

**2012 Sigma Xi Symposium Schedule**  
**May 4, 2012**  
**2:30 pm - 7:00 pm**

**Session 1: Oral Papers**  
**Nobel 201 and Nobel 222**

<b>Session 1A: Nobel 201</b>	
2:30 pm	<b>Spatial Distribution and Fate of Trace Metals in Ombrotrophic Peat Bogs</b> Nick Alverson
2:45 pm	<b>Methylmercury Dynamics in the Porewaters of an Ombrotrophic Peatland</b> Alison Agather
3:00 pm	<b>Sediment Core Analysis of Lakes in Alaska and Newfoundland</b> Michael Walker
3:15 pm	<b>Sediment Exchange between a Marsh and an Adjacent Submersed Aquatic Vegetation (SAV) Bed in Chincoteague Bay, MD</b> Andrea Eglinton
3:30 pm	<b>Comparison of Marine and Terrestrial Climate Models to Geologic Evidence from the Permian-Triassic Boundary</b> Todd Kremmin
3:45 pm	<b>Gunflint Iron Formation Microfossils</b> Joe Curran
4:00 pm	<b>Strain Analysis of Archean, Metasedimentary Rocks in the Virginia Horn</b> Robert Holder

<b>Session 1B: Nobel 222</b>	
2:30 pm	<b>Renewable Energy: Development of Undergraduate Laboratory Exercises in a Sustainable Energy Paradigm</b> Amy Audette and Kevin Clark
2:45 pm	<b>Development of a Time-Of-Flight Mass Spectrometer Using Radial Extraction from a Linear Quadrupole Ion Trap</b> Brandon J. Furey
3:00 pm	<b>Cadmium Binding and Dimer Formation in Metalloprotein II</b> Sarah Lucht
3:15 pm	<b>HPLC Method Development and Verification for the Analysis of Imazamethabenz-methyl</b> Megan Crow
3:30 pm	<b>Hatch plasticity in sheepshead minnow embryos in response to predators</b> Ethen Degner
3:45 pm	<b>The Voices of Hidden Memories and Brain Arousal</b> Krista Primley
4:00 pm	<b>Magnesium Impacts Conformational Changes in Myosin V Motor Protein</b> Anja Swenson

**Sigma Xi New Member Recognition Ceremony and Social**  
**Nobel Atrium**  
**4:15-5:00 pm**

**Session 2: Poster Presentations**

*In association with the Celebration of Creative Inquiry\**

**Jackson Campus Center**

**5:00 pm – 7:00 pm**

<b>Mineralogy of Crystal and Matrix: Implications for Preservation of Dinosaur Bones</b> Amanda Adams
<b>Hatch plasticity in sheepshead minnow embryos in response to predator presence</b> Ethen Degner
<b>Mapping the Period (PER) binding surface of the circadian clock protein Cryptochrome (CRY)</b> Audrey Messelt and Mariecus C. Jarvis
<b>Awareness of Attentional System and Spatial Judgments</b> Jean-Paul Noel and Anthony Mefford
<b>Toward Developing Intramolecular Diels-Alder Reaction Involving 2- trialkylsiloxyfurans</b> Michael Sterling
<b>Morphological and Molecular Genus Placement of the Gulf of Mexico Snakefish (Trachinocephalus myops)</b> Kimberly Sukhum
<b>Determining Dispersal Patterns of Benthopelagic Fishes by Comparing Genetic Code and Calculating FST</b> Grant Walters
<b>Synthesis of Chiral “Propeller” Trisphthalocyanine Complexes</b> Alexandria Ceranske and Biao (Toby) Tong
<b>Preparation of Covalent and Coordination Polymers Containing Phthalocyanine Units</b> Greg Wiessner and Emma Motl
<b>Approaches to the Synthesis of a Novel Bifacial Ligand, 1,6,7,12-Tetraazaperylene</b> Michael Howe
<b>Evaluation of phosphinic and phosphonic fluorosurfactant mixtures as possible PFOA replacements in PTFE emulsion polymerization</b> Anthony J. Cesnik

\* Sigma Xi Posters should be marked with an oval Sigma Xi 125<sup>th</sup> Anniversary Logo