

# Society of Toxicology

## Inhalation and Respiratory Specialty Section



DEADLINE FOR PROPOSALS FOR  
SOT 2014 ANNUAL MEETING SESSIONS IS  
*APRIL 30, 2013*



**See you next year!**



## Presidents Corner: Ian Gilmour

Dear Colleagues:

The annual SOT meeting in San Antonio was a great success and there were plenty of interesting sessions to keep our members busy. As many folks noted, Monday was really too packed, with some of our prime platform talks falling at the same time as our posters. For next year's meeting, we will try and coordinate better with the main SOT program committee, so that our science is more spread out evenly over the conference.

That being said, I am proud to report that 4 of our 5 primary sponsored sessions were accepted and we strongly encourage you to propose symposiums, workshops etc of interest to the IRSS membership and to the broader SOT community. The remainder of this newsletter contains some information from our new VP Urmila Kodavanti, the meeting minutes from our outgoing secretary Amie and a report from the technical committee meeting, which was orchestrated by Jurgen Pauluhn.

The 53rd Annual  
Meeting and ToxExpo  
will be held  
in Phoenix, Arizona  
on March 23 - 27, 2014

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*“Dedicated to Creating a Safer  
and Healthier World by  
Advancing the Science of  
Toxicology”*

# Development of IRSS submissions for 2014: Urmila Kodavanti

## Program Committee: (Current officers and Councilors)

The 2013 IRSS sponsored program was a great success! We are looking into another successful year for IRSS sponsored proposals for 2014 SOT. During our pre 2013 SOT IRSS committee meeting, the ideas for a number of potential proposals were presented. Some of these included a likely CE course in the area of systems biology approach to inhalation toxicology, and scientific sessions considering the emerging issues such as fracking, E cigarettes, and the role of secondary organics and smog in health. The other potential areas to consider include emerging inhalation exposure methodologies, rodent versus human extrapolation for inhalation toxicity studies, and more.

The proposal submission guidelines for 2014 are somewhat changed. There will be a new ranking system used for determination of sponsorship by Specialty Sections. Each proposal will now be able to have up to 3 different Specialty Section sponsors. Proposals could be submitted in a number of categories such as symposium, workshop, roundtable, historical highlights, and continuing education course. Also, the proposals deemed important but not accepted in prior years could be modified and considered for resubmission. Please refer to the 2014 proposal submission instructions and guidelines for preparing proposals ([http://toxicology.org/main/sessionProposalSubmit\\_Instr.asp](http://toxicology.org/main/sessionProposalSubmit_Instr.asp)). The deadline for completed proposal submission at the SOT website is April 30,

2013. The proposals prepared for IRSS sponsorship should be submitted to Urmila Kodavanti by April 19, 2013 ([Kodavanti.urmila@epa.gov](mailto:Kodavanti.urmila@epa.gov)) to allow for IRSS review and suggestions for improvement/recommendation. In addition to providing feedback, the committee may also make a suggestion for change in the session category. The SOT also considers continuing education by sponsored webinars. The ideas for future webinars on the topics of interest to IRSS should also be submitted to Urmila Kodavanti so that the process of soliciting and organizing Webinars can be initiated through SOT. The Program Committee hopes that the IRSS members will consider submitting innovative proposals for 2014 scientific program.

## Jürgen Pauluhn, Bayer Pharma, Wuppertal, Germany,

Dr. Pauluhn gave a presentation on *Animal Models in Pulmonary Toxicity Assessment*. The talk highlighted the benefits of pulmonary function measurements in small rodents concurrent with nose-only inhalation exposures to better identify and understand potential rodent-specific pitfalls in dosimetry and extrapolation across species. Breathing pattern analyses can be used to distinguish between the concentration-dependent stimulation of upper respiratory tract trigeminal reflexes as well as  $C^n \times t$ -related C-fiber related reflexes originating from the lower respiratory tract. Their stimulation may cause a marked depression in ventilation, including hypothermia with affected blood gases and disturbances in cardiopulmonary control. He also showed that the Toxic Load Exponent 'n' in  $C^n \times t = \text{const.}$  is likely be more dependent on C-dependent changes in ventilation rather than being a chemical-specific characteristics. So far robust rodent models for non-invasive measurements

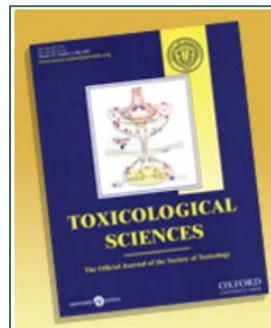
of airway inflammation are scarce. Jürgen presented an interesting approach to measure nitric oxide in the exhaled breath of tidal breathing rats as a biomarker of inflammation. He concluded that despite the progress in pulmonology we should not forget respiratory physiology and its overarching impact on cardiopulmonary physiology and dosimetry.



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**Is exhaled nitric oxide  
a biomarker of  
inflammation?**

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# Minutes from IRSS Meeting March 12, 2013, 6:00 – 7:30 p.m. Amie Lund

The meeting was called to order at 6:30 p.m.

Welcome and opening comments: Michael Kleinman, President of IRSS, welcomed the IRSS members. He thanked Samantha Snow, graduate student IRSS Representative, for her work putting together the IRSS poster for this year, which had been displayed at the graduate student and post-doctoral mixer during the SOT conference. Mike noted that IRSS is in need of graduate student Representatives and asked all members to encourage their students to apply.

Treasurer's and Endowment Report: Amie Lund, Secretary/Treasurer, announced that the current Inhalation & Respiratory SS account was \$6877.00, most of which would be used to pay for the annual meeting expenses (including an additional student award given this year). Additionally, the Mary Amdur Endowment Fund was currently \$58,414. Amie reported that there were 309 IRSS members, as of the March 10, 2013, and dues from those memberships would be applied to the account in the near future.

Student Activity Report: Samantha Snow reported that the IRSS poster was displayed during the graduate student and post-doctoral mixer and that there was a good turn out and interest shown.

Technical Committee Report: Dr. Pauluhn extended an invitation to the Technical Committee Meeting that would take place Wednesday, March 13<sup>th</sup> at 7:30 a.m. in Rm 203A on the concourse level of the convention center. The meeting would be held to discuss topics that include animal models in pulmonary hypertension and how to establish a “relevant definition of poison” for Homeland Security.

Program Report: Ian Gilmour, Vice-President, reported that 5 sessions were submitted for the 2013 Program and of those 4 were accepted. IRSS also co-sponsored 11 additional symposia/continuing education courses/workshops, and of those 7 were approved by SOT. Ian urged all IRSS members to contact Urmila Kodavanti, Vice-President Elect, to volunteer for the Program Proposal Committee, which will be established for future SOT meetings, as well as to help provide ideas for the 2014 Program. Ian also reported that IRSS will begin distributing an additional (3<sup>rd</sup>) newsletter this year in order to promote early development by the members and the Program Proposal Committee for the following year's SOT conference (beginning Fall, 2013 for proposals to be submitted for the Spring, 2014 SOT conference).

Awards: Urmila Kodavanti, Vice-President Elect, reported that there were numerous outstanding applications submitted for the IRSS awards this year, and as such the Officers unanimously decided to award an additional Student Travel Award. Urmila announced that there were a total of 16 applications for the IRSS Student Award and the winners were (in no particular order):

- Rebecca Bauer, from University of North Carolina, for the abstract entitled: “Interaction of Human Bronchial Epithelial Cells and Alveolar Macrophages Modifies the Innate Immune Response to Ozone.”
- Roshni Rao, from the University of South Carolina, for the abstract entitled “ $\Delta^9$ Tetrahydrocannabinol (THC) Rescues Mice from Staphylococcal Enterotoxin B (SEB) – Induced Acute Lung Injury and Subsequent Mortality by the Induction of Regulatory T Cells and the Down-Regulation of microRNA-182.”
- The Mary Amdur Award, which is submitted by the Mary Amdur Endowment Fund, is awarded to the student who submits an abstract that best addresses the environmental health issues that were a focus of Dr. Amdur’s career. The winner of the 2013 Mary Amdur Student Award was:
- Desinia Johnson, from the University of North Carolina at Chapel Hill/EPA, for abstract entitled: “Ozone (O<sub>3</sub>): A Potential Contributor to Metabolic Syndrome through Altered Insulin Resistance in Rats.”
- Urmila then announced the Postdoctoral Award, which is awarded to the best abstract presented by a postdoctoral fellow in the field of respiratory/inhalation toxicology. The winner of the 2013 IRSS Postdoctoral Award was:
- Sarah Robertson, from University of New Mexico, for the abstract entitled: “Role of CD36 in Ozone (O<sub>3</sub>)-Induced Lung Injury, Inflammation, and Vascular Dysfunction.”

The IRSS Paper of the Year Award, which is given to the best paper in the area of respiratory/inhalation toxicology (published in the previous calendar year), was awarded to (full paper citation): Alex Carll:

- Alex P. Carll, Robert M. Lust, Mehdi S. Hazari, Christina M. Perez, Quentin Todd Krantz, Charly J. King, Darrell W. Winsett, Wayne E. Cascio, Daniel L. Costa, and Aimen K. Farraj. “*Diesel Exhaust Inhalation Increases Cardiac Output, Bradyarrhythmias, and Parasympathetic Tone in Aged Heart Failure-Prone Rats.*” *Toxicological Sciences.* 2013 Feb;131(2):583-95.”

Lastly, Urmila announced the winner of the IRSS Young Investigator Award. This award is given to a scientist, with less than 15 years experience since obtaining their highest degree, who has made significant contributions to the field of inhalation or respiratory toxicology. The winner of the 2013 IRSS Young Investigator Award was Dr. Matthew Campen from the University of New Mexico.

## Continuation of IRSS Meeting March 12, 2013

### Introduction of SOT Specialty Section Council Contact:

Judith Zelikoff introduced herself as the contact for Specialty Sections and SOT. She extended a thank-you to all Specialty Section members from the council for helping to make the 2013 SOT meeting a success. Judith also reminded IRSS members about the existing NIEHS Special Emphasis Panel, Systemic Injury by Environmental Exposure (SIEE), chaired by Cheryl Walker. She reported that there were 92 applicants assigned to the SIEE during the February cycle, and encouraged upcoming submissions (June, October cycles) to request assignment to the panel, as well, since more demand for future grants to be reviewed by this panel help to establish it as a long standing section.

Ian Gilmour introduced Dale Porter to announce the IRSS Career Achievement Award. This award is given to a senior investigator whose body of work represents an outstanding achievement in respiratory/inhalation toxicology. Dale provided an account of the past dedication and achievements of the 2013 IRSS Career Achievement Award winner, and introduced the award winner: Dr. Vincent Castranova. Vince thanked Dale and the IRSS membership for the honor of the award.

## Introduction of Incoming Officers:

Jim Wagner, Past President, introduced the IRSS incoming officers:

### Student Representative:

*Desinia Johnson*

### Postdoctoral Representative:

*Samantha Snow*

### Councilors:

*Ken Sexton*

*Amy Lambert*

### Secretary/Treasurer:

*Annemoon van Erp*

### Vice President-Elect:

*Jake McDonald*

### Acknowledgement of Outgoing Officers:

Ian Gilmour then presented certificates and plaques (gavel plaques to past and outgoing President) of Appreciation to out-going Executive Committee members:

*Christopher Carosino* – Student Rep.

*Jaime Cyphert* – Postdoctoral Rep.

*Patti Ziedler-Erdely* – Postdoctoral Rep.

*Willie McKinney* – Councilor

*Aimen Farraj* – Councilor

*Amie Lund* – Secretary/Treasurer

*Jim Wagner* – Past President

*Mike Kleinman* – Outgoing President



*Vince Castranova (center) receiving the career achievement award from Ian Gilmour (left) and Dale Porter (right)*

**New Business:** Mike Kleinman opened the floor for any new business or comments from the IRSS membership. Dan Costa reported that he felt the IRSS-sponsored sessions were very strong this year; however, due to the scheduling conflicts of multiple sessions it was very difficult to attend everything. He requested that the Committee fight to have the sessions schedule less conflicted for future SOT conferences. Roger McClellan raised the issue of soliciting the IRSS membership to determine which issues were most critical/controversial (perhaps through a survey) and that a forum is developed to begin to discuss and address these issues. Suggested forums include workshops or webinars. It was reported that the Council has money dedicated to fund future webinars and so proposals with topics/ideas should be put together and submitted. Additionally, it was requested for IRSS members to think about/submit ideas for Continuing Education (CE) courses for future SOT conferences, as the IRSS has not had a sponsored CE in recent years. It was again requested that any ideas for future proposals for seminars, CE courses, webinars, etc. be sent to Urmila Kodavanti. Finally, a reminder was given that Program submissions for the 2014 SOT Conference are due by the end of April, 2013 so they need to be to the IRSS Committee no later than mid-April for endorsement. Aimen Farraj reminded the membership that there will be a new ranking system used for determination of sponsorship (by Specialty Sections) for proposals submitted for the 2014 SOT conference. Each session/workshop/CE will now be able to have up to 3 different Specialty Section sponsors.

Mike Kleinman then handed the meeting over to Ian Gilmour, the new IRSS President.

**Adjournment:** The meeting adjourned at 7:30 pm.