

# MOUNTAIN WEST REGIONAL CHAPTER ANNUAL REPORT: 2014-2015

May 1, 2014 to April 30, 2015

## I. Officers/Committees:

<u>Officers</u>	<u>2013-2014</u>	<u>2014-2015</u>
President:	J. Gregory Lamb	Todd A. Thompson
Vice President:	Todd A. Thompson	Yin Chen
Vice President Elect:	Yin Chen	Jared Brown
Secretary/Treasurer:	Ying Chen	Karen L. Cooper
Past President	Cynthia Ju	J. Gregory Lamb
Councilors:	Mingyi W. Trimble	Jeff Angermann
	Brooke Tvermoes	Brooke Tvermoes
PDA Representative:	Jonathan Shannahan	Jonathan Shannahan
GSLC Representative:	Mark Canet	Bryan Harder
Junior Student Representative	Brian Jackson	Cameron McElroy

## II. Activities:

**The 32<sup>nd</sup> Annual MWSOT Regional Chapter Meeting with the dedication to Dr. Garold Yost.** was held in Tucson, AZ on September 3<sup>th</sup>-5<sup>th</sup>, 2014 at the Loews Ventana Canyon Resort. More than one hundred and twenty attendees participated in the meeting, which included representation from the University of Arizona, the University of Colorado, the University of New Mexico, New Mexico State University, the University of Utah and the Lovelace Respiratory Research Institute. The meeting opened with a reception held on Wednesday evening, September 3<sup>th</sup>, allowing attendees to meet and greet prior to the formal initiation of the meeting on September 4<sup>th</sup>. Dr. Terrence Monks, Associate Dean for Research of the College of Pharmacy at University of Arizona, delivered welcome remarks at 8:00 a.m. Then, Dr. Monks and Dr. Christopher Reilly introduced the life and work of Dr. Yost and made special remarks and dedications to his long-time achievement in the field of toxicology. This was followed by an overview of the meeting schedule provided by Drs. Todd Thompson, MWSOT president and Yin Chen, MWSOT Vice-president (see Appendix I). The theme for the meeting, "Microbiome and Gene-environment Interaction" was introduced during the opening comments by Dr. Yin Chen. Dr. Fernando Martinez, Director of Bio5 Institute and Arizona Respiratory Center, delivered opening lectures on the overview of the theme with the title "Genes, the Environment, the Microbiome and their Interactions". Three keynote lectures were given by Dr. Andrew Gewirtz, Georgia State University, with the title "Gut microbiome, Low-grade inflammation, and metabolic syndrome"; Dr. Homer Twigg, Indiana University, with the title "Population differences in the lung microbiome"; and Dr. Xianglin Shi, University of Kentucky, with the title "Oxidative stress and Cr (VI) carcinogenesis". Plenary sessions were held on various aspects of microbiome as well as on the gene-environment interaction. These presentations were followed by postdoctoral platform presentations and a poster session that were held in the afternoon from 4:00 to 6:00 p.m. Awards for student platform and poster presentations were provided.

**Student and Postdoctoral Awards presented at the 2014 MWSOT Regional Chapter Meeting:**

*Inaugural Garrold Yost Doctoral Student Award*

Dr. Naveen Singh  
(New Mexico State University; Advisor: Dr. Aaron Roland)

*Student Platform Presentations*

1<sup>st</sup> place – Owen Kinsky  
(University of Arizona; Advisor: Dr. Serrine Lau)

2<sup>nd</sup> place – Tianfang Huang  
(University of Arizona; Advisors: Dr. Todd Camenisch)

*Postdoctoral Platform Presentation*

1<sup>st</sup> place – Dr. John Clarke  
(University of Arizona; Advisors: Dr. Nathan Cherrington)

2<sup>nd</sup> place – Dr. Xixi Zhou  
(University of New Mexico; Advisors: Drs. Laurie Hudson & Jim Liu)

*Student Poster Presentations*

David Klein  
(University of Arizona; Advisor: Dr. Nathan Cherrington)

Monica Sandoval  
(University of Colorado; Advisor: Dr. Jared Brown)

*Postdoctoral Poster Presentation*

Dr. Erica Dashner  
(University of New Mexico; Advisor: Dr. Laurie Hudson)



Front: Student and postdoctoral award recipients from the 32<sup>nd</sup> Annual MWSOT meeting. From left to right: Naveen Singh, Monica Sandoval, Erica Dashner, Dr. John Clarke, David Klein, Owen Kinsky, Tianfang Huang, Dr. Xixi Zhou.

Back: MWSOT officers. From Left to right: Dr. Yin Chen, Dr. Todd Thompson, Dr. Jared Brown, and Dr. Karen Cooper.

**Travel Award Recipients for Attendance to the MWSOT Meeting:** Supplemental funding for student travel to the regional chapter meeting was kindly afforded through the SOT. Student recipients for this funding were from many different institutions: New Mexico State University (Las Cruces, NM): Naveen Maharaj Singh. From the University of Colorado (Denver, CO): Chuan-Hsing Chang, Cameron McElroy, Adedoyin Abraham, Claire Heit, and Monica Sandoval. From the University of New Mexico (Albuquerque, NM): Jennifer Ong, Mario Aragon, Molly Harmon, Juliana Huestis, Kayla Zehr, Elani Fourie Wiest, and Huan Xu

**2014 MWSOT Annual Meeting Reception** was a combined reception with the Southern California Chapter SOT and Organovo held in San Diego, California on March 24 from 6:00 to 9:30 p.m. at the Museum of Photographic Arts. The reception was well-attended by members of the MWSOT, including the University of Arizona, the University of Colorado, the University of New Mexico, New Mexico State University and University of Utah. This gathering was very productive and it provided an excellent opportunity for MWSOT members not only to interact and connect with their academic counterparts such as SCCSOT members, but also with many industrial colleagues including but not limited to Organovo. The reception newsletter is attached below.

**Annual SCCSOT and Mountain West Chapter SOT Social**

Co-Sponsor: **organovo**

Come join us at the MOPA for an evening of fun, food and SD Culture!!! Toxicology Style

**Where:** Museum of Photographic Arts, Balboa Park  
**Date:** Tuesday March 24<sup>th</sup>, 2015  
**Time:** 6:00PM till 9:30PM  
**Shuttles:** To and From C-Center, every 15 minutes

Get some wine and beer. Toxicology Style!

MOPA Hosted world wide exhibition: 7 Billion Others & 1,000 Toxicologists

**MUSEUM OF PHOTOGRAPHIC ARTS**  
PICTURE PERFECT EVENTS

Feed the soul and mind

Feed the body

• Fun, memorable, elegant  
• Interesting, interactive  
• Great food, good company  
• 6PM - 9:30/10:00PM

An Evening of Gourmet Apps & Cocktails at the MOPA, Balboa Park

**BALBOA PARK**  
A San Diego Icon, 100 Year Anniversary  
Built in 1916  
Renovated for the 1915 Panama-California Exposition

**Contributions to the SOT website:** Information for the MWSOT website was updated for Awards, Meeting Information, Officers, and Membership.

### **Other Regional Chapter 2014 - 2015 Activities:**

A poster presenting information on the mission of the MWSOT and factual information about the organization was exhibited March 22<sup>nd</sup> -26<sup>th</sup> at the 54<sup>th</sup> Annual SOT Meeting at the Convention Center in San Diego, California:



# Mountain West Regional Chapter of the Society of Toxicology (MWSOT)



**"Fostering regional collaboration, information exchange, and training in toxicology for scientists and trainees throughout the southwest"**

The MWSOT has been in existence for 30 years, since 1984! The main functions of the chapter are to 1) foster and support southwest regional toxicologists' initiatives and collaboration and 2) to provide a training recourse to our graduate students and young postdoctoral fellows. These goals are primarily achieved through the MWSOT Annual Meeting, locations of which rotate through the main academic centers of Arizona, Colorado, New Mexico and Utah. The meeting is held over 1-2 days with topics focused on regional toxicology interests and issues. A full slate of scientific speakers (national, international and local experts) is complemented by research platform and poster presentation venues for students and postdoctoral fellows. To provide incentive for trainees, awards are given to top performers. Any national or international scientist or student with toxicology interests are encouraged to attend the MWSOT annual meeting! The 2014 meeting will be held in Tucson, Arizona.

### MWSOT MEETING FACTS

- Held annually in September or early October
- Regional, National and International toxicology topics of interest
- Nationally-known and local speakers
- Rotates yearly through beautiful southwest locations in Arizona, Colorado, New Mexico and Utah
- Platform and presentation venues for graduate students and postdoctoral fellows

### CHAPTER MEETING TOPICS AND LOCATIONS

- 2014 'Microbiome and Gene-Environment Interactions'— Tucson, AZ
- 2013 'Nanotoxicology'— Albuquerque, NM
- 2012 'Environmental toxins and regulation (Federal, not genetic)'— Salt Lake City, UT
- 2011 'Oxidative Stress, Inflammation and Human Disease' — Breckenridge, CO
- 2010 'The impact of environmental insults on cellular redox biology and human disease' — Tucson, AZ

### REPRESENTATIVE SUCCESSFUL CHAPTER INITIATIVES AND ACHIEVEMENTS

- Addition of "Industry and Career Perspectives" component to Regional Meeting
- Industry speakers speak about scientific topics in industry and career potentials for toxicologists
- Increase Industrial and Consulting Participation
- Collaborative National Receptions with Southern California Chapter of SOT (primary industry membership)

### MWSOT FAST FACTS

Established: 1984

#### Membership:

Total Membership:	97
Full:	60
Associate:	10
Postdoctoral:	6
Student:	20
Emeritus:	1

#### Diversified Membership:

66% Academic/ Research Institute, 19% Industry, 12% Consulting, 3% Government

#### Geography:

Largest Geography of the Regional Chapters ; Arizona, Colorado, New Mexico, Utah, Nevada, Wyoming, and Southern Idaho

#### Primary Chapter Focus:

Student and Postdoctoral Training through the Annual Regional Chapter Meeting



### STUDENT AWARDS

- Award:** MWSOT Student Travel Award  
**Description:** Students from outside state holding the regional meeting may be eligible with the submission of your Abstract for either a platform or poster presentation, submit a CV and a brief description of your research. These files will be evaluated by the MWSOT Regional Chapter Officers. Amount: \$250
- Award:** MWSOT Predoctoral Student Platform Presentation Award  
**Description:** Applicable to predoctoral students working in a research laboratory of a member of the Mountain West Regional Chapter. Amount: 1st place—\$250, 2nd place—\$200, 3rd place—\$150
- Award:** MWSOT Predoctoral Student Poster Presentation Award  
**Description:** Applicable to predoctoral students working in a research laboratory of a member of the Mountain West Regional Chapter. Amount: 1st place—\$250, 2nd place—\$200, 3rd place—\$150

### REPRESENTATIVE MAJOR CONTRIBUTORS TO REGIONAL CHAPTER

The Mountain West chapter encompasses the beautiful states of Arizona, Colorado, Utah, Southern Idaho, Nevada, New Mexico, and Wyoming.

#### Academic Institutions

- Colorado State University
- Fort Lewis College
- Idaho State University
- New Mexico State University
- Northern Arizona University
- University of Arizona
- University of Colorado
- University of Nevada
- University of Northern Colorado
- University of Utah
- University of Wyoming
- Utah State University

#### Non-Academic Institutions and Industry

- Array BioPharma, Inc. (CO)
- Century Environmental Hygiene (CO)
- Charles River Laboratories (NV)
- Covance Laboratories (AZ)
- EP Hays Toxicology Services (CO)
- Flairtox Toxicology (CO)
- Front Range Environmental Toxicology Services (CO)
- Los Alamos National Laboratory (NM)
- Lovelace Respiratory Research Institute (NM)
- National Jewish Research Institute (CO)
- Poisonous Plant Research Laboratory (UT)
- Rocky Mountain Poison Center (CO)
- Shopp Nonclinical Consulting (CO)
- Summit Toxicology (CO)
- Technikos Research Associates (AZ)
- Woven Egg Consulting (CO)

### CURRENT OFFICERS

- President:** Todd Thompson, PhD, University of New Mexico  
**Vice President:** Yin Chen, PhD, University of Arizona  
**Vice President-elect:** Jared Brown, PhD, University of Colorado  
**Secretary/Treasurer:** Karen Cooper, PhD, University of New Mexico  
**Past President:** John Gregory Lamb, PhD, University of Utah  
**Councilors:** Brooke Ivermoe, PhD, Cardio ChemRisk  
 Jeff Angermann, University of Nevada, Reno  
 Jonathan Shannahan, PhD, University of Colorado  
 Bryan Harder, University of Arizona  
 Cameron McElroy, University of Colorado



### **III. Appendix I – Agenda for the 32<sup>nd</sup> Annual MWSOT Regional Chapter Meeting:**

#### **Wednesday, September 3<sup>th</sup>, 2014**

5:00 – 8:00 p.m.      *Registration open*  
7:00 – 9:00 p.m.      Pre-meeting reception – (Cascade Terrace)

#### **Thursday, September 4<sup>th</sup>, 2014 (Catalina Ball Room)**

7:30 – 12:00 p.m.    *Pick-up registration materials and Poster setup*  
7:00 – 8:00 a.m.      Continental breakfast (Catalina Foyer)

8:00 – 8:05 a.m.      Welcome –Terrence Monks, Ph.D. Associate Dean for Research –  
University of Arizona, College of Pharmacy

8:05 – 8:15 a.m.      A dedication to Dr. Garold S. Yost –Terrence Monks, Ph.D. and  
Christopher Reilly, Ph.D.

8:15 – 8:25 a.m.      Meeting introduction – MWSOT President Todd Thompson Ph.D.  
& Vice-President Yin Chen Ph.D.

8:25 – 8:55 a.m.      Opening Lecture  
Fernando Martinez, M.D. – Director of Bio5 institute and Arizona Respiratory Center  
“Genes, the Environment, the Microbiome and their Interactions”

9:00 – 4:00 p.m.      *Plenary Topic I – Microbiome (the new frontier)*

9:00 – 9:50 a.m.      Society of Toxicology Lecture  
Andrew Gewirtz, Ph.D.- Georgia State University.  
“Gut Microbiome, Low-grade Inflammation, and metabolic syndrome”

9:50 – 10:15 a.m.      Joyce Wu, Ph.D. – University of Arizona, Department of Immunology  
“Gut microbiome Drives Systemic Autoimmunity”

10:15 – 10:30 a.m.    Break (Catalina Foyer)

10:30 – 11:20 a.m.    Bio5 Visiting Scholar Lecture  
Homer Twigg, M.D. – Indiana University  
“Population differences in the lung microbiome”

11:20 – 11:45 p.m.    Donata Vercelli, M.D. – University of Arizona, Department of Cellular and  
Molecular Medicine  
“When the environment protects from asthma - in humans and mice”

11:45 – 12:10 p.m.    Wai-ming Lee, Ph.D. – Biological Mimetics Inc.  
“High-throughput multiplex PCR assay for human respiratory Virome analysis”

12:10 – 1:30 p.m.      Lunch (Flying V)

1:30 – 2:00 p.m. Kevin Harrod Ph.D.– Lovelace Respiratory Research Institute  
“Human environmental exposure and respiratory microbiome”

2:00 – 2:25 p.m. Peter Di, Ph.D. – University of Pittsburg, Department of Environmental Sciences  
“Effects of cigarette smoke on mucociliary clearance, lung microbiome, and respiratory infection”

2:25 – 2:50 p.m. Magdalene So, Ph.D.– University of Arizona, Department of Immunology  
“Inhibition of Pathogen Colonization by Commensal Bacteria: a Molecular View”

2:50 – 3:15 p.m. Julia Neilson, Ph.D.– University of Arizona, Department of Soil, Water and Environmental Sciences  
“Dissecting a microbial community: metagenomic analysis of microbial communities inhabiting cave formations in Kartchner Caverns, AZ”

3:15 – 3:40 p.m. Jin Zhou, Ph.D.– University of Arizona, College of Public Health,  
“Data modeling of high-throughput analyses”

4:00 – 6:00 p.m. Poster session / Mix – (Catalina Foyer)

### **Friday, September 5<sup>th</sup>, 2014 (Catalina Ball Room)**

7:00 – 8:00 a.m. Continental breakfast (Catalina Foyer)

8:00 – 12:30 p.m. *Plenary Topic II – Gene-Environment Interaction*

8:00 – 8:50 a.m. SWEHSC Visiting Scholar Lecture  
Xianglin Shi, Ph.D. University of Kentucky  
“Oxidative stress and Cr(VI) carcinogenesis”

8:50 – 9:15 a.m. Ken Ramos, M.D, Ph.D. University of Arizona, College of Medicine  
“Reactivation of LINE-1 retroelements by environmental injury”

9:15 – 9:40 a.m. Todd Thompson, Ph.D. University of New Mexico, College of Medicine  
“Gene Expression Alterations by Quinone Activation of the Aryl Hydrocarbon Receptor”

9:40 – 10:05 a.m. Jun Gao, Ph.D. - Los Alamos National Labs  
“Microfluidics in Toxicology”

10:05 – 10:20 a.m. Break (Catalina Foyer)

10:20 – 11:40 a.m. *Postdoc/Student Talk*

10:20 – 10:40 a.m. John D. Clarke Ph.D. “Synergistic interaction between genetics and disease on pravastatin Disposition”

10:40 – 11:00 a.m. Xixi Zhou Ph.D. “Arsenite binding-induced zinc loss from PARP-1 is equivalent to zinc deficiency in reducing PARP-1 activity, leading to inhibition of DNA repair”

11:00 – 11:20 a.m. Owen R. Kinsky. “Identification of a metformin-methylglyoxal imidazoline product in metformin-treated type 2 diabetic patient urine”

11:20 – 11:40 a.m. Tianfang Huang. “Mechanism of arsenicals cardiac toxicity and zinc protection effects during coronary vessel development”

11:40 – 12:00 p.m. Break and Award’s Committee Meeting

12:00 – 12:30 p.m. Award Presentations and Closing