

Undergraduate Research & Scholarship Symposium

Award Winners - April 3, 2019

Bayer School of Natural and Environmental Sciences

Excellence in Research in the Basic Sciences: \$300

Recombinant Expression of Human Semenogelin Proteins and Creation of Novel Antibodies for the Detection of Human Semen

David Brown

Bayer School of Natural and Environmental Sciences | Forensic Science and Law

Faculty Advisor: Michael Jensen-Seaman, Ph.D.

Abstract Number: 91

Excellence in Research in the Basic Sciences: \$300

Exploring spatial competition within biofilms through a pleiotropic regulator

Jordan Denk

Bayer School of Natural and Environmental Sciences | Biology

Faculty Advisor: Wook Kim, Ph.D.

Additional Authors: Anton Evans (graduate student), Collin Kessler (graduate student), Wook Kim, Ph.D. (faculty)

Abstract Number: 60

Honorable Mentions: \$100

Electrochemically Fabricated Substrate Dependent Smart Electrocatalysts Ni-Fe-double and Ni-Co-Fe-triple hydroxides for Efficient Water Splitting to Oxygen and Hydrogen

Meron Metaferia

Bayer School of Natural and Environmental Sciences | Biochemistry

Faculty Advisor: Shahed Khan, Ph.D.

Abstract Number: 53

Honorable Mentions: \$100

Exploring Plethodontid Salamander Skin Peptides for Antimicrobial Therapeutics

Tiffany Ricketts

Bayer School of Natural and Environmental Sciences | Biochemistry

Faculty Advisor: Sarah Woodley, Ph.D.

Additional Authors: Patrice Clemenza, Kenzie Pereira (graduate student)

Abstract Number: 59

Honorable Mentions: \$100

LCMS Method Development for the Identification and Quantification of Illicit Drugs Introduced into Correctional Facilities

Erica Maney

Bayer School of Natural and Environmental Sciences | Forensic Science and Law

Faculty Advisor: Stephanie Wetzel, Ph.D.

Additional Authors: Logan Miller (previous grad student); Sean Fischer (grad student)

Abstract Number: 78

Undergraduate Research & Scholarship Symposium

Award Winners - April 3, 2019

Honorable Mentions: \$100

Multi-Anode Photo-Multipliers in Particle Detectors and Nuclear Medicine

Connor Pecar

Bayer School of Natural and Environmental Sciences | Physics

Faculty Advisor: Fatiha Benmokhtar, Ph.D.

Additional Authors: Fatiha Benmokhtar, Ph.D. (Faculty member), Marco Mirazita, Ph.D.

(External advisor)

Abstract Number: 84

Biomedical Engineering

Duquesne Award for Excellence in Biomedical Engineering: \$100

SOLFARM

Madelyn Hoying, Garrett Craig, Nina Dorfner, Karli Sutton, Jordan Hoydick, Paige Aley, Sawyer Weitzel, Audrey Steen, Peyton Joiner, Erin Kuhn, Alexander Evans, Sophia Perez

A.J. Palumbo School of Business Administration, School of Education, Rangos School of Health Sciences, Bayer School of Natural and Environmental Sciences, School of Nursing, Biomedical Engineering Physics

Majors: Biomedical Engineering, Chemistry, Nursing, Accounting, Education, Physician Assistant Studies

Faculty Advisor: Benjamin Goldschmidt, Ph.D.

Abstract Number: 95

Center for the Catholic Faith and Culture

Common Good Research Award: \$250

A Modern Reflection on Colonialism in Puerto Rico

Shawn Robinson

McAnulty College and Graduate School of Liberal Arts | Political Science and History

Faculty Advisor: Emad Mirmotahari, Ph.D

Abstract Number: 5

Center for Community-Engaged Teaching and Research

CETR Award for Undergraduate Research: \$150

Developing Occupational Identity in Refugee Youth

Anna Fish

Rangos School of Health Sciences | Occupational Therapy

Faculty Advisor: Jaime Muñoz, PhD, OTR/L/FAOTA

Abstract Number: 41

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Award Winners - April 3, 2019

Center for African Studies

Award for Undergraduate Research in African Studies: \$300

Effects of Fluoride on the Human Body in Tanzania

Abbey Whitewood

Bayer School of Natural and Environmental Sciences, School of Nursing | Nursing

Faculty Advisor: David Kahler, Ph.D.

Additional Authors: Jessica Devido, Ph.D, CRNP (faculty)

Abstract Number: 51

Award for Undergraduate Research in Global Health: \$300

The Effects of Pictorial Hygiene Education among Adult Women in El Tamarindo, Dominican Republic

Maggie Belcher, Alexa Boni

School of Nursing | Nursing

Faculty Advisor: Linda Garand, Ph.D

Additional Authors: Dr. Donna White, Dr. Linda Garand

Abstract Number: 21

Center for Healthcare Ethics

Award for Undergraduate Research in Ethics: \$250

Being Pro-Life Beyond Political Divides

Teresa Klaber, Mary Kate Modico

Rangos School of Health Sciences and School of Pharmacy| Speech Language Pathology and Pharmacy

Faculty Advisor: Radu Bordeianu, Ph.D.

Abstract Number: 21

Center for Teaching Excellence

Award for Undergraduate Research: \$250

Doodles From Pupils

Brittney Lybarger

McAnulty College and Graduate School of Liberal Arts | Integrated Marketing Communication, Minors in Business Management and Digital Media Arts

Faculty Advisor: Sarah Deluliis, Ph.D.

Abstract Number: 46

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Center for Women's and Gender Studies

Award for Undergraduate Research: \$250

Exploring gender disparities in the scholarly activity of physician assistant educators

Ana Brandt

Rangos School of Health Sciences | Physician Assistant Studies

Faculty Advisor: Bridget Calhoun, Ph.D., PA-C

Abstract Number: 58

Classics Department

Best Poster/Presentation: \$250

Negative Effects of the Sensualization of the RMS Titanic

Julia Cardinal

McAnulty College and Graduate School of Liberal Arts | Classical Latin and History

Faculty Advisor: Katherine Rask, Ph.D

Abstract Number: 86

Counselor Education Program

Award for Undergraduate Research: \$250

Influence of Cognitive Behavioral Therapy on Anxiety in Individuals with Autism Spectrum Disorder

Tesla Knight

Rangos School of Health Sciences | Occupational Therapy

Faculty Advisor: Matthew Ussia, Ph.D.

Abstract Number: 75

Gumberg Library

Gumberg Library Award for Undergraduate Research: \$500

How does the use of medical marijuana affect patients suffering from headaches?

Lilly Shupe, Sean Edmonds

Rangos School of Health Sciences | Athletic Training

Faculty Advisor: Sarah Manspeaker, Ph.D.

Abstract Number 69

Honors College

Outstanding Poster: \$150

Creating a Waste-Negative 3D Printing Recycling System

Karli Sutton, Alexander Evans

Biomedical Engineering

Faculty Advisor: Benjamin Goldschmidt, Ph.D

Abstract Number: 34

Mary Pappert School of Music

Mary Pappert School of Music Undergraduate Award: \$250

Wagner, Opera, and Anti-Semitism

Undergraduate Research & Scholarship Symposium

Award Winners - April 3, 2019

Olivia Burik

Mary Pappert School of Music | BM Cello Performance

Faculty Advisor: Paul Miller, Ph.D.

Abstract Number: 117

McAnulty College and Graduate School of Liberal Arts:

Outstanding Research Merit: \$250

80 Mapping Mental Experience Inside and Outside the Brain

Julie Heintzel, Joseph Stockman

McAnulty College and Graduate School of Liberal Arts | Psychology

Faculty Advisor: Alexander Kranjec, Ph.D

Office of the Provost

Outstanding Scholarship Award: \$150

46 Doodles From Pupils

Brittney Lybarger

McAnulty College and Graduate School of Liberal Arts | Integrated Marketing Communication,
Minors in

Business Management and Digital Media Arts

Faculty Advisor: Sarah Deluliis, Ph.D.

Best Poster: \$150

Using Loop-Mediated Isothermal Amplification (LAMP) to Identify At-Risk Species in the Field

Brooke Driscoll

Bayer School of Natural and Environmental Sciences | Forensic Science and Law

Faculty Advisor: Jan Janecka, Ph.D.

Additional Authors: Nickolas P. Walker, M.S

Abstract Number: 115

Best Oral Presentation: \$150

Quantifying Iron Overload using MRI, Active Contours, and Convolutional Neural Networks

Andrea Sajewski, Jonathan Kamis, Ralf Loeffler, Claudia Hillenbrand, Stacey Levine

McAnulty College and Graduate School of Liberal Arts, Biomedical Engineering | Biomedical
Engineering

and Mathematics

Faculty Advisor: Stacey Levine, Ph.D.

Abstract Number: 90

Office of Diversity and Inclusion

Outstanding Undergraduate Research: \$250

Empress Wu and Other Notable Women of Traditional China

Vicente Zamarripa-Zoucha

McAnulty College and Graduate School of Liberal Arts | History

Undergraduate Research & Scholarship Symposium

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Faculty Advisor: Jing Li, Ph.D.

Abstract Number: 54

Office of Disability Services

Outstanding Undergraduate Research: \$500

Use of a Person-Centered Planning Approach to Encourage Vocational Goal Setting Among Adults with Intellectual and Developmental Disabilities

Amy Castagnino, Abbey Gore, Katrina McNally

Rangos School of Health Sciences | Occupational Therapy

Faculty Advisor: Dr. Meghan Blaskowitz, DrPH, MOT

Abstract Number: 113

Office of Research

Video Competition Award: 3 awards, \$150 each

Stronger Than Hate

Katrina McNally, Abigail Gore, Amy Castagnino

Major: Occupational Therapy | School: Rangos School of Health Sciences

Faculty Advisor: Amy Matilla, Ph.D, OTR/L

Video Link: <https://youtu.be/ZSsdOlz1HmY>

Leisure Exploration and Social Participation at St Anthony's

Alexandria Raymond, Jenna Gallipoli, Katherine Gammer, Kyle Horan, Colleen Garrison

Major: Occupational Therapy | School: Rangos School of Health Sciences

Faculty Advisor: Amy Mattila, Ph.D, OTR/L

Video Link: <https://www.youtube.com/watch?v=fjgLy1txbl8>

Shepherd's Heart: The House of Hope

Jenna Roth, Sydney Giangliuli, Beth Kozuch

Major: Occupational Therapy | **School:** Rangos School of Health Sciences

Faculty Advisor: Amy Mattila, Ph.D, OTR/L

Video Link: <https://www.youtube.com/watch?v=DVjYZ1L5Di4>

Rangos School of Health Sciences

Rangos School of Health Sciences Award for Undergraduate Research: \$250

A Qualitative Study of the Transition from an Educational Setting to Adulthood for Youth with Intellectual and Developmental Disabilities (IDD)

Rachel Tokarski

Rangos School of Health Sciences | Occupational Therapy

Faculty Advisor: Jeryl Benson, Ed.D

Additional Authors: Jeryl Benson, Ed.D, Ashlyn Geubtner, OTS (doctoral candidate)

Abstract Number: 6

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Rangos School of Health Sciences Award for Undergraduate Research: \$250

Comprehension of multimodal information by people with aphasia: Investigating varied rates of auditory information

Mary Rose Zoeckler, Erica Lapp, Anna Saylor

Rangos School of Health Sciences | Speech-Language Pathology

Faculty Advisor: Sarah Wallace, Ph.D.

Abstract Number: 30

School of Nursing

School of Nursing Undergraduate Research Award: \$250

Assessing for Intimate Partner Violence - A Quality Improvement Pilot Project for Nurses

Leanna Tobin, Millicent Micho, Morgan Smith

School of Nursing | Nursing

Faculty Advisor: Melanie Turk, Ph.D., RN

Abstract Number: 17

School of Pharmacy

Award for Undergraduate Research: \$250

Comparison of immediate release and extended release diltiazem post-intravenous conversion in the treatment of atrial fibrillation

Irene Jankowski, Caroline Dillon, Margaret English, Erin Hayden

School of Pharmacy and the Graduate School of Pharmaceutical Sciences | Pharmacy

Faculty Advisor: Branden Nemecek, Pharm.D., BCPS

Abstract Number: 28

University Academic Sustainability Committee

Excellence in Sustainability & the Environment: \$250

Creating a Waste-Negative 3D Printing Recycling System

Karli Sutton, Alexander Evans

Biomedical Engineering

Faculty Advisor: Benjamin Goldschmidt, Ph.D

Abstract Number: 34

Honorable Mention: \$100

Addressing Underserved Pittsburgh Communities' Social Health Needs With Connections4Health

Madeleine Perry

McAnulty College and Graduate School of Liberal Arts | Political Science

Faculty Advisor: Michael Irwin, Ph.D.

Abstract Number: 122

Honorable Mention: \$100

Assuming Environmental Responsibility: Why Does it Fail?

Meredith Bennett

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Bayer School of Natural and Environmental Sciences | Environmental Science

Faculty Advisor: Kristin Klucsevsek, Ph.D.

Abstract Number: 18

Honorable Mention: \$100

Antibiotic Resistance in Metal and Triclosan Exposed Bacteria

Taylor Keck, Joanna Burton

Bayer School of Natural and Environmental Sciences | Biology

Faculty Advisor: Nancy Trun, Ph.D.

Abstract Number: 13