Student Poster Presentations

**Engaging Community and Transforming Place: Arts-based Community Development**

*Teresa Bensel, Paula Frisch, Emma Cook, Adrienne Nelson, Amara Geffen*

**Research Site:** Allegheny College - Center for Economic and Environmental Development

**Mentor:** Amara Geffen

**Major/Minor of first author:** Art and Technology

**Funding:** National Endowment for the Humanities Fund

**Building Better Drugs: Developing HDAC Inhibitors with Higher Efficacy for Expanding the Renal Progenitor Cell Field**

*Amy Biery, Natasha Goldberg, Lisa Antoszewski, Lee McDermott, Neil Hukriede*

**Research Site:** University of Pittsburgh School of Medicine

**Mentor:** Neil Hukriede

**Major/Minor of first author:** Biology/Dance and Movement Studies

**Funding:** National Institutes of Health

**Modeling the Channel Flow of Granular Materials**

*Tamás Börzsönyi, Andrew Jockers, Balazs Szabo, David Statman*

**Research Site:** Budapest, Hungary

**Mentor:** David Statman

**Major/Minor of presenter:** Physics Minor/Religious Studies

**Funding:** National Science Foundation/International Research Experience for Students
**The Role of mTOR in Central Angiotensin Signaling**

*Ryan C. Brindle, Ly Q. Hung-Brown, Charles Lang, Sean D. Stocker*

**Research Site:** Pennsylvania State University Hershey Medical Center  
**Mentor:** Sean D. Stocker  
**Majors of first author:** Neuroscience and Psychology  
**Funding:** American Heart Association

**Tumor Draining Lymph Node Culture Methods for Adoptive Immunotherapy**

*Kevin Caja, Anthony Visioni, Hallie Graor, Mei Zhang, Julian Kim Novel*

**Research Site:** University Hospitals Case Medical Center  
**Mentor:** Julian Kim  
**Major/Minor of first author:** Biology/Psychology  
**Funding:** National Institutes of Health

**Integrated Aquaculture Agriculture (IAA) Waste Management for Sustainable Development in Bosnia and Herzegovina**

*Erin Cavagnero and Thomas Eatmon*

**Research Site:** Raup Fisheries; Conneautville, PA  
**Mentor:** Thomas Eatmon  
**Major/Minor of first author:** Environmental Science/Economics  
**Funding:** Keystone Innovation Zone Fund

**Characterization/Isolation of lignocellulose-degrading microorganisms from South Dakota’s Homestake Mine**

*Colleen Friel and Bruce Bleakley*

**Research Site:** South Dakota State University  
**Mentor:** Bruce Bleakley  
**Major/Minor of first author:** Biochemistry Economics  
**Funding:** National Science Foundation
The Roles of Two Dictyostelium Protein Homologues in Cell-Type Proportioning


Research Site: Allegheny College
Mentor: Margaret Nelson
Major/Minor of first author: Biology/History
Funding: Shanbrom Fund

Quantification of cholinergic inputs onto neurochemically defined hippocampal interneuron subpopulations

Tavita Garrett, Vaishali Satpute, Emily Stone, Ben Holloway, Josh Lawrence

Research Site: University of Montana
Mentor: Josh Lawrence
Majors of first author: Neuroscience and Psychology
Funding: National Institutes of Health

Quantifying Windthrow within Riparian Buffers Adjacent to Alearcuts on Proximal and Distal Moraine Outwash Soils in the Yakutat Forelands, AK

Ted Koller, Ben Heermans, Bill Lucey, Denise Wiltse, Rich Bowden

Research Site: Yakutat Forelands, Alaska
Mentor: Rich Bowden
Major/Minor of first author: Environmental Science/Religious Studies
Funding: United States Fish and Wildlife Service

Fungal Endophyte-Grass Interactions in a Restored Meadow

Gabrielle Lamoreaux, Andrew Allstadt

Research Site: Blandy Experimental Farm, Boyce, VA
Mentor: Andrew Allstadt
Major/Minor of first author: Biology/Art and Art History
Funding: National Science Foundation
Team Centegheny: Fighting Fires with Robotics and Parallel Programming

Kathryn P. Hardey, Molly L. Mattis, Mark H. Goadrich, Matthew C. Jadud

Research Sites: Allegheny College and Centenary College of Louisiana
Mentor: Matthew C. Jadud (Allegheny) and Mark H. Goadrich (Centenary)
Major/Minor of presenter: Computer/Economics
Funding: National Science Foundation

Jumping Kinematics in the Plethodontidae: Performance, Morphological Variables, and Tail Loss Effect

Anthony Hessel, William Ryerson, Lisa Whitenack

Research Site: Allegheny College
Mentor: Lisa Whitenack
Major/Minor of first author: Biology/Political Science and History
Funding: Christine Scott Nelson Faculty Support Fund

Does the spvB virulence plasmid exclude other large plasmids in Salmonella enterica?

Erin Nawrocki, Mopelola Oluwadare, John Maurer

Research Site: University of Georgia
Mentor: John Maurer
Major/Minor of first author: Biology/American Studies
Funding: National Science Foundation

Water on a Hydrophobic Surface

Caitlyn Neidig, Vivien Zhou, Ryan Scruggs, Adele Poynor

Research Site: Allegheny College
Mentor: Adele Poynor
Major/Minor of first author: Physics/Writing
Funding: Richard Cook and Teresa Lahti Research Fund, Shanbrom Fund, and Louis Jefferson Long Fund
The Culture of Railfanning

Nicholas Ozorak, Darren Miller

Research Sites: Western Pennsylvania, Eastern Ohio, Rock Island Illinois
Mentor: Darren Miller
Major/Minor of first author: Communication Arts/Psychology
Funding: National Endowment for the Humanities Fund

Testing the Effects of Detritivore Density on Nutrient Release in Montaigne Ponds

Marieke Perchik, Scott Wissinger

Research Site: Rocky Mountain Biological Laboratory
Mentor: Scott Wissinger
Major/Minor of first author: Environmental Science/English
Funding: Shanbrom Fund and ACCEL

A Comparison of Commercial Aquaponics Facilities Across the US Rustbelt

Elyse Schmitt and Thomas Eatmon

Research Sites: Meadville, Chicago, Milwaukee
Mentor: Thomas Eatmon
Major/Minor of first author: Environmental Studies/Economics and Communication Arts
Funding: Northwest PA College Business Plan Competition and Andrew W. Mellon Foundation

The Art of Evolution and the Evolution of Art

Patricia Kobak, Robert Roos

Research Site: Allegheny College
Mentor: Robert Roos
Major and Minor of first author: undecided
Funding: Shanbrom Fund
Light Emitting Diodes (LEDs) as Energy Efficient Alternatives for Indoor Aquaponic Systems

David Schuster, Edin Nikovic, Thomas Eatmon
Research Site: Raup Fisheries; Conneautville, PA
Mentor: Thomas Eatmon
Major/Minor of first author: Environmental Studies/Communications Arts
Funding: Keystone Innovation Zone Fund

Preliminary Assessment of the Genetic diversity of Carp at the Pymatuning Spillway

Samantha L. Tucker, Kristen M. Webb
Research Site: Allegheny College
Mentor: Kristen M. Webb
Major/Minor of first author: Biology/Psychology
Funding: Keystone Innovation Zone Fund

The Stages and Rate of Salamander Forelimb Regeneration: Establishing a Timeline

Cathrine E. Youngs, Lisa Whitnack
Research Site: Allegheny College
Mentor: Lisa Whitnack
Major/Minor of first author: Biology/History and Psychology
Funding: Shanbrom Fund

Did You Know?

75 students conducted research on the Allegheny College campus during the Summer of 2011.