2017 Annual Meeting
Montana Academy of Sciences
Student Union, Montana Tech, April 7 & 8, 2017

Overview

Friday, April 7, 2017
4:30 pm - 7:00 pm  Registration and Poster Preparation; Lobby and Big Butte Room
5:30 pm - 7:00 pm  Reception and Poster Session; Big Butte Room
7:00 pm - 8:00 pm  MAS Annual Banquet, Copper Lounge
8:00 pm - 8:40 pm  Keynote Speaker: Dr. P. Andrew Karplus, Oregon State University
Address Title: "Teaching, Teamwork, and Aha! Moments"
8:45 pm - 10:00 pm Poster Session (Continued); Big Butte Room

Saturday, April 8, 2017
7:30 am - 9:00 am  Board of Directors Meeting; Pintler Room
8:00 am - 8:50 am  Breakfast (SUB Dining Room)
9:00 am - 10:30 am Oral Presentations, Session I; Copper Lounge
9:30 am - 1:00 pm  Junior Academy Breakout Session; Kelley/Steward Room
10:30 am - 10:45 am Coffee Break, Lobby
10:45 am - 12:00 pm Oral Presentations, Session II; Copper Lounge
12:00 pm - 1:00 pm Lunch (SUB Dining Room)
1:00 pm - 2:30 pm  Oral Presentations, Session III; Copper Lounge
2:30 pm – 2:45 pm  Coffee Break, Lobby
2:45 pm - 4:00 pm  Oral Presentations, Session IV; Copper Lounge
4:00 pm  Adjourn
Please Note: Abstracts of presentations can be found on the MAS web site at http://sciencemt.org/MAS/?page_id=322

Friday, April 7, 2017
Big Butte Room

POSTER PRESENTATIONS

(Alphabetical by Title)

* Indicates Presenting Author

“Analysis of BH3I-1 Derivative’s Effect on Candida Species.” Alexander Fryett*, Montana State University – Billings

“Behavioral Ecology in the Northern Scorpion (Paruroctonus boreus).” Synda Boumediene* and Sarah Gallup*, Montana State University – Billings

“Cardiac and Perceptual Responses to Performing Tandem Cardiopulmonary Resuscitation.” Jacob Bone*, Department of Health and Human Performance, Montana State University – Billings

“CBU_1932: a Hypothetical DNA-Binding Protein of the Q Fever Pathogen Coxiella burnetii.” Benjamin Hickey*, University of Montana – Missoula

“Characteristics of the Effect of Exogenous Camp on C. albicans Morphogenesis In Strains Lacking Nrg1p, Rfg1p, or Tup1p.” Brandon Van Tassel*, Montana State University – Billings

“Determination of Solubility Limits for PDTC and Cu[PDTC]Br.” Hannah Kellinger*, Montana State University – Billings

“Developing a Yeast Model of Amyotrophic Lateral Sclerosis Involving the SOD1 Gene.” Kyler Pawlowski*, Montana State University – Billings

“Does the Misregulation of Codon-Biased Genes in the Anterior Pituitary Contribute to Familial Dysautonomia?” Joseph Walters*, Biological and Physical Sciences, Montana State University – Billings

“Endoplasmic Reticulum-Activated C/EBP Homologous Protein Mediates the Palmitate-Enriched Diet Induced Increase in the Lipogenic Expression in the Liver.” Gurdeep Marwarha*, University of North Dakota, School of Medicine and Health Sciences

“Factors Influencing Owners' Willing to Pay For Veterinary Medicine Services for Pet Dogs: A Pilot Study.” Magdalena “Brice” Henning*, University of Great Falls

“How Aqp3b Influences Convergent Extension Through Noncanonical Wnt Signaling.” Kaitlyn See*, Montana State University – Bozeman; 2016 MAS Grant Awardee
“Modeling the Distribution of Pollutants for a Mine.” Mark Melton*, University of Great Falls

“Oxidation of d-Glucose and d-Mannose.” Katelyn Duncan*, University of Great Falls

“Proximate Analysis of Fish Feed.” Alexis Rickets*, University of Great Falls

“Riverine Carbon Cycling as a Function of Seasonality.” Christine Foreman*, Montana State University – Bozeman; 2016 MAS Grant Awardee

“Synthesis of [Cu(PDTC)] Coordination Series”. Mohammadreza Heidari*, Montana State University – Billings

“The Effect of the Cuffy Wedge on the Average Vertical Jump Height of Volleyball Athletes.” Ashley Klepec*, Department of Biology, University of Great Falls

“The Effects of Chronic Cortisol Exposure on the Innate Immune Response of Larval Danio rerio.” Molly Herron*, University of Great Falls

“The Use of Trichostatin a to Rescue TrkAa+ Neurons in a Mouse Model of Familial Dysautonomia”. Richard Buksch*, Montana State University – Billings

“Zebrafish Stress Synapse”. Brynn Letang*, University of Great Falls

**Saturday, April 8, 2017**

### ORAL PRESENTATIONS

*Indicates Presenting Author*

#### Session 1 (Copper Lounge)

9:00  Junior Academy Talk: “Characterization and Testing of Compounds Produced by *Aspergillus turcosus* that Target Cancer-Associated Pathways”  Niel Mondava *, Hellgate High School


9:30  “Characterization and Certification of a Montana Mycobacteriophage.”  Margeaux Black*, University of Montana - Montana Tech

9:45  “Fabrication and Characterization of Aligned Fibers on Nonconductive Substrates from a Novel Electrospinning System”.  Zachary Burckhard*, University of Montana - Montana Tech

10:00  “Rabbit Creek: Geochemistry of an Alkaline Deeply Sourced Hot Spring with Abundant Microbial Mats.”  Jordan Foster*, University of Montana - Montana Tech


**10:30  Coffee Break, Lobby**
**Session II (Copper Lounge)**

10:45  “Macroinvertebrates as Indicators of Water Quality in Blacktail Creek.”  **Ryan Koch**,  
*University of Montana - Montana Tech*

11:00  “Rhetoric, Semiotics, and the 1956 Betty Crocker Cookbook.”  **Barbara Cass**,  
*University of Montana - Montana Tech*

11:15  “Finite-Difference Modeling of 2-D Compressional Wavefield.”  **Chau Duc Minh Ha**,  
*University of Montana - Montana Tech*

11:30  “High Saturated Fat-Enriched Diet Evokes Endoplasmic Reticulum Stress and  
Consequently Increases B-Site App Cleaving Enzyme 1 Activity in Amyloid-  
Beta Engenderment in the Brain.”  **Gurdeep Marwarha**,  
*University of North Dakota, School of Medicine and Health Sciences*

11:45  “Relationship of Athletic Injuries to Athletic Season.”  **Jessica Ream**,  
*University of Great Falls*

**12:00  Lunch**

*Indicates Presenting Author*

**Session III (Copper Lounge)**

1:00  “Design and Synthesis of Proligand Pyridine-2,6-Dithiocarboxylic Acid and  
Structural Derivatives for Use in Environmental Remediation of Carbon  
Tetrachloride.”  **Ky Mickelson**,  
*Montana State University – Bozeman*

1:15  “Using Nuclear Magnetic Resonance (NMR) Metabolic Profiling to Distinguish Herds of  
Bighorn (*Ovis canadensis*) Sheep.”  **James G. Berardinelli**,  
*Montana State University – Bozeman*

1:30  “The Word Problems for Hyperbolic Groups.”  **Tyler Taylor**,  
*University of Montana - Montana Tech*

1:45  “Continuous Nowhere Differentiable Functions.”  **Tyler Taylor**,  
*University of Montana - Montana Tech*

2:00  “Essentially Normal Composition Operators on the Hardy Space.”  **Jeff Preston**,  
*University of Montana - Montana Tech*

**2:15  Coffee Break, Lobby**

*Indicates Presenting Author*

**Session IV (Copper Lounge)**

2:30  “Growth of Finitely Generated Groups.”  **Jeff Preston**,  
*University of Montana - Montana Tech*

*University of Montana - Montana Tech*

3:00  “Women’s Experiences and Perspectives of Certification Schemes and  
Empowerment in the Costa Rican Coffee Industry.”  **Laura Stein**,  
*University of Montana – Missoula; 2016 MAS Grant Awardee*

3:15  “Amphibian Risk Assessment in Montana.”  **Alex Kurtz**,  
*Carroll College; 2016 MAS Grant Awardee*
3:30 “Potential Factors Driving Sandberg's Bluegrass Growth in Relation to Sagebrush Cover.” Nate Heywood*, Montana State University – Bozeman; 2016 MAS Grant Awardee

3:45 “Eight years later: time to look to soils to improve Yellowstone National Park’s restoration goals.” Shannon Dillard*, Montana State University – Bozeman; 2016 MAS Grant Awardee

4:00 Adjourn

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**2017-18 MAS Board of Directors**

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