

Winthrop University
Summer Undergraduate Research Experience – Oral Presentations
July 28-29, 2011, Sims 105

Thursday, July 28th

- 1:10 **Jeff Myers** and Dr. Hanna. The Synthesis of Benzisoxazolo[2,3-*a*]pyridinium Tetrafluoroborates.
- 1:25 **Rebecca Mitchum, Iris Strzyzewski**, and Dr. Lammi. Examining the Effects of Zinc on Amyloid- β Dimers.
- 1:40 **Joshua Owens** and Dr. Birgbauer. Construction of siRNA Retroviral Vectors Targeting LPA Receptors in the Chick Visual System.
- 1:55 **Sharon Jenkins** and Dr. Grossoehme. Examining the Colorimetric and Calorimetric Properties of Various Copper (I) Complexes.
- 2:10 **Nicole Wesselschmidt** and Dr. Werts. Peat Core Development and Paleoclimate Investigations Using High Resolution $\delta^{13}\text{C}$ Analysis Since the Last Glacial Maximum from Congaree National Park, SC.
- 2:25 **Emily Bowie** and Dr. Smith. The Hedgehog Pathway in the Basal Bilaterian *Isodiametra pulchra* (Acoelomorpha).
- 2:40 BREAK
- 2:50 **Will Lominac** and Dr. Hanna. Pyrazolopyridine Synthesis: An Optimization Study.
- 3:05 **Caitlin Manning** and Dr. Evans-Anderson. *In Situ* Hybridization of Heart Specific mRNA in Adult and Juvenile *Ciona intestinalis*.
- 3:20 **Jennifer Schofield** and Dr. Hartel. Formation of Proximal beta-Amino Silyl Enol Ethers from 2-Acy laziridines Using Silyllithium Reagents.
- 3:35 **Ronald Nelson** and Dr. Sumter. Evaluating the Impact of Substitutions at Arginine 25 of the High Mobility Group A1b Function.
- 3:50 **Becca Toor** and Dr. Grossoehme. The cloning of a putative Ni²⁺ sensor from *Streptomyces coelicolor* and FOXO from *Ciona intestinalis*.

Friday, July 29th

- 9:30 **Sam Robinson, Jr.** and Dr. Birgbauer. Localization of LPA Receptor LPA1 in the Retina.
- 9:45 **Kevin Mays** and Dr. Grattan. The Design and Synthesis of Orally Bioavailable Sphingosine Kinase Inhibitors with an Emphasis on Pharmacophoric Zone '4' Derivation.
- 10:00 **Zayed Almadidy** and Dr. Grossoehme. *In Vitro* Generation of Cu^I Through Redox Chemistry and Its Stabilization By Means of Organic Stabilizing Ligands.
- 10:15 **Tyler Couch** and Dr. Hurlbert. Expression of Human Sphingosine Kinase 1 in *Escherichia coli*.
- 10:30 **Emily Amenson** and Dr. Lammi. Inquiries into Amyloid- β Oligomer Structures.
- 10:45 BREAK

Friday, July 29th, continued

- 10:55 **Jarod Fincher** and Dr. Birgbauer. GPCR Intracellular Pathways G12/13 and Gi are Involved in LPA and S1P Mediated Axon Guidance.
- 11:10 **Amber Wallace** and Dr. Hartel. Synthesis and Purification of Hydroxy Silyl Enol Ethers Prepared from Epoxy Ketones and Silyllithium Reagents.
- 11:25 **Canaan Whiteneck** and Dr. Sumter. Testing the Utility of Chromatin Immunoprecipitation in Understanding Transcriptional Regulation of *High Mobility Group A1*.
- 11:40 **Paul Kaschutnig** and Dr. Smith. Function and Expression of *nanos* in the Model Organism *Macrostomum lignano* (Platyhelminthes).
- 11:55 **Megan D'Angelo** and Dr. Hanna. Synthesis of 3-Alkylpyrazolopyridines by Ring Closure of Pyridine *N*-oxide Tosylhydrazones.
- 12:10 LUNCH
- 1:00 GROUP PHOTO
- 1:20 **Kennon Smith** and Dr. Hurlbert. Crystallographic Structure Determination of *Clostridium papyrsolvens* C71 Xylanase: Molecular Replacement using Homology Models.
- 1:35 **Destinee Johnson** and Dr. Grosseohme. Determination of Metal Binding Constants by Potentiometric Titrations.
- 1:50 **Craig Stevens**, Dr. Lammi, and Dr. Hanna. Synthesis and Evaluation of Potential Amyloid- β Aggregation Inhibitors.
- 2:05 **Charley Gao** and Dr. Birgbauer. Construction of siRNA Vectors against LPA Receptors.
- 2:20 **Arthur Korous** and Dr. Hartel. Preparation of Mannich Bases from 2-Acylaziridines Using Silyllithium Reagents.
- 2:35 **Paisley Trantham** and Dr. Grosseohme. Protein Purification and Determination of Metal-Binding Affinities of a Nickel-Uptake Regulator in *Streptomyces coelicolor*.