

## 2007 Undergraduate Student Summer Research Fellowships

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

### SAM AND IRENE BLACK SCHOOL OF BUSINESS

- Jordan Gilmore (Kerry King) - \$1,200  
“Does Media Coverage of Economic Events Impact Legislative Voting Behavior”

### SCHOOL OF ENGINEERING

- Kristofer Barns (Dean Lewis) - \$1,200  
“Finite Element Analysis Investigation of the Compressive-Hook Integral Attachment Feature for Predicting Loading Capability”
- Robert Cook (Dean Lewis) - \$1,200  
“An Investigation into the Effects of Cryogenic Treating ABS Plastics on Material Properties”
- Charles Crespi (Dean Lewis) - \$1,200  
“Experimental Investigation of the Compressive Hook Integral Attachment Feature for Predicting Feature Failure”
- Logan Flaherty (William Lasher) - \$1,200  
“Experimental Measurements of Unsteady Flow Fields behind Spinnakers”
- John Jackson (John Roth) - \$1,200  
“Effects of Using DC Current on Various Materials during Forging Processes with Shaped Dies”
- Daniel Mauck (John Roth) - \$1,200  
“Using DC Electrical Current to Investigate the Enhanced Ductility of Various Aluminum Alloys”
- Mitchell Reckner (Oladipo Onipede) - \$1,200  
“Design and Testing of SMA Embedded Composite Wings”
- Aaron Ross (John Roth) - \$1,200  
“Using Direct Electric Current to Enhance the Compressive Behavior of Ceramic and Glass Materials”
- Joseph Shaffer (Yi Wu) - \$1,200  
“The Interaction between the Human Circulatory System and the Muscle Pump Function”
- Nicklas Sherman (Thomas Briselden) - \$1,200  
“Feasibility of a High Temperature Silicon Carbide Fan”

- Thomas Spinner (Russell Warley) - \$1,200  
“Effect of Exothermic Reaction Enthalpy on the Location of Minimum State of Cure in a Molded Component”
- David Tullai (John Roth) - \$1,200  
“An Analysis of the Material Properties and Lifespan of Cryogenically Treated Nylon”

#### **SCHOOL OF ENGINEERING AND SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

- Jimmie Hodge and Megan Miller (Dawn Blasko, Kathy Holliday-Darr, and Jennifer Trich Kremer) - \$2,400  
“The Viz Project: Research on Spatial Visualization”

#### **SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

- Jordan Gilmore (Rodney Troester) - \$1,200  
“The Effect of Media on Consumer Confidence”
- Kurt Maloney, Leslie Sargent, Beth Slomski, and Ryan Watson (John Gamble) - \$4,100  
“Comprehensive Statistical Database of Multilateral Treaties (CSDMT)”
- Elizabeth Twohig (Cathy Schlund-Vials) - \$800  
“Un-Gendering the Sublime through Masochistic Unveiling”
- Andrew Walker, Bethany Hanus, Kristin McQueeney, Alicia Dunbar, Chelsea Fenush, and Megan Hoffman (Dawn Blasko, Victoria Kazmerski, and Jennifer Trich Kremer) - \$7,200  
“Music and the Mind”

#### **SCHOOL OF SCIENCE**

- Melanie Brewer (Pamela Silver) - \$1,800  
“The Response of Turtle Hatchlings to Soil Moisture Gradients”
- Stephanie Burbules (James Warren Jr.) - \$1,350  
“Molecular Genetic Analysis of Folate Metabolism in the Zebrafish (*Danio rerio*): Analysis of the *in vivo* Role of BHMT in Early Development”
- Adam Carlisle (Darren Williams) - \$1,200  
“Dynamical Stability and Evolution of Planetary and Satellite Systems”
- Amanda Daniels (Lisa Mangel) - \$3,387 (Funded by Pennsylvania Sea Grant)  
“Avian Population/Habitat Assessment for Presque Isle State Park”
- Todd Eckroat (David Hunnicutt) - \$1,200  
“Biofilm Formation by *Flavobacteria*”
- R. Wesley Flynn (James Warren Jr.) - \$1,200  
“Analysis of Folate Metabolism and its Effects on Neural Tube Development in the Early Zebrafish (*Danio rerio*) Embryo”
- Megan Gapinski (Lisa Mangel) - \$2,450  
“Avian Population/Habitat Assessment for the Lake Pleasant Wetlands”

- Bennett Giardina (Michael Campbell) - \$1,200  
"Creation of a Vector for the Expression of an Acetolactate Synthase-YFP Fusion Protein"
- Jennifer Hughes (Pamela Silver) - \$1,800  
"The Spatial Movements and Microhabitats of Fowler's Toads (*Bufo fowleri*) at Presque Isle State Park and Herpetological Inventory"
- Meredith Hyldahl (Bruce Wittmershaus) - \$1,193  
"The Recovery of Photodegradation of CdSe/ZnS Core-Shell Quantum Dots in Luminescent Solar Concentrators"
- Alicia Klinvex (Blair Tuttle) - \$1,200  
"C++ Programs for Studying the Amorphization of Silicon"
- Andrew Law (Martin Kocielek) - \$1,200  
"Synthesis of Naturally Occurring Anthocyanins and Their Derivatives"
- David Machuga and Brian Sneeringer (James Warren Jr.) - \$2,400  
"An *in vivo* Analysis of the Role of the Glycine Cleavage System in Early Zebrafish Development"
- Alissa Mague (Heather Jones) - \$1,200  
"Role of Nitric Oxide in the Expression and Function of the Human Intermediate Conductance Calcium Activated Potassium Channel, hIK1"
- Joshua Meyer (Michael Campbell) - \$1,200  
"Investigations of the Interaction of the Genes NDP1 and OHP in the ndp-in1 *Arabidopsis thaliana* Mutant using QT PCR"
- Dennis Paskorz Jr. (Scott Stevens) - \$1,200  
"Fractal Insight into Capillaries of Cancerous Tissue and Medicine Delivery"
- Joe Pleso (Paul Olson and Paul Becker) - \$1,200  
"Surreal Analysis of Go"
- Daniel Ranayhossaini (Margaret Voss) - \$1,200  
"An Investigation of the Hemotoxicity of the Secretion of the Duvernoy's Gland of the Northern Water Snake (*Nerodia sipedon*)"
- Adam Rhodes, Chris Mosebach, Abe Kibbey, and Daryl Nowacki (Yi-Hong Wang) - \$4,800  
"Roles of Retrotransposons in Plant Development"
- Natalie Romano (Jay Amicangelo) - \$1,200  
"Characterization of Methanol Complexes with Benzene and Hexafluorobenzene in Nitrogen and Argon Matrices Using Matrix-Isolation Infrared Spectroscopy"
- Erika Segear (Michael Campbell) - \$1,200  
"Analysis of Global Gene Expression Changes in Potato Meristems Treated with Dimethylnaphthalene"
- Jeremy Sopko (Joseph Previte) - \$1,200  
"A Coupled Oscillator Model Applied to the Spinal Cord of a Sea Lamprey"

- Jesse Stimpson (Scott Stevens) - \$1,200  
"A Modeling Study of Idiopathic Intracranial Hypertension"
- Monika Tobiszewska (Scott Stevens) - \$1,200  
"Comparison of Intracranial Pressure Models for the Study of Idiopathic Intracranial Hypertension"
- Kathryn Warner (Bruce Wittmershaus) - \$1,200  
"Accurately Determining Photo-Degradation Rates of Luminescent Solar Concentrators"
- Colleen White (Heather Jones) - \$1,200  
"The Role of HSP70 and HSP90 Binding Proteins in the Trafficking and Function of KCNN Potassium Channels"
- Alyssa Zimmerman (Michael Justik) - \$1,200  
"Novel Syntheses of Isoxazolo[2,3- $\alpha$ ]pyridinium Salts by Reaction of Pyridine N-oxides with Alkynylidonium Tosylates"

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