

# Undergraduate Researcher Activities

## 2013-2014 Academic Year & Summer of 2014

### Presentations (undergraduates are bold-faced)

**Owen Price**, Damon Nitzel, Laurel Gui, Joan Hevel. "Kinetic and Oligomeric Characterization of a PRMT1 C254S Mutant" Undergraduate Student Showcase, Logan, UT, April 11, 2014. *Poster*.

**Owen Price**, Damon Nitzel, Laurel Gui, Joan Hevel. "Investigation into the Kinetics and Oligomerization of PRMT1" 247<sup>th</sup> American Chemical Society National Meeting; Undergraduate Poster Session, Dallas, TX. March 17, 2014. *Poster*.

**Nick Labrum** and Yujie Sun. "Bio-Inspired Molecular Manganese-Calcium Catalysts for Water Oxidation" Research on Capitol Hill, Salt Lake City, UT, January 30, 2014.

**Lia Bogoev** and Yujie Sun. "Facile Preparation of 1<sup>st</sup>-Row Transition Metal Chalcogenides as Hydrogen Evolution Catalysts in Water" Research on Capitol Hill, Salt Lake City, UT, January 30, 2014.

**Nick Labrum** and Yujie Sun. "Bio-Inspired Molecular Manganese-Calcium Catalysts for Water Oxidation" Utah Conference on Undergraduate Research, Provo, UT, February 28, 2014.

**Lia Bogoev** and Yujie Sun. "Facile Preparation of 1<sup>st</sup>-Row Transition Metal Chalcogenides as Hydrogen Evolution Catalysts in Water" Utah Conference on Undergraduate Research, Provo, UT, February 28, 2014.

**Nick Labrum** and Yujie Sun. "Bio-Inspired Molecular Manganese-Calcium Catalysts for Water Oxidation" Student Showcase, Utah State University, Logan, UT, April 11, 2014.

**Lia Bogoev** and Yujie Sun. "Facile Preparation of 1<sup>st</sup>-Row Transition Metal Chalcogenides as Hydrogen Evolution Catalysts in Water" Student Showcase, Utah State University, Logan, UT, April 11, 2014.

Abram Bernard, **Shari Duarte**, and Nicholas E. Dickenson. 2014 USU Office of Research and Graduate Studies Research Week '14, Logan, UT, April 7-11, 2014. Fluorescence Polarization Provides Insights into the First Steps of Salmonella Type III Secretion System Tip Maturation (Poster).

R. Alan Burgess, **Jenna M. Hawley**, and Nicholas E. Dickenson. 2014 USU Office of Research and Graduate Studies Research Week '14, Logan, UT, April 7-11, 2014. Probing the Effects of Lipid Phase Order on the Localization of Shigella Type Three Secretion System Translocon Proteins in Artificial Membranes (Poster).

Poster presented at the USU Office of Research and Graduate Studies Research Week April 7-11, 2014, Logan UT. **Tanner Tripp, Parker Davenport**, Sofia Origanti and Edwin Antony. "Unnatural amino acids: Novel Tools to probe protein function".

Poster presented at the USU Office of Research and Graduate Studies Research Week April 7-11, 2014, Logan UT **Mark Soffe**, Sofia Origanti and Edwin Antony. "A column-free protein purification procedure using E. coli SSB as an Affinity Tag".

Poster presented at the USU Office of Research and Graduate Studies Research Week April 7-11, 2014, Logan UT **Jeff VonGermeten**, Sofia Origanti and Edwin Antony. "Regulation of homologous recombination by recombination-mediator proteins".

Poster Presented at the Research on Capitol Hill, Salt Lake City, UT. January 30, 2014. **Mark Soffe**, Sofia Origanti and Edwin Antony. "A column-free protein purification procedure using *E. coli* SSB as an Affinity Tag".

Poster Presented at the Utah Conference on Undergraduate Research, Provo, UT. February 28, 2014. **Mark Soffe**, Sofia Origanti and Edwin Antony. "A column-free protein purification procedure using *E. coli* SSB as an Affinity Tag".

Poster presented at the Research on Capitol Hill, Salt Lake City, UT. February, 2013. **Jeff VonGermeten**, Sofia Origanti and Edwin Antony. "Regulation of homologous recombination by recombination-mediator proteins".

**Laura Mortenson** and Sean Johnson. "PCR for amplification of WC2, a key regulator of circadian rhythm in *Neurospora crassa*." 2014 USU Student Showcase. Logan, UT. Poster Presented.

**Emily Frampton** and Sean Johnson. "Cloning and Expression for the Future Characterization of the Air2 Protein." 2014 USU Student Showcase. Logan, UT. Poster Presented.

**Laura Mortenson** and Sean Johnson. "PCR for amplification of WC2, a key regulator of circadian rhythm in *Neurospora crassa*." 2014 National Conference on Undergraduate Research. Lexington, KY. Poster Presented.

**Emily Frampton** and Sean Johnson. "Cloning and Expression for the Future Characterization of the Air2 Protein." 2014 National Conference on Undergraduate Research. Lexington, KY. Poster Presented.

### **Publications (undergraduates are bold-faced)**

Lytle, A.K., Origanti, S., **VonGermeten, G.**, and Antony E. Context dependent remodeling of Rad51-DNA complexes by Srs2 is mediated by a specific protein-protein interaction. *J. Mol. Biol.* 2014. 426:1888-1897.

Shrestha, J. P., Fosso, M. Y., **Bearss, J.**, Chang, C.-W. T. "Synthesis and anticancer structure activity relationship investigation of cationic anthraquinone analogs." *Eur. J. Med. Chem.* 2014, 77:96-102.

### **URCO/SURCO and COS Mini-Grant Awards**

#### **URCO/SURCO**

Owen Price (URCO & SURCO, Hevel lab)  
Chad Apuli (URCO, Hevel lab)  
Nick Labrum (URCO, Sun lab)  
Lia Bogoev (URCO & SURCO, Sun lab)  
Ryan Hirschi (SURCO, Hengge lab)  
Jenna Hawley (SURCO, Dickenson lab)  
Shari Duarte (SURCO, Dickenson lab)

Christopher Williams (URCO, Berreau lab)  
Mark Soffe (URCO, Antony Lab)  
Shawn Helm (URCO, Antony Lab)  
Tanner Tripp (URCO, Antony Lab)  
Parker Davenport (URCO, Antony Lab)

**COS Mini-Grant Awards**

J. Riley Argue (Berreau lab)  
Emily Underlin (CoS, Antony Lab)  
Kaleb Chatland (Johnson Lab)

**Students participating in Chem 4800, Undergraduate Research Problems**

Taylor Wade (Hevel lab)  
Shari Duarte (Dickenson Lab)  
Carson Jessop (Dickenson Lab)  
Tanner Tripp (Antony Lab)  
Parker Davenport (Antony Lab)  
Jeff VonGermeten (Antony Lab)  
Laura Mortensen (Johnson Lab)

**Nationally Competitive Awards and Honors**

*American Heart Association Summer Research Fellowship*  
Owen Price (Hevel)

Information from Hevel, Hengge, Sun, Dickenson, Berreau, Antony, Chang, Johnson