

Allegheny College

---

2008 Summer Research Symposium



---

**Using Genetic Algorithms to Improve Test Suite Prioritizations**

Author(s): Alexander Conrad

Supervisor: Dr. Gregory M. Kapfhammer, Department of Computer Science

Funding: Harold M. State Research Fellowship

**Integrating Health Across the Curriculum**

Author(s): Sonja DeJong, Krys Castillo, Hillary Bedell, Nick Silva, Caryl Waggett

Supervisor: Dr. Caryl Waggett

Funding: Project Pericles grant, and R Cole; EPA grant ; Demmler Foundation grant to Waggett, R Cole, V Silva and M Comber; Dean's Discretionary Fund; Office of Wellness; ACCEL; Office of Religious Life; Meadville Medical Center (in kind only)

**Local Foods Network**

Author(s): Lydia Gearhart

Supervisor: Dr. Jennifer DeHart

Funding: Gail Howe Fahrner Fund

**Effects of learning, running & stress on maturation of new neurons in the adult brain**

Author(s): Lucas R. Glover, Jason S. Snyder, Heather A. Cameron

Supervisor: Dr. Heather A. Cameron

Funding: Intramural Program of the National Institutes of Health, National Institute of Mental Health

**Acute Supplementation of Long-Chain Omega-3 Fatty Acids on Parietal Asymmetry in Healthy Young Adults: A Double-Blind Placebo Controlled Study**

Author(s): Siera Goodnight, Josh Seseck, Mia Symoniak, Sarah Conklin

Supervisor: Dr. Sarah Conklin

Funding: Wells Foundation, Shanbrom Fund, and McCune Foundation

**The Role of Auxin in the Arbuscular Mycorrhiza Symbiosis**

Author(s): Molly Hanlon and Catharina Coenen

Supervisor: Dr. Coenen

Funding: Howard M State Research Fellowship

**The use of Carbon Nanotubes with Nematic Liquid Crystals**

Author(s): Shad Hopson, Joshua Levinson

Supervisor: Dr. David Statman

Funding: ACCEL

**The Progression of Gas through Granular Media**

Author(s): Shad Hopson

Supervisor: Dr. David Statman

Funding: Well's Foundation and ACCEL

**Breathing and Nasal CO<sub>2</sub> Chemoreceptors: Implications in Sudden Infant Death Syndrome**

Author(s): Jessica Kenemuth and E. Lee Coates

Supervisor: Dr. E. Lee Coates

Funding: Shanbrom Fund

**Learning eye-tracking methods by examining visual search patterns**

Author(s): John Mahalchak and Megan Petroccia

Supervisor: Dr. Aimee Knupsky

Funding: John R. McCune Charitable Trust

**Determination of Backbone Dynamics in Single and Dual Domain Protein GB1: Comparison in the Presence and Absence of Alignment Media**

Author(s): Katlyn Meier, Joseph Walsh, and Rieko Ishima

Supervisor: Dr. Rieko Ishima of the Molecular Biophysics and Structural Biology Department at University of Pittsburgh School of Medicine

Funding: University of Pittsburgh

---

**Race, Gender, and Persona in Buffalo Bill's Wild West**

Author(s): Amy Negley  
Supervisor: Linda Clark, Buffalo Bill Historical Center in Cody, Wyoming  
Funding: Dean's Study Stipend

**Spin Crossover Phenomena in Fe-Os Prussian Blue Analogs: A Variable Temperature EPR and Mössbauer Spectroscopy Study**

Author(s): Tanya Nocera  
Supervisor: Dr. Doros Petasis of the Physics Department  
Funding: Shanbrom Fund

**Design and Construction of a Low Frequency EPR Spectrometer**

Author(s): Elliott Randall  
Supervisor: Dr. Doros Petasis  
Funding: Shanbrom Fund

**Healthy Homes Healthy Children**

Author(s): Gail Raspanti, Chris Wagner, Krys Castillo, and Mia Salimbene  
Supervisor: Dr. Caryl Waggett  
Funding: Shanbrom Fund, John McCune Foundation

**Progress Toward the Development of Felix 01 as a Reporter Phage for the Rapid Detection of Salmonella**

Author(s): Emily Ricotta  
Supervisor: Dr. Brandi Baros, and Dr. Ann Kleinschmidt  
Funding: Allegheny College Biology Department and Class of 1939 Research Fund

**Women and the Civil War**

Author(s): Aurora Schul  
Supervisor: Dr. Paula Treckel and Dr. Ian Binnington of Allegheny College  
Funding: Kenneth Robertson Fund (Department of History), Dean's Office

**A Critical Look at Bandhavgarh National Park**

Author(s): Mark Smeltz  
Supervisor: Dr. Ishita Sinha Roy  
Funding:

**Effects of Mefloquine Hydrochloride on NMDA- and Kainate- Induced Drinking in Sprague Dawley Rats**

Author(s): Sarah Snider and Rodney D. Clark  
Supervisor: Dr. Rodney Clark  
Funding: Neuroscience Program and Psychology Department

**Do Caddisflies Reap a Double Benefit from Detritus Processing?**

Author(s): Emily Thornton and Scott Wissinger  
Supervisor: Dr. Scott Wissinger  
Funding: Wells Foundation, NSF

**Read Between the Signs**

Author(s): Tom Kierzkowski, Zane Miller, Lacey Scott, Melissa Danielson, Heather Marendola  
Supervisor: Professor Amara Geffen

**Grease is the Word: Is Biodiesel Production Feasible in Meadville?**

Author(s): Sandra Wayman, Alessandra Trunzo, Richard D. Bowden  
Supervisor: Dr. Richard D. Bowden  
Funding: Environmental Science Department

**Leaf and Root Decomposition in a northern hardwood forest**

Author(s): Liz Fager, Amy Werner, Richard D. Bowden  
Supervisor: Dr. Richard D. Bowden  
Funding: Class of 39 Fund, Shanbrom, Wells Foundation, University of Michigan

**Forest Education for High School Students**

Author(s): Alessandra Trunzo, Paula Carey, Elizabeth Straus, Terry Bensen and Richard D. Bowden

Supervisor: Drs. Richard D. Bowden & Terry Bensen

Funding: Rees Foundation, Shanbrom Fund, Wells Foundation

**Productivity and nutrients in switchgrass, an alternative biofuel**

Author(s): Katie Wills, Sandra Wayman, Lisa Alexander, Abby Conroy, Richard D. Bowden

Supervisor: Dr. Richard D. Bowden

Funding: Environmental Science, Ernst Conservation Seeds

**Rostral Corpus Callosum Size is Associated with Motor Performance in Survivors of Childhood Leukemia**

Author(s): Locascio, G., Ginty, A., Crocetti, D., Mostofsky, S.H., Ruble, K., Schwartz, C.L. , & Mahone, E. M.

Supervisor: Dr. Mark Mahone, Kennedy Krieger Institute and Johns Hopkins University School of Medicine

Funding: Class of 1939 Fund and Visiting Alumni Fund

**Acute omega-3 long chain polyunsaturated fatty acid supplementation is associated with decreased neuroticism, depression, and anxiety in healthy young adults.**

Author(s): Mia Symoniak, Annie Ginty, Sierra Goodnight, Josh Sese and Sarah Conklin.

Supervisor: Dr. Sarah Conklin, Allegheny College

Funding: Shanbrom fund.

**Investigation of the hydrophobic depletion layer using Surface Plasmon Resonance**

Author(s): Simon Kohnstamm, Satoko Asahi

Supervisor: Dr. Adele Poyner

Funding: Shanbrom Fund