

NAME OF SPECIALTY SECTION Molecular and Systems Biology

**ANNUAL REPORT: 2013-2014**

May 1, 2013 to April 30, 2014

**I. Officers/Committees:**

Officers	<u>2013-2014</u>	<u>2014-2015</u>
President:	Nancy D Denslow	J Craig Rowlands
Vice President:	J Craig Rowlands	Kristine ("Kristie") Willett
Vice President-Elect:	Kristine ("Kristie") Willett	Bhagavatula Moorthy
Secretary/Treasurer:	Marc Gillespie	Marc Gillespie
Past President	Chris Corton	Nancy D Denslow
Senior Councilor:	Scott S Auerbach	Joel Meyer
Junior Councilor:	Joel Meyer	Allison Harrill
PDA Representative:	Daniel Spade	Jill Franzosa
GSLC Representative:	Jessica K Roberts	Leah Wehmas
Junior Student Representative	Leah Wehmas	Ley Cody Smith

**Committees:** NA

**Elected in 2014:**

Vice-President-Elect: Bhagavatula Moorthy  
Junior Councilor: Alison Harrill  
Postdoctoral Representative Jill Franzosa  
Junior Student Representative Ley Cody Smith

**II. Activities:**

**2014 SOT Annual Meeting Reception** was held in Phoenix, Arizona on March 24, 2014.

Approximately 100 people were in attendance.

Dr. Denslow called the meeting to order at 6:00 PM on March 24, 2014.

Meeting Agenda: (see Attachment I)

**Awards:**

**Post-Doctoral Awards**

**1<sup>st</sup> Place:** McCullough, Shaun – Ozone Induces Lung Epithelial Cell Inflammation through MAP Kinase Activation without NF-κB Activation

**2<sup>nd</sup> Place:** Franzosa, Jill - RNA-Seq analysis of the functional-link between vascular disruption and adverse developmental consequences

**3<sup>rd</sup> Place:** Wu, Tongde - p97 modulates NRF2-KEAP1-mediated antioxidant Response

**Graduate Student Awards**

**1<sup>st</sup> Place:** Lahoti, Tejas - Activation of aryl hydrocarbon receptor (AHR) synergistically

induces lipopolysaccharide (LPS)-mediated transcription of pro-inflammatory (C-C motif) ligand 20 (Ccl20)

**2<sup>nd</sup> Place:** Li, Xi – Diindolylmethane (DIM) Analogs as a New Class of NR4A1 Antagonists

**3<sup>rd</sup> Place:** Popovech, Mary - Acute and subchronic, *in vivo*, exposure to inhaled silver-nanoparticles results in alterations in gene expression, gene-specific promoter methylation, and inner and outer mitochondrial membrane integrity.

### **Best Paper of the Year**

Alison Harrill (University of Arkansas for Medical Sciences), A mouse diversity panel approach reveals the potential for clinical kidney injury due to DB289 not predicted by classical rodent models (<http://toxsci.oxfordjournals.org/content/130/2/416.long>)

## **2014 SOT Annual Meeting Courses/Sessions:**

### **Symposia**

1. Molecular Mechanisms Involved in Neuro/Glial Toxicity: From Oxidative Stress to Redox Signal Transduction
2. Does this Chemical Make My Liver Look Fat? (Environmental Exposures and Steatosis)
3. Does Evolution Matter in Toxicity Testing in the 21st Century? Rethinking Cross-Species Extrapolation in Hazard Characterization
4. The Role of the AHR in Stem Cell Development and Lineage Specification
5. Adverse Outcome Pathways as an Integrative Framework for Predictive Toxicology:

### **Workshops**

1. Developmental Programming of Hepatic Metabolism: Assessing the Impact of Perinatal Exposure to Xenobiotics
2. Adverse Outcome Pathways: A Conceptual Framework for 21st Century Risk Assessment
3. Databases Facilitating Systems Biology Approaches to Toxicology
4. Toxicogenomic Technologies Can Improve the Assessment of Xenobiotic-Induced Liver Injury and Inform Human Relevance

### **Treasurers Report (Mark Gillespie):**

It is my pleasure to report that MBSS had a surplus of **\$31,445**. This surplus is a unique opportunity and we are asking the MSBSS membership to assist us in bolstering the MSBSS endowment fund, described below. In the current report, I will highlight our funding sources for the general fund.

MBSS general funds are derived from three major sources:

- i) rollover from the previous year (\$34,066)
- ii) membership dues (not currently accounted for)
- iii) registration fees (\$1,559).

In short, we are in excellent financial shape.

**We are excited to announce that the SOT Council has approved a special matching contribution program for donations to the SOT MSBSS Endowment Fund.**

Taking advantage of SOT's endowment match, MSBSS has launched an endowment drive where the Specialty Section will match a member's endowment contribution at a 3:1 rate. In addition, the member's original contribution would be matched by SOT. Therefore if a contributor gave \$500, MSBSS would give \$1,500, and SOT would give \$500 for a total of \$2,500.

Please consider donating to the MSBSS endowment so we can take advantage of the great opportunity to ensure the MSBSS is financially secure into the future and can continue to offer graduate student, post-doc and best paper awards.

The most recent financial statement is listed below (for the 11 months ending May 31, 2014):

**Ordinary Income/Expense**

**Income**

Contributions	-
Membership Dues (\$15/member)	-
Registration	1,559
Interest	796
<b>Total Income</b>	<b>4,003</b>

**Expense**

Awards - Sections	850
Plaques	240
Reception	3.091
<b>Total Expense</b>	<b>4,180</b>

**Excess (Deficiency) of**

<b>Revenue over Expenses</b>	<b>2,621</b>
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Net Assets Beginning of year	34,066
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<b>Net Assets End of Year</b>	<b>31,445</b>
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**Graduate Student Report (Leah Wehmas)**

This year there were several fun and engaging activities for graduate student members of SOT. The SOT Graduate Student Leadership Committee (GSLC) held the second annual YouTox Video Challenge, the goal of which is to communicate to the general public the importance of toxicology. Students and postdoctoral fellows are eligible to compete in creating a six minute video on answering the question of "Why did I become a toxicologist?" Monetary awards of \$300, \$200 and \$100 were presented to the top three video submissions this year. The first place winner was Valerie Minarchick from West Virginia University. The second place winner was

Alessandro Venosa from Rutgers University, and the third place winner was Murli Mishra from the University of Kentucky. There will be a change for the upcoming 2015 YouTox Video challenge. This year two awards will be presented instead of three. One first place winner will receive \$250 and one second place winner will receive \$150. To view the 2014 winning videos and learn more about this competition, please visit <https://www.toxicology.org/ai/spd/studentservices.asp>.

The 2014 student and postdoc mixer once again provided a venue for the informal meeting of new and old colleagues and for learning about the diverse SOT Regional Chapter (RC), Special Interest Group (SIG), and Specialty Section (SS) activities. Almost 400 students and postdoctoral fellows attended the mixer with over 100 participating in the RC/SIG/SS poster interaction game in which attendees had a chance to win several prizes, including an iPad Mini.

The Chat with an Expert (CWAE) program provided another opportunity for students and postdoctoral scholars to meet and network in small groups with Associate or Full SOT member experts. For the 2014 Annual Meeting, CWAE participants had the chance to meet with over 100 expert toxicologists, and this year program organizers downsized the groups providing more intimate and fruitful discussions. Students interested in CWAE must register prior to the annual meeting.

The GSLC also sponsored the quiz game Tox ShowDown, which pitted three teams of toxicologists against each other in a good-natured and educational toxicology trivia challenge. Over 100 people attended the game show this year with all game show contestants receiving prizes for participation and audience members having the chance to win several door prizes including an Amazon Kindle. Anyone interested in participating at the San Diego SOT meeting should contact the GSLC Tox ShowDown organizer, Meghan Cromie.

SOT and the MSBSS provide several student-related awards for research and travel. For additional information on these awards and other student related activities, please visit the GSLC website <https://www.toxicology.org/ai/spd/studentservices.asp>.

**Newsletters:** Will be sent to MSBSS Membership in September 2014

**Teleseminars:** NA

**White Papers:** NA

**Contributions to SOT website:** NA

**Other Specialty Section 2013-2014 Activities:**

- New name: Molecular and Systems Biology Specialty Section
- A new logo competition to be decided in August 2014 and winning logo announced in the fall newsletter
- A new paper of the year award

**MBSS RECEPTION**  
Sheraton Hotel/ Alhambra Room  
Monday, March 24, 2014 6PM - 7:30PM

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*Starts @ 6:00 pm*

1) Welcome (Nancy Denslow)

- Announcement of new name: Molecular and Systems Biology, Specialty Section
- Announcement of new logo competition
- Announcement of new paper of the year award
- CCT FutureTox I meeting \_- originally 12 K but got additional \$12 K for a total of 24K

2) Treasurer's Report and Endowment Update (Marc Gillespie)

3) Introduction of New Officers (Nancy Denslow)

Vice President elect (VP, President, Past President)  
Bhagavatula Moorthy— Baylor College of Medicine  
Jr. Councilor (2 yr)  
Alison Harrill— Univ Arkansas Medical Science Center  
Post-doctoral rep (1 yr)  
Jill Franzosa— EPA  
Junior Student rep (2 yr)  
Cody Smith – University of Florida

4) Update on 2014 Program (Craig Rowland)

5) Postdoctoral activities update (Dan Spade)

6) Graduate student update (Leah Wehmas)

7) 2015 Meeting Themes and Solicitation of Session Ideas (Kristie Willett)

8) 2014 Best Paper of the Year Award (Joel Meyer)

9) Student and Postdoc Awards and Presentations (Scott Auerbach)

10) Adjourn (Craig Rowland)