

Congratulations to OUR Discovery Day 2006 Award Winners!!

MILLIKEN & COMPANY

GRAND PRIZE:

Nishita Dalal, Chemical Engineering - Greer, SC
Mentor: Dr. Michael Matthews, Chemical Engineering
Analysis of Dipicolinic Acid Released from Spores Treated with Supercritical CO₂

TOP THREE POSTERS:

- **Rachael Hipp**, Chemistry – West Columbia, SC
Mentor: Dr. Stephen Morgan, Chemistry and Biochemistry
Chemical Composition of Latent Fingerprints by Gas Chromatography-Mass Spectrometry
- **Heather Taylor**, Chemistry - Lexington, SC
Jennifer Yiu, Chemistry - San Francisco, CA
Mentor: Dr. Stephen Morgan, Chemistry and Biochemistry
Systematic Investigations of Environmental Effects on Textile Fibers for Forensic Fiber Examinations
- **Meredith Tershansy**, Chemistry Kingsport, TN
Mentor: Dr. Hans-Conrad zur Loye, Chemistry and Biochemistry
Solvothermal Synthesis, Structural Determination, Optical Properties and Thermochromic Behavior of Several New Mixed-Metal Bismuth Halide Compounds

BIOMEDICAL

1. **Xiaoyi (Tina) Zhang**, Biological Sciences - West Columbia, SC
Mentor: Dr. Wayne Carver, Cell and Developmental Biology and Anatomy
Effect of Hyperglycemia on the Cardiac Fibroblast Response to Mechanical Stretch
2. **Heather Mentzer**, Chemical Engineering - Beaufort, SC
Mentor: Dr. Athar Chishti, Pharmacology; University of Illinois at Chicago
Mapping MSP1-19 Binding Regions in Band 3 Peptide
3. **Thomas Smith**, Biological Sciences - Orangeburg, SC
Mentor: Dr. James Ritter, Mechanical Engineering
In Vitro Studies of the Application of Ferromagnetic Wire Implants for Magnetic Drug Targeting: Analysis of Delivery Parameters for Maximum Magnetic Drug Targeting Efficiency

Honorable Mention:

Thomas Smith, Biological Sciences - Orangeburg, SC
Mentor: Dr. Rekha Patel, Biological Sciences
Mechanism of HOX A9 to Down Regulate Endothelial Cell Activation

BUSINESS

1. **Vivek Thakur**, Chemistry Columbia, PA
Mentor: Dr. Davis Baird, South Carolina Honors College
Two Roads from Laboratory to Commercial Project

EARTH and MARINE SCIENCE

1. **Corinne D'Ippolito**, Marine Science - Boulder, CO
Alice DuVivier, Physics; Colorado College, Boulder, CO
Mentor: Dr. David Anderson, Chief of Paleoclimatology Branch, NOAA, Boulder, CO;
Institute of Arctic and Alpine Research, University of Colorado

Dr. Anil Gupta, Geology and Geophysics, Indian Institute of Technology; India
Dr. Robert Thunell, Geological Sciences, USC
Changes in the Southwest Asian Monsoon

2. **Elizabeth Bell**, Geology - Christiansburg, VA
Mentor: Dr. David Barbeau, Geological Sciences
Applications of Geochemistry to the Provenance of Calcareous Sandstones
3. **Bonnie Coggins**, Marine Science - Shawnee, OK
Mentor: Dr. Robert Feller, Biological Sciences
Ghost Fishing by Blue Crab Pots

ENGINEERING and COMPUTER SCIENCE

1. **Nishita Dalal**, Chemical Engineering - Greer, SC
Mentor: Dr. Michael Matthews, Chemical Engineering
Analysis of Dipicolinic Acid Released from Spores Treated with Supercritical CO₂
2. **Kelvin Moore**, Chemical Engineering - Columbia, SC
Mentor: Dr. Branko Popov, Chemical Engineering
Vijayadurga Nallathambi, PhD candidate, Chemical Engineering
Development of Metal-free Catalysts for PEM Fuel Cells
3. **Anna Pickerell**, Chemical Engineering - Mt. Washington, KY
Mentor: Dr. Christopher Williams, Chemical Engineering
Preparation of Silver-Platinum Bimetallic Catalysts via Electroless Deposition

NATURAL SCIENCE

1. **Suchita Pancholi**, Biological Sciences – Columbia, SC
Mentor: Dr. Johannes Stratmann, Biological Sciences
Activation of MAP Kinases in Tomato and Potato Leaves in Response to Wounding
2. **Meredith Tershansy**, Chemistry Kingsport, TN
Mentor: Dr. Hans-Conrad zur Loye, Chemistry and Biochemistry
Solvothermal Synthesis, Structural Determination, Optical Properties and Thermo-chromic Behavior of Several New Mixed-Metal Bismuth Halide Compounds
3. **Rachael Hipp**, Chemistry – West Columbia, SC
Mentor: Dr. Stephen Morgan, Chemistry and Biochemistry
Chemical Composition of Latent Fingerprints by Gas Chromatography-Mass Spectrometry

NEUROSCIENCE

1. **Ryan Newsom**, Experimental Psychology - Columbia, SC
Mentor: Dr. Sandra Kelly, Psychology
Prenatal Tetrahydrocannabinol (THC) Exposure Disrupts Social and Open Field Behavior in Male Long Evans Rats
2. **Teresa Mark**, Biological Sciences - Aiken, SC
Mentor: Dr. Sarah Sweitzer, Pharmacology, Physiology and Neuroscience
Effect of Binge Morphine Exposure on Pain Thresholds and Opioid Analgesia in Neonatal and Adolescent Rats
3. **Alisha Epps**, Experimental Psychology - Lexington, SC
Mentor: Dr. James Coleman, Psychology
Alterations of GAD Production by Lentivirus Mediated Gene Transfer Modified Seizure Severity in Genetically Epilepsy Prone Rats

SOCIAL SCIENCES I

1. **Payton Foust**, Experimental Psychology – Lexington, SC
Mentor: Dr. Bret Kloos, Psychology
The Role of Landlords in the Functioning of Persons with Severe Mental Illness Living in Supported Housing

2. **Amy Goddard**, Experimental Psychology - Cincinnati, OH
Mentor: Dr. Scott Ardoin, Psychology
Examining Means of Increasing Generalization Across Time: Repeated Readings v. Multiple Exemplars
3. **Lindsey Stone**, Experimental Psychology – Bluefield, WV
Mentor: Dr. Frederic Medway, Psychology
Women's Attitudes on the Effects of Domestic Violence on Children

SOCIAL SCIENCES II

1. **Lauren Saleeby**, Biological Sciences– Florence, SC
Mentor: Dr. Deborah Parra-Medina, Health Promotion, Education, and Behavior
Healthcare access and nutrition education of Hispanics in South Carolina
2. **Amanda Seals**, Interdisciplinary Studies – Clinton, TN
Mentor: Dr. Donald Songer, Political Science
The Effect of Gender on Judicial Voting in the Supreme Court and the Court of Appeals of Canada
3. **Sam McQuillin**, Experimental Psychology – Charleston, SC
Gill Strait, Experimental Psychology – Columbia, SC
Shawneequa Thompson, Experimental Psychology – Greer, SC
Mentor: Dr. Bradley Smith, Psychology
Carolyn Pender, PhD Candidate, Psychology
Curriculum Based Measurement and State-of-the-Art Training to Help Middle School Students Solve Math Word Problems

ORAL PRESENTATIONS – Section 1

First place: **Melinda Lynch**, Biological Sciences – Tucson, AZ
Mentor: Dr. Dan Dixon, Biological Sciences
The Down Regulation of the mRNA Stability Factor HuR Through the Use of Small Interfering RNAs

ORAL PRESENTATIONS – Section 2; TIE

First place - tie: **Robert Freeman**, Civil Engineering - Aiken, SC
Mentor: Dr. Liv Haselbach, Civil and Environmental Engineering
Vertical Porosity Distributions in Pervious Concrete Pavement

First place - tie: **Laurel Stanko**, Marine Science
Mentor: Dr. Ronald Benner, Biological Sciences
Organic Matter Cycling in the Chukchi Sea

ORAL PRESENTATIONS – Section 3

First place: **Joshua Kammerer**, Religious Studies - Cayce, SC
Mentor: Dr. Ed Munn, Philosophy
Christianity Meets Nano

Honorable Mention: **Jeff Stephens**, English - Lamar, SC
Mentor: Dr. Donald Greiner, English Language and Literatures
Collecting Creativity