

MOLECULAR AND SYSTEMS BIOLOGY SPECIALTY SECTION**ANNUAL REPORT: 2015-2016**

May 1, 2015 to April 30, 2016

I. Officers/Committees:

<u>Officers</u>	<u>2015-2016</u>	<u>2016-2017</u>
President:	Kristine ("Kristie") Willett	Bhagavatula Moorthy
Vice President:	Bhagavatula Moorthy	Marc Gillespie
Vice President-Elect:	Marc Gillespie	Shaun McCullough
Secretary/Treasurer:	Robert S. DeWoskin	Robert S. DeWoskin
Past President	J Craig Rowlands	Kristine ("Kristie") Willett
Senior Councilor:	Alison Harrill	Richard S. Paules
Junior Councilor:	Richard S. Paules	Jill Franzosa
PDA Representative:	Susie Huang	Grace Chappell
GSLC Representative:	Ley Cody Smith	Derik Evan Haggard
Junior Student Representative	Derik Evan Haggard	Emma Bowers

Committees: N/A.**Elected in 2016:**

Vice-President-Elect: Shaun McCullough (US EPA).

Junior Councilor: Jill Franzosa (US EPA);

Postdoctoral Representative: Grace Chappell (Texas A&M University);

Junior Student Representative: Emma Bowers (University of North Carolina);

II. Activities:**2016 SOT Annual Meeting Reception was held in New Orleans, Louisiana on March 15, 2016**

Approximately 100 people were in attendance.

Kristie Willett called the meeting to order at 6:00 PM on March 15, 2016.

Meeting Agenda: (see Attachment 1)

Awards:**Post-Doctoral Awards****1st Place:** Anna Kopec, Michigan State University**2nd Place:** Jenna Currier, US EPA**3rd Place:** Priyanka Trivedi, Harvard Medical School**Graduate Student Awards****1st Place:** Rance Nault, Michigan State University**2nd Place:** Gloria Garcia, Oregon State University**3rd Place:** Jeff Willy, Indiana University**3rd Place:** Vivekkumar Dadhania, University of Louisiana at Monroe

Best Paper of the Year

This year's MSBSS Paper of the Year Award went to Dr. Aditya Joshi and colleagues. The paper was published in the Journal of Pharmacology and Experimental Therapeutics (2015) 353(1):201-212, and titled "Aryl hydrocarbon receptor-dependent stanniocalcin 2 induction by cinnabarinic acid provides cytoprotection against endoplasmic reticulum and oxidative stress."

2016 SOT Annual Meeting Courses/Sessions:

The MSBSS was the primary sponsor of three symposia and six workshops at the 2016 Annual Meeting, as well as a secondary or tertiary sponsor of several additional symposia, workshops and continuing education courses.

Sponsored Symposia:

1. Systems understanding of the impact of the Nrf2 pathway on chemical toxicity and cell fate
2. Using multi- and transgenerational effects of environmental exposures in diverse animal models for assessment of human health risks
3. Novel roles of reactive oxygen species (ROS) in human diseases: Why ROS never gets stale

Sponsored Workshops:

1. Mitochondria as the central target of environmental contaminants, pharmaceutical agents, and toxicants: mechanisms of toxicity and disease
2. The role of the epigenome in exposure effects, susceptibility, and public health
3. Bioactivity-based margin of exposure safety assessment: the next stop along the road to 21st century safety assessments
4. Multi-omics in predictive toxicology: Development and application in environmental monitoring programs
5. Screening chemicals for neurotoxicity outcomes—using large datasets and multiple endpoints to develop “toxicity profiles”
6. Which human cell lines should I use? Choosing the appropriate biological systems for high-throughput toxicity testing

Contemporary Concepts in Toxicology Workshop

The MSBSS sponsored the 2016 "miRNA Biomarkers for Toxicology" CCT workshop, chaired by Alison Harrill (University of Arkansas for Medical Sciences) and Warren Glaab (Merck), on March 12th in New Orleans, LA. MSBSS support funded travel scholarships for all presenting graduate students and postdoctoral fellows for the meeting. This SOT satellite meeting had approximately 130 attendees and 22 poster presentations.

Continuing Education:

1. Discovery and Validation of miRNA Biomarkers Bridging Preclinical and Clinical Toxicity: Lessons Learned from Hepatotoxicity
2. Basic Principles and Practices for Applying Epigenetics in Mechanistic Toxicology

3. Advancing the Detection, Imaging, and Pitfalls in Monitoring Oxidative Stress in Health and Disease
4. Next-Generation Sequencing in Toxicogenomics
5. Exploring Chemical Space in the New Toxicity Testing Paradigm: From Data Curation to Computational Simulations
6. Zebrafish As a Tool in Toxicology and Drug Discovery Screening
7. Genetics and Population Variability in Chemical Toxicity: The What, the How, and So What?

Treasurers Report (Rob DeWoskin):

The most recent MSBSS financial statement is listed below as of May 2016.

MSBSS Financial Statement (as of May 2016)	
Ordinary Income/Expense:	
Income	
Contributions	-
Proceeds from the CCT Mtg:MiRNA	\$12,310.56
Membership Dues (\$15/member)	-
Registration	\$2,041.08
Interest	in progress
Total Income	\$14,351.64
Expense:	
Awards - Sections	\$850.00
Plaques	\$250.75
Annual Meeting/Reception	\$3,996.59
Sponsorship of the CCT Mtg:MiRNA	\$6,000.00
Endowment 3:1 match/Y-2016	\$1,500.00
Executive Meetings	-
Mentoring Activities (matched by SOT-HQ)	\$885.95
Misc	\$105.87
Total Expense	\$13,589.16
Balance:	
Net Assets Beginning of year	\$36,860.11
Excess (Deficiency) of Revenue over Expenses	762.48
Net Assets as of April 2015	\$37,622.59

The quarterly MSBSS endowment fund is presented below. The MSBSS endowment fund continues to benefit from SOT's and the MSBSS endowment matching program, where SOT matches the contribution at a 1:1 ratio, and MSBSS matches at 3:1. The MSBSS match for the \$500 contribution listed below will appear in the June quarterly report.

MSBSS Endowment Funds (Quarterly Report - March 2016)	
Contributions	
Member Contributions	\$500
MSBSS Matching Funds	<i>in progress*</i>
SOT Matching Funds	\$500
Total Contribution	\$1,000
Gain (loss) on Investments	
Interests and Dividends	\$967
Capitol gain (loss)	-\$967.00
Total Return	\$0
Total Added	\$1,000
Expenses	
Awards	\$1,550
other	-
Total Expense	\$1,550
Added - Expenses =	-\$550
Starting Value of the MSBSS Endowment Fund	\$39,530
Ending Value of the MSBSS Endowment Fund	\$38,980

* An additional \$1500 match from MSBSS will post in the June 2016 report.

Graduate Student and Postdoctoral Report

This year the MSBSS held their 2nd annual Networking Luncheon for Trainees at the SOT Annual Meeting in New Orleans, LA. The luncheon at Capdeville provided 19 graduate students and postdoctoral trainees the opportunity to chat informally with 10 experts in molecular and systems biology in a fun, relaxed atmosphere. In addition to the MSBSS General Fund, the SOT Career Resources and Development Committee (CRAD) provided matching funds to sponsor this year's exciting event. The MSBSS extends special thanks Drs. Susie Huang for planning and organizing the Luncheon and Drs. Rais Ansari, Rob DeWoskin, Marc Gillespie, Caren Helbing, Shaun McCullough, Alvina Mehinto, Joel Meyer, Craig Rowlands, and Kristie Willett for volunteering their time as mentors. The MSBSS hopes to continue this tradition of hosting mentoring events for trainees at the Annual SOT Meetings.

MSBSS trainees participated in events coordinated by The Graduate Student Leadership Committee (GSLC) at the 2016 annual meeting in New Orleans. These events were coordinated by the GSLC, on which MSBSS graduate students serve as representatives:

- “Chat with an Expert” where trainees meet experts from industry, government, and academia to learn about their research and learn from their experiences.
- Tox ShowDown, an engaging quiz game with questions concerning toxicology as it relates to society, history, arts, and culture. Expert toxicologists put their knowledge to the test and competed against other experts for various prizes.
- Student/Postdoctoral Scholar Mixer - held each year to provide an opportunity for trainees to build valuable relationships with colleagues and learn more about their experiences, and introduce attendees to the various Specialty Sections, Regional Chapters, and Special Interest Groups in the society.

The MSBSS Graduate Student Representatives visited posters highlighting related research, and recruited new graduate students and postdoctoral associates to the specialty section. They also represented MSBSS at the annual GSLC meeting where future student outreach and development opportunities are organized.

Newsletters: The Fall 2016 MSBSS newsletter is currently being planned for delivery to the membership in September 2016; the Spring 2016 newsletter is now available on our MSBSS web site in ToXchange.

Contributions to SOT website: The MSBSS Spring 2016 Newsletter

http://www.toxicology.org/groups/ss/MSBSS/docs/Newsletter_Spring16.pdf

Attachment 1 – MSBSS 2016 Annual Meeting Agenda

MSBSS RECEPTION

Molecular & Systems Biology Specialty Section Reception
Tuesday March 15th 6:00 – 7:30 pm
Hilton Riverside Grand Salon 21

Officers 2015-2016

President:	Kristie Willett
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Junior Councilor:	Richard S. Paules
PDA Representative:	Susie Huang
GSLC Representative:	Ley Cody Smith
Junior Student Representative:	Derik Evan Haggard

Welcome and Introduction of New Officers (Willett)

Junior Councilor – Jill Franzosa
VP Elect – Shaun McCullough
Postdoctoral Rep – Grace Chappell
Grad Student – Emma Bowers

Presentations:

- 1) Membership/ Treasurers Report/ Endowment Update (DeWoskin)
- 2) Postdoc activities and Mentoring Luncheon (Huang)
- 3) Student Report (Smith/Haggard)
- 4) 2016 Program (Moorthy)
- 5) 2017 Program Solicitation (Gillespie)
- 6) CCT report (Harrill)
- 7) Student/Postdoc Awards and Ribbon distribution (Harrill)
- 8) Best Paper Award (Paules)
- 9) New Business
 - Webinar (Gillespie)
 - Other items from the members