

# Congratulations to OUR Discovery Day 2008 Award Winners

## ARTS & MUSIC

1. **Elizabeth Nyikos**, Music – Columbia, SC  
Mentor: Dr. Scott Gwara, English Language and Literatures  
***Medieval French Polyphony at Columbia College***
2. **Heather Davis**, History, USC Aiken – Aiken, SC  
Mentor: Dr. Maggi Morehouse, History, USC Aiken  
***Music Production in Post-Katrina New Orleans***

## BIOMEDICAL SCIENCES

1. **Jeet Guram**, Interdisciplinary Studies – Columbia, SC  
Mentor: Dr. Sarah Sweitzer, Pharmacology, Physiology and Neuroscience  
***Physiological Basis for Fetal Alcohol-Induced Hypersensitivity to Pain***
2. **Timothy Davis**, Chemical Engineering – Garden City, SC  
Mentor: Dr. Melissa Moss, Chemical Engineering  
***Inhibition of Amyloid- $\beta$  Protein Aggregation in Alzheimer's Disease***

## COMMUNICATION, HUMANITIES & CULTURE

1. **Jennifer Brackett**, English – Easley, SC  
Mentor: Dr. Matthew Bruccoli, English Language and Literatures  
***In Case Something Should Happen: Changes to Hemingway's Post-humously Published Garden of Eden***
2. **William Davis**, Biological Sciences, USC Upstate – Greenville, SC  
Mentor: Prof. Douglas Jackson, Spanish, USC Upstate  
***An Etymological Investigation of Medical Terminology: A Realistic Application for the Medical Interpreter***

## HEALTH, WELL-BEING AND EDUCATION

1. **Amanda Thomas**, Nursing – York, SC  
Mentors: Dr. Stephanie Burgess, Nursing  
Prof. Kara Jones-Schubart, Nursing  
***Factors that Predict Teen Partner Abuse***
2. **Sarah Mecca**, Nursing – Columbia, SC  
Mentor: Dr. DeAnne Messias, Nursing  
***Testing the Quality of Life in School-Aged Children as Related to Asthma and Asthma Management in South Carolina Schools***

## HISTORY & POLITICS

1. **Michael Williams**, History – Columbia, SC  
Mentor: Mr. Eric Barger, History  
***The Shadow of Orangeburg: Voorhees Student Unrest 1969-71***
2. **Corinne D'Ippolito**, Marine Science  
Mentor: Dr. Thomas Lekan, History – Boulder, CO  
***American Wilderness Legacies and Feral Hog Management***

## NATURAL SCIENCE & ENGINEERING

1. **Tyler Ray**, Mathematics – Richmond, VA  
Mentor: Dr. Sarah Baxter, Mechanical Engineering  
***Gold Nanorods: Exploration of the Growth Mechanism through Cellular Automata Modeling***
2. **Lauren Van Thiel**, Marine Science – Roanoke, VA  
Mentor: Dr. Jerry Hilbish, Biological Sciences  
***Sublethal Stress Response to Climate Variation in Marine Ecosystems***

## ARTS & HUMANITIES

1. **Andrew Moeller**, Music – Oak Ridge, TN  
Mentor: Dr. Constance Gee, Music Education, History and Theory  
***Fundamental Differences in Violin and Viola Pedagogy***
2. **Stacy Wiley**, Music – Columbia, SC  
Mentor: Dr. Gail Barnes, Music Education, History and Theory  
***Online Community for String and Orchestra Teachers***

## BIOMEDICAL 1

1. **Melisa Tanverdi**, Biological Sciences – Irmo, SC  
Mentor: Dr. Rekha Patel, Biological Sciences  
***The inhibitory effect of HoxA5 on NF- $\kappa$ B dependent transcription***
2. **Whitney Kellett**, Chemistry – Columbia, SC  
Mentor: Dr. Georgi Petkov, Pharmacology, Physiology and Neuroscience  
***SK and IK Ca<sup>2+</sup>-activated K<sup>+</sup> channels as novel pharmacological targets to control urinary bladder smooth muscle excitability and contractility***
3. **Vaughn Braxton**, Chemistry – Hemingway, SC  
Mentor: Dr. Susan Lessner, Cell and Developmental Biology and Anatomy  
***Optimization of Pattern Formation Reagents for 3D-Digital Image Correlation Analysis of Mouse Arteries***

## BIOMEDICAL 2

1. **Anne Hishon**, Pharmacy – Charlotte, NC  
**Kate Gerrald**, Pharmacy – Asheville, NC  
Mentor: Dr. Brandon Bookstaver, School of Pharmacy  
***Treatment Outcomes of Novel Antibiotic Lock Solutions: A Case Series Analysis***

2. **Tamara Looney**, Anthropology – Aiken, SC  
Mentors: Dr. Thomas Leatherman, Anthropology  
Dr. Beth Mayer-Davis, Epidemiology and Biostatistics  
***Carbohydrate Counting in Columbia Adolescents with Type 1 Diabetes***
3. **Whitney Jones**, Pharmacy – York, SC  
Mentor: Dr. LeAnn Norris, Pharmacology, Physiology and Neuroscience  
***Evaluation of the Modification of Diet in Renal Disease (MDRD) and Cockcroft-Gault (C-G) formulas in the Calvert equation for Carboplatin Dosing***

## BUSINESS, LAW AND POLITICS

1. **Amanda Kay Seals**, Interdisciplinary Studies – Clinton, TN  
Mentors: Prof. Melayne McInnes, Economics  
Prof. Christine Fountain, Sociology  
***How much is tomorrow worth? The relationship between time preference and addiction***
2. **Joshua Rabon**, Accounting – Georgetown, SC  
Mentor: Dr. Marcus Caylor, Accounting  
***Corporate Governance and Return on Capital Expenditures***

## CHEMISTRY & MATERIAL SCIENCE

1. **Byron Farnum**, Chemistry – Camden, SC  
Mentor: Dr. John Ferry, Chemistry and Biochemistry  
***Investigation of the photocatalytic properties of a family of calcium bismuth oxides***
2. **Jessica Michaud**, Chemistry – Wilmington, NC  
Mentor: Dr. Stephen L. Morgan, Chemistry and Biochemistry  
***Forensic Discrimination of Black Electrical Tape using Attenuated Total Reflectance and Pyrolysis-Gas Chromatography/Mass Spectrometry***
3. **Kathryn Seward**, Chemistry – Chapin, SC  
Mentor: Dr. Hans Conrad zur Loye, Chemistry and Biochemistry  
***Synthesis and characterization of amino-bis-phosphonic acids for use in crystallizing layered inorganic-organic materials***

## EARTH & MARINE SCIENCES 1

1. **Justin Lewandowski**, Marine Science – South Bound Brook, NJ  
Mentor: Dr. Joseph Quattro, Biological Sciences  
***One or two species of cownose ray (*Rhinoptera* spp.) in the Western Atlantic and Gulf of Mexico?***
2. **Kevin Beers**, Biological Sciences – Coatesville, PA  
Mentor: Dr. Richard Long, Biological Sciences  
***Identification of the Production of Active Organic Compounds in Antagonistic Interactions among Marine Bacteria***

## EARTH & MARINE SCIENCES 2

1. **Elizabeth Bell**, Geology – Christiansburg, VA  
Mentor: Dr. David Barbeau, Geological Sciences  
***Geochemical Provenance Analysis of Calcareous Gravel, Ebro Basin, Spain***
2. **Reid Mobley**, Geology – Blythewood, SC  
Mentor: Prof. Gene Yogodzinski, Geological Sciences  
***Physical Conditions in the Upper Mantle Beneath Kharchinsky Volcano, Kamchatka***

## ENGINEERING, PHYSICS AND MATH

1. **Christopher, Poirel**, Mathematics – Pawleys Island, SC  
Mentor: Dr. Joshua Cooper, Mathematics  
***Partition Regularity of the Pythagorean Triples***
2. **TIE: Kevin Daniels**, Electrical Engineering – Columbia, SC  
Mentor: Dr. Tangali Sudarshan, Electrical Engineering  
***Development of Selective, Low Damage Chemical Etching Technique for Silicon Carbide***
- TIE: Jonathan DeGange**, Chemistry – Rock Hill, SC  
Mentor: Prof. Steffen Strauch, Physics and Astronomy  
***Study of Instrumental Asymmetries in the Focal-Plane Polarimeter at Jefferson Lab Hall A***

## NEUROSCIENCE

1. **Rabiah Ali**, Biological Sciences – Newberry, SC  
Mentor: Dr. Sarah Sweitzer, Pharmacology, Psychology and Neuroscience  
***Using Herpes Simplex Virus-1 to Over-express the Mu-opioid Receptor in Afferent Neurons***
2. **Lauren Codi Black**, Experimental Psychology – Pickens, SC  
Mentor: Dr. Sandra Kelly, Psychology  
***Social anticipation and play behavior in an animal model of autism***
3. **Jeet Guram**, Interdisciplinary Studies – Columbia, SC  
Mentor: Dr. Sarah Sweitzer, Pharmacology, Psychology and Neuroscience  
***Growing Pains: Differential Endothelin-1 Induced C-Fos Expression in the Spinal Cord***

## PSYCHOLOGY, GENERAL

1. **Rachel Bingaman**, Experimental Psychology – Columbia, SC  
Mentors: Dr. Benjamin Hankin, Psychology  
Ms. Emily Wetter, Psychology  
***Excessive Reassurance Seeking and Insecure Attachment as Risk Factors for Depressive Symptoms: A 2 year prospective study of youth***

2. **Daron Jolley**, Experimental Psychology – Gaffney, SC  
**Kristin Arnold**, Experimental Psychology – Lexington, SC  
Mentors: Ms. Kerrie Glass, Psychology  
Dr. Kate Flory, Psychology  
***Exploring Self-report and Friend Report Differences in Social Competence of Adolescents with ADHD***
3. **Eric Bowers**, Experimental Psychology – Walhalla, SC  
Mentor: Dr. Amit Almor, Psychology  
***Reference and Representation: The Neural Structures involved in Referential Processing***

## SOCIAL SCIENCE & EDUCATION

1. **Kathy Niu**, Interdisciplinary Studies – Columbia, SC  
Mentor: Dr. Christopher Rorden, Communication Sciences and Disorders  
***Temporal Parietal Junction Activation during Temporal Order Judgments***
2. **Sarah Mecca**, Nursing – Columbia, SC  
Mentor: Dr. DeAnne Messias, Nursing  
***Testing the Quality of Life in School-Aged Children as Related to Asthma and Asthma Management in South Carolina Schools***
3. **Anna Walton**, Biological Sciences – West Columbia, SC  
Mentors: Dr. Heather Brandt and  
Dr. Deborah Parra-Medina, Health Promotion Education and Behavior  
***Readability of Cancer and Cancer-related Educational Materials Developed for the Hispanic Population in the United States***