Congratulations to ALL of our 2013 Discovery Day presenters!
This event showcased the amazing work from more than 400 students through over 330 presentations.

Thank you to the mentors, judges, and volunteers of the day. Discovery Day would not happen without you. A special thank you to our event sponsors:
- Office of the Vice President for Research
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- Arnold School of Public Health
- USC Connect

**Oral/Creative presentations: Morning**

**Morning Oral/Creative presentations: Arts & Social Sciences**

**First place**
**Investigation of Ambiguities in Contemporary Saxophone Repertoire**
*Evan Clark*, Music Performance & Music Entrepreneurship - Junior
*Dr. Cliffo Leaman*, Music

**Second place**
**Stability Statewide: Working A Creative Strategy for the South Carolina Coalition for the Homeless**
*Marissa Torgerson*, Public Relations & Political Science - Freshman
*Maxine Todd*, Undeclared - Freshman
*Tyler French*, Baccalaureus Artium et Scientiae - Senior
*Danya Nayfah*, International Studies & Islamic World Studies - Senior
*Benjamin Haggard*, Electrical Engineering - Senior
*Prof. Karen Mallia*, Advertising and Public Relations

**Morning Oral/Creative presentations: Humanities**

**First place-Tie**
**When The West Dies**
*Austin Blaze*, English & Philosophy - Senior
*Dr. Debra Rae Cohen*, English Language and Literature

**First place-Tie**
**Creating Intertextuality with Visual Rhetoric: Adapting a Novel into a Graphic Novel**
*Delicia Williams*, English - Senior; USC Aiken
*Dr. Matthew Miller*, English; USC Aiken
Morning Oral/Creative presentations: Humanities & Social Sciences I
First place  Future Trial Lawyers of America: Empowering Youth Through Advocacy Education
  Devon Thurman, Baccalaureus Artium et Scientiae - Junior  
  Dr. Kirk Randazzo, Carolina Leadership Initiative  
  Ms. Sarah Johnston, Carolina Leadership Initiative
Second place  Archiving the History of Saint George
  Christine Rice, Liberal Studies - Senior; USC Salkehatchie  
  Dr. Sarah Miller, History; USC Salkehatchie

Morning Oral/Creative presentations: Humanities & Social Sciences II
First place  Exploring Literacy Through Photography Methodology as a Tool for Culturally Relevant Pedagogy
  Tiffany Livingston, Early Childhood Education - Senior
  Dr. Elizabeth Powers-Costello, Instruction and Teacher Education
Second place  The Denial of Education for Some Yugoslavian Women
  Merita Gillard, International Studies & Women's and Gender Studies - Senior
  Dr. Todd Shaw, Political Science

Morning Oral/Creative presentations: Psychology & Public Health
First place  An Investigation of Social Networks and Public Health Efforts in Ghana’s Central Region
  Megan Brown, Public Health & International Studies - Senior
  Dr. Melinda Forthofer, Epidemiology and Biostatistics
Second place  Applying for the Marshall Scholarship - A Finalist's Perspective
  Rahoul Ahuja, Baccalaureus Artium et Scientiae - Senior
  Ms. Novella Beskid, Fellowships & Scholar Programs

Morning Oral/Creative presentations: Social Sciences
First place  Examining the Role of Location in Youth Perception of Turkey’s European Union Accession Process
  Hannah Miller, Economics & International Studies - Senior
  Dr. Amy Mills, Geography
Second place  Chinese Investments in Sub-Saharan Africa: An Exploration of New Business Models
  Debra Miller, International Business & Economics - Senior
  Dr. Lite Nartey, International Business

Morning Oral/Creative presentations: STEM I
First place  Evidence of Genetic Variation and Adaptive Phenotypic Plasticity in Two California Invasive Annual Grasses
  Shana Woodward, Biology & Chemistry - Senior; USC Aiken
  Dr. Andrew Dyer, Biology/Geology; USC Aiken
Second place  Fe isotope fractionation during reduction of Fe(III) to Fe(II)
  Catherine Hodieme, Marine Science - Senior
  Dr. Seth John, Earth and Ocean Sciences

Morning Oral/Creative presentations: STEM II
First place  The Future of Coastal Upwelling in Marine Ecosystems
  Riley Brady, Marine Science & German - Freshman
  Dr. Ryan Rykaczewski, Biological Sciences
Second place  Southeastern EcoReps Conference 2013
  Rebecca Marasco, Sociology & Environmental Studies - Senior
  Dr. Kirk Randazzo, Carolina Leadership Initiative
  Ms. Sarah Johnston, Carolina Leadership Initiative
Morning Poster/Display presentations: Arts & Humanities

First place  A Goodly Golden Chain: Arthur as Allegory in The Faerie Queene
            Ashlynn Wittchow, English - Senior
            Dr. David Miller, English Language and Literature

Second place-Tie  The Development of Baseball in Columbia South Carolina
            Kaci Barfield, History & Southern Studies - Senior
            Dr. Lana Burgess, McKissick Museum

Second place-Tie  Dennis and Dennis Architects: Architecture and Culture in Macon Georgia
            Maggie Discher, Art History & Sociology - Senior
            Dr. Lydia Brandt, Art

Morning Poster/Display presentations: Biology & Biomedical Sciences I

First place  Varied Ischemic Preconditioning Protocols to Enhance Engraftment and Differentiation of Adipose-Derived Stem Cells
            Brandon Hanna, Biomedical Engineering - Senior
            Dr. James Blanchette, Chemical Engineering

Second place  Identifying the transcription promoter of the WRAP53 gene: a regulator of the p53 tumor suppressor gene
            Shravya Budidi, Biological Sciences & Psychology - Senior
            Dr. David Reisman, Biological Sciences

Morning Poster/Display presentations: Biology & Biomedical Sciences II

First place  Synthesis and Characterization of Hydrolytically Degradable Polyethylene Glycol Hydrogels for use in Tissue Engineering
            John Sieracke, Biomedical Engineering - Junior
            Dr. Esmaiel Jabbari, Chemical Engineering

Second place  Association of lipocalin-2 in colorectal cancer metastasis to the liver
            Fides Elamparo, Biochemistry and Molecular Biology - Junior
            Dr. Maria Pena, Biological Sciences

Morning Poster/Display presentations: Environmental Sciences I

First place  Effect of Sediment Trap Preservatives on Phytoplankton Pigment Identification and Quantification
            Christen Armstrong, Marine Science - Senior
            Dr. James Pinckney, Biological Sciences

Second place  Going No-Till at City Roots
            Ross Johnson, Management Science & Military Science - Junior
            Dr. Robin K loot, Earth Sciences and Resources Institute

Morning Poster/Display presentations: Environmental Sciences II

First place  The Sweet Smell of Carolina Jessamine: Evaluating the Floral Scent Profile of Gelsemium sempervirens
            Austin Blackwell, Biological Sciences - Sophomore; USC Lancaster
            Dr. Bettie Obi Johnson, Chemistry; USC Lancaster
            Dr. Annette Golonka, Biology; USC Lancaster

Second place  Phytoplankton Community Composition in Stormwater Detention Ponds Near Myrtle Beach SC
            Lauren Hehman, Marine Science - Senior
            Dr. Tammi Richardson, Biological Sciences
            Dr. Erik Smith, Baruch Marine Field Laboratory
Morning Poster/Display presentations: Pharmacy & Public Health I

First place  Evaluation of the influence of BMI on pain management in pediatric sickle cell patients  
Michelle Nations, Pharmacy - Senior  
Dr. Christina Piro, Clinical Pharmacy and Outcomes Sciences

Second place-Tie  Rate of Seroconversion Following Hepatitis B Vaccination Among Healthcare Students: A Pilot Study  
Chelsea Ambrose, Pharmacy - Senior  
Sara Wolf, Pharmacy - Senior  
Dr. Brandon Bookstaver, Clinical Pharmacy and Outcomes Sciences

Second place-Tie  Prediction of vancomycin clearance in obese pediatric patients  
Caroline Enoch, Pharmacy - Senior  
Dr. Brandon Bookstaver, Clinical Pharmacy and Outcomes Sciences

Morning Poster/Display presentations: Pharmacy & Public Health II

First place  Evaluation of Community-Based Pharmacist Immunization Administration – Participation Perceptions and Barriers Faced  
Marla Koch, Pharmacy - Senior  
Dr. Bryan Ziegler, Pharmacy  
Dr. Kevin Lu, Pharmacy

Second place  Efficacy of Opioid Rotation in a Pediatric Intensive Care Unit  
Jessica Michal, Pharmacy - Senior  
Dr. Christina Piro, Clinical Pharmacy and Outcomes Sciences

Morning Poster/Display presentations: Psychology & Communication Sciences

First place  The Role of Acoustics in Garden Path Processing  
Victoria Sharpe, Baccalaureus Artium et Scientiae - Sophomore  
Dr. Dirk den Ouden, Communication Sciences and Disorders

Second place  Vocabulary Knowledge and Comprehension of Complex Sentence Structures in Adolescents  
Spencer Babb, Psychology & Counselor Education - Junior  
Dr. Fernanda Ferreira, Psychology

Morning Poster/Display presentations: Psychology & Neuroscience I

First place  Social Buffering of the Stress Response in Peromyscus Polionotus  
Anna Capps, Psychology & Biological Sciences - Junior  
Dr. Sandra Kelly, Psychology

Second place  Phenotypic Differences in the Left and Right Rat Amygdala  
Elisabeth Oliver, Chemistry & Biological Sciences - Senior  
Dr. Marlene Wilson, Pharmacology Physiology and Neuroscience

Morning Poster/Display presentations: Psychology & Neuroscience II

First place  Destigmatizing homelessness through personal contact: An examination of the contact hypothesis  
Jacob Chavis, Psychology & Criminal Justice - Senior  
Dr. Bret Kloos, Psychology

Second place  Role of ERK-signaling in rat PFC in environmental enrichment-induced decreases in reinforcing effects of nicotine  
Ivory Chen, Pharmacy - Sophomore  
Dr. Jun Zhu, Pharmacology Physiology and Neuroscience  
Mr. Adrian Gomez, Pharmacology Physiology and Neuroscience  
Mr. Narasimha Midde, Pharmacology Physiology and Neuroscience  
Dr. Steven Harrod, Psychology
Morning Poster/Display presentations: Social Sciences & Business
First place  The Expansion of the Panama Canal: Effects on the South Carolina Economy
Keaten North, International Business & Finance - Senior
Dr. Douglas Woodward, Economics

Morning Poster/Display presentations: Social Sciences & Education
First place  Evaluation of US Pharmacy School Curriculum on Complementary and Alternative Medicines
Casey Morgan, Pharmacy - Junior
Dr. Bryan Ziegler, Pharmacy

Second place  Investigating an educational pharmacy camp’s impact on high school students
Kristen Ammay, Pharmacy - Senior
Laura Jeffcoat, Pharmacy - Senior
Dr. Betsy Blake and Ms. Nancy Taylor-Culberson, Pharmacy

Morning Poster/Display presentations: STEM I
First place  Inquiry into the Implementation of a Low-Power Mobile System for Polychromatic Discrimination of Differently Sized Objects
Timothy Thompkins, Electrical Engineering - Senior
Dr. Roger Dougal, Electrical Engineering

Second place  Synthesis of carbohydrate-porphyrin (CPC) and carbohydrate-bacteriochlorin conjugates (CBC) via metal-catalyzed cross-coupling reactions
Ryan Dolewski, Chemistry & Biology - Junior; USC Upstate
Dr. Joshua Ruppel, Natural Sciences & Engineering; USC Upstate

Morning Poster/Display presentations: STEM II
First place  The Difficulty of Finding Winning Strategies for Poset Games
Daniel Grier, Computer Science & Mathematics - Senior
Dr. Stephen Fenner, Computer Science and Engineering

Second place  Characterization of P450 Enzyme for Biofuel Synthesis
Job Grant, Chemistry - Senior
Dr. Thomas Makris, Chemistry and Biochemistry

Morning Poster/Display presentations: USC Connect Showcase
First place  Pumpkin Chunkin'
John Clegg, Biomedical Engineering - Junior
Dr. Kirk Randazzo, Carolina Leadership Initiative
Ms. Sarah Johnston, Carolina Leadership Initiative

Second place  E-Portfolio: Amanda Cosenza Edition
Amanda Cosenza, International Business & Italian - Junior
Dr. Irma Van Scoy, USC Connect

Oral/Creative presentations: Afternoon

Afternoon Oral/Creative presentations: Arts & Social Sciences
First place  Kagitaba: The Keys to Opportunity
Olivia Keyes, Film and Media Studies & Media Arts - Senior
Ms. Jennifer Bess, Fellowships & Scholar Programs
Afternoon Oral/Creative presentations: Humanities & Social Sciences I
First place  The Etymology of English Pronoun
Axton Crolley, Linguistics - Senior
Dr. Scott Gwara, English Language and Literature

Second place  ‘I-M-sew-sorry’: The Modern History of Trappist Sign Language
Gerald Gordner, International Business & Linguistics - Senior
Dr. James Cutsinger, Religious Studies

Afternoon Oral/Creative presentations: Humanities & Social Sciences II
First place  Illiteracy in Appalachia: Ignorance and Poverty or Cultural Phenomenon?
Laura Thorp, English & Philosophy - Senior
Dr. Leon Jackson, English Language and Literature

Afternoon Oral/Creative presentations: Psychology & Public Health
First place  Ethnographic and Policy Studies of Metabolic Disorders in South India
Eeshwar Chandrasekar, Baccalaureus Artium et Scientiae - Senior
Dr. David Simmons, Anthropology & Health Promotion, Education and Behavior

Second place  Exploring Solutions for Clean Drinking Water in Haiti
Clarissa Felima, Public Health - Junior
Dr. Claudia Benitez-Nelson, Earth and Ocean Sciences

Afternoon Oral/Creative presentations: Social Sciences
First place  Washington Media Scholars Foundation Media Planning Case Competition
Christopher Molony, Advertising & Spanish - Senior
Elizabeth Pugh, Sport and Entertainment Management - Senior
Dr. Glenda Alvarado, Advertising and Public Relations

Second place  Expanding Scientific Leadership through Carolina Science Outreach
Connor Bain, Computer Science & Mathematics - Sophomore
Kali Esancy, Biological Sciences & French - Senior
Dr. Edward Munn Sanchez, Honors College
Dr. Kirk Randazzo, Political Science

Afternoon Oral/Creative presentations: STEM I
First place  Phenolic Acids Alter Amyloid-Beta Oligomerization in Alzheimer's Disease Pathogenesis
John Clegg, Biomedical Engineering - Junior
Dr. Melissa Moss, Chemical Engineering

Second place  Determining Transposition Promoting Regions Based on Recombinant mPing and mPong Constructs
Kristian Pickrel, Biology - Senior; USC Aiken
Dr. Nathan Hancock, Biology/Geology; USC Aiken

Afternoon Oral/Creative presentations: STEM II
First place  Graph Labeling and The Delta Squared Conjecture
Cole Franks, Mathematics & Physics - Junior
Dr. Jerrold Griggs, Mathematics

Afternoon Oral/Creative presentations: STEM III
First place  The Sedimentary Structure of a Course Grained Point Bar as Resolved by GPR Congaree River Valley SC
Patrick Duff, Geophysics & Economics - Senior
Dr. Camelia Knapp, Earth and Ocean Sciences
Afternoon Poster/Display presentations: Biology & Biomedical Sciences I
First place  Measuring the comparative effectiveness of anti-HIV-1 Tat siRNAs  
Alexander Jureka, Biology - Senior; USC Aiken  
Dr. William Jackson, Biology/Geology; USC Aiken

Second place  Comparative study of HIV-1 induced apoptosis by expression of pro-apoptotic Bax and tBid  
Priscilla Simon, Biology - Senior; USC Aiken  
Dr. William Jackson, Biology/Geology; USC Aiken

Afternoon Poster/Display presentations: Biology & Biomedical Sciences II
First place  Targeted Insertion of the mPing Transposable Element  
Ashley Strother, Biology - Sophomore; USC Aiken  
Dr. Nathan Hancock, Biology/Geology; USC Aiken

Second place  Mitochondrial Changes in a MLASA Mouse Model  
Johnathon Elkes, Biological Sciences & Chemistry - Senior  
Dr. Jeffrey Patton, Pathology and Microbiology

Afternoon Poster/Display presentations: Computing
First place  Modeling the impact of control strategies on mosquito population in Beaufort County SC: Can the community stop the spread of West Nile Virus?  
Patrick Niehaus, Computational Science - Junior; USC Beaufort  
Dr. Kasia Pawelek, Mathematics; USC Beaufort

Afternoon Poster/Display presentations: Environmental Sciences I
First place  Sensitivity of Species Within the Plant Family Solanaceae to FACs from Herbivore Saliva  
Laquita Grissett, Biological Sciences - Freshman  
Dr. Johannes Stratmann, Biological Sciences

Second place  Characterization of transfer zones within the South Georgia Rift using 2-D seismic lines and well data  
Kimberly McCormack, Geophysics & Marine Science - Senior  
Dr. James Knapp, Earth and Ocean Sciences

Afternoon Poster/Display presentations: Environmental Sciences II
First place  The Role of MAPK Phosphatases in MAPK Regulation in Arabidopsis thaliana  
Mark Taylor, Biological Sciences & History - Senior  
Prof. Johannes Stratmann, Biological Sciences

Second place  Seatrout heart infection by Cardicola (italicized) sp.: are small fish in more trouble?  
Brian Fazzoneare, Biology - Senior; USC Upstate  
Dr. Vince Connors, Natural Sciences & Engineering; USC Upstate

Afternoon Poster/Display presentations: Humanities & Social Sciences
First place  The Destruction of Modern Muslim Shrines by Fundamentalist Movements  
Esmael Mayar, Biology - Senior; USC Upstate  
Dr. David Damrel, History Political Science Philosophy & American; USC Upstate

Second place  The Effects of Raw Material Quality on Tool Form During the Early Archaic at the Johannes Kolb Site  
Joe Wilkinson, Anthropology & History - Senior  
Dr. Joanna Casey, Anthropology
Afternoon Poster/Display presentations: Pharmacy & Public Health I
First place  Comparison of tobacco and alcohol imagery in films produced in Argentina and the United States  
Rahoul Ahuja, Baccalaureus Artium et Scientiae - Senior  
Dr. Jim Thrasher, Health Promotion Education and Behavior

Second place  Communication about the Right Choice Fresh Start Farmers’ Market among food assistance recipients  
Kathryn Kranjc, Nursing - Junior  
Dr. Darcy Freedman, Social Work

Afternoon Poster/Display presentations: Pharmacy & Public Health II
First place  Assessing medication adherence in an HIV/AIDS patient population: one pill versus three pills as a once a day regimen  
Matthew Caudle, Pharmacy - Senior  
Dr. Celeste Caulder, Pharmacy

Second place  Comparison of Nutritional Quality in Fast Food and Casual Dining Restaurants  
Kyle Sprow, Exercise and Sports Science - Junior; USC Aiken  
Dr. Brian Parr, Exercise and Sports Science; USC Aiken

Afternoon Poster/Display presentations: Psychology & Neuroscience I
First place  Factors Predicting Speech Recognition in Adverse Listening Conditions  
Michael Hood, Baccalaureus Artium et Scientiae - Junior  
Priya Purohit, Biomedical Engineering & Chemistry - Sophomore  
Jiaqian Xu, Biological Sciences & Art Studio - Sophomore  
Dr. Daniel Fogerty, Communication Sciences and Disorders

Second place  Examining Core Affect through Dynamic Stimuli  
Mary-Catherine Newell, Psychology & Neuroscience - Junior  
Dr. Svetlana Shinkareva, Psychology

Afternoon Poster/Display presentations: Psychology & Neuroscience II
First place  Grammatical Role Primes Spatial Attention  
Karen Shebuski, Psychology & Sociology - Junior  
Dr. Amit Almor, Psychology

Second place  Sexual Victimization and Substance Use Among Girls in the Juvenile Justice System  
Cassandre Miller, Psychology & Women's and Gender Studies - Sophomore  
Dr. Dana DeHart, Social Work

Afternoon Poster/Display presentations: Social Sciences & Business
First place  Smartphone and Connected Devices Security Threats: Impact on North and South Carolina Small Businesses  
Jeshua Rains, Integrated Information Technology & Management Science - Senior  
Dr. Karen Patten, Technology Support and Training Management

Afternoon Poster/Display presentations: Social Sciences & Education
First place  Assessment of student perceptions attitudes and skills regarding interprofessional behaviors  
Emily Willett, Pharmacy - Senior  
Dr. Betsy Blake, Pharmacy

Second place  Correlations Between Amount of Family Time and School Performance  
Amanda Brown, Psychology & Counselor Education - Senior  
Dr. Brad Smith, Psychology
Afternoon Poster/Display presentations: STEM I

First place  
Scan and Analysis of Neutrino Events in Water Cherenkov and Liquid Argon Detectors  
Andrew Svenson, Physics & Mathematics - Junior  
Dr. Sanjib Mishra, Physics and Astronomy

Second place  
Optical Tunability and Morphological Control of Core-Shell Hybrid Nanoparticles  
John He, Chemistry & Biological Sciences - Senior  
Dr. Hui Wang, Chemistry and Biochemistry

Afternoon Poster/Display presentations: STEM II

First place  
Creation of Dehaloperoxidase Mutants to Increase Detoxification of Haloaromatics  
Ryan Sankovic, Exercise Science & Chemistry - Junior  
Dr. Lukasz Lebioda, Chemistry and Biochemistry

Second place  
Innovative Gallium Chalcogenide Semiconductor based Schottky Diodes for Room Temperature Radiation Detection  
Rahmi Pak, Electrical Engineering - Senior  
Dr. Krishna Mandal, Electrical Engineering

Afternoon Poster/Display presentations: USC Connect Showcase

First place  
Davontae Singleton-ePortfolio-USC Connect  
Davontae Singleton, English - Sophomore  
Dr. Irma Van Scoy, USC Connect

Second place  
Reaching Underserved Populations in Rural and Coastal Regions of South Carolina: Our Service-Learning Experience  
Morgan McCaskill, Management & Marketing - Sophomore  
Meghan Rock, Psychology & Criminal Justice - Sophomore  
Richy Phongsavath, Biological Sciences - Junior  
John Turner, Mechanical Engineering & Biological Sciences - Sophomore  
Eric Mercado, Nursing - Sophomore  
Alyce Ni, Nursing - Junior; USC Columbia  
Dr. Dottie Weigel, Student Engagement