

Congratulations to OUR  
DISCOVERY DAY 2007  
Award Winners

**ORAL PRESENTATIONS – Group 1**

1. **Samuel Wellborn**, International Studies - Lexington, SC  
Mentor: Dr. Katherine Barbieri, Political Science  
*Incidence of Foreign Direct Investment into Developing Economies in the Temporal Context of War*
2. **Oskana Slobozhan**, International Studies, Magellan Scholar, Honors College – Columbia, SC  
Mentor: Dr. Katherine Barbieri, Political Science  
*The Impact of Economic Interdependence on Russia's Foreign Relations*

**ORAL PRESENTATIONS – Group 2**

1. **Chanda Cooper**, Biological Sciences, Magellan Scholar, Honors College - Camden, SC  
Mentor: Dr. Gail Wagner, Anthropology  
*Botanical Knowledge among South Carolina Elementary School Students*
2. **Samuel McQuillin**, Experimental Psychology - Charleston, SC  
**John Terry**, Experimental Psychology - Hilton Head, SC  
Mentors: Dr. Bradley Smith, Psychology and Ms. Carolyn Pender, PhD Candidate, School Psychology  
*The Challenging Horizons Program: Contributions of USC Undergraduates to the Development of an Evidence-Based, Award Winning Program*

**ORAL PRESENTATIONS – Group 3**

1. **Meredith Tershansy**, Chemistry, Magellan Scholar, Honors College - Kingsport, TN  
Mentor: Dr. Hans-Conrad zur Loye, Chemistry and Biochemistry  
*The Syntheses and Structural Determinations of Several New Metal-Halide Compounds of Bismuth, Lead, Copper, and Silver*
2. **Fahmin Basher**, Chemical Engineering, Magellan Scholar, Honors College - Orangeburg, SC  
Mentor: Dr. James Cook, Department of Neuroscience, MUSC  
*The Effect of  $\beta$ -Arrestin 2 Deficiency on LPS-induced Inflammatory Responses in Polymorphonuclear Leukocytes*

**ORAL PRESENTATIONS – Group 4**

1. **Melinda Lynch**, Biological Sciences, Magellan Scholar, Honors College - Tucson, AZ  
Mentor: Dr. Dan Dixon, Biological Sciences  
*Down regulation of the mRNA stability factor HuR through the use of small interfering RNAs: A Novel Gene Therapy Method*
2. **Kathryn Johnson**, Chemical Engineering, Magellan Scholar, Honors College - North Augusta, SC  
Mentors: Dr. Jonathan Bender and Dr. Melissa Moss, Chemical Engineering  
*Understanding Alzheimer's Disease: Mechanistic Studies of Amyloid-beta Surface Assembly*

**MUSICAL PERFORMANCES**

1. **Jessica Robinson**, Music, Magellan Scholar, Honors College - Decatur, GA  
Mentor: Dr. William Terwilliger, Music Education, History and Theory  
*Gaining Perspectives from the Best of the Music World – Consultations with Mr. David Kim, Concertmaster of the Philadelphia Orchestra*

## **BIOLOGICAL SCIENCES**

1. **Katrina Phillips**, Marine Science, Magellan Scholar, Honors College - Spartanburg, SC  
Mentor: Dr. Steve Stancyk, Biological Sciences  
*The Effects of Cadmium on Amphipholis gracillima Regeneration*
2. **Daniel Russo**, Marine Science - Richmond, VA  
**Michele Ross**, Marine Science - Norfolk, VA  
Mentor: Dr. Steve Stancyk, Biological Sciences  
*Detection of tactile cues from the predatory seastar Luidia clathrata by the brittlestar Ophioderma brevispinum*
3. **Adena Leibman**, Marine Science - Myrtle Beach, SC  
Mentor: Dr. Joseph Quattro, Biological Sciences  
*Preliminary Determination of Natal Origin of Juvenile Loggerhead Sea Turtles (Caretta caretta) of Charleston, South Carolina, United States During Summer, 2006*

## **BIOMEDICAL 1**

1. **Alyson Gibson**, Pharmacy, Magellan Scholar - Columbia, SC  
Mentor: Dr. Laura Fox, Pharmacy  
*Physical compatibility of various concentrated intravenous drugs with neonatal total parenteral nutrition solution*
2. **Jenna Oberstaller**, Biological Sciences, Magellan Scholar, Honors College - Spartanburg, SC  
Mentor: Dr. Bert Ely, Biological Sciences  
*Using African variation at chromosome 8 to unravel causation of aggressive cancers*
3. **Julia Gambone**, Exercise Science, Honors College - Berwyn, PA  
Mentor: Dr. Mark Davis, Exercise Science  
*The Role of Brain Glucose and Adenosine on Central Nervous System Fatigue*

## **BIOMEDICAL 2**

1. **Tina Zhang**, Biological Sciences, Magellan Scholar, Honors College - West Columbia, SC  
Mentor: Dr. Robert McKallip, Pathology and Microbiology  
*Immunomodulatory Properties of Plumbagin*
2. **Melissa Tanverdi**, Biological Sciences, Honors College - Columbia, SC  
Mentor: Dr. Robert McKallip, Pathology and Microbiology  
*The nature and role of CD44 isoforms in the interactions between melanoma and endothelial cells*
3. **TIE: TuAnh Khuu**, Biological Sciences, Honors College - Greenville, SC  
Mentor: Dr. Rehka Patel, Biological Sciences  
*DRIL1 As A Substrate of PKR*  
**TIE: Bryan Sibert**, Biological Sciences, Honors College - Goshen, KY  
Mentor: Dr. Jeffrey Patton, Pathology and Microbiology  
*Critical amino acids in an essential RNA modification enzyme*

## **EARTH AND MARINE SCIENCES**

1. **Susan Herron**, Marine Science, Magellan Scholar, Capstone Scholar - Lexington, KY  
Mentor: Dr. Claudia Benitez-Nelson, Geological Sciences  
*Insights into Sediment Trap Efficiency: Dissolution of Biogenic Silica in the Santa Barbara Basin*
2. **Elizabeth Bell**, Geology, Magellan Scholar, Honors College - Christiansburg, VA  
Mentor: Dr. David Barbeau, Geological Sciences  
*Applying Stable Isotope Geochemistry to Determine the Provenance of Calcareous Gravels*

## ENGINEERING AND COMPUTER SCIENCE

1. **Karen Wigal**, Chemical Engineering, Magellan Scholar, Honors College - Morgantown, WV  
Mentor: Dr. Michael Amiridis, Chemical Engineering  
*Synthesis of Nearly Uniform Pt Clusters in Aqueous Solutions and on a Al<sub>2</sub>O<sub>3</sub> Surface*
2. **Timothy Davis**, Chemical Engineering, Magellan Scholar, Honors College - Garden City, SC  
Mentor: Dr. Melissa Moss, Chemical Engineering  
*Inhibition of Amyloid- $\beta$  Protein Aggregation via Cyclic Compounds*
3. **Jacob Hunter**, Chemical Engineering, Magellan Scholar, Honors College - Mt. Pleasant, SC  
Mentor: Dr. Harry Ploehn, Chemical Engineering  
*Analysis of gas permeation through polymer membranes using a new permeation cell technique*

## HUMANITIES

1. **Andrew Allen**, Music, Magellan Scholar - Walterboro, SC  
Mentor: Dr. Reginald Bain, Music Education, History and Theory  
*Interactive Computer Music and Cellular Automata*
2. **Jeremy VanderKnyff**, Media Arts, Magellan Scholar, Honors College - Simpsonville, SC  
Mentor: Prof. Laura Kissel, Art and Dr. Tom Lekan, History  
*Tales of the Tidelands*

## NATURAL SCIENCES

1. **Travis Deason**, Chemistry, Magellan Scholar - Aiken, SC  
Mentor: Dr. John Lavigne, Chemistry and Biochemistry  
*A Novel Approach toward Biogenic Amine Sensing using Cross-Reactive Poly(thiophene)s Sensor Arrays*
2. **Amanda Kesler**, Chemistry - Irmo, SC  
Mentor: Dr. Stephen L. Morgan, Chemistry and Biochemistry  
*Forensic discrimination of ballpoint pen ink using UV/Visible microspectrophotometry and multivariate statistics*
3. **Kevin Ludwick**, Physics, Magellan Scholar, Honors College - Pelion, SC  
Mentor: Dr. Carl Rosenfeld, Physics and Astronomy  
*Points of Closest Approach for Charged Particle Trajectories for the MIPP Experiment*

## NEUROSCIENCE and EXPERIMENTAL PSYCHOLOGY 1

1. **John Teal**, Experimental Psychology, Magellan Scholar, Honors College - Cheraw, SC  
Mentor: Dr. David Mott, Pharmacology, Physiology and Neuroscience  
*Kainate Receptors as a Therapeutic Target in Rat Model of Epilepsy*
2. **Catherine Meekins**, Chemistry, Magellan Scholar, Honors College - Columbia, SC  
Mentor: Dr. Marlene Wilson, Pharmacology, Physiology and Neuroscience  
*Neurobehavioral and Endocrine Changes in a Rat Model of Mammary Adenocarcinoma: Effects of Melatonin, Interleukin-1beta and Interleukin-2*
3. **Codi Black**, Experimental Psychology, Magellan Scholar, Honors College - Spartanburg, SC  
**Anna Walton**, Biological Sciences, Honors College - Columbia, SC  
Mentor: Dr. Sandra Kelly, Psychology  
*Developmental Alcohol Exposure and Effects on Attentional Set Shifting in Long Evans Rats: A Pilot Study*

## NEUROSCIENCE and EXPERIMENTAL PSYCHOLOGY 2

1. **Krystle Duckett**, Experimental Psychology, Magellan Scholar, USC Aiken - Beech Island, SC  
Mentor: Dr. Edward Callen, Psychology, USC Aiken  
*Stimulus Generalization and Context Effects in the Reinstatement of Fear*
2. **Stephanie Maddox**, Experimental Psychology, Magellan Scholar - Columbia, SC  
Mentors: Dr. Barbara Oswald, Continuing Education/Academic Programs and Dr. Donald Powell, Psychology  
*Post-training Lesions to the Medial Prefrontal Cortex Interfere with Retrieval on a Trace Eyeblick Conditioning Task*
3. **Teresa Mark**, Biological Sciences, Magellan Scholar, Honors College - Aiken, SC  
Mentor: Dr. Sarah Sweitzer, Pharmacology, Physiology and Neuroscience  
*Effect of Age and Sex on Endothelin-1 Induced C-Fos Expression in the Rat Brain*

## SOCIAL SCIENCES 1

1. **Amber Martin**, Experimental Psychology, Magellan Scholar - Dalton, GA  
Mentor: Dr. Kate Flory, Psychology  
*Self-Worth and Cigarette Smoking Among Youth with ADHD*
2. **Holly Carson**, Experimental Psychology, Magellan Scholar - Fairport, NY  
**Brittany Skiles**, Experimental Psychology, Magellan Scholar - Aiken, SC  
Mentor: Dr. Kate Flory, Psychology  
*Effects of Parenting Style on Smoking Behavior Among Adolescents With ADHD*
3. **TIE: Christopher Gainey**, Biological Sciences, Honors College - Bonneau, SC  
Mentor: Dr. Dawn Wilson, Psychology  
*Analysis of Strategic Self-Presentation Observational Coding for Evaluating Interviewer-Interviewee Interactions as a Function of Gender and Race Congruency*  
**TIE: Justin Uzl**, Biological Sciences, Magellan Scholar, Honors College - Spartanburg, SC  
Mentor: Dr. Benjamin Hankin, Psychology  
*Coping Strategies and the Influence of Personality in the Development of Post-traumatic Stress Symptoms in the Aftermath of Hurricane Katrina*

## SOCIAL SCIENCES 2

1. **Keshia Rice**, Broadcast Journalism, Magellan Scholar, Capstone Scholar - Greenville, SC  
Mentor: Dr. Susanna Priest, Journalism and Mass Communications  
*Race and Credibility in Broadcast News*
2. **Rachel Bowman**, Interdisciplinary Studies, Honors College - San Antonio, TX  
Mentor: Dr. Lucia Pirisi-Creek, Pathology and Microbiology  
*Artists Against Breast Cancer: A Qualitative Exploration of Breast Cancer Disparity in South Carolina*
3. **John Terry**, Experimental Psychology - Hilton Head, SC  
Mentor: Dr. Brad Smith, Psychology  
*Self-Efficacy and Math Performance in Middle-School Students*