

MOUNTAIN WEST REGIONAL CHAPTER ANNUAL REPORT: 2013-2014

May 1, 2013 to April 30, 2014

I. Officers/Committees:

| <u>Officers</u> | <u>2012-2013</u> | <u>2013-2014</u> |
|-------------------------------|------------------------------------|--|
| President: | Cynthia Ju | J. Gregory Lamb |
| Vice President: | J. Gregory Lamb | Todd A. Thompson |
| Vice President Elect: | Todd A. Thompson | Yin Chen |
| Secretary/Treasurer: | Kevin Welch | Ying Chen |
| Past President | Donna D. Zhang | Cynthia Ju |
| Councilors: | Mingyi W. Trimble Gensheng Wang | Mingyi W. Trimble Brooke Tvermoes Jonathan Shannahan |
| PDA Representative: | | Mark Canet |
| GSLC Representative: | Chad Nicholas Brocker | Brian Jackson |
| Junior Student Representative | Mark Canet | |

II. Activities:

The 31st Annual MWSOT Regional Chapter Meeting was held in Albuquerque, NM on September 19th-20th, 2013 at the Sheraton Albuquerque Uptown Hotel. Eighty 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, and the University of Utah as well as the Lovelace Respiratory Research Institute. The meeting opened with a reception held on Wednesday evening, September 18th, allowing attendees to meet and greet prior to the formal initiation of the meeting on September 19th. Special guests, the Wisecrackers, a local classic rock band, entertained the attending crowd into the late hours of the evening. Dr. J. Greg Lamb, President of the MWSOT, called the meeting to order at 8:00 a.m. with an overview of the meeting schedule provided by Todd Thompson, MWSOT Vice-president (see Appendix I). Dr. A. Jay Gandolfi from the University of Arizona (MWSOT member since the early 1980s) was in attendance and was recognized for his many years of support for the MWSOT Regional Chapter meetings. The theme for the meeting, "Nanotoxicology" was introduced during the opening comments by Dr. Thompson. Dr. Andrij Holian, Director of the Center for Environmental Health Sciences, University of Montana, was the keynote speaker for the meeting with a talk entitled, "Inflammasome activation in nanoparticle-induced lung inflammation". SOT RC Speaker Supplemental funding was received for Dr. Holian's participation for the meeting. Dr. Holian's presentation was introduced by the Dean of the University of New Mexico College of Pharmacy (UNM Toxicology



Dr. Lynda Welage, Dean of the UNM College of Pharmacy, presents a UNM College of Pharmacy gift to Dr. Andrij Holian for his keynote presentation at the 31st Annual MWSOT meeting.

Program), Dr. Lynda Welage, whom also provided a gift for the keynote speaker (see adjoining photo). Plenary sessions were held on various aspects of nanotoxicology. These presentations were followed by postdoctoral platform presentations and a poster session that were held in the afternoon from 5:00 to 7:00 p.m. and a banquet. Awards for student platform and poster presentations were provided.

Student Awards presented at the 2013 MWSOT Regional Chapter Meeting:

Student Platform Presentations

1st place – Rui Xiong (University of Colorado; Advisor: Dr. David Ross)

2nd place – Jessica Shapiro (University of Arizona; Advisor: Dr. Serrine Lau)

Postdoctoral Platform Presentations

1st place – Dr. Xixi Zhou (University of New Mexico; Advisors: Drs. Laurie Hudson & Jim Liu)

2nd place – Dr. Jonathan Shannahan (University of Colorado; Advisor: Dr. Jared Brown)

Student Poster Presentations

1st place poster – Dominique Price (University of New Mexico; Advisor: Dr. Pavan Muttill)

2nd place poster – Surendra Singh (University of Colorado; Advisor: Vasilis Vasiliou)

Postdoctoral Poster Presentation

1st place poster – Dr. Rong Pan (University of New Mexico; Advisor: Dr. Jim Liu)

2nd place poster – Dr. Derek Drechsel (University of Colorado; Advisor: Dr. David Ross)



Student award presentation recipients from the 31st Annual MWSOT meeting. From left to right: Dominique Price, Dr. Xixi Zhou, and Dr. Rong Pan from the UNM College of Pharmacy. Dr. Derek Drechsel, Rui Xiong, and Surendra Singh from the U. Colorado; Jessica Shapiro (U. Arizona) and Dr. Jonathan Shannahan from the University of Colorado.

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): Thushara Madanyake and Naveen Maharaj Singh. From the University of Arizona (Tucson, AZ): Bryan Harder, Mark Canet, and Jessica Shapiro. From the University of Colorado (Denver, CO): Rui Xiong, Surendra Singh, Brian Jackson, Amandla Apilano-Roque, Claire Heit, and Abdullah Aldossari. From the University of Utah (Salt Lake City, UT): Virginia Mitchell and Darien Shapiro.

2013 MWSOT Annual Meeting Reception was a combined reception with the Southern California Chapter SOT held in Phoenix, Arizona on March 17 from 6:00 to 8:00 p.m. at the Brick Pizzeria. The reception was well-attended by members of the MWSOT, including significant representation by the Lovelace Respiratory Research Institute (Albuquerque), the University of Arizona, the University of Colorado, the University of New Mexico, and New Mexico State University. This gathering was particularly productive in that it provided an excellent opportunity for MWSOT members, which are spread over a large geographical region, to interact. Importantly, many connections between the MWSOT and SCCSOT members were established.

Regional Interest Session presented at the 53rd Annual SOT Meeting and ToxExpo. Dr. Clark Lantz, from the University of Arizona, organized a Regional Interest Session that was presented Thursday morning, March 27th at the Annual SOT Meeting, which was sponsored by the MWSOT Regional Chapter. Speakers included Dr. Clark Lantz, Dr. Jake McDonald from the Lovelace Respiratory Research Institute, Dr. M. Loh from the University of Arizona, and Dr. Johnnye Lewis from the University of New Mexico. The presentation schedule:

- 9:00 When the dust settles: exposure assessment and health effects from dust exposures in the arid Southwest. R. Lantz, Dept. of Cellular and Molecular Medicine, U. Arizona, Tucson, AZ.
- 9:00 Introduction: R. Lantz, Dept. of Cellular and Molecular Medicine, U. Arizona, Tucson, AZ.
- 9:05 Influence of collection region and site type on the composition of paved road dust: It's not just dirt!!! J.D. McDonald. Lovelace Respiratory Research Institute, Albuquerque, NM.
- 9:45 Multimedia exposure to metals near a mine tailings site. M. Loh. Community, Environment and Policy. University of Arizona, Tucson, AZ.
- 10:25 Effects of in utero and early postnatal exposures to metal-containing dusts. R. Lantz. Dept. of Cellular and Molecular Medicine, University of Arizona, Tucson, AZ.
- 11:05 Metals, the West, and translational science: J.L. Lewis. Community Environmental Health Program, University of New Mexico, Albuquerque, NM.

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

Other Regional Chapter 2013 - 2014 Activities:

A poster presenting information on the mission of the MWSOT and factual information about the organization was exhibited March 23rd -27th at the 53rd Annual SOT Meeting at the Convention Center in Phoenix, Arizona:

MWSOT
Mountain West Regional Chapter of the Society of Toxicology
<http://www.toxicology.org/sot/cr/mwsot/index.asp>

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 12 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 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 meeting

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)
Flatiron Toxicology (CO)
Front Range Environmental Toxicology Services (CO)
Los Alamos National Laboratory (NM)
Loveland Respiratory Research Institute (CO)
National Jewish Research Institute (UT)
Poisonous Plant Research Laboratory (UT)
Rocky Mountain Poison Center (CO)
Sheep Nonclinical Consulting (CO)
Summit Toxicology (CO)
Technikos Research Associates (AZ)
Woven Egg Consulting (CO)

REPRESENTATIVE MEETING TOPICS AND LOCATIONS

- 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
- 2009 ‘Toxicology in the Development of Countermeasures for: Radiation, Chemical and Biological Threat Agents’—Albuquerque, NM

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)

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 Pre-doctoral 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

CURRENT OFFICERS

| | |
|--------------------------------|---|
| President: | John Gregory Lansb, PhD |
| Vice President: | Todd Thompson, PhD |
| Vice President-elect: | Yin Chen, PhD |
| Secretary/Treasurer: | Ying Chen, PhD |
| Past President: | Cynthia Ju, PhD |
| Councillors: | Mingqi W. Trimble, PhD Brooke Tvermoes, PhD Jonathan Shannahan, PhD |
| Postdoctoral Representative: | Mark J Canet |
| Senior Student Representative: | Brian Jackson |
| Junior Representative: | |

Future Planned Events for the MWSOT:

- The 32nd Annual MWSOT Regional Chapter Meeting is scheduled for September 4th and 5th at the Loews Ventana Canyon Resort in Tucson, Arizona. The theme for this year’s meeting is “Microbiome and Gene-Environment Interactions”, which is being organized by the MWSOT Vice-President, Dr. Yin Chen of the University of Arizona. The meeting will be dedicated to Dr. Gary Yost of the University of Utah, who passed away recently. Dr. Yost was a strong supporter of the MWSOT and the field of toxicology for over 30 years and his absence will impact this discipline.
- Revision of the MWSOT Bylaws – Officer’s meeting tentatively scheduled for October, 2014 to address the needed revisions to the bylaws.
- Planning for the MWSOT Reception to be held at the 54th Annual SOT Meeting and ToxExpo in San Diego, CA.

III. Appendix I – Agenda for the 31st Annual MWSOT Regional Chapter Meeting:

Wednesday, September 18th, 2013

6–9 pm Registration open

7–10pm Pre-Meeting Welcome Reception (Regal/Wurlitzer Room) Featuring “The Wisecrackers”

Thursday, September 19th, 2013 (Ambassador & Registry Rooms)

7:30 am Registration Check-In & Continental Breakfast

8 am Opening Comments & Introductions

MWSOT President J. Gregory Lamb & Vice-President Todd Thompson

Lynda S. Welage, PharmD, FCCP, Dean & Professor, UNM College of Pharmacy

8:30 am KEYNOTE SPEAKER: Andrij Holian, PhD - Director, Center for Environmental Health Sciences, University of Montana

“Inflammasome Activation in Nanoparticle-Induced Lung Inflammation”

PLENARY TOPIC I – NANOTOXICOLOGY – RESPIRATORY TOXICOLOGY

9:30 am Jacob McDonald, PhD - Lovelace Respiratory Research Institute

“Pulmonary and Systemic Toxicity of Carbon Nanotubes/Fullerenes”

10 am Matthew Campen, PhD – UNM College of Pharmacy, Dept. of Pharmaceutical Sciences, UNM Health Sciences Center

“Mechanisms Mediating Systemic Vascular Toxicity Following Inhalation Exposure To Engineered Nanomaterials”

10:30 am Break

10:45 am Yin Chen, PhD - University of Arizona

“Nanomaterials and Lung Toxicity”

11:15 am Pavan Muttli, PhD – UNM College of Pharmacy, Dept of Pharmaceutical Sciences, UNM Health Sciences Center

“Toxicological Considerations in Nanoparticle/Microparticle Delivery to the Lung”

12:15 pm Lunch and Free Time

PLENARY TOPIC II – NANOTOXICOLOGY – TECHNOLOGICAL ADVANCEMENTS

2:15 pm Jared Brown, PhD - University of Colorado Department of Pharmaceutical Sciences

“Mast Cell Directed Nanomaterial Toxicity”

2:45 pm Jun Gao, PhD - Los Alamos National Laboratories

“Functionalization-Associated Effects of Carboxylated Fullerenes on Cellular Aging”

3:15 pm Break

3:30 pm J. Gregory Lamb, PhD - University of Utah College of Pharmacy, Department of Pharmacology & Toxicology

“Nanosilver Particle Effects on Human and Rodent Xenobiotic Nuclear Receptors In Vitro”

POSTDOCTORAL PRESENTATIONS

4 pm Jason Townson, PhD - Postdoctoral Fellow – Brinker Laboratory UNM Dept. Chemical/ Nuclear Engineering

“Single Cell Targeting In Vivo: Optimization of Nanoparticle-Cell Interactions in an Ex Ovo Avian Embryo Model”

4:30 pm Robert Taylor, PhD - ASERT Postdoctoral Fellow - University of New Mexico
“Iron Platinum Nanoparticle Toxicology Concerns”

4:45 pm Dr. Jonathan Shannahan - Post Doctoral Fellow, University of Colorado
“Formation of a Protein Corona on Silver Nanoparticles Mediates Cellular Toxicity”

5 pm POSTER SETUP - Wurlitzer & Regal Rooms

5:30 pm POSTER SESSION - Wurlitzer & Regal Rooms

7:30 pm BANQUET - Roxy Room

Friday, September 20, 2013 (Ambassador & Registry Rooms)

7:30 am Continental Breakfast

8:30 am Abhaya Datye, PhD & Janet Oliver, PhD - Directors, UNM Cancer Nanotechnology Training Center, UNM Cancer Nanotechnology Training Center –
“Opportunities for Students in the Biomedical Sciences, Physical Sciences, and Engineering”

GRADUATE STUDENT & POST DOCTORAL PRESENTATIONS

9 am Graduate Student & Post Doctoral Presentations

Graduate students will present in the following order. 1.) Surendra Singh, 2.) Thushara Madanayake, 3.) Jessica Sapiro, 4.) Bryan Harder, 5.) Christina Tyler, 6.) Rong Pan, 7.) Brian Jackson, 8.) Amber McBride, 9.) Xixi Zhou.

10 am Break

10:15 am Graduate Student & Post Doctoral Presentations

11:45 am Break and Awards Committee Meeting

12 pm Awards Presentation and Closing

12:30 pm MWSOT Officers Lunch (Sheraton Board Room)