

2003 Undergraduate Student Summer Research Fellowships

Each grant list individual student researcher(s) with respective cooperating faculty member(s) in parenthesis.

SCHOOL OF ENGINEERING AND ENGINEERING TECHNOLOGY

- Christopher D. Agosti (John Roth) - \$1,200
"Cryogenic Treatment of Machine Tools"
- Timothy Cavanagh (Thomas Briselden) - \$1,200
"Thermodynamic/Cycle Analysis of Alternate Methods for Recovering High Temperature Waste Heat"
- Aaron Floyd (Thomas Briselden) - \$1,200
"Multi-point High Temperature Measurement of a Radiant Tube Using a Two Color Multiplexed Infrared Temperature Sensor for Advanced System Control"
- Diane Harby (Thomas Briselden) - \$1,200
"High Temperature Heat Transfer Analysis and Optimization Model for Radiant Tubes Using SpyroCor Inserts"
- Scott M. Hrinko (Thomas Hemminger) - \$1,200
"A Magnetic Storage Converter"
- Jonathan Lobaugh (Thomas Briselden) - \$1,200
"Extruding of a Variable Twist Helix Refractory Using a Multi-Axis Motion Control System for Manufacturing SpyroCor Inserts"
- Lee Mitchell (Chris Coulston) - \$1,200
"Emergent Shortest Paths"
- Brian Neely (Thomas Briselden) - \$1,200
"Stabilization of a Natural Gas Flame in a Radiant Tube Using SpyroCor Inserts to Double Radiation Heat Transfer Rates and Promote Uniform Heat Release"
- Ian Phelps and Jim McWilliams (Bob Edwards) - \$1,200
"Interchangeable Computer Processor Simulator"

SCHOOL OF ENGINEERING AND ENGINEERING TECHNOLOGY and SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

- Amy Johnson, Holly Blasko Drabik, Ayelet BenZvi, Joseph R. Busse, Christopher Larson, Patrick M. Slater, Bradley D. Smith, Nicole Steetle, and Jay Wingerter (Dawn Blasko, Kathy Holiday-Darr, Derek Mace, and Carla Torgerson) - \$9,700
"Developing Spatial Skills Using Interactive Computer and Hands-on Activities"

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

- Jacqueline M. Cavicchio (John Champagne) - \$1,200
"Toni Morrison Society Conference: 'Toni Morrison and the Politics of Learning'"
- Edward A. Thiry III (Leigh-Ann Bedal) - \$1,200
"The Petra Garden and Pool-Complex Excavation (Jordan)"
- Sarah Hildreth (Dawn Blasko) - \$1,200
"Metaphor Comprehension in Children"
- Asia Horton (Sean Dougherty) - \$1,200
"Swimming the Deep River: Reclaiming the Roots of African American Music"
- Sarah Lawson, Erin Mauer, and Tami Quigley (Dawn Blasko) - \$1,200
"Determining the Influence of Taster Status and Peer Pressure on Food Preferences"
- Chris Majerik (Carla Torgerson, Dawn Blasko, and Victoria Kazmerski) - \$1,200
"Instructional Development of an Observational Research Tutorial"
- Vanessa Guerrero Marte, Tammy Sudul, and Christopher Majerik (Dawn Blasko) - \$1,200
"Assessing the Effects of Different Types of Pornography and Their Influences on the Acceptance of Rape Myths"
- Vanessa K. Guerrero Marte and Holly Blasko Drabik (Dawn Blasko and Victoria Kazmerski) - \$1,850
"The Electrophysiology of Creative Language"
- Michael McEwan (George Looney) - \$1,200
"Exploring the 'Genius' of Place for a Senior English Thesis"
- Katherine Weinschenker, Jenne Nielsen, and Amy L. Johnson (Clare Porac and Rod Troester) - \$3,050
"Myth or Reality: An Examination of College Students' Relative Incivility"

SCHOOL OF SCIENCE

- Jennifer Adams (Margaret Voss and Pamela Silver) - \$1,200
"Predator and Prey Relationships in a System of Hornets"
- Sheldon T. Bailey (Bruce Wittmershaus) - \$1,200
"Optimization of Luminescent Solar Concentrators through Concentration Variance of a Triple Dye System"
- Kelly Bee (Jeanette Schnars) - \$1,200
"Caribbean Conservation Corporation Green Sea Turtle Research Program"
- Lee Beers (Michael Campbell) - \$1,200
"Microarray Analysis of Potato Meristems"

- Adam B. Bloom (James Warren, Jr.) - \$1,200
"Generation of a Fusion Peptide for a Zebrafish (*Danio rerio*) Necdin-like (NDNL) Gene"
- Anita L. Brock (James Warren, Jr.) - \$1,200
"Characterization of Zebrafish zFXR mRNA via the Reverse Transcriptase Polymerase Chain Reaction"
- James Busa (Jeanette Schnars) - \$1,200
"Population and Nest Monitoring of the Common Snapping Turtle (*Chelydra serpentina serpentina*)"
- John Cingolani (Dave Hunnicutt) - \$1,200
"Bullhead Hybridization"
- Ashley Conrad (Lisa Mangel) - \$1,200
"Effects of Temperature Variations on the Embryological Development of *Branta Canadensis*"
- Rebecca R. Corbin (Lawrence Downey) - \$1,200
"Expanding the Concept of Convexity"
- Neela Dey (Lisa Mangel) - \$1,189
"Laboratory Correlation between *Branta canadensis* Embryo Development and the Commonly Used Flotation Numbers for Waterfowl Egg Progression"
- Ian D. Eccles (Meng Su) - \$840
"Investigating Distribution Models for High Dimensional Data Structures"
- David Duberow (Thomas Spudich) - \$1,200
"Multielemental Analysis of Snapping Turtles Collected from Erie County, Pennsylvania by Graphite Furnace Atomic Absorption Spectrophotometry"
- Amanda L. Gruver (Michael Campbell) - \$1,200
"Expression and Purification of Protein Encoded by the *NDP1* Gene"
- Susan Hoover (Lisa Mangel and David Hunnicutt) - \$1,178
"To Identify and Compare the Biology Misconceptions Held by Pre-service and Service Secondary Biology Teachers"
- Floyd Mattie (Michael Campbell) - \$1,200
"Development of Fluorescently Tagged Primers for Microsatellite Diversity Study of *Ambystoma maculatum*"
- Russell D. Neuner (Michael Campbell) - \$1,200
"The Genetic Analysis of an *Arabidopsis thaliana* NDP Knockout Mutant"
- Melissa Peters (Margaret Voss) - \$1,200
"Quantifying Physiological Responses to Traffic Noise in Breeding Songbirds"
- Roy Schleicher (Jay Amicangelo) - \$1,200
"The Construction, Characterization, and Initial Experiments Involving a Matrix-Isolation Infrared Spectrometer Apparatus"

- John Shearer and Ian Eccles (Darren Williams) - \$1,200
"Computational Simulation of Collisions in Accretion Disks"
- John Shearer (Bruce Wittmershaus) - \$600
"Layering of Thin Polymer Films Using Spin Coating Techniques"
- Amy J. Smith (Jeanette Schnars) - \$1,200
"Possibility of Chemical Trails Used by Leatherback (*Dermochelys coriacea*) Sea Turtle Hatchlings as a Sea-Finding Cue"
- Joshua Smith (David Hunnicutt) - \$1,200
"Characterization and Analysis of Unknown Gliding Motility Mutants in *Flavobacterium johnsoniae*"
- Lee J. Steen (Meng Su) - \$1,100
"Examining the R-Tree Data Structure and Modifying for Efficiency"
- Nicholas G. Straub (Martin Kocielek) - \$1,200
"The Investigation of Novel Ring-Opening Methods of 2-Isoxazoles"
- Erika E. Weissenfluh (David Hunnicutt) - \$1,200
"Generation and Characterization of Non-motile Mutants in *Flavobacterium johnsoniae*"
- Nathan G. Zimmerman (Margaret Voss) - \$1,200
"Male American Barn Swallow Incubation: Fact or Fiction?"

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