



## 2024 Award Winners

### BIOMEDICAL ENGINEERING

#### Biomedical Engineering Capstone Award

*Preemieum Reflux Detection: A Nasogastric Tube for Dual Monitoring and Feeding in Neonates*

Conner Polacek | Biomedical Engineering | School of Science and Engineering | Senior

Max Ujhazy | Biomedical Engineering | School of Science and Engineering | Senior

Maria Luiza Hermann | Biomedical Engineering | School of Science and Engineering | Senior

Raegan Gouker | Biomedical Engineering | School of Science and Engineering | Senior

Katherine Flannery | Biomedical Engineering | School of Science and Engineering | Senior

Manoela Rocha Neves | Biomedical Engineering | School of Science and Engineering | School of Science and Engineering

Faculty Advisor/s: Leda Kloudas, Ph.D.

#### Award for Excellence in Biomedical Engineering

*Discovering the Effect of Red Blood Cell Lysis Buffer on Gram-Positive and Gram-Negative Bacteria*

Kyla Covato | Biomedical Engineering, Applied Mathematics | School of Science and Engineering | Junior

Faculty Advisor/s: John Viator, Ph.D.

### CENTER FOR CATHOLIC FAITH AND CULTURE

#### Center for Catholic Faith and Culture Award

*World Youth Day: A Spiritan Pilgrimage*

Jasmine Urzua | Physician Assistant Studies | Rangos School of Health Sciences | Junior

Emma Polen | Integrated Marketing Communications | McAnulty College and Graduate School of Liberal Arts | Senior

Faculty Advisor/s: Michele Wisnesck, MS

## **CENTER FOR COMMUNITY-ENGAGED TEACHING AND RESEARCH (CETR)**

### **Award for Undergraduate Research**

*Black Doulas Perspectives of and Experience with the Edinburgh Postpartum Depression Scale*

Isabelle Ebenhoch | Nursing | School of Nursing | Senior

Grace Yeretian | Nursing | School of Nursing | Senior

Sofia Rush | Nursing | School of Nursing | Senior

Faculty Advisor/s: Jessica Devido, Ph.D., APRN, CPNP

## **CENTER FOR EXCELLENCE IN DIVERSITY AND INCLUSION**

### **Undergraduate Research Award**

*Black Doulas Perspectives of and Experience with the Edinburgh Postpartum Depression Scale*

Isabelle Ebenhoch | Nursing | School of Nursing | Senior

Grace Yeretian | Nursing | School of Nursing | Senior

Sofia Rush | Nursing | School of Nursing | Senior

Faculty Advisor/s: Jessica Devido, Ph.D., APRN, CPNP

## **CENTER FOR GLOBAL HEALTH ETHICS**

### **Award for Undergraduate Research in Ethics**

*AI: Artificial Ignorance in Facial Biometrics*

Samiya Henry | Physics | School of Science and Engineering | Junior

Faculty Advisor/s: John Slattery, Ph.D.

## **CENTER FOR MIGRATION, DISPLACEMENT, AND COMMUNITY STUDIES**

### **Center for Migration, Displacement, and Community Studies Undergraduate Research Award**

*Pedagogy to Practice: Addressing the Differential Needs of At-Risk Gen-Z Students in Secondary and Post-Secondary Education*

Fatima Zahra Demlak | Communication Studies, Political Science | McAnulty College and Graduate School of Liberal Arts | Senior

Maria Ortiz Jaunarena | Psychology | McAnulty College and Graduate School of Liberal Arts | Senior

Faculty Advisor/s: Aleina Smith, Ph.D.

## **CENTER FOR TEACHING EXCELLENCE**

### **Award for Undergraduate Research**

*Development and Usability Testing of a Multimedia Enhanced Healthy Lifestyle Behavior Intervention for People with Spinal Cord Injury*

Tessa Datte | Digital Media Arts, Integrated Marketing Communication | McAnulty College and Graduate School of Liberal Arts | Senior

Alex McElravy | Digital Media Arts | McAnulty College and Graduate School of Liberal Arts | Senior

Emily Talierco | Physical Therapy | Rangos School of Health Sciences | Freshman

Faculty Advisor/s: Theresa Crytzer, Ph.D., PT, DPT; Bill Gibbs, Ph.D.

## **CENTER FOR WOMEN'S AND GENDER STUDIES**

### **Award for Undergraduate Research**

*Black Doulas Perspectives of and Experience with the Edinburgh Postpartum Depression Scale*

Isabelle Ebenhoch | Nursing | School of Nursing | Senior

Grace Yeretian | Nursing | School of Nursing | Senior

Sofia Rush | Nursing | School of Nursing | Senior  
Faculty Advisor/s: Jessica Devido, Ph.D., APRN, CPNP

## **CHIEF DIVERSITY OFFICER/ PALUMBO DONAHUE SCHOOL OF BUSINESS**

### **First Place for DEI Award for Undergraduate Research**

*Pedagogy to Practice: Addressing the Differential Needs of At-Risk Gen-Z Students in Secondary and Post-Secondary Education*

Fatima Zahra Demlak | Communication Studies, Political Science | McAnulty College and Graduate School of Liberal Arts | Senior

Maria Ortiz Jaunarena | Psychology | McAnulty College and Graduate School of Liberal Arts | Senior  
Faculty Advisor/s: Aleina Smith, Ph.D.

### **Honorable Mention for DEI Award for Undergraduate Research**

*Perspectives on Inclusion: Near-Peer Mentoring Relationships between College Students with and without Intellectual and Developmental Disabilities (IDD)*

Anna Stonesifer | Occupational Therapy | Rangos School of Health Sciences | Senior

Samantha Smith | Occupational Therapy | Rangos School of Health Sciences | Senior  
Faculty Advisor/s: Meghan G. Blaskowitz, DrPH, MOTR/L, Alia Pustorino-Clevenger, Ed.D.

## **GREFENSTETTE CENTER FOR ETHICS IN SCIENCE, TECHNOLOGY, AND LAW**

### **Top Undergraduate Research Project**

*Harnessing Neural Network Classification to Identify Illicit South African Sand Mines*

Jacob Mazurkiewicz | Data Science | School of Science and Engineering | Junior

Faculty Advisor/s: Lauren Sugden, Ph.D.; David Kahler, Ph.D.

### **Undergraduate Research Award Honorable Mention**

*Measuring Attitudes about Artificial Intelligence Uses in Education*

Isabella Donato | Psychology, Strategic Public Relations and Advertising | McAnulty College and Graduate School of Liberal Arts | Sophomore

Hannah Gorman | Psychology | McAnulty College and Graduate School of Liberal Arts | Senior  
Faculty Advisor/s: Alexander Kranjec, Ph.D.

## **GUMBERG LIBRARY**

### **Gumberg Award for Undergraduate Research**

*Attitudes, beliefs, knowledge, and practices for over-the-counter syringe sales in community pharmacies: A systematic review*

Katelyn Owens | Pharmaceutical Sciences | School of Pharmacy | Senior

Faculty Advisor/s: Jordan Covvey, Pharm.D., Ph.D., BCPS

### **Gumberg Award for Undergraduate Research Honorable Mention**

*The Persistence of Human eDNA in Air*

Kayla Houghton | Forensic Science and Law | School of Science and Engineering | Senior

Faculty Advisor/s: Lyndsie Ferrara, Ph.D.; Pamela Marshall, Ph.D.

## HONORS COLLEGE

### Honors College Best Poster Award

*Examining Trading Networks Between Imperial Rome and Imperial Han China during the 1st and 2nd Centuries AD*

Juan Corujo | History, Classical Civilization | McAnulty College and Graduate School of Liberal Arts | Senior

Faculty Advisor/s: Sarah Miller, Ph.D.; Jing Li, Ph.D.

## MARY PAPPERT SCHOOL OF MUSIC

### Mary Pappert School of Music Undergraduate Research Award

*Sibelius Symphony No. 2: The Role of Weather and Climate in the Fight for Finnish Autonomy*

Kaytoya Ichoku | Music | Mary Pappert School of Music | Sophomore

Faculty Advisor/s: Nicole Vilkner, Ph.D.

## MCANULTY COLLEGE AND GRADUATE SCHOOL OF LIBERAL ARTS

### McAnulty College Outstanding Poster or Presentation

*Examining Trading Networks Between Imperial Rome and Imperial Han China during the 1st and 2nd Centuries AD*

Juan Corujo | History, Classical Civilization | McAnulty College and Graduate School of Liberal Arts | Senior

Faculty Advisor/s: Sarah Miller, Ph.D.; Jing Li, Ph.D.

## OFFICE OF THE PROVOST

### Award for Outstanding Research

*Improving Pittsburgh Transit through Data Science*

Ethan Shearer | Data Science | School of Science and Engineering | Junior

Faculty Advisor/s: Lauren Sugden, Ph.D.

### Office of Research & Innovation Award for Outstanding Research

*Examining Solutions for the Sexual Assault Kit Backlog*

Gabrielle Gibbons | Forensic Science and Law | School of Science and Engineering | Senior

Faculty Advisor/s: Lyndsie Ferrara Ph.D., Pamela Marshall Ph.D.

### Award for Best Presentation

*Visualizing Rosenbluth Separations*

Tyler Williams | Physics | School of Science and Engineering | Sophomore

Faculty Advisor/s: Fatiha Benmokhtar, Ph.D.; Douglas Higinbotham, Ph.D.

## PEACE, JUSTICE AND CONFLICT RESOLUTION

### Award for Undergraduate Research in Peace, Justice and Conflict Resolution

*The Cold War over Taiwan: America's Unsustainable Policy Toward the Taiwan Question*

James Harbert | History | McAnulty College and Graduate School of Liberal Arts | Junior

Faculty Advisor/s: Jing Li, Ph.D.

## **Honorable Mention**

*Akir Ifkuba's Godzilla main theme and its relationship to Japanese culture at the time.*

Eric Schaefer | Music | Mary Pappert School of Music | Senior

Faculty Advisor/s: Benjamin Cornelius-Bates, DMA

## **RANGOS SCHOOL OF HEALTH SCIENCES**

### **Award for Undergraduate Research**

*This is Getting out of Hand: Hand and Arm Limitations in Late Preterm Infants*

Melanie Schultz | Health Sciences | Rangos School of Health Sciences | Senior

Melanie Tommer | Health Sciences | Rangos School of Health Sciences | Senior

Emma Costello | Nursing | School of Nursing | Senior

Aleena Purewal | Health Sciences | Rangos School of Health Sciences | Junior

Faculty Advisor/s: Regina Harbourne, Ph.D., PT, PCS

### **Award for Undergraduate Research**

*Impact of an Intensive Short-Term Intervention Program on an Adolescent with Residual Speech Errors*

Sara Tuddenham | Speech Language Pathology | Rangos School of Health Sciences | Senior

Gianna Baker | Speech-Language Pathology | Rangos School of Health Sciences | Junior

Faculty Advisor/s: Heather Rusiewicz, Ph.D., CCC-SLP

## **SCHOOL OF NURSING**

### **School of Nursing Undergraduate Research Award**

*Does Instruction in Using a Physical Activity App Improve Outcomes in a Diabetes Prevention Program?*

Katherine Bukowinski | Nursing | School of Nursing | Senior

Maura O'Neill | Nursing | School of Nursing | Senior

Kelly Gullo | Nursing | School of Nursing | Senior

Faculty Advisor/s: Melanie Turk, Ph.D., RN, FTNCS

### **School of Nursing Undergraduate Research Award - Honorable Mention**

*GENDER AS A MODERATOR OF DRINKING BEHAVIORS AND PERCEIVED COVID-19 RISK AMONG COLLEGE STUDENTS*

William Buchholz | Nursing | School of Nursing | Senior

Tanrak Ploykao | Nursing | School of Nursing | Senior

Faculty Advisor/s: Mai-Ly Steers, Ph.D.

## **SCHOOL OF PHARMACY**

### **Award for Undergraduate Research**

*STAT1 cleavage as a mechanism for dampening inflammatory signaling during a persistent juvenile brain infection*

Natalie London | Biology | School of Science and Engineering | Senior

Faculty Advisor/s: Lauren O'Donnell, Ph.D.

## SCHOOL OF SCIENCE AND ENGINEERING

### Award for Excellence in Research in the Basic Sciences

*Improving Pittsburgh Transit through Data Science*

Ethan Shearer | Data Science | School of Science and Engineering | Junior

Faculty Advisor/s: Lauren Sugden, Ph.D.

### Award for Excellence in Research in the Basic Sciences

*Examining the Presence of Foreign DNA on Neck Swabs*

Alexa Gonzalez Morales | Forensic Science and Law, Biochemistry | School of Science and Engineering | Senior

Faculty Advisor/s: Lyndsie Ferrara, Ph.D.; L. Kathleen Sekula, Ph.D., PMHCNS-BC, FAAFS, FAAN

### Honorable Mention

*Functional Significance of Sequence Variation in the C-terminus tail of RsmE in Pseudomonas fluorescens*

McKenna Carroll | Biology | School of Science and Engineering | Senior

Faculty Advisor/s: Wook Kim, Ph.D.

### Honorable Mention

*Discovering the Effect of Red Blood Cell Lysis Buffer on Gram-Positive and Gram-Negative Bacteria*

Kyla Covato | Biomedical Engineering, Applied Mathematics | School of Science and Engineering | Junior

Faculty Advisor/s: John Viator, Ph.D.

### Honorable Mention

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Natalie London | Biology | School of Science and Engineering | Senior

Faculty Advisor/s: Lauren O'Donnell, Ph.D.

### Honorable Mention

*Visualizing Rosenbluth Separations*

Tyler Williams | Physics | School of Science and Engineering | Sophomore

Faculty Advisor/s: Fatiha Benmokhtar, Ph.D.; Douglas Higinbotham, Ph.D.

## UNIVERSITY SUSTAINABILITY COMMITTEE (sponsored by: Center for Environmental Research and Education, Department of Sociology, School of Business)

### Award for Excellence in Sustainability & the Environment

*Corrupt Corporate Climate: A Literary Analysis of Noor's Perspective on Corporate and Governmental Role in Climate Change*

Aaron Duke | Pharmacy Foundations | School of Pharmacy | Sophomore

Faculty Advisor/s: Erin Speese, Ph.D.

### Honorable Mention

*Electronic Waste: An Analysis of the Newest Environmental Epidemic and Its Impacts*

Dominic Failor | International Relations, International Security Studies | McNulty College and Graduate School of Liberal Arts | Sophomore

Faculty Advisor/s: Dina Huehn, Ph.D.

## **Honorable Mention**

*Environmental Justice: Helping Disadvantaged Communities Transition From Non-Renewables to Clean Energy (Comparative Analysis)*

Kyra Miklos | Political Science | McAnulty College and Graduate School of Liberal Arts | Freshman  
Faculty Advisor/s: Michael Jarrett, MPP