

2008 Undergraduate Student Summer Research Fellowships

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

SCHOOL OF BUSINESS

- Jennifer Balsiger (James Kurre) - \$1,200
"Which Foreign Trade Partners Would Best Help to Stabilize the Erie Economy?"
- Benjamin Gilson (James Kurre) - \$1,200
"Creating a More Timely Measure of Erie's Standard of Living"
- Michael Halapy (James Kurre) - \$1,200
"Identifying Metropolitan Areas that Lead National Business Cycles"
- William McAndrew (Todd Nesbit) - \$1,200
"Economic Freedom and the Environment"
- Patrick Walling (Kenneth Louie) - \$1,200
"The Causes and Consequences of Changes in the Composition of U.S. – China Trade"

SCHOOL OF ENGINEERING

- Laura DeWalt (Oladipo Onipede and Sudarshan Nelatury) - \$1,200
"Modeling of Electrostatic Fringe Field Effects on the Performance of Micro-Beams"
- Adam Druga (Dean Lewis and Martin Dropik) - \$1,200
"Analysis of Material Properties after Cryogenic Treatment and Normalization of Nylon Polymer"
- Patrick Foley (Thomas Briselden) - \$1,200
"Surface Area to Volume Optimization of 3-D Printed Complex Ceramic Shapes for Marine Applications"
- Chad Green (John Roth) - \$1,200
"Improving the Manufacturing Process for Titanium in an Impression Die through the Effects of Electrical Current"
- Andrew Iams (Sudarshan Nelatury and Oladipo Onipede) - \$1,200
"Design and Testing of an Apparatus to Measure the Effects of Fringing Fields in Semi-Parallel Plate Capacitors"
- Ashraf Khalifa (John Roth) - \$1,200
"Improving Sheet Metal Manufacturing Processes for Sheet Metal Parts through Electrically Enhancing Formability"

- William Kilmer (Thomas Briselden) - \$1,200
"Surface Area to Volume Optimization of 3-D Printed Complex Ceramic Shapes"
- Justin Milner (John Roth) - \$1,200
"Construction and Testing of a Bluetooth Three-Axis Accelerometer"
- Clint Morrison (John Roth) - \$1,200
"Determining the Effects of an Applied DC Current on Copper Using Microstructural Analysis and Finite Element Modeling"
- Bryan Muscia (Dean Lewis and Martin Dropik) - \$1,200
"Analysis of Material Properties after Cryogenic Treatment and Normalization of High-Density Polyethylene"
- Kyle Say (William Lasher) - \$1,200
"Analysis of Flying Shape for Spinnakers"
- Nigel Schneider (Elisa Wu) - \$1,200
"Heart Assist Pump Test Setup and Data Analysis"
- Benjamin Skrypski and Jason Frisk (Kathleen Muhonen) - \$2,400
"Characterization and Failure Mechanisms of ESD-Stressed FinFET Structures"
- Diana Tinlin (William Lasher) - \$1,200
"Stability of the U.S. Brig *Niagara* and the *Pride of Baltimore II*"
- Jason Williams (Robert Gray) - \$1,193
"Miniature GPS Tracking Device Using an AVR Microcontroller"

SCHOOL OF ENGINEERING AND SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

- James Hodge, Jessica Schubert, Kaylee Curilla, Danielle Wilson, Janice Jerome, Marika Whiting, Sidney Carson, and Terra Carrier (Dawn Blasko, Kathryn Holliday-Darr, and Jennifer Trich Kremer) - \$9,600
"Outreach and Application of the Spatial Visualization Project (VIZ)"

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

- Jason Crants, Jesse Eisert, and Colin Sears (Victoria Kazmerski and Jennifer Trich Kremer) - \$3,600
"Assessing the Relationship between Environmental Conditions and Learning Attitudes and Achievements"
- Julie Elkins and Amanda Tyler (Victoria Kazmerski and Melissa Surawski) - \$2,400
"Democratic Engagement: The Influence of Relationships on Participation"
- Chelsea Fenush, Samantha DeDionisio, Ian Grazier, and Chelsea Ehret (Victoria Kazmerski and Dawn Blasko) - \$4,800
"Analyzing Individual Differences in Processing Prosody in Language: Sarcasm and Musical Training"
- Christine Giuliano, Chris Brown, and Audrey Achonu (John Gamble) - \$2,800
"Comprehensive Statistical Database of Multilateral Treaties (CSDMT)"

- Kristy McCoy (Gregory Morris) - \$1,200
"Deciphering My Mother Tongue through CaucAsian Eyes: A Memoir"

SCHOOL OF SCIENCE

- Jeffrey Barker (Chuck Yeung) - \$980
"Simulation Study of the Role of Heterogeneous Gene Expression on a Bacteria Population's Response to Phage Attack"
- Adam Carlisle (Darren Williams) - \$1,200
"Investigation of Ejecta from Large Impacts on Earth and the Dynamical Influence of the Moon"
- Laura Cirillo (Beth Potter) - \$1,200
"A Coimmunoprecipitation Approach to Identifying N-Glycan Dependent Sorting Machinery in Polarized Epithelial Cells"
- Danielle Chung (Alan Jircitano) - \$1,200
"Synthesis and Structural Characterization of Photochromic Platinum(II) Complexes"
- Amanda Dechant (Michael Justik) - \$1,200
"Conversion of Carboxamides to Ammonium 2-iodobenzenesulfonates with 1*H*-1-hydroxy-1,2,3-benziodoxathiole 3,3-Dioxide"
- Todd Eckroat (Martin Kocielek) - \$1,200
"Synthesis of Isoxazolone Analogues of *N*-Acylhomoserine Lactones"
- 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"
- Laura Frischkorn (Lisa Mangel) - \$1,200
"Avian Population/Habitat Assessment for Siegel Marsh"
- Bennett Giardina (Michael Campbell) - \$1,200
"Creation of an NDP1-CFP Fusion Gene"
- Michael Hughes (Michael Justik) - \$1,200
"Environmentally Benign Conversion of Fatty Acid Derived Carboxamides to Ethyl Carbamates with 1*H*-1-hydroxy-1,2,3-benziodoxathiole 3,3-Dioxide"
- David Machuga (James Warren Jr.) - \$1,200
"An *in vivo* Analysis of the Role of the Glycine Cleavage System in Early Zebrafish Development"
- Jeff Machusko (Blair Tuttle) - \$1,200
"Physics of Amorphous Models"
- Andrew Makepeace (Bruce Wittmershaus) - \$1,197
"Modification of Silica Nanospheres for Fluorescence Enhancement"
- Kolby McIntyre (Margaret Voss) \$1,200
"A Survey of Farm Management Techniques and the Potential for Control of Parasitic Nematodes in Horses"

- Chris Mosebach, Abe Kibbey, Angelica Jones, and Marcie Ryhal (Yi-Hong Wang) - \$4,800
"Continued Evaluation of *Arabidopsis* Mutants Generated by Expressing Genes from Tomato Fruits"
- Julie Ober (James Warren Jr.) - \$1,200
"Optimizing Protocols for the Raising of Baby Zebrafish (*Danio rerio*)"
- Kellie O'Rourke (Heather Jones) - \$1,200
"Effects of Growth Factors on Channels in the KCNN Family"
- Michael Piscitelli (Beth Potter) - \$1,200
"Determining the Role of N-Glycans in Apical Sorting within Polarized Epithelial Cells"
- Amie Pittner (Heather Jones) - \$1,197
"Characterization of Ca²⁺ Activated K⁺ Currents in an Immortalized Kidney Cell Line (MDCK)"
- Daniel Ranayhossaini (Margaret Voss and Michael Campbell) - \$755
"An Investigation of the Hemotoxicity of the Secretion of the Duvernoy's Gland of the Northern Water Snake (*Nerodia sipedon*)"
- Craig Richards (Margaret Voss) - \$1,200
"The Effect of Anthropogenic Noise Disturbance on the Developing Avian Immune System"
- Heather Sopher (Michael Justik) - \$1,200
"Substituent Effects in the Conversion of Arylcarboxamides to Ethyl Carbamates"
- Joseph Synowka (Blair Tuttle) - \$1,200
"Computational Modeling of Amorphous Materials"
- Jessica VanderWeele (Jennifer Holt) - \$1,200
"Investigation of Brooker's Merocyanine and Zeolite Y"
- Heather Wager, Jason Gall, Linh Nguyen, and Cara Jones (Danielle Goodwin, Jonathan Hall, Paul Ashcraft, and J. Andrew George) - \$4,800
"Examining Student Interactions in the SCALE-UP Physics Active Learning Environment Qualitatively and Quantitatively"
- Kathryn Warner (Bruce Wittmershaus) - \$1,200
"Investigation of New Quantum Dots for Use in Luminescent Solar Concentrators"
- Katherine Whitby (Lisa Mangel) - \$1,200
"Avian Population/Habitat Assessment for Siegel Marsh"
- Colleen White (Heather Jones) - \$1,200
"Identification of Protein Sequences Involved in hIK1 and Chaperone Protein Interactions"

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