

Nanotoxicology Specialty Section Newsletter

Volume 2, Issue 1 (July 2011)

President's Message

For those who were able to attend the Sunday night Nanotoxicology Specialty Section Business Meeting at this year's SOT meeting in Washington DC, you know that the new specialty section leadership was announced with far less wit and charm than we saw for the awards presentation led by Christie Sayes and Nigel Walker. I was set up, and will endeavor to do better next year.

The specialty section was blessed with an outpouring of nominations for key leadership positions. I'm convinced this reflects the rapid growth of the specialty section and recognition of the crucial role it plays in promoting awareness and good science within the Society.

The elections were all very close, in many cases just a few votes separated winners and runners up, representing a broad show of faith for all the candidates. Many of the candidates have agreed to support the specialty section on committees this year, so we are fortunate to retain their skills and enthusiasm.

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Outstanding Graduate and Post-Doctoral Student Nominees for 2011
Xiaoqing Chang, Teri Alyn Girtsman, Jong Sung Kim, Brittany Serke and Bei Zhang

Officers

President
Justin Teeguarden

Vice President
Joyce Tsuji

Vice President Elect
Alison Elder

Past President
David Warheit

Secretary/Treasurer
Mara Seeley

Councilors
Diane Heck
David Hobson

Student Representative
Lisa Truong

Postdoctoral Representative
Leshuai Zhang

Newsletter Editor
Mara Seeley

Website Liaison
Christie Sayes

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Summary of 2011 Annual Meeting



2010-2011 Officers:
Steve Roberts, Joyce Tsuji,
David Warheit, Justin
Teeguarden, Christie Sayes,
Nigel Walker, Yongbin Zhang

NTSS was well-represented at the 2011 Annual Meeting, sponsoring a CE class ("Evaluating Toxicity of Engineered Nanomaterials: Issues with Conventional Approaches"), two workshops ("Technical Characterization and Dosimetry Challenges Associated with Conducting or Interpreting Nanotoxicity", chaired by Syed Ali and Saber Hussain; and "Extending Pulmonary Toxicity Findings for Nanomaterials", chaired by Phil Sayre and David Warheit) and a roundtable ("Assessment of Nanoparticle Exposure in Occupational Settings and in Inhalation Toxicology Studies: Is There a Best Dosimetric to Use?", chaired by Gunter Oberdorster and David Warheit). In addition, a total of 151 abstracts were presented at two nanotoxicology platform sessions and 4 nanotoxicology poster sessions.

events and findings related to both nanoparticles (e.g., 1985 discovery of fullerenes; 2003 landmark studies of carbon nanotube respiratory effects in rodents by Warheit *et al.* and Lam *et al.*) and the growing interest in and presence of nanotoxicology within SOT. Although nanotoxicology is considered a relatively young discipline within the field of toxicology, the poster highlighted that scientists were studying 50 nm hollow carbon fibers as early as 1952; and that nanoparticle exposure dates back to pre-historic time, with the discovery of titanium dioxide crystals in the Tyrolean Iceman, and carbon nanotubes in Greenland ice cores.

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NTSS also displayed a [poster](#), prepared by incoming Vice-President/President-Elect Joyce Tsuji. The poster presented a timeline of key

Nanoparticle exposure dates back to pre-historic time, with the discovery of titanium dioxide crystals in the Tyrolean Iceman, and carbon nanotubes in Greenland ice cores.

Award Winners

Outstanding Graduate Student – Brittany Serke

Research: Effects of Copper Doped Titanium Dioxide Nanoparticles In Vivo: Role of Soluble Metal

Mentor/Institution: Alison Elder/Department of Environmental Medicine, University of Rochester

Congratulations to the award winners!

Outstanding Post-Doctoral Student – Xiaoqing Chang

Research: PBPK Model of Micro and Nano Sized Fluorescent Polystyrene Spheres in Rats

Mentor/Institution: Christopher J. Portier/NIEHS

Outstanding Publication Award - Dongeum Huh and Donald Ingber

Publication: "Reconstituting Organ-Level Lung Functions on a Chip" Science 328:1662-1668. June 25, 2010

Institution: Wyss Institute for Biologically Inspired Engineering at Harvard University

Serving and Supporting Student and Post-Doctoral Members

Contributing to the training and development of young scientists is one of a specialty section's most critical and most enjoyable activities. This year, our outstanding student and post-doc representatives, Lisa Truong and Leshuai Zhang, conducted a poll of the Nanotoxicology Specialty Section membership about how best the specialty section can serve and support student members.

Not surprisingly, the student and post-doc members expressed a desire to interact more with full members, particularly in the areas of scientific collaboration and professional and job networking. Our whole membership, including students, post-docs and more established members, value this sometimes intentional, other times unintentional, service of the specialty section. While some of us have long friendships in the field, student and post-doc members need us to reach out to them, and there is more we could be doing to help them find collaborators, mentors, and to broaden their perspective on where the jobs and post doctoral activities are.

Providing some guidance on specialty section resources on the SOT website, and the possibility of posting recent publications on the site to facilitate communication of new findings and to stimulate discussions within the specialty section, were two other very good suggestions from the student and post-doc members. To all of our membership, please consider reaching out to students and post-docs, especially at the SOT meeting; it's one way you can have a larger impact on the growth and well-being of the field and your colleagues.

Looking Ahead – Upcoming Webinar, Key Activities for the Upcoming Year and SOT 2012!

First Webinar of 2011/2012!

Dr. Thomas Peters of the College of Public Health, University of Iowa, will address realistic workplace and environmental exposures, as well as the practicalities (and challenges) in exposure assessment. Dr. Peters has several recent publications on this topic. The Webinar will be held on Monday, July 25th, at 1 pm EST. Please contact Alison Elder with any questions.

Summary of Key Activities

The specialty section has a busy year planned. In addition to a full slate of Webinars on important developments in our field, the Executive Committee is planning on polling the membership about what it most wants out of the specialty section. The intent is to consider a shift in the annual specialty section reception from a business and science focus to networking, particularly in support of our student and post-doc membership, and entertainment. Look for more word from the Committee on these activities.

Nanotox Sessions at Next Year's Annual Meeting

The NTSS program committee reviewed and scored proposals for five Symposia, five Workshops, one CE Class and one Informational Session. Topics for the proposals included toxicology and hazards of nanoparticles and nanomaterials in food, drug delivery, air pollution, personal care products, fuels and new engine exhaust; material characterization; genotoxicity; hazard assessment with QSAR; immune system effects; NIEHS Centers for Nanotechnology Health Implications Research; and *in vitro* versus *in vivo* models. Nanotox sessions selected for the 2012 Annual meeting can be viewed here:

<http://www.toxicology.org/AI/MEET/AM2012/ss.asp>

Recognition and thanks are in order for the NTSS program committee, which included the officers (listed below) as well as specialty section members William Waissmann, Saura Sahu and Travis Knuckles.

Call for Webinar Speakers

NTSS would like to resume the Webinar series on topics of broad interest to the members, with a goal of four sessions this year. We are currently looking for the following:

1. Suggestions for session topics;
2. Suggestions for covering the costs of the Webinars;
3. Volunteers to help organize the sessions; and last but not least
4. Speakers!

If you can participate in these areas, please contact Alison Elder (Chair, Webinar Subcommittee) directly via phone or email (585-275-2324; Alison_Elder@urmc.rochester.edu). Thank you in advance for your time and energy!

President's Message *Continued from Page 1*

- The 2011-2012 Executive Committee is composed of the following people. Please consider contacting any of them directly if you have any thoughts you would like to share with the Executive Committee regarding how best it can serve the membership.



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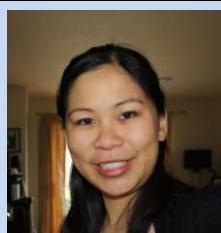
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Readers may be interested to know that Dave Hobson is playing a guitar with nano-coated guitar strings, which have increased longevity

2011 Annual Meeting, *Continued from Page 2*



*Councilor Dr. Christie Sayes
to the rescue!
(solving the AV problems)*

*The highlight of the reception
was presentations by
Michele Ostraat, Amy Wang
and Steve Klaine.*

For those who were not able to attend the NTSS reception, the meeting was called to order at 7:05 pm on March 6, 2011 by President David Warheit, with approximately 150 members present. David Warheit reviewed the meeting agenda; identified current specialty section officers as well as members of the Program, Awards, Webinar, and Website committees; and announced the election results. Steve Roberts gave the Secretary/Treasurer report, which showed membership at close to 300, and operations in the black. Justin Teeguarden and Christie Sayes announced the award winners [above](#).

The highlight of the reception was presentations by Michele Ostraat (RTI International) "[The Nanomaterial Registry](#)"; Amy Wang (US EPA) "[Application of In Vitro Chemical Prioritization Methods to Engineered Nanomaterials](#)"; and Steve Klaine (Clemson) "[Proposal: Nano EHS Human Health and Ecotoxicology Workshop](#)." The presentations were interesting and informative, with the presenters nimbly adapting to the whims of the malfunctioning audio-visual equipment.

In addition to the presentations, previews of nanotoxicology sessions for the annual meeting were given by Sayed Ali and Saber Hussain ("Technical Characterization and Dosimetry Challenges Associated with Conducting or Interpreting Nanotoxicology," Monday pm), Phil Sayre ("Extending Pulmonary Toxicity Findings of Nanomaterials," Wednesday am), and Gunther Oberdorster and David Warheit ("Assessment of Nanoparticle Exposure in Occupational Settings and in Inhalation Toxicology Studies: Is There a Best Dosimetric to Use?," Wednesday pm).

The last item at the meeting was an overview of the Nanotox Historical Poster, provided by Joyce Tsuji.

Other topics for discussion (e.g., webinars and the endowment fund) were deferred, and the business meeting was adjourned.

SOT CCT Meetings Eligible for Seed Money and Profit Sharing

CCT meetings are one- to two-day focused, open registration, scientific meetings in contemporary and rapidly progressing areas of toxicological sciences. Non-SOT meetings are sponsored by other not-for-profit organizations and SOT will either endorse or provide sponsorship money to toxicology-related meetings.

The Society will underwrite all the liabilities of the CCT meeting with the expectation that the meeting will at least break even financially. The goal of providing \$25,000 seed funds is to stimulate the creation of CCT meeting proposals.

For more information about CCT meetings, please visit the [SOT Web site](#).

Visit our Web site for more information

See us at:

<http://toxicology.org/ISOT/SS/nano/index.asp>