

Society of Toxicology

Inhalation and Respiratory Specialty Section



INHALATION AND RESPIRATORY SPECIALTY SECTION (IRSS)

NEWSLETTER — MARCH 2013

Dear IRSS Members,

As much as I had been looking forward to attending the 52nd Annual Meeting and ToxExpo in San Antonio, I and my DoD colleagues will not be attending. Unfortunately DoD has made the decision that we will not be allowed to attend non-DoD sponsored conferences this year. However, the show must go on.

The Technical Committee Meeting will be held in room 203A on the concourse level of the Convention Center on Wednesday morning at 7:30 am. Dr. Juergen Pauluhn of Bayer Healthcare will chair the meeting. In addition to his presentation, he will host a discussion to define "poison". This should be a stimulating and lively discussion.

The Inhalation & Respiratory Specialty Section will hold its meeting and reception on Tuesday evening, March 12th from 6:00 pm to 7:30 pm in the Lone Star Ballroom C of the Grand Hyatt. I trust that this year's attendance will exceed last year's where we actually filled the room. As is our custom, we reprint last years minutes as a reminder of what's going on.

I wish to thank the officers, especially our past President Jim Wagner, our current President Mike Kleinman and Vice-President Ian Gilmour for a great year and a wonderful conference.

Cheers, Harry Salem

The 52nd Annual Meeting of
Society of Toxicology
will be held in San Antonio,
Texas on March 10-14, 2013

For additional
information please visit:
[http://
www.toxicology.org/AI/
MEET/AM2013/](http://www.toxicology.org/AI/MEET/AM2013/)

PAST PRESIDENT'S MESSAGE

Dear IRSS Members,

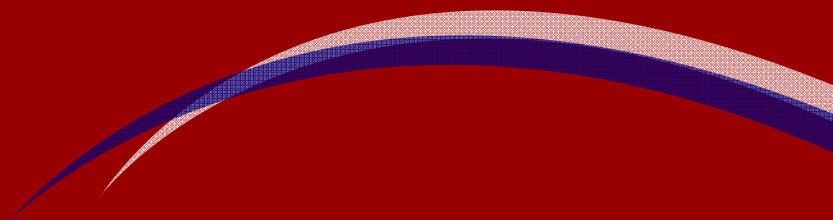
In only a few days the 2013 annual meeting will begin in San Antonio, where the Inhalation and Respiratory Specialty Section has helped contribute to an outstanding scientific program. Like NIH funding, proposal selection for the annual meeting program has become extremely competitive over the last decade, in part due to the addition of new specialty sections. However this year the IRSS is sponsoring four sessions, and has endorsed seven more that should be of interest to many of our members. Topics include diesel and cancer, the effect of air pollution on the cardiovascular and nervous systems, pulmonomics, and nano-tube toxicity in the lung, to name a few. Special thanks to our IRSS members who worked hard to generate these proposals, and to VP Ian Gilmour who shepherded them through the evaluation process. It is never too early to start thinking of session ideas for 2014! Please contact a councilor or officer if you have some potential proposals, as we hope to leave this year's meeting with some ideas to polish over the next few weeks.

Of course the highlight for IRSS is the reception and business meeting that will be held on Tuesday night. In addition to meeting up with old friends and colleagues, please make an effort to attend to congratulate our young, and not so young, award winners for 2013. Our VP-elect Urmila Kodavanti and her awards committee had a difficult time selecting from a record number of student applicants. Because there were so many outstanding candidates, we decided to award two IRSS Student Awards, in addition to the Mary Amdur Student Award. The IRSS is fortunate among SOT specialty section to have the luxury of an endowed fund that allows us to recognize our excellent trainees. We will also recognize an outstanding postdoctoral student, an outstanding manuscript, and excellence in career achievement and the reception.

This meeting will mark the last of my four year tenure in the executive line of IRSS leadership. I would like to thank Mike Foster, who solicited my nomination five years ago, and the presidents who preceded me from whom I learned so much, including Mary Jane Selgrade, Lung-Chi Chen, Jinkle Seagrave, and Vince Castranova. I was fortunate to be here for the 50th anniversary of SOT, the 25th anniversary of the IRSS newsletter, and plan the 30th anniversary of our proud specialty section. I would especially like to thank Dan Costa for his contribution to the 30th anniversary, and Harry Salem, our newsletter editor and chair of the IRSS technical committee. Both have provided me with the historical perspective which I think was essential for this job. Thank you and see you in San Antonio!

Cheers!

Jim Wagner
IRSS Past-President, 3/5/2013



IRSS BUSINESS MEETING MINUTES – Last Year

**March 12, 2012; 6:30 AM - 8:00 AM; Room 256
(Convention Center)**

Present: Jim Wagner (President), Ian Gilmour (VP-elect), Councilors Willie McKinney, Flemming Cassee, Aimen Farraj, Student rep Chris Carosino, incoming 2012 officers: Urmila Kodavanti (VP- elect) and Councilors Steve Gavett and Mitch Cohen.

The meeting was called to order at 6:35 am. Jim Wagner welcomed the presence of newly elected officers (Urmila Kodavanti; VP- elect), Steve Gavett (Councilor) and Mitch Cohen (Councilor), who are getting an early start on their duties.

Jim Wagner handed out copies of the historical poster created by Chris Carosino. All officers were impressed with the work and were very happy with the finished product. Mitch Cohen mentioned that the ImmunoTox poster from 2011 was published in a journal. A similar option will be pursued with the journal Inhalation Toxicology to acknowledge the 30th anniversary of IRSS.

Chris Carosino provided an update on student involvement in the Society and specialty sections. Chris showed the IRSS poster at the Sunday night mixer and discussed the SS activities with student colleagues. Approaches to expand recruitment and student involvement were discussed, with a possible creation of a student newsletter. Chris agreed to maintain communications with the incoming student rep to maintain momentum on student initiatives.

Jim Wagner presented details of the SS budget with a pre-meeting balance of \$6,733. and indicated that most will be spent on the Annual Meeting expenses, including costs for the Officers meeting, the Technical Meeting and the evening reception. These expenses include room rental and food and drinks costs. Costs for awards and certificates are also the responsibility of the SS.

Ian Gilmour inquired of the possibility to move the business meet offsite next year. The current venue in the conference center(s) is shared space with other SS officer meetings, making the room very noisy at times, with limited food options. Officers agreed to look into an external site and a possible breakfast or lunch meeting in 2013.

Jim Wagner reported on the Mary Amdur fund, which had a pre-meeting balance of \$42,839. This year, Council determined that the Executive Committee could use 4% of the balance to provide for the Mary Amdur Student Award. The committee discussed the possibility of using funds for an international student travel award. Further discussions will take place this year, and include original Amdur Fund founders.

Ian Gilmour proposed that descriptions for applications process for the Amdur and IRSS student awards be better delineated. Presently students can be eligible for both awards with the application for the Amdur requiring a specific write-up. Revised wording for the application descriptions will be worked on this year and extended to the general membership for comment.

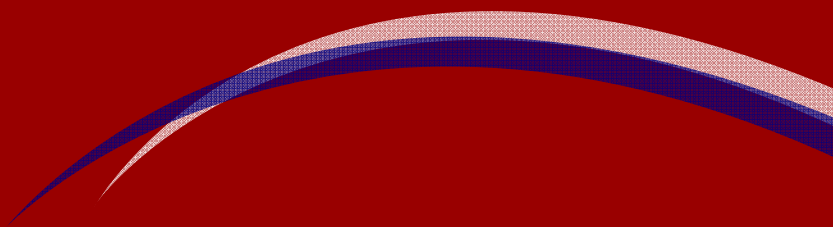
The agenda items for the evening reception were discussed. Harry Salem will make a brief announcement at the evening reception about Tuesday morning's Technical Committee Meeting. The committee felt it would be helpful for Harry to discuss briefly the purpose of the Technical Committee.

The role and future of the Technical Committee was then discussed. A more defined framework of the relationship between the technical and executive committees was discussed, and it was agreed that the serving President would serve as this liaison. The specific nature of this relationship will evolve over the next year.

Flemming Cassee had introduced the idea of soliciting input from the membership via an online survey. Flemming will generate a list of questions that will be discussed by the executive committee in the coming weeks.

The 2012 Program committee work was discussed. IRSS submitted 3 proposals last spring, of which 1 was accepted this year (Emerging Mechanistic Targets in Lung Injury Induced by Combustion-Generated Particles, by Andy Ghio and Marc Fariss). Jim Wagner urged all executive committee members to either initiate a proposal or solicit and champion one from the membership. Ian Gilmour indicated he has already received some pre-proposals. Specialty Sections can submit proposals to each 5 categories (Symposia, Workshops, Roundtables, Historical Highlights, and CE courses). A goal of submitting to every category was proposed.

The meeting was adjourned at 8:00 am.



MARY AMDUR STUDENT AWARD FUND

For more information and to make donations please visit:

http://www.toxicology.org/ai/csot/specific_funds.asp#mary

HIGHLIGHTS OF THE 52nd ANNUAL MEETING & TOXEXPO

MONDAY, March 11, 2013, 8:00—9:00 am

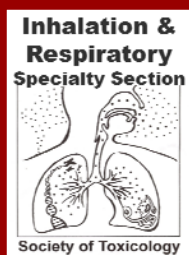
Plenary Opening Lecture: Nobel Laureate Bruce A. Beutler will present "Genetic Analysis of Innate Immune Sensing". He is the Regental Professor and Director of the Center for the Genetics of Host Defense at the University of Texas Southwestern Medical center. Dr. Beutler will be inducted as a 2013 SOT Honorary member at the Sunday Award Ceremony.

INHALATION AND RESPIRATORY SPECIALTY SECTION



Issues of Interest

- Indoor and outdoor air pollution
- Occupational exposure to airborne contaminants
- Therapeutic drug delivery by inhalation
- Deposition, pharmacokinetics, and systems impact of inhaled materials
- Interactions between inhaled materials and biogenic allergic stimuli
- Airway injury from systemic toxicants
- Cardiopulmonary toxicology and host susceptibility variations due to inhaled substances



Current Officers



President
Michael Kleinman



Vice President
Ian Gilmour



Vice President-elect
Urmila Kodavanti



Secretary/Treasurer
Amie Lund



Past President
James Wagner



Councillor
Mitchell Cohen



Councillor
Aimen Farrij



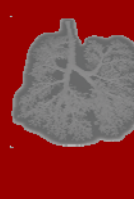
Councillor
Stephen Garrett



Councillor
Willie McKinney, Jr.



Postdoc Representative
Jaime Cyphert



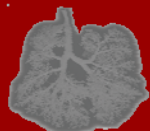
Student Representative
Samantha Snow

INHALATION AND RESPIRATORY SPECIALTY SECTION

Purpose

For more than 30 years, the IRSS has provided leadership to the inhalation and respiratory scientific community by:

- Serving as the focal point for SOT members interested in inhalation toxicology and respiratory biology to understand the impact of airborne chemicals/particles on the body.
- Creating programs and educational activities that emphasize the latest developments and innovations in cardiopulmonary toxicology.
- Translating and disseminating new knowledge and emerging concepts in respiratory toxicology to stimulate growth in the field of inhalation and respiratory toxicology.
- Partnering with other specialty sections/SIGs to broaden the understanding of systemic effects of inhaled toxicants and the impact of respiratory diseases on other organ systems.
- Acting as an expert resource for SOT's mission to advocate for public and research policy.



Membership Benefits

- Network with inhalation and respiratory toxicologists from industry, government, and academia.
- Present your work in sponsored and selective specialty sessions.
- Awards presented at the annual Business Meeting for:
 - Paper of the Year
 - Best Annual Meeting Abstracts
 - Doctoral Student
 - Post -Doctoral Student
 - Mary O. Amdur Student Award
 - Merit Awards for Young and Career Investigators

IRSS Sponsored and Endorsed Sessions

Session Title:	Recent Developments in Cardiovascular Physiology -Based Toxicology	
Session Type:	Continuing Education	
Chairperson:	Travis Knuckles	Co-Chair: David McGuinn
Location:	Room 214	Time: Sun, Mar 10 @ 8:15 am
Session Title:	Inhaled Mixtures: A Mode-of-Action Framework Applied to the Criteria Air Pollutants	
Session Type:	Workshop	
Chairperson:	Elizabeth Owens	Co-Chair: Christal Bowman
Location:	Grand Ballroom C2	Time: Mon, Mar 11 - 9:15AM
Session Title:	Predictive Toxicology Paradigms for Understanding Carbon Nanotube Toxicity in the Lung	
Session Type:	Symposium	
Chairperson:	James Bonner	Co-Chair: André Nel
Location:	Room 214 A&B	Time: Mon, Mar 11 - 9:15AM
Session Title:	Diesel and Gasoline Exhaust and Cancer	
Session Type:	Historical Highlights	
Chairperson:	Annemoon van Erp	Co-Chair: Jacob MacDonald
Location:	Room 206	Time: Mon, Mar 11 - 12:10PM
Session Title:	Role of metabolic Syndrome and Perivascular Adipose in Exposure-Induced Vascular Dysfunction	
Session Type:	Symposium	
Chairperson:	Daniel Conklin	Co-Chair: Matthew Campen
Location:	Grand Ballroom	Time: Mon, Mar 11 - 2:00PM
Session Title:	From Inhaled Particles to Cardiovascular Disease and Toxicity: Evidence from Studies in Volunteers	
Session Type:	Symposium	
Chairperson:	Flemming Cassee	Co-Chair: Howard Kipen
Location:	Room 214 C&D	Time: Tues, Mar 12 - 9:00AM
Session Title:	"Air"-ing on the Side of Caution: Anticipating Impacts of Emerging Issues in the Health Effects of Air Pollution	
Session Type:	Workshop	
Chairperson:	Aimen Farraj	Co-Chair: Michelle Bell
Location:	Room 217 C&D	Time: Tues, Mar 12 - 1:30PM
Session Title:	Pulmonomics, the Exposome, and Microbiomes in Immunotoxicology	
Session Type:	Workshop	
Chairperson:	Marc Williams	Co-Chair: Joachim Pleil
Location:	Room 214 C&D	Time: Wed, Mar 13 - 9:00AM
Session Title:	Mechanistic Role(s) of Cytochrome(s) P450 in Oxidative Stress and Inflammation: New Opportunities for Drug Discovery	
Session Type:	Symposium	
Chairperson:	Bhagavatula Moorthy	Co-Chair: Jose Manautou
Location:	Room 214 C&D	Time: Wed, Mar 13 - 1:30PM
Session Title:	Challenging the Limits of Nonclinical Safety Assessment of Pediatric Medicines	
Session Type:	Workshop	
Chairperson:	Jeffrey Moffit	Co-Chair: Merle Paule
Location:	Room 217 A&B	Time: Wed, Mar 13 - 1:30PM
Session Title:	Role of Air Pollution as a Risk Factor for Central Nervous System Diseases and Disorders	
Session Type:	Symposium	
Chairperson:	Deborah Cory-Slechta	Co-Chair: Michelle Block
Location:	Room 214 C&D	Time: Thur, Mar 14 - 9:00AM



Reception and Awards Meeting
Tuesday, March 12, 2013 - 6:00 - 7:00 PM
Lone Star Ballroom C - Grand Hyatt
 Complimentary hors d'oeuvres served



MINUTES OF LAST YEAR'S TECHNICAL COMMITTEE MEETING—MARCH 2012

This meeting was convened at 7:00 AM in the San Francisco Moscone Convention Center in an overfilled room. Following a brief introduction as to the purpose of this committee, including the highlighting of innovations and issues in inhalation toxicology, we heard two very interesting and timely presentations.

The first presentation by Dr. Dan Angelini, a Senior National Research Council Associate at the Edgewood Chemical Biological Center, was an overview of "Stem Cells in Pulmonary Injury." Dr. Angelini discussed, in addition to the history of stem cells, pulmonary injury in terms of acute lung injury (ALI) and acute respiratory distress syndrome (ARDS) - what it is, including its pathology, and what are its causes. The current medical treatments for ALI/ARDS are limited, and the mortality rate remains high at approximately 40% in the United States. Most current therapies are considered to be supportive, and recent studies suggest that stem cells could present a novel therapeutic option.

The second presentation by Dr. Jan Moser, a Battelle contractor supporting the Chemical Security Analysis Center (CSAC) of the Department of Homeland Security (DHS) was on "Modeling the Public Health Consequences of Release and Dissemination of Toxic Chemicals." Dr. Moser, who has previously made presentations to this group, described CSAC's mission, which is to identify and characterize the chemical threat against the American Homeland and the American Public. She described the threat from toxic chemicals and presented the Chemical Terrorism Risk Assessment (CTRA), the Chemical Infrastructure Risk Assessment (CIRA), and the hazard assessment process. Modeling methods used at CSAC such as the Hazard Prediction Assessment Capability (HPAC), the Consequences Assessment Tool Set (CATS), the Facilities Weapons of Mass Destruction Decision Analysis Center (FacDAC), and Quick Urban and Industrial Complex (QUIC) Dispersion Modeling were discussed, along with the CARVER + Shock method used to assess vulnerabilities in the food sector, from "Farm to Table".

The meeting room was packed, and there was a huge amount of interest in state-of-the-art information on the potential of stem cell therapy in pulmonary injury, and CSAC/DHS activities to combat the threat of chemical attacks



Dan Angelini (NRC Senior Associate, ECBC)



Jan Moser (CSAC/DHS), presentation at technical committee meeting

through regulatory and science and technology efforts.

If you are involved in exciting inhalation toxicity research and are interested in presenting to this group at next year's technical committee meeting, please contact me.

See you in San Antonio in 2013.

Respectfully submitted, Harry Salem

Inhalation and Respiratory Specialty Section Technical Committee Meeting Wednesday, March 13, 2013 7:30-8:30AM Room 203A on the Concourse Level of the Convention Center

1. Welcome
2. "Animal Models in Pulmonary Toxicity Assessment" - Juergen Pauluhn
3. Discussion Items
 - a. We have a request by the Department of Homeland Security (DHS) to establish a relevant definition of poison
 - b. Other issues to discuss?
 - c. Set up teams to address issues
4. Adjourn