



PURCS ANNUAL CONFERENCE 2026  
APRIL 9, 2026  
UNIVERSITY OF PITTSBURGH AT GREENSBURG  
150 FINOLI DRIVE GREENSBURG, PA 15601-5860

**Interdisciplinary Division****Panel- Interdisciplinary Studies in Health, Justice, and Social Behavior**

| Time/Location                            | Role/ Presenters          | Title                                                                                            | Faculty Mentors |
|------------------------------------------|---------------------------|--------------------------------------------------------------------------------------------------|-----------------|
| 10:00-10:50 a.m.<br><br>Ferguson Theater | Chair, Isaac Stephens (H) | Barriers to Care: Analyzing Healthcare Disparities Afflicting Latinx People in the United States | Dr. Orsatti     |
|                                          | Jonathan Traub            | The Use of Multiple Interviewers in Police Investigations                                        | Dr. Vallano     |
|                                          | Demitri Eori              | Promoting Social Behavior Among a Colony of Chiroptera                                           | Dr. Munir       |

**Humanities Division****Panel- Rhetoric, Representation, and Political Identity: Examining Persuasion and Ideological Shifts**

| Time/Location                            | Role/ Presenters      | Title                                                                                                                                    | Faculty Mentors        |
|------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| 11:00-11:50 a.m.<br><br>Ferguson Theater | Chair, Bryn Riley (H) | Constructing Persuasion: Analyzing Democratic and Republican Rhetoric Through Habermas's Spheres and Churchill's Scaffolding of Rhetoric | Dr. Mehlman-Brightwell |
|                                          | Lex Johnson (H)       | Economic Crises and Narrowing Ideological Representation                                                                                 | Dr. Mehlman-Brightwell |
|                                          | Felicia Monte         | Feminism in Disguise                                                                                                                     | Dr. DiLeonardi         |
|                                          | Joiah Wyatt-Taylor    | From the Streets to the Court: The Narrative Limits of Black Sports Culture                                                              | Dr. DiLeonardi         |

**Natural Science Division****Panel- Molecular Pathways and Genetic Interactions in Cellular Development and Function**

| Time/Location                          | Role/ Presenters                          | Title                                                                                                                                                         | Faculty Mentors |
|----------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 11:00-11:50 a.m.<br><br>Smith Hall 124 | Chair, Emily Guajardo                     | Exploring the Impacts of Various Potential Stimulants on Lipid Accumulation in the Oleaginous Microalgae <i>Microchloropsis salina</i> for Biofuel Production | Dr. Boothe      |
|                                        | Idriss Ridani                             | The Effects of JAZF1 Manipulation on <i>Drosophila melanogaster</i> Brain and Oenocyte Development                                                            | Dr. Johnson     |
|                                        | Dominic DePaul (H) & Justin Crookston (H) | Nuclear Receptor Interactions with JAZF/SUZ12                                                                                                                 | Dr. Johnson     |
|                                        | Charlotte Boyle                           | Functional Expression of Actinobacteriophage ZoEJ Genes in <i>Mycobacterium smegmatis</i>                                                                     | Dr. Swerdlow    |

**Social Science Division****Panel- Structures of Governance: Representation, Economic Policy, and Political Movements**

| Time/Location                            | Role/ Presenters      | Title                                                                                        | Faculty Mentors |
|------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------|-----------------|
| 12:00-12:50 a.m.<br><br>Ferguson Theater | Chair, Marris Sobotka | Spatial Models, Electoral Systems, and the Evolution of Representation                       | Dr. Adams       |
|                                          | Logan Wiesenbach (H)  | School Funding: The Impacts of Inadequate Funding                                            | Dr. Marks       |
|                                          | Yarema Sobol          | Czechoslovakia: Economy of Separation                                                        | Dr. Campbell    |
|                                          | Morgan Fong           | Comparing the Strengths and Strategies of the Far-Right in France, Italy, Portugal and Spain | Dr. Adams       |

**Interdisciplinary Poster Session****STEAM Posters**

| Time/Location                                                         | Role/ Presenters                                                                                          | Title                                                                                                                                               | Faculty Mentors                         |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 12:00-12:50 p.m.<br><br>Life Sciences Building,<br>2nd Floor Corridor | Micah Crook                                                                                               | The Impact of Teaching Methods on Student Learning                                                                                                  | Dr. Heffernan                           |
|                                                                       | Jasmine Matheny,<br>Grace Fischer, Aubrey<br>Giannattasio & Emily<br>Petrella                             | JAZF1's Effect on Lipid Accumulation in <i>Drosophila</i>                                                                                           | Dr. Johnson                             |
|                                                                       | Benjamin Tomasino                                                                                         | The Use of pExTra Cloning to Chemically Transform Phage Genes Into <i>E. coli</i> to Determine Gene Function of Various Genes in Bacteriophage Zoel | Dr. Swerdlow                            |
|                                                                       | Javon Brown (H)                                                                                           | Developing a Cost-Effective Hepatitis-A Vaccine as a Virus-Like Particles                                                                           | Dr. Groppelli                           |
|                                                                       | Gianna Monzo (H),<br>Sarafina Premozic (H),<br>Gabrielle Kurzmilller &<br>Lainey Kimball                  | Frameshift Mutation in <i>Arthrobacter globiformis</i> Bacteriophage Dreameater                                                                     | Professor Ingram &<br>Professor Zagorac |
|                                                                       | Ian Schoedel, Evan<br>Braun, Paiyton<br>Theakston (H), Phillip<br>Ogunlade, Ryan Ritson<br>& Demitri Eori | Annotation of Muller E Element Genes in <i>Drosophila willistoni</i> on Chromosome 3                                                                | Dr. Johnson                             |
| Faith Boyle & Santino<br>Premozic                                     | When Phages Don't Kill: The Discovery of Lysogens From Four Novel <i>Arthrobacter globiformis</i> Phages  | Dr. Swerdlow                                                                                                                                        |                                         |

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|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>Hailee Gunn</b>                                        | SEA-PHAGES: Mapleville: A Phage Unearthed Beneath the Maple Tree, an <i>Arthrobacter globiformis</i> Bacteriophage                                                  | <b>Dr. Swerdlow</b> |
| <b>Emmy Patrick &amp; Alexia Hadad</b>                    | Stimulating Play: The Role of Enrichment in Western Lowland Gorillas                                                                                                | <b>Dr. Munir</b>    |
| <b>Laura Vittone</b>                                      | The Effects of Caffeine, Guarana, and Theobromine Independently and Synergistically With Calcium on Lipid Accumulation in Microalgae <i>Haematococcus pluvialis</i> | <b>Dr. Boothe</b>   |
| <b>Allen Ho (H), Brayten Sedor &amp; Sumanth Boyapati</b> | Effects of Ibuprofen and Diclofenac on Growth and Lipid Accumulation in <i>Chlorella vulgaris</i>                                                                   | <b>Dr. Boothe</b>   |
| <b>Brianna Reigh</b>                                      | Optimizing Microalgal Nutrient Profiles of <i>Chlorella vulgaris</i> and <i>Euglena gracilis</i> Through Nitrogen and Salinity Stress                               | <b>Dr. Boothe</b>   |
| <b>Addison Patrick</b>                                    | I'm Not Crazy: The Impact of Online Community on Chronic Illness                                                                                                    | <b>Dr. Ghilani</b>  |
| <b>Caden Brown</b>                                        | Boxing and the Identity of a Fighter                                                                                                                                | <b>Dr. Mazumdar</b> |
| <b>Megan Hickey</b>                                       | AI in Teaching Mathematics                                                                                                                                          | <b>Dr. Marks</b>    |
| <b>Jenna Joyce</b>                                        | The Wall: Exploring Values in Pop Culture Media Analysis                                                                                                            | <b>Dr. Ghilani</b>  |

**Social Science Division**

**Panel- Faith and Psychedelics: Analyzing Christian Spiritual Experiences**

| <b>Time/Location</b>    | <b>Role/ Presenters</b>                                                          | <b>Title</b>                                                              | <b>Faculty Mentors</b>                 |
|-------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------|
| <b>12:00-12:50 p.m.</b> | <b>Chair, Jonathan Traub</b>                                                     | Christian Elements in Psychedelic Experiences: A Thematic Analysis        | <b>Dr. Phillips &amp; Dr. McCarthy</b> |
| <b>Hempfield Room</b>   | <b>Mckenna Petrozza (H), Maya Kuczler, Cadence Mayberry &amp; Mia Slifer (H)</b> | Preparations and Intentions of Christian Psychedelic Experiences          | <b>Dr. Phillips &amp; Dr. McCarthy</b> |
|                         | <b>Jeramiah McDermott, Maria Woods, Ryan Nash &amp; Kuizong Gu</b>               | Phenomenology of Christian Psychedelic Experiences                        | <b>Dr. Phillips &amp; Dr. McCarthy</b> |
|                         | <b>Trinity Croyle (H), Sam Backfisch, Tara Voit &amp; Destiny Washington</b>     | Content Analysis of the Impact of Christian Experiences From Psychedelics | <b>Dr. Phillips &amp; Dr. McCarthy</b> |

**Social Science Division****Panel- Analyzing Systems of Power: Executive Authority, Healthcare, and Identity Formation**

| Time/Location                        | Role/ Presenters           | Title                                                                                           | Faculty Mentors        |
|--------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------|------------------------|
| 1:00-1:50 p.m.<br><br>Hempfield Room | Chair, Hudson Canfield (H) | A Process in Need of Reform: Systems Thinking and the Trump Administration's Immigration Policy | Dr. Mehlman-Brightwell |
|                                      | Bryn Riley (H)             | The Long-Term Care Crisis: Policy Challenges in an Aging Society                                | Dr. Mehlman-Brightwell |
|                                      | Ethan Goughneour           | Systems Thinking On: The Expansion of Executive Powers                                          | Dr. Mehlman-Brightwell |
|                                      | David Chizmar (H)          | Spiritual Identities                                                                            | Dr. Mazumdar           |

**Natural Science Poster Session****Science Posters**

| Time/Location                                                    | Role/ Presenters                                                  | Title                                                                                                                                           | Faculty Mentors                      |
|------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 1:00-1:50 p.m.<br><br>Life Sciences Building, 2nd Floor Corridor | Caitlin Jansen & Tamani Alvarez                                   | SEA-GENES: The Molecular Cloning & Plasmid Insertion of Bacteriophage Zoel                                                                      | Dr. Swerdlow                         |
|                                                                  | Zhaohao Weng, Mayer Bassilly & Lixiongyu Xiong                    | How do Different Stress Types Affect <i>C. vulgaris</i> ' Lipid Production?                                                                     | Dr. Boothe                           |
|                                                                  | Hadeel Ahemed, Aurora Arena & Tiana Moracco                       | Investigating the Manipulation of JAZF1 Gene in Mushroom Body Neurons on Olfactory Choice Behavior in <i>Drosophila melanogaster</i>            | Dr. Johnson                          |
|                                                                  | Jaden Charney, Jessica Quetant, Faith Figueroa & Bianca Castaneda | Correcting Misidentified Genes and Evaluating Orphams                                                                                           | Professor Ingram & Professor Zagorac |
|                                                                  | Gianna Monzo (H) & Sarafina Premozic (H)                          | Orphams Within the <i>Arthrobacter</i> Phage <i>Dreameater</i>                                                                                  | Professor Ingram & Professor Zagorac |
|                                                                  | Michael Noah & Steve Philips                                      | Determining Effective Lipid Extraction of <i>Chlorella vulgaris</i> Using Organic Solvents                                                      | Dr. Boothe                           |
|                                                                  | Brennen Hancsak & Zachary Siard                                   | Courtship Behavior with <i>Drosophila melanogaster</i> via Histone Modification                                                                 | Dr. Johnson                          |
|                                                                  | Faith Boyle                                                       | Turning Stress Into Nutrition: Enhancing Microalgal Lipids, Proteins, and Antioxidants in <i>Chlorella vulgaris</i> and <i>Euglena gracilis</i> | Dr. Boothe                           |

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|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| <b>Katherine McGrail, Eli Johnson &amp; Noah Bragg</b>        | Genome Annotation of <i>Arthrobacter</i> Phage <i>Mapleville</i> Reveals a Single tRNA                                  | <b>Professor Ingram &amp; Professor Zagorac</b> |
| <b>Eve Park (H), Neha Gonihalli (H) &amp; Elena Bobin (H)</b> | Evaluating Start Codon Conservation Within a DreamEater Gene Phamily                                                    | <b>Professor Ingram &amp; Professor Zagorac</b> |
| <b>Dominic Granata</b>                                        | Discovery and Characterization of Novel Bacteriophages Targeting <i>Acinetobacter baumannii</i>                         | <b>Dr. Swerdlow</b>                             |
| <b>Brianna Reigh &amp; Allen Ho (H)</b>                       | Investigating the Genetics and Morphology of Sanderson, a Novel Lysogenic Phage of Host <i>Arthrobacter globiformis</i> | <b>Dr. Swerdlow</b>                             |
| <b>Gracija Krsic</b>                                          | Effects of Nitrogen Limitation and Salinity Stress for Lipid Accumulation in <i>Haemacoccus Pluvialis</i>               | <b>Dr. Boothe</b>                               |

**Social Science Division**

**Panel- Policy, Power, and Public Consequences: Systems Thinking in American Politics**

| <b>Time/Location</b>                               | <b>Role/ Presenters</b>     | <b>Title</b>                                                                                                              | <b>Faculty Mentors</b>        |
|----------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>2:00-2:50 p.m.</b><br><br><b>Hempfield Room</b> | <b>Chair, Sophie Little</b> | Immigration at a Breaking Point: Why Enforcement Policy is Reshaping America's Economy and Democracy                      | <b>Dr. Mehlman-Brightwell</b> |
|                                                    | <b>Timaia Lewis (H)</b>     | How Lies Go Viral: Systems Thinking and the Politics of Online Attention                                                  | <b>Dr. Mehlman-Brightwell</b> |
|                                                    | <b>Robert Walker (H)</b>    | The Contraction of Once Greatly Expanded Executive Authority                                                              | <b>Dr. Mehlman-Brightwell</b> |
|                                                    | <b>Ryer Wilkes</b>          | The Old, the Poor, and the Sick: A System Thinking Analysis on Trump's Healthcare Policy and its Effects on U.S. Citizens | <b>Dr. Mehlman-Brightwell</b> |

**Humanities Division: Creative Works**

| <b>Time/Location</b>                                  | <b>Role/ Presenters</b>   | <b>Title</b>                                                                | <b>Faculty Mentors</b>   |
|-------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------|--------------------------|
| <b>2:00-2:50 p.m.</b><br><br><b>Smith Hall Lounge</b> | <b>Jade Bailey</b>        | Baking Means So Much More                                                   | <b>Professor Jakiela</b> |
|                                                       | <b>Addison Patrick</b>    | The Red Brick on Larwin Lane                                                | <b>Professor Fisher</b>  |
|                                                       | <b>Adriana DiGregorio</b> | Dollhood and Girlhood: Exploring Self-Expression through Doll Customization | <b>Dr. McAlister</b>     |

**Information Sessions, Keynote Address and Awards**

| Time           | Presenters                                                   | Title/Events                                                              | Locations         |
|----------------|--------------------------------------------------------------|---------------------------------------------------------------------------|-------------------|
| 11:30-12:00    | Kelly J. Medley,<br>Office of National<br>Scholarships       | Funding Graduate Study in STEM &<br>Social Sciences                       | Smith Hall 216    |
| 12:10-12:40    | Kelly J. Medley,<br>Office of National<br>Scholarships       | Fulbright: A Year Abroad After<br>Graduation                              | Smith Hall 216    |
| 3:00-4:00 p.m. | Reception                                                    | Refreshments                                                              | Smith Hall Lounge |
| 4:00-4:50 p.m. | Dr. Jessica Ghilani,<br>Keynote Speaker                      | <i>Real? Not Real? Information<br/>Distortion and What to Do About It</i> | Ferguson Theater  |
|                | Dr. Pilar M. Herr                                            | Social Science Awards                                                     |                   |
|                | Dr. Sean DiLeonardi/Dr.<br>Danielle R.<br>Mehlman-Brightwell | Humanities Awards                                                         |                   |
|                | Dr. Jordan Boothe/Dr.<br>Logan Johnson                       | STEM Awards (Posters and Oral<br>Presentations)                           |                   |

**Keynote Address:** Dr. Jessica Ghilani is an Associate Professor of Communication at Pitt Greensburg and Affiliate



Scholar at the Pitt Cyber Institute for Law, Policy, and Security. She researches and teaches media history, technologies and society, information integrity, and digital culture. Her award-winning scholarship has been published in numerous academic journals and supported with grants and fellowships from the National Endowment for the Humanities, the Smithsonian Institution's National Museum of American History and National Air and Space Museum, and the American Association of University Women. She is CBS KDKA Talk Pittsburgh's expert guest commentator on technology topics and the founder of its recurring Tech Talk segment, where she appears on television a few times a month to discuss emerging media and tech news. In her spare time, Dr. Ghilani offers community outreach lectures that bolster media, data, and AI literacy for audiences of adults, as well as digital wellbeing

workshops aimed at pre-teens and teens through nonprofit organizations and in regional public libraries. A lifelong southwestern Pennsylvanian, she resides in Pittsburgh with her husband and their two daughters.

The keynote will highlight how the information environment of today is overwhelming and overcrowded. It can be hard enough navigating all the clickbait and engagement farmers, but now we also must deal with content generated by AI. A strategy of lateral reading is not just helpful but necessary. This presentation will explain how to weed through all the info you encounter in social media spaces.

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\*Students with an (H) after their name are distinguished scholars in the Frederick Honors College at Pitt-Greensburg.

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Special thanks to the PURCS committee members, judges, and faculty research mentors for their time, expertise, and dedication in supporting student scholarship and creative works.

**PURCS Research Committee Members**

**Co-Chairs:** Dr. Danielle R. Mehlman-Brightwell and Dr. Pilar M. Herr

Dr. Jordan Boothe, Dr. Sheila Confer, Dr. Sayre Greenfield, Dr. Logan Johnson, Dr. Sean DiLeonardi, Dr. Natalie Taylor, Kelly Safin, Justin Antoszewski, and Renee Kiner.

**PURCS Judges**

Professor Barb Barnhart, Dr. William Campbell, Dr. Adam Cilli, Dr. Sheila Confer, Dr. Erin DiVito, Dr. Robert Gregerson, Dr. Pilar Herr, Professor Daniel Hitt, Professor Jennifer Ingram, April Kelley, Renee Kiner, Dr. Lipika Mazumdar, Dr. Kelli Maloy, Dr. Gina Munir, Dr. Russell Phillips, Kelly Safin, Professor Domenic Tavella, Dr. Natalie Taylor, Dr. Jonathan Vallano, and Professor William Weller.

**Faculty Research Mentors**

Dr. Paul Adams, Dr. Jordan Boothe, Dr. William Campbell, Dr. Sean DiLeonardi, Professor Elaine Fisher, Dr. Jessica Ghilani, Dr. Elisabetta Gropelli, Dr. Kayla Heffernan, Professor Jennifer Ingram, Professor Lori Jakiela, Dr. Logan Johnson, Dr. Melissa Marks, Dr. Bryan McCarthy, Dr. Amber McAlister, Dr. Danielle Mehlman-Brightwell, Dr. Lipika Mazumdar, Dr. Gina Munir, Dr. Silvina Orsatti, Dr. Russell Phillips, Dr. Sarah Swerdlow, Dr. Jonathan Vallano, and Professor Christie Zagorac.