This poster session was sponsored by two generous sources: Merck/AAAS and the Admissions Office of Muhlenberg College.

Each on-campus summer science research student was awarded an 8-10 week stipend supported by one of several grants. Most grants also provided funds for the purchase of supplies and/or small pieces of equipment to support each student’s research project. The College generously provided free dorm housing and one course credit.

This poster session is a culmination of each student’s summer work. All of the students are pleased to have this opportunity to present their research and answer any questions you may have.

Student Research Projects

Tuyen Nguyen ('10)
“Structure Versus Function: A Complete View of the Regeneration of Feeding Appendages in S. benedicti”
Mentor: Dr. Elizabeth McCain
Funded by: Vaughan Summer Research Grant

Ashley O'Grady ('10)
“Fluorescence Quenching of PAH Fluorescence by Humic Acid”
Mentor: Dr. Bruce Anderson
Funded by: Merck/AAAS

Kelsey Parry (‘11)
“Camp JRA Education Internship: Eastern PA Arthritis Foundation”
Mentor: Dr. Keri Colabroy
Funded by: The Eastern Pennsylvania Arthritis Foundation

Sheelagh Pousatis (‘11)
“Regeneration of Streblospio benedicti Branchiae”
Mentor: Dr. Elizabeth McCain
Funded by: Merck-AAAS
Funded by: National Science Foundation

Kaitlin Ritter (‘10)
“Impacts of Agricultural Pollutants upon Olfactory Navigation in Bombus impatiens”
Mentor: Dr. Jordanna Sprayberry
Funded by: Vaughan Summer Research Grant

Daniel Splinsky (‘10)
“Investigating Apoptosis in Mitosis”
Mentor: Dr. Tim Yen and Dr. Neil Beeharry, Fox Chase Cancer Center
Funded by: Summer Student Research Fund

Thalassa Sodre (‘10)
“Quality Assurance Tests of Gas Gaps for Resistive Plate Chambers at PHENIX”
Mentor: Dr. Brett Fadem
Funded by: National Science Foundation

Erin Jo Tiedeken (‘10)
“Induction and Specificity of Volatiles Released by Lindera benzoin in Response to Herbivore Attack”
Mentor: Dr. Richard Niesenbaum
Funded by: National Science Foundation

Meghan Wilson (‘10)
“Impacts of Agricultural Pollutants upon Olfactory Navigation in Bombus impatiens”
Mentor: Dr. Jordanna Sprayberry
Funded by: The Sentience Foundation

Elia Wright (‘10), Heather Woolis, Beth Strunk, Crystal Young
“Using Protein Pull-downs as an Aid to Model the Structure of Pre-40S Ribosomal Subunits”
Mentor: Dr. Katrin Kurbstein, University of Michigan
Funded by: National Science Foundation
Student Research Projects

Nick Gidosh ('11)
*Conversion of Menthone to Menthane Carbalkaldehyde*
Mentor: Dr. Charles Russell
Funded by: REBCS

Mike Gillies ('10)
*Synthesis of Chiral DBA Analogs for use as Enantioselective Ligands*
Mentor: Dr. Charles Russell
Funded by: REBCS

Michael Goodrich ('11)
*Laser Synthesis of Polyynes*
Mentor: Dr. Bruce Anderson
Funded by: REBCS

Rose Hamershock ('11), Kristina Buschur (Kenyon), Ariel Kniss (Bucknell), Esther Wolff (Columbia)
*Dynamics of AND/NOT Boolean Networks*
Mentors: Dr. R. Laubenbacher and Dr. A. Jarrah, Virginia Bioinformatics Institute at Virginia Tech
Funded by: National Science Foundation

Caitlin Harper ('11)
*Chamber Performance of Prototype Resistive Plate Chambers for the PHENIX Forward Trigger Upgrade*
Mentor: Dr. Brett Fadem
Funded by: National Science Foundation

Kathleen Henley ('11), Diana Ortiz ('11)
*Solar Electricity as an Alternative Energy Resource for Muhlenberg College*
Mentors: Dr. Jane Flock and David Rabold
Funded by: The Sustainable Energy Fund, Muhlenberg College Provost's Office, Muhlenberg College Office of the Dean for Academic Life

Paul Herold ('10)
*Investigating the Neural Substrates of Behavior in the Hawk Moth Manduca sexta Using a Naturalistic Motion Stimulus*
Mentor: Dr. Jordanna Sprayberry
Funded by: Dean's Summer Research Grant

Tyler Huffman ('10)
*Exploring Possible Violations of Special Relativity in String Theory*
Mentor: Dr. Adam Clark
Funded by: The Raub Fund

Sarah Illing ('10)
*Behavioral Composition of Temper Tantrums in Internalizing, Externalizing and Typically Developing Four-year-olds*
Mentor: Dr. Michael Potegal, Department of Pediatrics, University of Minnesota
Funded by: National Science Foundation-REU in Behavioral & Cognitive Sciences at UM

Kendra Joseph ('10)
*Analysis of Sources of Ambient Organic Aerosol Particles by Positive Matrix Factorization Applied to Aerosol Mass Spectrometric Data*
Mentor: Dr. Yin-Nan Lee, Brookhaven National Laboratory
Funded by: US Department of Energy, Global Change Education Program

Steven E. Kalman ('10)
*Toward the Development of a Palladium Catalyst for Olefin Hydroamination*
Mentors: Bradley A. McKeown and Dr. T. Brent Gunnoe, University of Virginia
Funded by: National Science Foundation-REU, Office of Basic Energy Sciences, US-DOE

Adam Kingsbury ('11)
*A Field Study Examining the Interaction of 'Top Down' and 'Bottom Up' Influences on the Interactions Between the Insect, Epimecis hortaria, and the Plant Lindera benzoin*
Mentor: Dr. Richard Niesenbaum
Funded by: National Science Foundation

Alex Koroljow ('11)
*Bleach Oxidation of Menthol*
Mentor: Dr. Charles Russell
Funded by: REBCS

Rachel Masel ('10)
*Neuropathology of Mice Expressing a Very Low Copy Number of the Mutant Human G93A SOD1 Gene Associated with Lou Gehrig's Disease (ALS)*
Mentor: Dr. Jeffrey S. Deitch, Neurology Dept., Drexel University
Funded by: ALS Hope Foundation

Sean H. Maloney ('10)
*The Effects of Diet on Sciridae Cranial Shape Change: A Geometric Morphometric Analysis.*
Mentor: Dr. Paul Meier
Funded by: Muhlenberg College Collaborative Research Grant

Steven Motshwiller ('12)
*Transverse Energy at RHIC in Heavy Ion Collisions*
Mentor: Dr. Brett Fadem
Funded by: Muhlenberg College and National Science Foundation

Meredith Neike ('11), Caitlin Norcross ('11), Emily Perovich ('11)
*Synthesis of a Fluorescing, Lead-specific Cryptand as a Potential Clinical Analyte*
Faculty Mentor: Dr. Marsha R. Baar
Funded by: Merck-AAAS