**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 δ13C 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*.


3:50  **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⁺ 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
10:55  **Jarod Fincher** and Dr. Birgbauer. GPCR Intracellular Pathways G12/13 and Gi are Involved in LPA and S1P Mediated Axon Guidance.


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).


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. Grossoehme. 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.


2:35  **Paisley Trantham** and Dr. Grossoehme. Protein Purification and Determination of Metal-Binding Affinities of a Nickel-Uptake Regulator in *Streptomyces coelicolor*. 