramtsov, Aaron Erdely, Timothy Nurkiewicz, Philip Demokritou, Eric E. Kelley, Salik Hussain.  
Oxidized carbon black nanoparticles induce endothelial damage through C-X-C chemokine receptor 3-mediated pathway. *Redox Biology* 47 (2021) 102161.
- Best Publication (Runner-Up): Saeed Alqahtani, Li Xia, Amber Jannasch, Christina Ferreira, Jackeline Franco, Jonathan H. Shannahan.  
Disruption of pulmonary resolution mediators contribute to exacerbated silver nanoparticle-induced acute inflammation in a metabolic syndrome mouse model. *Toxicology and Applied Pharmacology* 431 (2021) 115730.

C. Other Educational Activities Conducted (e.g., webinars, in-person meetings):  
N/A

- D. Communication Activities:
1. Newsletter publication frequency: Once a year
  2. Communication Highlights: N/A
  3. Highlights of website enhancements: The website has been revitalized and can be found at the following link: <https://www.toxicology.org/groups/ss/nano/index.asp>
- E. Mentoring Activities: The NAMSS Mixer Reception at the 2023 SOT meeting in Nashville, TN hosts mentoring interactions among junior and senior members of the section.

## V. **Feedback and Ideas:**

- A. In what ways is your group fostering and maintaining an inclusive environment? Please give examples of any current practices used to support inclusion in processes such as 1) leadership selection and promotion, 2) award descriptions and selection, and 3) endorsement of proposals for the annual meetings.

Elections promote diversity, equality, and inclusion through strong efforts in recruiting members for leadership roles, especially through personal communications and LinkedIn.

- B. What is one thing the Society should be doing that we currently do not do (or do not do effectively) that would be of importance/benefit to the members of your component group?

The Society is serving its component member groups very well.

- C. What is one thing that the Society is currently doing that impacts your component group that should be changed (e.g., stopped, modified, etc.)?

The Society is serving its component member groups very well. The communication with HQ is outstanding.