

# The 12<sup>th</sup> Annual Student Scholarship and Creative Endeavors Day

April 19, 2017

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# The 12<sup>th</sup> Annual Moravian College Undergraduate Student Scholarship and Creative Endeavors Day April 19, 2017

## Schedule of Events

8:00 . . .	Welcome and Opening Remarks
8:10 . . . 8:45 . . .	Session I: PPHAC 335, Oral Presentations
8:55 . . . 9:50 . . .	Session II: PPHAC 335, Oral Presentations
10:10 . . . 11:15 . . .	Session III: PPHAC 335, Oral Presentations
11:45 . . . 12:45 . . .	Student Poster Presentations I
1:10 . . . 2:25 . . .	Session V: PPHAC 335, Oral Presentations
2:35 . . . 3:30 . . .	Session VI: PPHAC 335, Oral Presentations
4:00 . . . 5:00 . . .	Student Poster Presentations II
12:00 . . . 4:00 . . .	Senior Art Exhibits,
	4:00 p.m. Reception (All Welcome), PPHAC ATRIUM

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# POSTER SESSION I

11:45 AM - 12:45 PM  
Poster Presentations I  
HUB

Students	Advisor
Magdalene Striluk	Dr. Patrick van Esch
Swathi Kanakamedala	Dr. Shari Dunham
Katherine Corcoran, Breanna Deemer	Dr. Robert Brill
Lowell Perkins	Dr. Sonia Aziz





Student Oral Presentations I: PPHAC 335  
8:10 - 8:45 AM

Moderator: Dr. Nathan Shank

**Title:** **The Harmonious Sounds of Mathematics**  
**Students:** Steven Berger  
**Advisor:** Dr. Nathan Shank, Dr. Greg Schaper  
**Location:**



**Title:**                **The Messianic Secret in Mark: Theology, History, or Both?**

Students:            Eric Yeakel

Advisor:             Dr. Kelly Denton-Borhaug

Location:            PPHAC 335

9:15 AM - 9:30 AM

*For many years, scholars have noticed a strange feature in the Gospel of Mark. While Jesus is presented*

*I have created a film that is the culmination of the Peace and Justice Studies Capstone. I am examining the culture of alcohol abuse among student athletes at Moravian, and am directing my focus on the dangers this culture poses for student athletes. As a student athlete myself for the past four years, I am drawing on my own experiences to better understand and explain the alcohol abuse here at Moravian, as well as attempting to answer some questions by implementing interventions, raising awareness, and analyzing ways to help create change to this destructive environment.*

**Title:**                   **How Do Sand Boas Capture Prey They Cannot See?**

Students:               Michelle Pomposello

Advisor:                Dr. Frances Irish

Location:               PPHAC 335

1:50 PM - 2:05 PM

*Eryx colubrinus*, the Kenyan Sand Boa, has a modified snout. Preliminary data on sand boas suggests that during prey capture the anterior tips of the upper jaws are depressed, maximizing tooth exposure in order to snag prey from a position beneath the substrate. **How Do Sand Boas Capture Prey They Cannot See?** Eleven different specimens were observed within 1 inches of sand in a ten gallon aquarium. Burrowing, prey (live mice) presentation, and prey-strikes were recorded. In contrast to our hypothesis, snakes did not strike from a completely covered position and instead positioned themselves with the top of the head partially exposed. Both prey and snakes remained close to aquarium walls, where most prey captures occurred. To test if *Eryx colubrinus* prefers to wait in scented or unscented areas, a series of experiments consisting of a control unscented group and a group with a region of mouse-

*displaying “appropriate traditional” gender displays on a private liberal arts college campus in the Mid-Atlantic region using the analytical frameworks of Goffman, Cooley, and Zimmerman and West. We distributed a survey that collected information on both students’ perception of their own gender display as well as reports on how others describe them. We explore labels that remain highly gendered (“emotional” for women, “athletic” for men) and labels that appear in this setting gender-neutral (confident, friendly, motivated). We also explore the accumulated and differentiated impact of “gender-appropriate” display on students’ experiences at college with fellow students, faculty and staff.*

**Title:                    The Effects of Extracurricular Engagement on Self-Efficacy in Leadership Ability:**

Student Poster Presentations I: HUB Gallery  
11:45 - 12:45 PM

**Title:** Autonomous Weapon Systems: Is a Space Warfare Manual Required?  
**Students:**

**Title: Satellite Cholera Outbreak Prediction and Household Willingness to Avoid Cholera**

Students: Lowell Perkins

Advisor: Dr. Sonia Aziz

*The poster displays a socioeconomic analysis of household reported willingness to pay for cholera vaccines in a district in Dhaka, Bangladesh. Much of the poster is a description of the econometric process involved with the analysis, as well as the conclusions that result. One of the main pieces of information displayed on the poster is how certain aspects of a household positively or negatively effect their willingness to pay for cholera vaccines.*

**Title: The Effects of Caffeine on Memory and Recall**

Students: Eric Morton

Advisor: Dr. Randolph Smith



**Title: Salt in Chips**

Students:



**Title:** Synthesis of Rhodium-DNA Model Complexes

Students: Austin Mates

Advisor: Dr. Stephen Dunham

**Title: Establishing Preliminary Relationships Between Peptide Structure and Quorum Sensing Activity in Bacillus Cereus**

Students: Jessica Lynch

Advisor: Dr. Michael Bertucci

*This project focuses on bacterial quorum sensing and its role in bacterial virulence. Bacteria communicate with each other using chemical signals, or autoinducers, resulting in synchronized group behavior. When the density of autoinducers (and therefore bacterial cells) is high, they bind to a receptor in the cells and spark synchronized behavior. If this communication pathway could be interrupted, it could prevent synchronized behaviors such as biofilm production or virulence. Our project's goal is to modify the autoinducer in Bacillus cereus to interfere with the communication circuit so that biofilm production cannot occur. The autoinducer responsible for quorum sensing in B.cereus is a peptide containing seven amino acids. An alanine scan was performed to provide insight into which amino acids are most critical for initiating quorum sensing. Several synthesized peptide derivatives were then biologically tested on genetically modified strains of Bacillus thuringensis. A beta-galactosidase assay was used to determine which peptide derivatives have an effect on the quorum sensing mechanism.*

**Title: Utilizing Faculty Interviews as an Epistemological Tool Throughout a Modified Writing-Enriched Curriculum Process at a Small Liberal Arts College**

Students: Chris Hassay

Advisor: Dr. Crystal Fodrey

*As I continue to collaborate with a professor on instituting a Writing-Enriched Curriculum (WEC) within our local context at a small liberal arts college (SLAC), the use of interviews as a supplemental font of qualitative information has provided a more fully developed understanding of the academic environment of a department. First developed by Pamela Flash at the University of Minnesota, WEC is designed to thoughtfully integrate writing in departments utilizing the components and elements of composition which are deemed most pertinent by the faculty within the targeted department. As Flash explains on the WEC website, "WEC provides academic departments with a way to ensure that discipline-relevant writing and writing instruction are intentionally infused into their undergraduate curricula." At our SLAC, where departments are oftentimes under 10 full-*

**Title**



(2) *At some instances throughout the history an agent S, S was free with respect to action Y in that it was in*

**Title: Antibiotic Tolerance: Distinguishing between Classical Resistance and Persistence in a Macrophage Infection Model**

Students: Crystal Collins

## ***Moravian College Honors Students 2016-2017***

Sarah Atwood, Female Sexuality in American Art between WWI and WWII, Art History. Advisor: Martha Kearns

Megan Brockett, Participation in Collegiate Athletics: A Nursing Perspective on Challenges and Outcomes with Athletes with Eating Disorders, Nursing. Advisor: Pamela Adamshick

Stephanie Canete, Predictors of Abstinence Among College Students, Sociology. Advisor: Debra Wetcher





## ***SOAR Grant Recipients 2016-2017***

### **2016 SOAR Summer Research Grant Recipients**

India's Black Economy: Origins, Obstacles, and Opportunities. Co-sponsored by the Center for Intercultural Advancement and Global Inclusion  
Vishu Solanki & Dr. James West

The Delaware River Watershed Initiative: Macroinvertebrate and Fish Community Assessment in the Upper Lehigh River Watershed

Moravian Music: Creating Performance Editions for Anthems and Choral Works  
Matthew Obszarny & Dr. Hilde Binford, with the assistance of Gwyneth A. Michel, Assistant Director, Moravian Music Foundation

How Do Sand Boas Capture Prey They Can't See?  
Michelle Pomposello & Dr. Frances Irish

Optimizing Extraction and Analysis using Liquid Chromatography  
Meeghan Rossi & Dr. Alison Holliday

Effect of Bang-sensitive Mutations on Memory in *Drosophila melanogaster*  
Kayli Silimperi & Dr. Christopher Jones

The Role of Physical Activity in the Overall College Experience: How Students and Athletic Directors Perceive the Challenges and Benefits of Staying Physically Active while in College  
Jordan Sweeney & Dr. Virginia Adams O'Connell

Manipulating Signal Hydrophobicity to Alter Quorum Sensing in *Streptococcus pneumoniae*  
Erin Tiwold & Dr. Michael Bertucci

Edge and Vertex Failure Games on Graphs  
Devon Vukovitch & Dr. Nathan Shank

Stereotype Analysis of Alternative Medicine Practices  
Micaela Wilson & Dr. Sarah Johnson

#### **2017 SOAR Winter Semester Research Grant Recipients**

Mass Spectrometry Characterization of Rhodium-DNA Adducts  
Leanna Talotta & Dr. Stephen Dunham

Characterizing Rhodium-DNA Model Complexes  
Austin Mates & Dr. Stephen Dunham

## ***Student Conference Presentations 2016-2017***

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**Landmark Conference 8th Annual Summer Research Symposium, Moravian College, July, 2016**

Oral Sessions

Catalytic Properties of Novel Dirhodium Compounds

Student: Ian Panton

The Neuroprotective Potential of Curcumin in the 6-Hydroxydopamine Model of Parkinson's Disease  
Student:

Francesca Caruso,

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## ***The Art Department***

### **Senior Thesis Exhibition**

**Opening Reception: Thursday, April 20, 6:30 to 8:00 p.m.**

**Show runs through graduation**

**Closing Reception: Saturday, May 13, 2:00 to 4:00 p.m.**

The Senior Thesis Show represents the thesis work of our graduating seniors done in their capstone courses in studio art, graphic design, art education, art history, and photography/media.

Students represented in the Senior Show:

Sarah Atwood, Art History

Emily Benonis, Studio/Photography

Andrew Bentzoni, Art History

Dominic Bertrand, Graphic & Interactive Design

Marquise Bourgeois, Studio Art

Nicholas Capraro, Art History

Jessica Donovan, Graphic & Interactive Design

Caroline Dooley, Art History

Angela Emili, Art Education

Brandon Ewer, Graphic & Interactive Design

Jenifer Hathaway, Studio Art

Sarah Krasinski, Graphic & Interactive Design

Rowan Laitila, Art History

Tracy Lakrham, Graphic & Interactive Design

Renee Liedig, Art Education

Shayna O'Boyle, Graphic & Interactive Design

Marisa Pacitti, Graphic & Interactive Design

Gina Piazza, Studio Art

Matthew Pring, Studio Art

Casey Raymond, Art History

Elias Saba, Graphic & Interactive Design

Sabrina Signorelli, Graphic & Interactive Design

Hannah Smolko, Graphic & Interactive Design

Michael Valentine, Graphic & Interactive Design

Melissa Walko, Art Education

## ***Theatre***

"STUFF" April 6-9, 2017

A student-devised, faculty-directed play about UN-sustainability that was created to support the college's year-long IN-Focus theme of sustainability.

In Theatre devising, there is no script going into the rehearsal process. The piece is developed by the actor-creators involved.