

NAME OF SPECIALTY SECTION: Inhalation and Respiratory Specialty Section

## ANNUAL REPORT: 2012-2013

May 1, 2012 to April 30, 2013

### I. Officers/Committees:

#### Officers

	<u>2011-2012</u>	<u>2012-2013</u>
President:	James Wagner	Michael Kleinman
Vice President:	Michael Kleinman	M. Ian Gilmour
Vice President-Elect:	M Ian Gilmour	Urmila Kodavanti
Secretary/Treasurer:	Amy Lund	Amie Lund
Past President	Vincent Castranova	James Wagner
Councilors:	Flemming Cassee Aimen Farraj Jacob McDonald Willie McKinney	Mitchell Cohen Aimen Farraj Stephen Gavett Willie McKinney
PDA Representative:	Patti Zeidler-Erdely	Jaime Cyphert
GSLC Representative:	Christopher Carosino	Samantha Snow

#### Committees:

Technical Committee, Harry Salem, Chair  
Program Committee, Ian Gilmour, Chair  
Awards Committee, Urmila Kodavanti, Chair

### II. Activities:

#### **2013 SOT Annual Meeting Reception** was held in San Antonio on March 12<sup>th</sup> 2013.

Approximately 150 people were in attendance.

Dr. Kleinman called the meeting to order at 6.30 pm.

Meeting Minutes: (see Attachment I)

#### Awards:

##### Awards:

- Young Investigator: Matt Campen University of New Mexico
- Best Paper award: Alex Carl. Full paper citation: 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.”*

- Mary Amdur Award: Desinia Johnson, University of North Carolina at Chapel Hill/EPA
- IRSS Student Award(s): Rebecca Bauer, University of North Carolina, and Roshni Rao, University of South Carolina
- Best Post-Doctoral Abstract: Sarah Robertson University of New Mexico
- Career Achievement Award – Dr. Vincent Castranova NIOHS, Morgantown, WV

#### 2013 SOT Annual Meeting Courses/Sessions:

Endowment Fund Details: 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.

Newsletters: Two newsletters were published in December 2012, and March 2013.

Teleseminars: none

White Papers: none

Contributions to SOT website: A poster portraying IRSS activities was developed by Samantha Snow and displayed in the main hall of the meeting.

#### **Other Specialty Section 2012-2013 Activities:**

An IRSS Specialty Section Officer teleconference was held on December 18 2012 to provide updates discuss deadlines for upcoming meetings (Attachment II).

The IRSS Officers business meeting was held on Sunday March 10<sup>th</sup>, 2013, at noon at Boudros restaurant, San Antonio (Attachment III).

2013 Technical Committee meeting was held during the national SOT meeting on March 13<sup>th</sup> at 8.00 am. **DrJürgen Pauluhn, Bayer Pharma, Wuppertal, Germany**, 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  $C \times t$ -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. Juergen 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 pulmonomics we should not forget respiratory physiology and its overarching impact on cardiopulmonary physiology and dosimetry.

**Attachment I****Minutes from IRSS Meeting****Society of Toxicology Conference, San Antonio, TX****March 12, 2013****6:00 – 7:30 p.m.**

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 mixers 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 mixers 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 Home Land 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).

A big thank you to Ian Gilmour from IRSS for all of the hard work that went in to putting together the proposals and rankings for the 2013 SOT meeting.

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." and 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 the abstract entitled: "Ozone ( $O_3$ ): 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 ( $O_3$ )-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: Alex Carll.

Full paper citation: 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.

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 Representative

Jamie Syphert – Postdoctoral Representative

Patti Ziedler-Erdely – Postdoctoral Representative

Willie McKinney – Councilor

Aimen Farraj – Councilor

Amie Lund – Secretary/Treasurer

Jim Wagner – Past President

Mike Kleinman – Outgoing President

**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.

## Attachment II

IRSS Specialty Section Officers Meeting Minutes  
December 18, 2012

Agenda discussed:

1. Developing ballot list for new officers. (VP elect, Secretary, student rep, post-doc rep, Councilors)
  - **Jim has currently has nominations for VP elect, Secretary, post-doctoral and student Representatives, and Councilors, but is seeking more nominations for post-doctoral and student Representative positions.**
  - Biosketches for nominees need to be collected by December 31, 2012 to be put on the ballot.
2. Award deadlines (students, post-doc, young investigator, paper of year, career achievement) and update
  - Urmila has extended the deadline for nominations for the IRSS Awards to December 16, 2012 for all awards but the Young Investigator, which has a deadline of January 15, 2013.
  - **She will be assigning the nominations for Student, Post-doc, Paper of the Year, and Young Investigator Awards to Committee members for review and voting.**
    - i. Award application packets will be assigned to reduce potential conflicts of interest
    - ii. A scale or point system will be provided at the time of review for standardization of reviews
  - The Committee agreed to use the pool of previous nominations (up to 3 years prior), as needed, for Awards such as the Young Investigator Award
  - Jim provided the Committee a list of prior IRSS awardees (email, sent 12/18/2012 at 4:13 pm EST); also attached to this report on pages 3-5.
3. Program for upcoming meeting and strategy for SOT 2014
  - Discussion regarding creating a new Program Committee (under the leadership of incoming VP) to assist in obtaining ideas and nominations for future SOT Meeting symposia, sessions, workshops, and continuing education courses
  - It was suggested to request for volunteers to sign up for participation in the Committee (with minimum 2 year commitment) during the SS meeting during the SOT conference
  - **Urmila will be provide a description and request for Committee participation to be included in the next IRSS newsletter**
  - Additional suggestions discussed included providing SS membership with a voting mechanism, such as Survey Monkey, to provide feedback on desired topics of interest for future symposia and workshops.
    - i. SOT can assist with setting up and distributing the survey
4. Newsletter

- Mike will put together a newsletter (with the help of other Officers) to be distributed February 1, 2013.
- All contributions to the IRSS newsletter are due to Mike by **January, 20, 2013** so that they can be compiled and proofed.

5. Poster for 2013
  - Samantha will be putting together the IRSS poster for the 2013 SOT meeting using a similar format to those used previously.
  - **She has requested recent photographs of each of the Officers and Councilors to include on the poster.**
6. Technical committee liaison
  - Harry will be invited to the IRSS Council business meeting to discuss the technical committee and what direction it will take once Harry retires
7. Lunch time business meeting and awards dinner
  - **The IRSS Officers business meeting will be held Sunday, March 10, 2013 in the afternoon**, instead of an early morning meeting as in years past.
  - **Information on the time/location of this meeting will be distributed by Ian as the meeting draws closer (time for meeting start will likely be between 12:00 p.m. and 3:00 p.m.).**
  - The possibility of an award dinner following the IRSS Meeting was discussed, and it was decided not to have the dinner due to lack of allotted funds and scheduling difficulties.
8. Updated version of Bylaws
  - **an updated version of the bylaws will be written (Mike, Ian, and Urmila) to include IRSS name change (since there is not a current version available, according to SOT administration), as well as updated descriptions on nomination procedure for student Representatives, roles of Officers, and new program committee membership**

## Appendix III

### Inhalation and Respiratory Specialty Section Business Meeting

March 10, 2013, 12:30 p.m. – 2:45 p.m.

Boudro's on the Riverwalk, San Antonio, TX

Present: Michael Kleinman (President), Ian Gilmour (Vice President), Urmila Kodavanti (Vice President-elect), Jim Wagner (Past-President), Amie Lund (Secretary/Treasurer), Annemoon van Erp (Secretary/Treasurer-elect), Councilors: Aimen Farraj, Mitchell Cohen, Steven Gavett, and Willie McKinney, Student/Post-doctoral Rep. Samantha Snow.

The business meeting was called to order at 12:30 p.m. and Mike handed out an outline for the schedule of the annual SOT IRSS Reception scheduled for March 12, 2013 at 6:00 – 7:30 p.m. in the Grand Hyatt – Lone Star Ballroom C.

A discussion regarding the preference for the IRSS Business meeting to continue to be held the Sunday before the start of SOT sessions, instead of a breakfast meeting during the sessions, was held. It was decided by the majority that the preference was for a Sunday afternoon IRSS business meeting; therefore it will be scheduled that way for the SOT meeting in Phoenix in March, 2014.

A few house-keeping issues were discussed, including that archives of old newsletters, meeting minutes, award-winners, etc. are available on the website should there be a need for such documentation. Additionally, copies of archived documents can be obtained from SOT.

Job-duties, responsibilities, and by-laws that pertain to such issues are contained within the Manual of Operations. The following issues were discussed during the business meeting:

- The need to disseminate information on the role of Student Representative, to both mentors and potential candidates, in an effort to obtain more nominees for future elections.
  - o Student Representatives are responsible for making the poster for IRSS for the annual SOT meeting, as well as attending student-based mixers to promote the benefits and opportunities of IRSS membership.
  - o It was also proposed that Student Representative's terms should be limited to 1 year, in order to give more students the opportunity to serve throughout their graduate studies.
- The role of the Post-doctoral Representative was discussed, and proposed to include:
  - o Maintaining the IRSS website
  - o Assisting with evaluation of Award applications
  - o Assist with Newsletters
  - o Assisting the VP with the Program Committee (see bullet below)
  - o Suggested length of service is 1 year (since a typical post-doctoral position is 2 years)

- It was proposed and approved that Samantha Snow would move from the Student Representative position into the Post-doctoral Representative position since it was currently un-occupied, and since she had completed her graduate studies and was moving into a post-doctoral position.
- There was discussion regarding the creation of a Program Committee, lead by the current VP, and open to IRSS members to assist with deciding on themes for future C.E. courses, Symposia, and Workshops. It was also noted that in future years, the process of developing session ideas/themes and requesting proposal submissions should begin earlier in the year (around January) for the following year's annual SOT conference.
  - o It was also decided that beginning this year, in addition to other documented duties, the Post-doctoral Representative will be responsible for assisting the VP with tasks concerning the Program Committee.

Amie Lund presented the net assets for the Mary Amdur fund, which had a pre-meeting balance of \$58,414 and IRSS general account, which had a pre-meeting balance of \$6877. She also reported that IRSS has a current membership total of 309 members as of March, 2013.

The schedule for the IRSS Meeting/Reception was then discussed, minutes from which have already been published in the Spring 2013 IRSS Newsletter and are available electronically at: [http://www.toxicology.org/ISOT/SS/inhalation/IRSS\\_NL\\_March13.pdf](http://www.toxicology.org/ISOT/SS/inhalation/IRSS_NL_March13.pdf).

- o Action item: VP-elect Urmila Kodavanti will send an email to all IRSS members regarding upcoming Symposia, C.E., and Workshop proposals submissions to initiate organization and planning of such proposals.

Ideas for possible topics for future session proposals was discussed, which included:

- Regional interests (such as fracking of natural gas/oil in Texas)
- Smog and secondary organic aerosols
- E-cigarette exposure
- Biofuels
- Exposure-related effects coupled with other pathologies, such as metabolic syndrome
- Exposure to other types of inhaled smoke: marijuana, hookas, etc.

The Committee also discussed the policies regarding co-sponsorship of Symposia, C.E. courses, and Workshops by multiple Specialty Sections (replaces endorsements), and noted that may change the way priorities are assigned for future sponsorship based on the number of sponsored vs. co-sponsored sessions are allowed by SOT.

The need for further/different types of communication from IRSS to its members was discussed, including:

- The need to support social media as a mechanism for communication with IRSS members
- How ToXchange is utilized: would a daily email, such as that used by ATS, be beneficial for communication with SOT members?

- Possible monthly emails for job announcements, post-doctoral opportunities, etc. for IRSS members
- It was suggested that IRSS Newsletters be published and emailed to members 3 times a year:
  - o Newsletter #1 (Responsibility of President to organize) to go out in February, prior to the annual SOT meeting
  - o Newsletter #2 (Responsibility of President to organize) to go out in May, after the annual SOT meeting
  - o Newsletter #3 (Responsibility of VP and Secretary) to go out in October, which should include future deadlines for proposal submissions
    - With hopes of early planning and submissions so that proposals can be reviewed in March (for the following year's SOT conference).
    - Will also highlight the upcoming IRSS-sponsored (and co-sponsored) programs for the following SOT meeting.
    - Include call for nominations for IRSS Awards for the following SOT meeting.
    - Include call for nominations for IRSS Committee positions
    - Will also include additional resources such as web-based courses
      - It was proposed to have the Post-doctoral Representative assist with this.

The meeting was adjourned at 2:45 p.m.

