

UNIVERSITY OF DELAWARE
UNDERGRADUATE RESEARCH PROGRAM

SYMPOSIUM FOR UNDERGRADUATE RESEARCH AND CREATIVE ACTIVITY



2026 Symposium for Undergraduate Research and Creative Activity¹

Harker ISE Lab

Thursday, August 13, 2026

8:30 a.m. – 5:00 p.m.

8:00 - 8:25	Poster Session I Set-Up	Commons
8:30 - 10:00	<i>Poster Session I</i> 8:30-9:15 (ODD-numbered posters present) 9:15-10:00 (EVEN-numbered posters present)	Commons
8:30 - 9:45	<i>Oral Session 1</i> 1. Exploring Identity, Access, and Belonging 2. Visual Narratives: Art, Design, and Storytelling 3. Strengthening Communities Through Public Service and Policy 4. Current Challenges in Society, Governance, and Culture	ISE 202 ISE 205 ISE 207 ISE 302
10:00 - 10:15	Switch Posters for Session II	Commons
10:15 - 11:45	<i>Poster Session II</i> 10:15-11:00 (ODD-numbered posters present) 11:00-11:45 (EVEN-numbered posters present)	Commons
10:00 - 11:15	<i>Oral Session 2</i> 1. Visual Voices: Storytelling Through Art and Design 2. Conservation, Craft, and Cultural Heritage 3. Advancing Food Systems Through Science and Innovation 4. Music, Learning, and Community	ISE 202 ISE 205 ISE 207 ISE 302
11:30 - 12:45	<i>Oral Session 3</i> 1. Reimagining Apparel: Innovation Across the Fashion Industry 2. Children, Communities, and the Structures That Shape Us 3. Creative Expression: From Performance to Public Awareness 4. Interdisciplinary Research for Public Impact	ISE 202 ISE 205 ISE 207 ISE 302
11:45 - 12:00	Switch Posters for Session III	Commons
12:00 - 1:30	<i>Poster Session III</i> 12:00-12:45 (ODD-numbered posters present) 12:45-1:30 (EVEN-numbered posters present)	Commons
12:00 - 2:30	BOXED LUNCHES AVAILABLE Rodney Room - Perkins Student Center	
1:30 - 1:45	Switch Posters for Session IV	Commons

1:45 - 3:15	<i>Poster Session IV</i> 1:45-2:30 (ODD-numbered posters present) 2:30-3:15 (EVEN-numbered posters present)	Commons
2:00 - 3:15	<i>Oral Session 4</i> 1. Material, Memory, and Meaning: Interdisciplinary Perspectives on Art 2. Navigating a Changing World: Economics, Identity, and Public Policy 3. Investigating Life: From Memory and Communication to Biology	ISE 205 ISE 207 ISE 302
3:15 - 3:30	Switch Posters for Session V	Commons
3:30 - 5:00	<i>Poster Session V</i> 3:30-4:15 (ODD-numbered posters present) 4:15-5:00 (EVEN-numbered posters present)	Commons
3:30 - 4:45	<i>Oral Session 5</i> 1. Public Institutions and Social Change 2. Stories of Belonging: Culture, Wellness, and Identity 3. Access, Equity, and Community Impact 4. Environmental Change and Human Response	ISE 202 ISE 205 ISE 207 ISE 302
3:00-5:00	UD Creamery Ice Cream	Commons

¹Please pardon any misspellings or errors



August 2026

Dear Attendees of the 17th Annual Symposium for Undergraduate Research and Creative Activity,

It is with great pleasure that I welcome you to this annual celebration of the research accomplishments of UD's talented young scholars.

Forty-three years ago, in the summer of 1983, I was an undergraduate researcher, participating in an NSF REU program at Woods Hole Oceanographic Institution. That summer research experience profoundly shaped my career. It sparked my curiosity to advance the state of knowledge, gave me confidence to work both independently and collaboratively to solve complex problems, taught me how to communicate challenging concepts to others, and even led to my first journal publication (in fact, just last year I reached out to my research advisor to thank them). It is no exaggeration to say that my path to becoming a faculty member and university administrator began with that summer of research.

To our student presenters – Congratulations! I hope your research experience this past summer has been equally transformative. Research can be challenging and unpredictable, but through navigating those obstacles comes growth – the art of persistence, the satisfaction of discovery, and the skills that will serve you in many future endeavors. We are all born as curious explorers, intently studying the world around us. By continuing to be curious through the pursuit of knowledge, you have taken steps toward a lifetime of problem-solving and innovation. Who knows what you will discover next, or how your work might one day benefit others?

To our mentors – Thank you for the encouragement and mentorship you provided. Your willingness to involve students in meaningful scholarly work helps us continue the long tradition of undergraduate research, a hallmark of the University of Delaware. I hope the experience has been as rewarding for you as it has been for your mentees. And, years from now, I hope some of your mentors reach out to share the accomplishments that your efforts helped to make possible.

To all of our attendees – Thank you for attending and for engaging with our scholars. I hope you leave today as inspired and impressed as I always am.

Cordially,

Michael Chajes, Ph.D., P.E. (ret.)

Interim Vice Provost for Undergraduate Education

Dean of the Honors College

Professor of Civil, Construction, and Environmental Engineering



August 2026

Dear Friends of Undergraduate Research:

Welcome to the University of Delaware's 17th Annual Symposium for Undergraduate Research and Creative Activity. Over the past ten weeks, over 500 students have conducted research projects or creative inquiry across all academic disciplines. The participating students represent over 30 research programs, centers or grants that devote attention and resources to nurturing research activity by undergraduate students. This Symposium empowers undergraduate students to share their research process, their ideas, or their creative work through poster or oral presentations.

Research and creative activity can illuminate shared human experiences, provide answers to complex problems, and lead to groundbreaking discoveries. Throughout the summer, students have spent countless hours in research labs, libraries, design studios, field sites, and other settings pursuing topics of interest and learning research and creative skills. This time spent out of the classroom is invaluable as it enhances interest and engagement in learning, provides a space to discover and explore students' passions, and can open new career pathways. Faculty members, graduate students, and industry partners played a critical role in students' research process by providing expertise and mentorship.

The summer programs that provide research opportunities for students and today's event would not be possible without the collaboration and support from extraordinary people and offices across campus. Special gratitude is due to faculty, mentors, staff, community partners, and donors who give generously of their expertise, time and resources to broaden our students' learning through research and creative activities. A special thank you to the staff of the Undergraduate Research Program for making this event possible.

The Symposium provides an opportunity to see the research and creative activity that is at the heart of learning experiences at the University of Delaware. On behalf of the Office of Undergraduate Research, thank you for joining us at the 2026 Symposium.

Sincerely,

Rosalie Rolón-Dow, Ph.D.
Faculty Director, Undergraduate Research Program
Associate Professor, College of Education and Human Development

Key:

Student last name, Student first name
(Program), Student major, University if other
than UD, Faculty advisor, Faculty advisor's
department
Project title

POSTER SESSION I

8:30 - 10:00AM

1. **Santana Cintrón, Monica** (Community Engagement Initiative), Music Education, Aimee Pearsall-Kramer, Music Education
Musical Enrichment at Exceptional Care for Children
2. **Tantral-Johnson, Thea (Paula)**, Pre-Veterinary Medicine, Benham Abasht, Animal and Food Science
Deep Amplicon Sequencing of Candidate Genes for Wooden Breast Disease
3. **Caughron Meghan** (DE-INBRE), English, Jennifer Acord, Delaware Museum of Nature and Science
Supporting Scientific Literacy through Social Media: Approaching New Marketing Strategies for Natural History Museums
4. **Flaiz, Xavier** (Delaware IDeA Network of Biomedical Research Excellence INBRE), Biochemistry, Ariel Alperstein, Chemistry and Biochemistry
Detecting Nanoplastics in Cell Monolayer with Spatially Resolved 3D Raman Spectroscopy
5. **Cronin, Georgia** (Summer Fellows), Department of Chemistry and Biochemistry, Ariel Alperstein, Chemistry and Biochemistry
Expression & Purification of Acetylated α -Synuclein & the Impact of Hsp27 Concentration on Aggregation
6. **Gold, Jordan** (Summer Fellows), Department of Chemistry and Biochemistry, Ariel Alperstein, Chemistry and Biochemistry
Investigating the Correlative Nature of Calcitonin Aggregation and Solvent Evaporation Kinetics
7. **Ren, Yashu** (Summer Scholars), Department of Chemistry and Biochemistry, Ariel Alperstein, Chemistry and Biochemistry
Investigating Protein Secondary Structure at Bioactive Glass Interfaces via 2DIR
8. **Tapel, Daryl** (Summer Scholars), Computer Engineering, Gonzalo Arce
Enhancing Satellite LiDAR Systems: Self-Supervised 3D Tensor Denoising for the CASALS Architecture
9. **Thompson, Xavier** (DE-INBRE), Bioengineering, Elisa Arch, Kinesiology & Appl Physiology
10. **Stoogenke, Micah** (Summer Scholars), Biomedical Engineering, Elisa Arch, Kinesiology & Appl Physiology
Variable-Stiffness Orthosis to Improve Stability of Stroke Survivors with Hemiparesis Throughout Gait Cycle
11. **Chreiman, Brian** (DE-INBRE), Biomedical Engineering, Maelyn Arcodia, Orthopedics
12. **Culley, Magnus** (Summer Scholars), Computer Science, John Aromando
Modeling Student Knowledge Components
13. **Kermani, Taran** (Summer Scholars), Biological Sciences, Harsh Bais, Plant and Soil Science
*The Plant Growth-Promoting Bacterium *Bacillus subtilis* UD1022 Modulates Specific Phenotypes Across Generations*
14. **Grimme, Phoenix** (U.S. Department of Agriculture's National Institute of Food and Agriculture), Wildlife Conservation and

- Ecology, Harsh Bais, Plant and Soil Science
The Lesser Mealworm's Interaction With MH-1 and MH-2
15. **Lucero-Palacios, Gael** (DE-INBRE), Computer Science, R. Lelia Barmaki, Computer & Info Sciences
AI-Driven Virtual Patient Simulation for Midwifery Education
 16. **Nazari, Brishna** (DE-INBRE), Computer Science, R. Lelia Barmaki, Computer & Info Sciences
Role Model Simulation: Virtual Computing Mentors for Underrepresented Students
 17. **Robinson, Michael** (DE-INBRE), Computer Science, R. Lelia Barmaki, Computer & Info Sciences
Assessing Classroom Discourse with Epistemic Network Analysis
 18. **Cortes, Ryan** (DE-INBRE), Computer Science, R. Lelia Barmaki, Computer & Info Sciences
Investigating AI Feedback Design: The Effects of LLM Scaffolding and Response Length on Learner Response Revision
 19. **Dove, Kacey** (Summer Scholars), Computer Science, Austin Bart
Supporting CS1 Students in the Age of Generative AI: Behavior-Informed Interventions to Promote Self-Regulated Learning
 20. **Murphy, Francis** (Summer Scholars), Computer Science, Austin Bart
A Knowledge-Component-Based Exam Analysis Dashboard for CS1
 21. **Hook, Lucy** (U.S. Department of Agriculture's National Institute of Food and Agriculture), Insect Ecology and Conservation, Charles Bartlett, Entomology and Insect Ecology
A Review of the Tribe-level Characteristics of the Cladodipterini (Fulgoridae, Dictyopterinae)
 22. **Kouemeni, Elissa** (Summer Scholars), Applied Molecular Biology and Biotechnology, Mona Batish, Med Lab Sciences
Identification and Verification of Novel DANCER-Binding Proteins Using Limited Proteolysis Mass Spectrometry
 23. **Tuminaro, Rebekah** (Summer Scholars), Applied Molecular Biology and Biotechnology, Mona Batish, Med Lab Sciences
Imaging Potato Virus in Leaves by HCR FISH
 24. **Casale, Olivia** (DE-INBRE), Applied Molecular Biology and Biotechnology, Mona Batish, Medical & Molecular Sciences
Molecular Drivers and Biomarkers of Spastic Cerebral Palsy
 25. **Burki, Muhammad** (DE-INBRE), Biological Sciences, Mona Batish, Medical & Molecular Sciences
Cloning of a Novel CBASS Defense Enzyme (CBASS-DAC)
 26. **Kraft, Quinlan** (Summer Scholars), Chemical Engineering, Alexandra Bayles
How Material Flow Distorts Deposited Patterns in Advective Assembly
 27. **Hart, Kathryn** (ACEE REU), Chemical Engineering, Alexandra Bayles, Chemical Engineering
Instant Biofilm: Rheological modification of bacterial culture media with poly(acrylic acid)
 28. **Mohammadi, Khadija** (DE-INBRE), Computer Science, Rahmat Beheshti, Computer & Info Sciences
 29. **Davies, Alicia** (DE-INBRE), Biological Sciences, Sangeeta Das Bhattacharya
Vaccine Hesitancy in Pediatric Patients
 30. **Sherwood, Emerson** (Summer Scholars), Marine Biology, Jennifer Biddle
*The Microbiome of *Ruppia maritima**

31. **Lewis, Logan** (Summer Fellows), Jennifer Biddle
Pathogenicity of Hatchery-Isolated Vibrio spp. to Eastern Oyster (Crassostrea virginica) Larvae
32. **King, Kenneth** (Summer Scholars), Chemical Engineering, Anil Bika
Optimization of Anode and Cathode Frames for Compact Hydroxide Exchange Membrane Carbon Capture
33. **Fioriello, Emily** (DE-INBRE), Applied Molecular Biology and Biotechnology, Jeremy Bird, Biological Sciences
Engineering Recombinant Plasmids For CRISPR Phage Defense & GFP Expression
34. **Baskaran Nithin** (Summer Scholars), Neuroscience, Jeremy Bird, Biological Sciences
Type III-A CRISPR Mediated defense against Phage Infection in E. coli Bacteria
35. **Gajjar, Kavya** (The Santoro Undergraduate Research Award), Applied Molecular Biology and Biotechnology, Subhasis Biswas, Medical and Molecular Sciences
In Vivo Glycosylation and Truncation of HPV E1 Protein in the Baculovirus Expression System
36. **Wang, Sabrina** (DE-INBRE), Medical Diagnostics, Esther Biswas-Fiss, Medical & Molecular Sciences
Computational Prioritization of ABCA7 Missense Variants for Alzheimer's Disease Risk Reclassification
37. **Collier, Christopher** (DE-INBRE), Biomedical Engineering, David Blauvelt,
Microfluidic Glass-Elastomer Membrane (GEM) Oxygenator
38. **Bedekar, Arnav** (Summer Scholars), Chemical Engineering, Mark Blenner
Rapid Mechanoenzymatic Degradation of LDPE for Plastic Upcycling
39. **Machewirth, Michael** (Summer Scholars), Chemical Engineering, Mark Blenner, Chemical & Biomolecular Engr
Engineering Y. lipolytica for Inducible Cell Lysis
40. **Owen, Amelia** (Summer Scholars), Chemical Engineering, Mark Blenner, Chemical & Biomolecular Engr
A Refined Protocol for Isolating Bacteriophage DNA from Plastic-Degrading Mealworm Gut Microbiomes
41. **Rathod, Rushil** (Summer Scholars), Chemical Engineering, Mark Blenner, Chemical & Biomolecular Engr
Establishing synthetic mutualism in bacterial-yeast co-culture for enabling carbon- negative β -carotene production
42. **Tillman, Lucas** (Summer Scholars), Chemical Engineering, Mark Blenner, Chemical & Biomolecular Engr
Early Prediction of CHO Cell Line Stability Using Barcode-Enabled Lineage Tracing and scRNAseq
43. **Webb, Nicole** (Summer Scholars), Chemical Engineering, Mark Blenner, Chemical & Biomolecular Engr
Influencing Cell Cycle Arrest Activity of Cytotoxic Rep Using Oscillating Degron Tags for rAAV Production
44. **Weissman, Andrew** (Summer Scholars), Chemical Engineering, Mark Blenner, Chemical & Biomolecular Engr
Development of a Tunable Genetic Fuse for Biocontainment
45. **Consula, Derek** (DE-INBRE), Chemical Engineering, Mark Blenner, Chemical & Biomolecular Engr
The Syntax of the Selection Marker Within an Antibody Producing Plasmid can Affect Productivity
46. **Dinger, Caleb** (DE-INBRE), Biological Sciences, Mark Blenner, Chemical & Biomolecular Engr

Monitoring Physiological Response to ROS in CHO Fed-Batch Culture

47. **Stauffer, Justin**, Chemical and Biomolecular Engineering, Mark Blenner, Chemical and Biomolecular Eng
Monitoring Physiological Response to ROS in CHO Fed-Batch Culture

48. **Holloway, Rachel** (This work was supported as part of the Center for Plastics Innovation, an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science, Basic Energy Sciences), Polymer Science and Engineering, Mark Blenner and Kevin Solomon, CBE
Developing a High-Throughput Fluorescence Screen to Detect LDPE Biological Deconstruction

49. **Jarchow, Aubryanna** (This work was supported as part of the Center for Plastics Innovation, an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science, Basic Energy Sciences), Chemical Engineering, Mark Blenner and Kevin Solomon, CBE
Investigating Microbial Oxidation and Surface Attachment as Mechanisms for Degradation of Low-Density Polyethylene

50. **Warang, Annika** (This work was supported as part of the Center for Plastics Innovation, an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science), Chemical Engineering, Mark Blenner and Kevin Solomon, CBE
Discovery of LDPE Deconstructing Fungal Isolates from the Yellow Mealworm Gut Microbiome

51. **Rubenstein, Joshua** (Summer Scholars), Chemistry, Svilen Bobev, Chemistry and Biochemistry
Synthesis and Electrochemical Characterization of Lanthanide–Nickel Binaries as Electrocatalysts for Direct Seawater Electrolysis

52. **Cassino, Claire** (Summer Fellows), Svilen Bobev
Synthesis of Lanthanoid Nickel-Phosphides Using Sm, Gd, and Dy

53. **Rodriguez, Joseph** (McNair Scholars), K-8 Teacher Education, James Bridgeforth, School of Education
Expanding the Table: A Critical Analysis of Student Voice Policies and New York School District Governance

54. **Jacard Falck, Martin** (Summer Scholars), Economics, Thomas Bridges, Economics
Network-Mediated Hiring and Long-Run Labor Market Outcomes: Evidence from the NLSY97

55. **Morrison, Maxwell** (Summer Scholars), Electrical Engineering, Austin Brockmeier, Electrical and Computer Engineering
Maximizing von-Neumann Entropy for Submodular Semi-Supervised Data Augmentation

56. **England, Daniel** (DE-INBRE), Electrical Engineering, Austin Brockmeier, Electrical and Computer Engineering
Evaluating Shift-Invariant Dictionary Learning Techniques for Automated EEG-Based Epilepsy Diagnosis

57. **Oday, Brock** (USDA ARME BRUCE), Agriculture Economics, Nate Bruce, Cooperative Extension
Factors Influencing Corn Grain Pre Harvest Marketing on the Delmarva Peninsula

58. **Kaufmann, Katie** (Pennsylvania Game Commission), Wildlife Ecology and Conservation, Jeff Buler, Entomology and Wildlife Ecology
Quantifying bird communities using automated soundscape recordings

59. **Davis, Caitlynn** (Unidel Foundation), Wildlife Ecology and Conservation, Jeff Buler, Entomology and Wildlife Ecology
Making environmental data accessible with the Living Classroom Project

60. **Weaver, Nina**, Wildlife Ecology and Conservation, Jeff Buler, Entomology and Wildlife Ecology
Exploring Natal Dispersal in Purple Martins
61. **Vyas, Ishani** (College of Arts and Sciences; Fox Chase Cancer Center, Tom Hofmann, NIH), Neuroscience & Psychology, Aitziber Buque Martinez
Cancer Signaling and Microenvironment Weight of the Matter: How Metabolic Syndrome Alters the Breast Tumor Microenvironment
62. **Gonzalez, Isabel** (Rehabilitation Careers for All (RCA) Summer Scholars Program), Kinesiology, Katie Butera Department of Physical Therapy
63. **Marchese Kyle** (NSF / EPSCoR), Marine Science, Wei-Jun Cai, School of Marine Science and Policy
Inorganic carbon export from estuaries and wetlands in Delaware and along the East Coast
64. **Weaver, Maxwell** (Summer Scholars), Marine Biology, Aaron Carlisle
Tooth Morphology and Diet over Ontogeny in Western Atlantic Sandbar Sharks
65. **Ravichandar, Varun** (Summer Fellows), Joshua Cashaback
Modeling Gait Adaptation During a Novel Walking Task
66. **Murset, Samantha** (Summer Scholars), Environmental Engineering, Daniel Cha
Circular Bioleaching Approaches for Critical Metal Removal from End-of- Life EV Batteries
67. **Ratnayake, Methuli** (Summer Scholars), Environmental Engineering, Daniel Cha
Development of an Activated Sludge System for Wastewater Treatment and Sludge Resource Recovery
68. **Standish, Sara** (Summer Scholars), Chemical Engineering, William Chain, Chemistry and Biochemistry
The Total Synthesis of Premnalatifolin A: Developing a Second-Generation Approach to the Icetexane Southern Monomer
69. **Hutchinson, Alexander** (Summer Scholars), Materials Science and Engineering, Chitraleema Chakraborty, MSE
Construction and Calibration of Cryostat Integrated Confocal Microscope for Spin-Valley Measurements in Defect-Engineered Transition Metal Dichalcogenides
70. **Rein, Ezekiel** (Center for Hybrid, Active, and Responsive Materials, CHARM, an NSF Material Research Science and Engineering Center), Physics, Chitraleema Chakraborty, MSE
Automating data analysis for probing of magneto-optical defects in molybdenum disulfide monolayers
71. **Qasim, Sidra** (DE-INBRE), Medical Diagnostics, Clara Chan, Earth Sciences
Engineering MofA Variants for Integration into C. crescentus ELM
72. **Arreola, Valerie** (CURB REU), Biophysics, Wilfred Chen, Chemical and Biomolecular Eng
Encapsulin Nanoparticle Engineering for Enhanced Cofactor Regeneration
73. **Cephas, Christopher** (DE-INBRE), Biological Sciences, Hungcheng Chen, Radiation Oncology
Feasibility of Elekta XVI CBCT - Derived Virtual CT for Offline Adaptive Radiotherapy

74. **Bhatt, Soham** (DE-INBRE), Premedical-Medical, David Chen, Research Institute iREACH
Decoding Danger
75. **Joshi, Aaditya** (Summer Scholars), Chemical Engineering, Wilfred Chen
Modular Control of Gene Expression via SPLICER: A Versatile Split-Aptamer Trans-Splicing System
76. **Bui, Angeline** (DE-INBRE), Neuroscience, Chris Church, Orthopedics
The Impact of Physical Therapy on Functional Outcomes in Children with Relapsed Clubfoot
77. **Gupta, Niyati** (Center for Hybrid, Active, and Responsive Materials CHARM, an NSF Material Research Science and Engineering Center), Physics, Ryan Comes, MSE
Grounding a RHEED AI Analytical Reward Function in Post-Growth XPS Film Characterization
78. **Annasagaram, Meghna Raj** (DCMR), BME, Stephanie Cone, Biomedical Engineering
MRI and EMG Differences in Triceps Surae due to Achilles Rupture and Achilles Tendinopathy
79. **Bober, Benjamin** (INBRE Summer Scholars), BME, Stephanie Cone, Biomedical Engineering
The Development of an Easier to Use, Modular-Based Housing for Wearable Shear Wave Tensiometry
80. **Broadhurst, Alexander** (INBRE Summer Scholars), BME, Stephanie Cone, Biomedical Engineering
MRI-to-Histology Pipeline for Osteoarthritis
81. **Rubano, Mack** (UD NSF Accelerating Research Translation Program), Biology, Stephanie Cone, Biomedical Engineering
Validation of Participant Specific OpenSim Model for Lower Extremity Gait Biomechanics
82. **Banka, Nicole** (UDRF and Sapre Aude Fund), BME, Stephanie Cone, Biomedical Engineering
Cross-System Agreement of Force-Sensing Insoles for Field-Based Assessment of Achilles Tendon Loading
83. **Baron, Tess** (Summer Scholars), Anja Nohe
Phosphoproteomic Analysis of BMSC Osteogenic Pathway Reveals Age-Related Changes in Osteoblast Differentiation
84. **Dinbokowitz, Dyllan** (DE-INBRE), Biomedical Engineering, Jaclyn Sions, Physical Therapy
Factors Associated with Preparatory and Definitive K3/K4 Functional Status Following Lower-Limb Amputation
85. **Jacob, Harrison** (Department of Physics and Astronomy), Applied Physics + Applied Mathematics, Arijit Bose, Physics and Astronomy
Modeling magnetized turbulence (transport, mixing, and instability growth) for nuclear fusion and astrophysics applications
86. **Kang, Leroy** (ECE REU), Electrical Engineering, David Hong, Electrical and Computer Engineering
Polynomial Networks for Generative AI
87. **Kasper, Sarah** (EPSCoR), English, Policy, McKay Jenkins
Law and Justice in Community Engagement and Ecological Restoration Initiatives

POSTER

SESSION II

10:15 - 11:45AM

1. **Ye, Arron** (McNair Scholars), Computer Science, Austin Cory Bart, Computer Science
A Website I Could Share with Friends": A Mixed-Methods Evaluation of a Python Web Framework for CSI
2. **Kirn, Nicole** (DE-INBRE), Nursing, Lauren, Covington, School of Nursing
3. **Heintzelman, Elizabeth** (DE-INBRE), Animal Bioscience, Michael Crossley, Entomology & Wildlife Ecology
Monitoring presence of pathogenic bacteria in black soldier fly waste upcycling
4. **Davis, Ryplee**, Insect Ecology & Conservation, Mike Crossley, Entomology and Insect Ecology
To Buy or DIY: Analyzing Methods of Rearing Black Soldier Flies
5. **Goodbred, Zoe**, Insect Ecology & Conservation, Mike Crossley, Entomology and Insect Ecology
*Lesser Mealworm (*Alphitobius diaperinus*) as Meat Waste Upcyclers*
6. **Polychrones, Charlie**, Insect Ecology & Conservation, Mike Crossley, Entomology and Insect Ecology
Diversity of parasitoid wasps flying over Delaware
7. **Hegge, Kara**, ENWE, Mike Crossley, ENWE
Slug-parasitic and entomopathogenic nematode presence in Delaware soils
8. **Charles, Farrah** (McNair Scholars), Health Behavior Science, Yendelela Cuffee, Epidemiology
High Blood Pressure Stories (HBPStories)
9. **Wabukoya, Sonia** (Institute of Energy Conversion), Engineering Physics, Ujjwal Das, Electrical and Computer Engineering
Understanding and Mitigating Iodide-Induced Surface Reactions on NiO for Stable Perovskite Solar Cells
10. **Chowdhury, Salman** (Summer Scholars), Computer Engineering, Ujjwal Das, Electrical and Computer Engineering
Automated Diode Analysis of J-V Measurements to Characterize Thermal Annealing Effects in Silicon Heterojunction Solar Cells
11. **Dulos, Micah** (Summer Scholars), Computer Engineering, Ujjwal Das
Thin film photovoltaic CdTe cell performance post measurements with light soaking treatments
12. **Nguyen, An** (McNair Scholars), Civic Leadership and Policy Studies, Nina David, Public Policy and Administration
Public Access to Information on Municipal Boards and Committees in Delaware
13. **Bernstein, Mia** (Summer Scholars), Chemical Engineering, Rachel Davidson
Investigating the Electrochemical Degradation of Perfluorooctanoic Acid (PFOA)
14. **John, Nolan** (Summer Scholars), Chemical Engineering, Rachel Davidson
Development of Spatially Controlled Wettability Films via Electrochemical Scanning Probe Microscopy (E-SPM)
15. **Maurer, Megan** (Summer Scholars), Chemistry, Rachel Davidson
Investigation of the structure-activity relationship of Cu₂O catalysts for CO₂ electrochemical reduction
16. **Okagbare, Daniel** (Summer Scholars), Chemical Engineering, Rachel Davidson

Exploring how Morphology Impacts Performance in CO₂ Electrochemical Reduction Through Single Particle Electrochemical Studies

17. **Sohn, Alexander** (Summer Scholars), Computer Science, Rachel Davidson
Investigation of degradation pathways of Cu₂O electrodes during glucose electrochemical detection.
18. **Baskaran, Subiksha** (Summer Fellows), Rachel Davidson
Electrodeposition of Manganese Oxides for 3D Electrode Architectures
19. **DeSimone, Jerry** (Summer Scholars), Mechanical Engineering, Chelsea Davis, Mechanical Engineering
Y-shaped Cutting Rig for In-situ X-ray Scattering of Polymers
20. **Nagy, Nathan** (Summer Scholars), Mechanical Engineering, Chelsea Davis, Mechanical Engineering
Fabrication of a Custom Contact Angle Goniometer for Surface Energy Measurements in Nonstandard Analytical Processes
21. **Angermaier, Paige** (NSF Award received by Dr. Davis), Environmental Science, Kyle Davis, Geography & Spatial Sciences
Globalization of Livestock Agriculture in New Zealand
22. **Glavin, Jeremiah** (NSF), MEEG, Chelsea Davis, MEEG
Reliability and Performance Testing of Piezoelectric Linear Stages for Micro-Mechanical Testing
23. **Miller, Ella** (UD NSF Accelerating Research Translation Program), Biomedical Engineering, Emily Day, Biomedical Engineering
Development of Physiologically Stable Membrane Wrapped Nanoshells for Endometriosis Targeting
24. **Mbachick, Jarry** (DE-INBRE), Medical Diagnostic, Yixiang Deng, Computer & Info Sciences
25. **Fink, Lucas**, Plant Science, Nicole Donofrio, Plant and Soil Science
The Enemy of my Enemy is my Friend: Utilizing Bacteria that Inhibit Fungal Pathogens While Simultaneously Helping Tomatoes Grow
26. **Buvac-Drndic, Adriana** (NSF), Physics, Matt Doty, Materials Science
Spatially Resolved Raman and Photoluminescence Mapping of Two-Dimensional Gallium Telluride
27. **Rubio, Hernandez** (Edgar Center for Hybrid, Active, and Responsive Materials CHARM, an NSF Material Research Science and Engineering Center), Engineering Physics, Matt Doty, MSE
Characterization of Inverse Design Gallium Arsenide Couplers
28. **Mathew, Milan** (DE-INBRE), Biomedical Engineering, Mary Dozier, Psychological & Brain Sciences
Higher Morning Cortisol in Childhood Predicts Larger Right Amygdala Volume in Adolescence
29. **Neyra, Madelynn** (DE-INBRE), Neuroscience, Mary Dozier, Psychological & Brain Sciences
Parental Intrusiveness at Age 8 is Positively Correlated with Hippocampal Volume at Age 13
30. **Htoo, Zaw**, Neuroscience/Liberal Studies, Mary Dozier, Psychological & Brain Sciences
Prenatal Substance As Related to Autonomic Regulation of Infants at 6 Months Old
31. **Hennesy, Kathryn** (Community Engagement Initiative), Neuroscience, Mary Dozier, Psychology
Right Amygdala Volume Predicts Mother-Child Relationship Quality

32. **Aguilar, Jordan** (DE-INBRE), Psychology and Human Services, Sara Driskell, Materials Science
Socio-cultural Determinants of Mental Health Care Seeking in Hispanic Communities
33. **Gupta, Aanya** (DE-INBRE), Neuroscience + Economics, Wayne Duffus, Infectious Disease
Evidence-Based Interventions for Improved HIV Care Engagement & Retention: Preliminary Implications for the Holloway Community Program
34. **Edwards, Griffin**, Health Sciences, Dave Edwards, KAAP
Apoptosis derived but not activation derived EMV are predictive of arterial stiffness
35. **Hintelmann, Kaitlin** (DE-INBRE), Biomedical Engineering, Dawn Elliott, Engineering
Lumbar Paraspinal Muscle Size and Fatty Infiltration in Chronic Low Back Pain Assessed with MRI
36. **Hornberger, Josh**, Insect Ecology & Conservation, Vincenzo Ellis, Entomology and Insect Ecology
Mosquito Distributions Across Delaware
37. **Chilukuri, Medha** (Summer Scholars), Chemical Engineering, Thomas Epps
Effect of reaction conditions on polyurethane depolymerization
38. **Martinez, Cheryl** (DE-INBRE), Biological Sciences, Velia Fowler, Biological Sciences
Characterization of Cofilin Levels and Activity During Human Erythroid Differentiation
39. **Akala, Vilina** (Summer Scholars), Biomedical Engineering, Catherine Fromen, Chemical and Biomolecular Engineering
Modulating Neutrophil Survival Characteristics via Engineered PEGDA Nanoparticle Dosage
40. **Muce, Ryan** (Summer Scholars), Chemical Engineering, Catherine Fromen, Chemical and Biomolecular Engineering
Optimization of Magnetic Bead-Based Assay and Analysis of Macrophage-Derived Extracellular Vesicles
41. **Patterson, Jaclin** (Summer Scholars), Chemical Engineering, Catherine Fromen, Chemical and Biomolecular Engineering
Inhaled Aerosol Deposition Across Idealized and Patient-Derived Nasal Cavities in Variable Breathing Conditions
42. **Thomas, John** (Summer Scholars), Chemical Engineering, Catherine Fromen, Chemical and Biomolecular Engineering
Optimizing 3D Printing Procedure to Improve Aerosol Filter Fidelity
43. **Jain, Divyansh** (Summer Scholars), Chemical Engineering, Catherine Fromen, Chemical and Biomolecular Engineering
Machine-Learning-Guided Calibration of Lobe-Specific Breathing Profiles in the TIDAL Model
44. **Sharipov, Shokhin** (Summer Scholars), Mechanical Engineering, Kelvin Fu
Vision-Based Anchor Detection and Localization for Autonomous Coreless Filament Winding
45. **Moir, Stephen** (Summer Fellows), Eric Furst
Microfluidic Channel Design and Surface Characterization of Silica Particles
46. **Ajesh, Aryan** (Summer Scholars), Neuroscience, Phillip Gable
How Changes in Emotional Dysregulation Influence Motivation Toward Alcohol During Treatment: Using an Approach-Avoidance Task

47. **Shuhay, Matthew** (Summer Scholars),
Biological Sciences, Deni Galileo,
Biological Sciences
*Radiation-Induced Microenvironmental
Priming of FAK and FGFR Signaling in
Glioblastoma Stem Cell*
48. **Hicks, Braden** (DE-INBRE), Kinesiology,
Kim Gannon, Neuroscience
*Seeing It Sooner: Early Hospital Markers
Associated with PEG Tube Placement After
Stroke*
49. **Lokula, Siddharth** (Summer Scholars),
Computer Science, Xing Gao
*Fortran Compiler Validation through AST
Manipulations*
50. **Acevedo-Ruz, Estefanie** (Summer
Scholars), Medical Laboratory Science,
Endale Gebregzabher
*Plasma Interleukin 6 (IL-6) Levels in
African American Women: A Comparison
Between Healthy Controls and Triple-
Negative Breast Cancer Patients*
51. **Andrews, Delaney** (Summer Scholars),
Medical Laboratory Science, Endale
Gebregzabher
*Detection of the Duffy-Null Variant
(rs2814778) Using TaqMan SNP
Genotyping in a Cohort of African
American Women*
52. **Lobo, Carlos**, NSF (CISE REU),
Mathematics, Mahya Ghandehari,
Mathematical Sciences
*Using Quantum Strategies to Make Magic
Squares*
53. **Hutt, Cayden** (Summer Scholars),
Mathematics, Mahya Ghandehari,
Mathematical Sciences
*The Graph Coloring Game, a soft
introduction to Nonlocal Games*
54. **Burke, Jholly Prell** (DE-INBRE),
Biological Sciences, AritGhosh, Bio-
Imaging Center
*MGI32-mediated proteasomal inhibition
disrupts erythroid heme homeostasis and
induces ferroptosis vulnerability*
55. **Peleg, Tamar** (DE-INBRE), Applied
Molecular Biology and Biotechnology,
Jason Gleghorn, Biomedical Engr
Department
56. **Doncel, Isabella** (DE-INBRE), Biomedical
Engineering, Jason Gleghorn, Biomedical
Engr Department
*Development and Characterization of a
Stratified Vaginal Epithelial
Microphysiological Model*
57. **Maniyatte, Aaron** (Summer Scholars),
Biomedical Engineering, Jason Gleghorn,
Engineering
*Fusogenic Lipid-Patched Cell Carriers for
Lymphatic Drug Delivery*
58. **Orzech, Audrey** (Summer Scholars),
Biochemistry, Jason Gleghorn
*Synthetic Mucus Compatibility in a
Cervicovaginal Microphysiological Model*
59. **Yun, David** (Summer Scholars), Biological
Sciences, Jason Gleghorn
*Development of Manufacturing
Methodologies for Alginate Microparticles
Using Filtration, Surface Modification, and
Size Characterization Tools*
60. **Sutton, Tyshine** (McNair Scholars),
Human Relations Administration, Sara
Goldstein, Education and Human
Development
*I expected to feel sad and I did initially...
But then after a while it was just normal.”:
Parents’ Psychological Adjustment During
Their Child’s Transition to College*
61. **Casuga, Danielle** (Summer Scholars),
Electrical Engineering, Keith Goossen
*Identifying Energy Conservation
Opportunities Through Energy Audits*
62. **Hogan, Ryan** (Summer Scholars),
Electrical Engineering, Keith Goossen

*Identifying Energy Conservation
Opportunities Through Energy Audits*

63. **Huerta, Samantha** (McNair Scholars), Kinesiology, Karin Gravare Silbernagel, Physical Therapy
The Influence of a CAM boot, EVEN-UP lift, and Over-Shoe Ankle Brace on Gait Mechanics and Quadriceps Activation
64. **Shields, Jessica** (American Heart Association), Biological Sciences, Jody Greaney, Health Behavior & Nutrition
Oxidative Stress–Mediated Reductions in Microvascular Endothelial Function in Adults with Dysregulated Cortisol Dynamics
65. **Vallarino, Nora** (DE-INBRE), Human Physiology, Jody Greaney, Health Behavior & Nutrition
Affective Responsivity to Daily Stressors and Cardiac Autonomic Function in Young Adults
66. **Albaugh, Brandon**, Pre-Veterinary Medicine, Tanya Gressley, Animal and Food Science
Plasma under the curve response to 3 different rumen-protected methionine supplements in cows
67. **Mueller, Martha**, Animal Biosciences, Tanya Gressley, Animal and Food Science
Bioavailability of Rumen Protected Histidine in Blood Plasma of Lactating Dairy Cows
68. **Tobat, Madison**, Pre-Veterinary Medicine, Tanya Gressley, Animal and Food Science
Availability of Rumen-Infused Methionine in Dairy Cows
69. **Forgione, Sofia** (Summer Scholars), Biochemistry, Catherine Grimes
Peptidoglycan Recycling and Its Role in Probing Substrate Specificity for Bacterial Kinases/Ligases and Mammalian Glycosyltransferases
70. **Gonzalvo, Damian** (Summer Scholars), Biochemistry, Catherine Grimes
Expression, Purification, and Functional Characterization of Tannerella forsythia kinase, AmgK
71. **Depto, Robin** (Summer Scholars), Electrical Engineering, Tingyi Gu
Application of Coupled Mode Theory of Resonators in Silicon
72. **Elbaum, Noah** (Center for Hybrid, Active, and Responsive Materials CHARM, an NSF Material Research Science and Engineering Center), Materials Science & Engineering, Lars Gundlach, CHEM
Synthesis and Characterization of Metal/Semiconductor Hemispherical Nano-Heterostructure Arrays
73. **Canatella, Ryan** (Summer Scholars), Mathematical Sciences, Philippe Guyenne, Mathematical Sciences
Parametric Analysis of WAVEWATCH III for Comparative Testing
74. **Iglesias, Jaycob** (TRIO McNair Scholars Program), Hunter College, Human Biology, Jocelyn Hafer, Kinesiology and Applied Physiology
How Do Pain and Gait Mechanics Change in Response to Repeated Stair Climbing?
75. **Graves, Elijah** (McNair Scholars), Psychology Education Major, Alon Hafri, Linguistic/Cognitive Sciences
Representational Momentum for Metric and Topological Spatial Transformations
76. **Micek, Stanley** (DE-INBRE), Biology, Alon Hafri, Linguistics & Cognitive Science
To See or to Read: What fMRI Reveals About How Our Brains Process Who Did What to Whom Across Vision and Language
77. **Buchanan, Seth** (Summer Scholars), Marine Biology, Edward Hale

Parasitic Trematode Prevalence within Eastern Mudsnails (Ilyanassa Obsoleta) in the Delaware Bay

78. **Hemminger, Sarah** (Summer Scholars), Marine Biology, Edward Hale
Influence of Salinity on Eastern Oyster Recruitment in the Lewes-Rehoboth Canal

79. **Montana, Alex** (Summer Scholars), Marine Biology, Edward Hale
BEEPing fish: relating PIT tag detection volume and salinity to monitor living shoreline occupants

80. **Webb, Jeremy**, Landscape Architecture, Zach Hammaker, Plant and Soil Science
Bridging Community and Resilience: Conceptual Design Strategies for Bridgeville, Delaware

81. **Schreiber, Taina and Bruno, Mirabella** (EPSCoR), Landscape Architecture, Zachery Hammaker, Plant and Soil Sciences
Bridging Community and Resilience: Conceptual Design Strategies for Bridgeville, Delaware

82. **Miller, Katelyn** (DE-INBRE), Biomedical Engineering, Michael Hast, Mechanical Engineering
From Walking to Running: Structural Fatigue Analysis of 3D-Printed Polycaprolactone Scaffolds Under Variable Strain

83. **Aubain, Victoria** (UD NSF Accelerating Research Translation), Chemical Engineering, Michael Hast, Mechanical Engineering
Surface Modification of 3D-Printed Bone Scaffolds Using Oxygen Plasma Treatment and Gelatin Coatings

84. **Diaz, Ashley** (DE-INBRE), Biochemistry, Amanda Hernan, Neurology
Converting Glycerol into Added-Value Products using Electrochemistry and Metal Oxide Catalysts

85. **Zettlemoyer, Aubryana** (This work was supported as part of the Center for Plastics Innovation, an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science, Basic Energy Sciences), ACS Chemistry, Emil Hernandez-Pagan, CHEM
Sustainable Monomers via Electroconversion of Biomass-Derived Itaconic and Succinic Acid with Cu/Pb Catalysts

86. **Fu, Jimmy** (Summer Scholars), Chemical Engineering/Biochemistry, Emil Hernandez-Pagan, Chemistry and Biochemistry
Lanthanide Nickel Phosphides as Electrocatalysts for Direct Seawater Electrolysis

87. **Higgs, Julia** (Summer Scholars), Chemistry, Emil Hernandez-Pagan, Chemistry and Biochemistry
Halide Mediated Phase-Selective Synthesis of Tin Oxide Nanomaterials

88. **Hobbs, Naomi** (Summer Scholars), Chemistry, Emil Hernandez-Pagan, Chemistry and Biochemistry
Halide-Controlled Polymorphism in the Synthesis of Nickel Nanocrystals

89. **Murtha, Bianca** (Summer Scholars), Chemistry, Emil Hernandez-Pagan, Chemistry and Biochemistry
Halide-Controlled Polymorphism in the Synthesis of Mercury Sulfide Nanomaterials

90. **Robles-Alfonso, Sofia** (Center for Hybrid, Active, and Responsive Materials CHARM, an NSF Material Research Science and Engineering Center), Chemistry, Emil Hernández-Pagán, CHEM
Colloidal Synthesis of Two-Dimensional Ternary Chalcogenide Nanomaterials

91. **Chava, Herniter** (Summer Scholars), Art Conservation, Madeline Hagerman, Art Conservation
Material Study of Corsets and Stays

POSTER SESSION

III

12:00 - 1:30PM

1. **Batula, Luka** (Summer Scholars), Mechanical Engineering, Jill Higginson
Carbon Nanocomposite Wearable Sensors for Measuring Ankle Flexion for Achilles Tendon Rehabilitation
2. **Burrowes, Sophia** (Summer Scholars), Biomedical Engineering, Jill Higginson
Using Split Adaptive Treadmill to understand symmetry in Stroke Participants
3. **Roesel, Tyler** (Summer Scholars), Mechanical Engineering, Jill Higginson
Characterization of Wearable Knee Sleeve Sensor Measurements for Static Joint Angles
4. **Wisniewski, Benjamin** (Summer Scholars), Mechanical Engineering, Jill Higginson
Effects of Visual Biofeedback on Contralateral Soleus Muscle Activation
5. **Stoecker, Elizabeth** (DE-INBRE), Nursing, Christine Hoch, School of Nursing
Iron Deficiency and Multidimensional Fatigue in Heart Failure: A Secondary Analysis
6. **Yang, Hanmin** (Summer Scholars), Geography, Yao Hu
Deep Temporal Clustering and Hierarchical Bayesian Modeling of Nonstationary Coastal Extremes
7. **Wilen, Kayla** (NSF / EPSCoR), Landscape Architecture, Jerri Husch
8. **Oommen, Jane** (Summer Scholars), Biochemistry, Aimee Jaramillo-Lambert
Generating tools to map the localization of EGG-3 and PERM-4 in the oocyte membrane in C. elegans.
9. **Baehser, Lilyana** (DE-INBRE), Biological Sciences, Aimee Jaramillo-Lambert, Biological Sciences
Understanding the Interaction between EGG-1 of the EGG Complex and PERM-2 in Oocyte Fertilization and Embryonic Development
10. **Boyd, Lauren** (Summer Scholars), English, McKay Jenkins, English
Rock Rose Food Justice Project and Nonprofit Systems in Baltimore City
11. **Barry, Kaleigh** (EPSCoR), English, McKay Jenkins, English
Living Environmental Journalism: Integrating Hands On Ecological Restoration, Food Justice, and Narrative Documentation Across Baltimore and Delaware
12. **Lewis, Natalie** (Summer Scholars), Nursing, Xiaopeng, Ji, School of Nursing
Physical Activity Moderates the Association Between Sleep and Metabolic Risk in Emerging Adults
13. **Hall, Kameron** (Center for Hybrid, Active, and Responsive Materials CHARM, an NSF Material Research Science and Engineering Center), Chemistry, Xinqiao Jia BISC, BME, MSE
Synthesis and Characterization of Coiled-coil Bundlemer Peptide-based Networks
14. **Abreu, Jose** (Summer Scholars), Medical Diagnostics, Curtis Johnson
Piezol Receptor Expression on Glia and Brain Tissue Mechanics measured with MRE in Rodent Models of Perimenopause and Menopause

15. **Bischoff, Meggan and Penna, Kaelin** (Summer Scholars), Neuroscience, Curtis Johnson
Identifying an Estrogenic Mechanism by Which Hippocampal Tissue Mechanics Change in Rodent Models of Perimenopause and Menopause
16. **Virani, Neil**, John R, Jungck, Biological Sciences and Mathematical Sciences
HP Protein Lattice Constructor
17. **Al Darwashi, Anas** (Summer Scholars), Computer Science, Nazim Karaca
From Prompt to Production: A Security Study of AI-Generated Websites
18. **Mihovch, Daniel** (Summer Scholars), Computer Science, Nazim Karaca
Outliers by Design: Activation Structure and Ablation Sensitivity in Vision Transformers
19. **Haupt, Anna** (NIH COBRE), Chemistry Laure Kayser, Chemistry and Biochemistry
Developing Materials for Organic Electrochemical Transistor Biosensors
20. **Varshney, Aadi** (Summer Scholars), Biological Sciences, Austin Keeler
Von Frey Assessment of Mechanical Sensitivity Following a Revised Sciatic Nerve Constriction Procedure in Mice
21. **Gerges, Miriam** (DE-INBRE), Psych & Biological Sciences, Austin Keeler, Biological Sciences
Effects of Oil Overlay Type on Autonomously Regulated Oxygen Microenvironment Efficacy for Primary Somatosensory Cultures
22. **Safadi, Austin** (DE-INBRE), Medical Diagnostics, Austin Keeler, Biological Sciences
Autonomously regulated microenvironments generated by oil overlay enhance primary mouse trigeminal ganglia cultures
23. **MacNair, Adam** (Summer Scholars), Computer Engineering, Willett Kempton
Reworking EVCC Boards With LIN for Vehicle-to-Grid Capabilities
24. **Padilla, Ethan** (Summer Scholars), Electrical Engineering, Willett Kempton
Development Of a Universal Carry-Along Cable for EV Charging
25. **Gandolfo, Ella** (DE-INBRE), Neuroscience, William Kenkel, Psychological & Brain Sciences
Neural Underpinnings of Dopaminergic Development After Cesarean Section
26. **Majette, Amari and Chiu, Arlene**, Engineering, Kaustubh Khedekar, Center for Clean Hydrogen
Catalyst Ink Optimization for Proton Exchange Membrane Water Electrolysis
27. **Pie, Colin** (Summer Scholars), Statistics, Jeffrey Klein, Political Science and Intl Relations
Outcomes and Equity: Examining the impact of Advanced Placement and Dual-Enrollment courses on Delaware public high school students
28. **Craft, Cassidy** (Summer Scholars), Mathematics & Economics, Jeffrey Klein, Political Science and Intl Relations
Predictors of College Undermatching: An Analysis of Delaware High School Graduates
29. **Indrakanti, Sneha** (DE-INBRE), Neuroscience, Anna Klintsova, Psychological & Brain Sciences
Piezol Receptor Expression on Glia and Brain Tissue Mechanics measured with MRE in Rodent Models of Perimenopause and Menopause
30. **Lim, Max** (DE-INBRE), Biological Sciences, David Klorig, Neurology
31. **Andrews, Max** (Summer Scholars), Chemical Engineering, April Kloxin

Characterizing ER+ Breast Cancer Cell Responses to Dormancy-Inducing Culture Conditions

32. **Lybeck-Brown, Jillian** (Summer Scholars), Chemical Engineering, April Kloxin
Expanding Hydrogel Platforms for the Encapsulation and Sustained Release of Hydrophobic Therapeutics
33. **Polonsky, Max** (Summer Scholars), Chemical Engineering, April Kloxin
Investigating the Effects of Microenvironmental Stressors on Dormancy, Morphology, and Viability in MDA-MB-231 Cells
34. **Stas, Dean** (Summer Scholars), Chemical Engineering, April Kloxin
Measuring endocytosis of lentivirus by flow cytometry
35. **Murat, Caleb** (ACEE REU), Chemical Engineering, April Kloxin, Chemical Engineering
Biosynthesis of Polypeptide Fusions: Integrating Order-Promoting and Disordered Domains For The Creation of Nanomaterials
36. **Slaughenhaupt, Ava** (U.S. Department of Agriculture's National Institute of Food and Agriculture), Food Science, Kali Kniel, Animal and Food Science
Foes on the Farm: Microbial Surveillance of Major Foodborne Pathogens in Delaware Agricultural Soils
37. **Mehta, Aryan** (DE-INBRE), Neuroscience, Dayan Knox, Psychological & Brain Sciences
Examining Effects of DREADD-Induced Ventral Hippocampus (VHPC) Inhibition on Anatomical Volumes of the Prelimbic Cortex and Amygdala in Rat Brains Post Extinction Training
38. **Maeda, Tetsutaro** (This work was supported as part of the Center for Plastics Innovation, an Energy Frontier Research

Center funded by the U.S. Department of Energy, Office of Science, Basic Energy Sciences), Physics/Material Engineering 3-2 program, LaShanda Korley, CBE and MSE

Improving the UV stability of Citric Acid-based, Non-isocyanate Polyurethanes

39. **Downey, Thomas** (Summer Scholars), Chemical Engineering, LaShanda Korley
Lignin-derivable non-isocyanate polyurethane foams with tunable density, stability, and compressive mechanics
40. **Sayler, Daniel** (This work was supported as part of the Center for Plastics Innovation, an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science, Basic Energy Sciences), Materials Science and Engineering, LaShanda Korley and Frank Leibfarth, CBE and MSE Chemistry
Structure-Morphology-Property Relationships of Polyolefin Ionomers
41. **Davidson-Hawes Zoe** (DE-INBRE), Psychology, Jennifer Kubota, Psychological & Brain Sciences
Interracial Contact Training Shapes Racial Bias in Implicit Evaluations
42. **Kenyi, Hashim** (ACEE REU), Chemical and Biomolecular Eng, Catherine Fromen, Chemical and Biomolecular Eng
Storage Stability of Macrophage-Derived Extracellular Vesicles Following PEGDA Nanoparticle Uptake
43. **Escobar, Jacob** (Summer Scholars), Chemical Engineering, Aditya Kunjapur
Evaluating Engineered MtPylRS Variants for Non-Standard Amino Acid Incorporation in HEK293 Cells
44. **Rousseau, Alice** (Summer Scholars), Chemical Engineering, Aditya Kunjapur
Engineering an E. coli Biosynthetic Platform for Synthesis of Light-Sensitive Non-Standard Amino Acids

45. **Stewart, Ryan** (Summer Scholars),
Chemical Engineering, Aditya Kunjapur A
*Hybrid Platform to Explore Chemically
Modified Peptide-Protein Interactions*
46. **Smith, Harmony** (McNair Scholars),
Psychology, Aaron Kupchik, Sociology
47. **Ravichandar, Tarun**, (University of
Delaware Research Foundation (UDRF)
REU), Biomedical Engineering, Brian
Kwee, Biomedical Engineering
*IL-33-Releasing Alginate Hydrogels for
Treating Ischemic Injuries*
48. **Martin, James** (University of Delaware
Summer Fellows), Medical Diagnostics,
Brian Kwee, Biomedical Engineering
 *$\beta 1$ integrin identifies heterogeneities in
muscle progenitor cells*
49. **Liu, Sarah** (University of Delaware
Summer Scholars), Biomedical
Engineering, Brian Kwee, Biomedical
Engineering
*Amphiregulin-Releasing Alginate
Hydrogels Enhance Peripheral Nerve
Repair*
50. **Sobet, Gem** (McNair Scholars), Political
Science, Andrea L Glass-Heffner,
Department of Women & Gender Studies
*Divinity Criminalized: Santería and Its
Challenges to Western Womanhood*
51. **Parab, Arjun** (Summer Scholars),
Biological Sciences, Salil Lachke
*Transcriptional analysis of mouse lenses
deficient for the Polycomb repressive
complex 2 (PRC2) co-factor Jarid2*
52. **Gupta, Agrim** (DE-INBRE), Medical
Diagnostics, Chi Keung Lam, Biological
Sciences
*Role of Hsp90 β on Autophagy and
Apoptosis Signaling in Cardiomyocytes*
53. **White, Sienna** (INBRE), Summer
Scholars, Biological Sciences, Chi Keung
Lam, Biological Sciences
- The role of HAX-1 in adipocytes with an
overexpression of long-chain fatty acids*
54. **Blumberg, Jessica** (Summer Scholars),
Liberal Studies, Jean-Philippe Laurenceau
*Toward Linking Thematic Analysis of
Dyadic Conversations and Glycemic
Control in Couples Coping with Type 2
Diabetes*
55. **McAllister, Cathryn** (DE-INBRE),
Psychology and Women and Gender
Studies, Eric Layland, Human Dvlpmnt &
Family Science
Queer Joy
56. **Tabaco, Chloe** (Summer Scholars),
Computer Engineering, Nathan Lazarus,
ECE
*Control Electronics for Wearable Haptic
Actuators*
57. **Waples, Mekhai**, Computer Engineering,
Nathan Lazarus, ECE
*LLM Based Computer-Aided Design and
Simulation For Electromagnetic Devices*
58. **Chandler, Ja'Den**, Engineering Physics,
Nathan Lazarus, Electrical and Computer
Engineering
*Measurement Electronics for a Stretchable
Capacitive Sensor Array*
59. **Azevedo Benjamin** (UD NSF Accelerating
Research Translation Program), Electrical
Engineering, Nathan Lazarus, Electrical
Engineering
*Characterizing Mechanical Resonance of
Vibrotactile Actuators for Wearable
Haptics*
60. **Zhang, Iris** (Summer Scholars), Chemical
Engineering, Kiseok Lee
*Engineering a Local Acidification
Probiotic and Investigating Nutrient
Interactions for Bacterial Vaginosis
Microbiome Remediation*
61. **Bailey, Alexis** (DE-INBRE), Public Health,
Marshala Lee-McCall, Research Institute
iREACH

Association Between Food Insecurity and Hypertensive Disorders of Pregnancy Among Participants in the All of Us Research Database

62. **Bilbrough, Cole** (DE-INBRE), English, Marshala Lee-McCall, Research Institute iREACH

Timely Advance Care Planning After Newly Documented Heart Failure in the All of Us Research Program

63. **Thomas, Abigail** (American Heart Association, Medical Diagnostics, Shannon Lennon, Kinesiology & Appl Physiology
Effect of Sodium Density and Sex on Blood Pressure Variability in Normotensive Adults

64. **Nyameke, Blessing** (Summer Scholars), Health Behavior Science, Chrysanthi Leon, Criminal Justice
Crime Law Gender Justice

65. **Petrie, Sarah** (Summer Scholars), Criminal Justice, Chrysanthi Leon, Sociology
Social Construction and Identity Management in Sexual Offender Narratives

66. **Hancock, Claire**, Biological Sciences, Joohyun Lim, BISC
Characterization of Pain Behavior and Trigeminal Ganglion Activity in the SKG Model of Rheumatoid Arthritis

67. **Rappucci, Carina** (DE-INBRE), Health Science, Connie Lin, Anesthesiology and Perioperative Medicine

68. **Stevens, Jennafer** (This work was supported as part of the Center for Plastics Innovation, an Energy Frontier Research Center funded by the U.S. Department of Energy, Office of Science, Basic Energy Sciences), Chemistry, Dongxia Liu, CBE
Investigation of metal catalysts for electrochemical reduction of GenX PFAS

69. **Brand, Sydney** (DE-INBRE), Medical Diagnostics, Michele Lobo, Physical Therapy
Examining SES-Related Differences in Home Motor Affordances and Developmental Outcomes in Early Childhood

70. **Maina, Ngatha** (DE-INBRE), Medical Diagnostics, Michele Lobo, Physical Therapy
Infant Equipment Use and Motor Development: A Matched-Pair Comparison Across Socioeconomic Status

71. **Miller, Michele** (DE-INBRE), Biology, Eileen Loftus, Nemours Children's Health
How a Multistate Children's Hospital Reaches Rural Populations

72. **McQuiston, Dylan** (DE-INBRE), Medical Diagnostics, Lucas Lu, Mechanical Engineering
Intercellular Communication Among In Situ Chondrocytes

73. **Asres, Naod** (Summer Scholars), Xin Lu, Mechanical Engineering
Impact of Diluted and Undiluted Lidocaine and Ropivacaine on Chondrocyte Activity in Human Cartilage

74. **Kappen, Chloe** (Summer Scholars), Biomedical Engineering, Lucas Lu
BPC-157's Effects on OA Human Cartilage Explants

75. **Katoch, Akanksha** (Summer Scholars), Economics, X. Lucas
Effect of Human Osteoarthritic Synovium on Articular Cartilage

76. **Heim, Destiny** (McNair Scholars), Neuroscience Major, Jaclyn M. Schwarz, Psychology and Brain Sciences
Effect of IL-33 on the brain immune response following inflammation and hypoxia

77. **Eustace, Ryan and Santos, Max** (Department of Mathematical Sciences), Mathematics, Mokshay Madiman, Mathematical Sciences
Exploring the Mechanics of the Gaussian Free Field
78. **Vannatta Alexandra** (Summer Scholars), Meteorology and Climatology, Shuai Wang
Examining Clear-Air Turbulence Cases in the Northeast Corridor
79. **Guruprasad, Akshata** (Summer Scholars), Art Conservation, Roxanne Radpour, Art Conservation
Coupling Accessible Microscopy and Spectroscopy Technologies for New Modes of Cultural Heritage-focused Data Collection
80. **Vaccaro, Kaitlin** (NASA Space Grant Summer Scholar), Chemical and Biomolecular Engineering, Antony Beris
Chemical and Biomolecular Eng
Connecting Blood Rheology to Physiology Through Machine Learning
81. **Riera, Analise and Trezza, Bianka** (Summer Scholars), Criminal Justice, Chrysanthi Leon, Criminal Justice
Changing Identities of Re-entering Individuals
82. **Carpenter, Katherine** (CHS Summer Scholar), Nursing, Xiaopeng Ji, School of Nursing
Acceptability and Perceived Benefit of a Chatbot-Delivered CBT-I Intervention for Autistic Adolescents: A Qualitative Study

POSTER SESSION IV

1:45 - 3:15PM

1. **Slater, William**, Meteorology and Climate Science, Kelsey Malloy, Geography and Spatial Sciences
Weak Wind and High Heat: A Case Study Analysis of the Late June to Early July 2026 Heat Wave
2. **Zimolka, Lucy** (Summer Scholars), Meteorology and Climatology, Kelsey Malloy
What atmospheric conditions are associated with prolonged periods of low surface solar radiation in the Southwestern and Southeastern United States during summer (June–August)?
3. **Ledezma, Andrea** (McNair Scholars,) Marketing, Archana Mannem, Business & Economics
Marketing Across Contexts: Similarities and Differences of Implementation in Sectors of Religion and Hospitality
4. **Reel, Spencer** (Summer Fellows), Valerie Marlowe
Rocks of Disaster: Preventative Conservation Efforts for the E.L. Quarantelli Objects Collection
5. **Hanumapur, Aniketh** (American Heart Association), Neuroscience, Christopher Martens, KAAP
Commercial Versus Open Source Analysis of Cerebrovascular Pulsatility From 2D and 4D Phase-Contrast MRI
6. **Nguyen, Anthony** (Delaware INBRE), Integrated Health Sciences, Christopher Martens, KAAP
Measuring Differences in Brain Metabolism Between Older and Younger Adults
7. **Sand, Brian** (Summer Scholars), Computer Engineering, Richard Martin Electrical Engineering
CPEG 222 Line Following Robot.
8. **Opore, Abena** (McNair Scholars), Neuroscience Major, Vinayak Mathur, Biological Sciences

9. **Prospero, Trey** (DE-INBRE),
Mathematics & Data Science, Matthew
Mauriello, Computer & Info Sciences
*Real-Time Detection of Student Stress
During Timed Exams*
10. **Gordon, Jacob** (Summer Scholars),
Computer Science, Matthew Mauriello
*Towards Adaptive Stress Reduction
Interventions with LLMS: A Baseline Study*
11. **Melam, Gopi and Rezaei, Zahra**
(Summer Scholars), Computer Science,
Matthew Mauriello
*Electric-Vis: Integrating Wearable Sensing
with Residential Energy Data for Improved
Energy Forecasting*
12. **Tan, Wei-en** (Summer Scholars),
Computer Science, Matthew Mauriello
*Generating News with Large Language
Models: A Human-AI Pipeline for
Controlled Media Experiments*
13. **Woznick, Christian** (U.S. Department of
Agriculture's National Institute of Food and
Agriculture HATCH REGULAR FY25),
Wildlife Ecology and Conservation, Kyle
McCarthy, Entomology and Insect Ecology
*Does Food Waste Upcycling Attract
Unwanted Mammals?*
14. **Mills, Asher** (Summer Scholars),
Computer Science, Kathleen McCoy
*Benchmarking and Evaluating Generative
Large Vision Language Models Against
Traditional OCR for Supporting Text
Recognition for Blind and Low-Vision
Users*
15. **Santana-Medina, Wendy** (DE-INBRE),
Applied Molecular Biology &
Biotechnology, Dan McDevit, Assoc in
Arts Prog
*Soil Salinity Drives Bacterial and Insect
Richness Patterns in Delaware Bays*
16. **Ali Wasma** (DE-INBRE), Medical
Laboratory Science, Daniel Meara, Oral
Maxillofacial Surgery & Hospital Dentistry
*Impact of Electric Scooters, Mopeds,
Skateboards, and Motorized Bikes on
Facial Trauma at a Level-I Trauma Center*
17. **Shah, Bhavini** (DE-INBRE), Medical
Diagnostics, Daniel Meara, Oral
Maxillofacial Surgery & Hospital Dentistry
*Impact of the 2020 Initiation of Delaware
Adult Medicaid Coverage for Dental
Care/Oral Health on Hospital Admissions
for Odontogenic-related Facial and Neck
Infections*
18. **Schoneman, Ally and Smathers, Lindsey**,
Nutrition and Dietetics, Melissa Melough,
Health Behavior and Nutrition Sciences
*Microplastics analysis in breastmilk:
Comparative evaluation of chemical and
enzymatic digestion methods*
19. **Walters, Brianna** (DE-INBRE), Applied
Molecular Biology and Biotechnology,
Marco Messina, Chemistry &
Biochemistry
*Three-Dimensional Boron-Rich Cluster
Core Star Polymer Excipients: Reducing
Viscosity and Stabilizing Monoclonal
Antibodies Without Steric Hindrance*
20. **Williams, Isabella** (Summer Scholars),
Chemistry, Marco Messina
*Exploring the Impact of Icosahedral
Carborane 3-D Aromaticity on the
Photophysical Properties of Traditional
Dye Structures*
21. **He, Kevin** (NSF / EPSCoR), Applied
Mathematics & Statistics, Pinki Mondal,
Geography and Spatial Sciences
*Automated First-Floor Elevation
Estimation for Flood Vulnerability
Assessment Using Deep Learning Methods*
22. **Vavala, Isabelle** (NSF / EPSCoR),
Environmental Science, Pinki Mondal,
Geography and Spatial Sciences
*Association Between Marsh Vegetation and
Soil Drainage Class Across the Delmarva
Peninsula*

23. **Manrakhan, Heath** (Community Engagement Initiative), History, Leann Moore, Community Engagement
Community Involvement and Issues Within Contemporary Art Spaces
24. **Ombiro, Candy** (EPSCoR), Biological Science, Leann Moore, Community Engagement
A Summer Spent Growing Food and Building Community
25. **Gee, Madison** (Susan Traynor Serra Community Engagement Scholars Fund), Health Behavior Science, Leann Moore, Community Engagement
Breaking Barriers to Women's Health and Hygiene, Her Haven Empowerment Project
26. **Ocampo-Fuentes, Itzel** (Rehabilitation Careers for All (RCA) Summer Scholars Program), Health Behavior Science, Susanne Morton, Department of Physical Therapy
27. **Dotchel, Catherine** (U.S. Department of Agriculture's National Institute of Food and Agriculture HATCH REGULAR FY25), Plant Science, Qi Mu, Plant and Soil Science
Uncovering Trait Relationships in Sorghum: A Study of Tx430 × P898012 RILs
28. **Baker, Phoebe** (Summer Scholars), Plant Science, Qi Mu
Differentiating the effects of waterlogging from salinity stress on maize growth performance
29. **Payne, Rebecca** (Summer Scholars), Biological Sciences, Jeffrey Mugridge
Engineering Fusion Constructs to Discover an Alternative Crystal Lattice for the RNA Demethylase FTO
30. **Plank, Samantha** (Summer Scholars), Biochemistry, Jeffrey Mugridge
Enhancing AlkBH8-tRNA Binding with Single-Point Mutations
31. **Ziemba, Sydney** (Summer Scholars), Biochemistry, Jeffrey Mugridge
Working Towards Structural Characterization of AlkBH4
32. **Rajapaksha, Vishmi** (Summer Scholars), Chemical Engineering, Victoria Muir
Designing 3D Printable, Nanofibrous Bacterial Cellulose Granular Hydrogels
33. **Huang, Hunter** (Summer Scholars), Neuroscience, Josh Neunuebel
Investigating the Movement Patterns of Mice with Skin-Specific Piezo2 Excision
34. **Khusid, Alyssa** (Summer Scholars), Neuroscience, Joshua Neunuebel
Dynamics of Courtship Behavior and Vocal Communication in Freely Interacting Mice
35. **Wickline, Karlee** (Summer Scholars), Neuroscience, Joshua Neunuebel
Investigating Lateral Entorhinal Cortex Neuronal Activity During Social Interaction
36. **Sharp, Samantha** (Summer Scholars), Biological Sciences, Ramona Neunuebel
Examining the localization of transiently expressed and translocated Legionella pneumophila effector proteins in mammalian cells
37. **Hoppe, Ellie** (DE-INBRE), Neuroscience, Josh Neunuebel, Psychological & Brain Sciences
Modulation of CA2 hippocampal activity during social and object interaction
38. **Pedada, Suraj** (Center for Hybrid, Active, and Responsive Materials (CHARM, an NSF Material Research Science and Engineering Center), Mechanical Engineering, Branislav Nikolic, PHYS
Using magnonic black holes to generate spin waves
39. **Hasan, Haya** (Summer Scholars), Medical Diagnostics, Anja Nohe

Overlapping Adipocyte Markers Found Across 6 Month Old and 15 Month Old Mice and Literature Identify Patterns Related to Increased Adipocyte Growth with Age using Xenium

40. **Patel, Aarushi** (Summer Scholars), Liberal Studies, Anja Nohe
Establishing Osteogenic Signaling Networks Through Cell-Type-Specific Proteomic Mapping of Bone Marrow Stem Cell Lineages During Aging
41. **Nair, Shreyas** (Summer Scholars), Computer Engineering, Andrew Novocin
Device based Authentication System For Secure Web Application
42. **Smith, Antoinae** (Summer Scholars), Andrew Novocin
Malware Obfuscation - Malware Packers and their ability to evade detection
43. **Watkins, Bethany** (DE-INBRE), Biomedical Engineering, Robert Oakes, Biomedical Engr Department
Comparing Extrusion Fragmentation and Microfluidic Droplet Generation for Tunable Hyaluronic Acid based Microgels
44. **Davidson Madison and Sisofu, Elena** (MCCONNELL HLTH&WELL-BEING Gift), Nutrition and Dietetics, Diane Oliver, Cooperative Extension
Choose Health: Food, Fun, and Fitness
45. **Helm, Hazel** (NSF / EPSCoR), Economics, Leah Palm-Forster, Applied Economics & Statistics
Salinization of Agricultural Land In Coastal Delaware: Assessing Key Factors and Management Implications
46. **Sarbello, Gabriela** (NSF / EPSCoR), Environmental and Resource Economics, Leah Palm-Forster, Applied Economics & Statistics
More Than Meets the Taste: How Poultry Production Practice Labels Shape Consumer Perceptions and Willingness to Pay
47. **Cheepala, Rohil** (Summer Scholars), Chemical Engineering, Eleftherios Papoutsakis
Impact of Glutamine and Asparagine Feeding on CHO-Cell Growth and Viability
48. **Sharma, Rishav and Perkins, Samuel** (Summer Scholars), Chemical Engineering, Eleftherios Papoutsakis
Inducing Biofilm Formation in Clostridium kluyveri and Strain Characterization in Clostridium acetobutylicum for Improved Bioconversion.
49. **Le, Christian** (DE-INBRE), Biomedical Engineering, Justin Parreno, Biological Sciences
Cell-Specific Extracellular Matrix Substrates Enhance Chondrocyte Expansion and Prime Redifferentiation for Cartilage Repair
50. **Stack, Josalyn** (DE-INBRE), Human Physiology, Justin Parreno, Biological Sciences
Chondrocyte Homeostasis Dysregulation by PIEZO1 Activation and F-actin Loss
51. **Lachke, Nikita** (Summer Scholars), Exercise Science, Justin Parreno
Fascin-1 Inhibition Partially Represses Dedifferentiated Passaged Chondrocyte Phenotype
52. **Patel, Ashna** (Summer Scholars), Biological Sciences, Justin Parreno
The Role of TPM3.1 in Regulating TAGLN-associated Stress Fibers During Lens Fibrosis
53. **Geist, Tyler** (Summer Scholars), Computer Engineering, Satwik Patnaik
Investigate LLM Approaches to Hardware Security Solutions (Logic Locking and IP Redaction)
54. **Lamprey, Gizelle** (Center for Hybrid, Active, and Responsive Materials CHARM, an NSF Material Research

Science and Engineering Center),
Chemistry, Christian Pester MSE
*Engineering Polymeric Photocatalytic
beads to Enhance PET-RAFT
Polymerization*

55. **Yang, Hannah** (Center for Hybrid, Active, and Responsive Materials CHARM, an NSF Material Research Science and Engineering Center), Engineering Sciences, Christian Pester, MSE

*Engineering SI-RAFT-Modified
Nanoparticle Surfaces for Reusable
Photocatalysis of Oxidation Reactions*

56. **Alston, Lauren** (DE-INBRE), Musical Theater, Bridget Peters, Family Medicine
Leveraging Interventions to Reduce Missed Nursing Care and Demonstrate Value-based Leadership

57. **Samaniego, Briana** (DE-INBRE), S.T.E.M and Health Sciences, Katherine Poggensee, Mechanical Engineering

58. **Vasil, Nolan** (DE-INBRE), Computer Science, Shawn Polson, Computer & Info Sciences
Title: Automating Viral Replication Module Detection: A Pipeline for Environmental Phage Metagenomics

59. **Hackett, Nicholas and Herrera, Sergio** (Prasad Discretionary), Mechanical Engineering, Ajay Prasad, Mechanical Engineering/CCH
Investigation of PEM Electrolyzer Performance with a Water-Fed Cathode

60. **Agyeman, Maame** (McNair Scholars), Medical Diagnostics, Karl R Schmitz, Biological Sciences
Optimized Nanobody Engineering for EGFR/MSLN Targeting in Triple-Negative Breast Cancer

61. **Foko, Serena** (McNair Scholars), Biological Sciences, David Raden, Biological Sciences

Comparative Analysis of D3 Dopamine Receptor Binding Profiles Using ChimeraX

62. **Rajeev, Naveena** (DE-INBRE), Medical Diagnostics Pre-Med, Asanthi Ratnasekera
Middle Meningeal Artery Embolization Enhances Treatment Durability in Chronic Subdural Hematomas

63. **Dubrawsky, Rinat**, Sustainable Food Systems, Abby Reeves, Plant and Soil Science
Management Strategies for Incorporating a Rye Cover Crop into Small Scale Organic Vegetable Systems

64. **Whynot, Thomas** (Center for Hybrid, Active, and Responsive Materials CHARM, an NSF Material Research Science and Engineering Center), Chemical Engineering, Yafei Ren, PHYS
Numerical Analysis of Lattice Dynamics Under an External Magnetic Field

65. **Vergara, Joanna** (McNair Scholars), Psychology, Kate Riera, Human Development & Family Sciences
I've always tried to meet them where they are": Exploring the transition to college through the lens of the Generative Fathering Framework.

66. **Sassani, Estella** (American Heart Association), Nutrition and Medical Sciences, Shannon Robson, Health Behavior & Nutrition Sc
Effects of GLP-1 Receptor Agonists on Body Composition and Dietary Behaviors: A Mini-Systematic Review

67. **Degnars, Sabrina** (DE-INBRE), Biological Sciences, Shannon Robson, Health Behavior & Nutrition Sc
GLP-1 Receptor Agonists and Alcohol Consumption: A Systematic Review

68. **Delgado, Cecilia** (Summer Fellows), Joel Rosenthal
Synthesis of Asymmetric A2BC Porphyrin to Study Magneto Optical Activity

69. **Park, Somin** (DE-INBRE), Biomedical Engineering, Subir Kumar, Roy Chowdhury, Critical Care Medicine
Comparative Analysis of the Impact of Mitochondrial Dysfunction on Endotheliopathy in Pediatric Sepsis and Diabetic Ketoacidosis
70. **Oulkar, Pratima** (DE-INBRE), Biomedical Engineering, Jessica Sampson, Chemistry & Biochemistry
Feeling the Heat: A Temperature Monitoring System for Detecting Thermal Variability and Improving Reproducibility in Laboratory Experiments
71. **Patil, Siddhi** (DE-INBRE), Electrical Engineering, Jessica Sampson, Chemistry & Biochemistry
72. **Hunt, Catherine** (Research Experience for Undergraduates), Environmental Engineering, Luiza Notini, Civil, Construction, and Environmental Engineering
Methods of observing iron mineral transformation in soil
73. **Augusteijn, Timothy**, Clemson University, Srikanth Pilla, Center for Composite Materials
Thermoforming Pressure and Cooling Rate Effects on Inter-Ply Bond and Lap Shear Strength in Continuous Fiber Reinforced Thermoplastic Composites
74. **Ballenger, Luke and Wasserman, Ethan** (Army Research Lab), Mark Mirotznik, Center for Composite Materials
Building A Multi-material Additive Manufacturing System Using A Prusa XL Printer
75. **Burrows, Bryton** (Ballydel / Army Research Lab), Mark Mirotznik, Center for Composite Materials
Automated Spatial Distortion Mapping in Thermoformed Structures
76. **DeCook, Reece**, Clemson University, Srikanth Pilla, Center for Composite Materials
Cellulose-Based Non-Isocyanate Polyurethane (NIPU) Foams
77. **Henly, Daniel** (NSF EPSCORM), Sagar Doshi, Center for Composite Materials
Fiber Length and Tortuosity Evaluation for Understanding Natural Fiber Composite Performance
78. **Kennedy, David** (Ballydel / Army Research Lab), Mark Mirotznik, Center for Composite Materials
Thermoformed Printed Conductive Interconnects for Conformal Prosthetic Electronics
79. **Josephine Petrak** (NSF / EPSCoR), Environmental Science, Pinki Mondal, Geography and Spatial Sciences
Elevation-Driven Distribution of Marsh Plant Species Across Delmarva Wetlands
80. **Collucci, Cassandra** (Summer Scholars), Jasmin Cloutier, Psychological & Brain Sciences
Investigating the Role of Prestige, Dominance and Socioeconomic Status Within Cooperative Team Contexts

POSTER SESSION V

3:30 - 5:00PM

1. **Griffin, Kaia** (DE-INBRE), Biological Sciences, Karl Schmitz, Biological Sciences
*Optimization of expression and purification of triple-negative breast cancer biomarkers in *Saccharomyces cerevisiae**
2. **Lu, Yuehui** (DE-INBRE), Biology, Karl Schmitz, Biological Sciences

3. **Blenkhorn, Malcolm** (Robert J. Bauer Family Foundation) Biological Sciences, Karl Schmitz, Biological Sciences
Thin layer chromatography for identification of lipid accumulation within Mycolicibacterium smegmatis
4. **Maxim, Lucy** (Summer Scholars), Biomedical Engineering, Jaclyn Schwarz
Analyzing the Efficacy of IL-33 for Attenuating Immune Activation Associated with Hypoxic-Ischemic Encephalopathy using BV2 Microglia Cell Culture
5. **Troy, Carly** (Summer Scholars), Neuroscience, Jaclyn Schwarz
Altered Hippocampal Estrogen Receptor β Correlates to Reversed Postpartum Depression Susceptibility across Generations in Rats
6. **Heeter, Paige** (Milton H. Stetson Memorial Undergraduate Research Fellowship), Biological Sciences, Erica Selva, Biological Sciences
Development and Optimization of a Wnt Pathway Transactivation Assay
7. **Moya, Domenica** (Summer Scholars), Medical Laboratory Science, Erica Selva
Conserved Cysteine Residues in Wntless Are Required for Wingless Secretion in Drosophila melanogaster
8. **Manfredo, Santiago** (DE-INBRE), Biomedical Engineering, Fabrizio Sergi Biomedical Engr Department
Visual feedback as a tool for improved adaptation of exoskeleton use in rehabilitation
9. **May, Sophia** (Summer Scholars), Biomedical Engineering, Fabrizio Sergi
Incorporating visual feedback about optimizer status in human-in-the-loop optimization of exoskeleton control targeting changes in walking speed
10. **Peterson, Jacob** (Institute of Energy Conversion), MSEG, William Shafarman, MSEG
Effects of Cadmium Chloride Treatment on Selenium Diffusion in Thin-Film Cadmium Telluride Photovoltaics
11. **Gainer, Katelyn** (Summer Scholars), Materials Science and Engineering, William Shafarman
Passivation of SnO₂ Layer in Perovskite Solar Cell Applications
12. **Colavito, Michael** (Summer Scholars), Mechanical Engineering, Weisong Shi
Development of an Autonomous Wheelchair for Hospital Patient Transportation
13. **Proctor-Rangel, Terrence** (DE-INBRE), Medical Diagnostics Pre-PA, Karin Silbernagel, Physical Therapy
Does the shape of the Achilles tendon differ between injured and healthy individuals?
14. **Patel, Krish** (DE-INBRE), Biomedical Engineering, John Slater, Biomedical Engr Department
Quantifying Breast Cancer Secretome-Induced Changes in Microvessel Permeability
15. **Srinivasan Vidya, Subiksha**, Biomolecular and Chemical Engineering, Kevin Solomon, Biomolecular and Chemical Engineering
Characterizing a Bacillus subtilis Carbonic Anhydrase for Improved Carbon Utilization
16. **Oliver, Samantha** (DE-INBRE), Chemical Engineering, Kevin Solomon, Chemical & Biomolecular Engr
Establishing Agrobacterium mediated genome engineering of romaine lettuce

leaf-surface yeast for human pathogen detection

Spatiotemporal expression of miR-1 target transcripts during sea urchin development

17. **Blough, Sebastian** (Summer Scholars), Chemical Engineering, Kevin Solomon
Synthesis of Segmented BSMV Nanorods for Magnetic Separation
18. **Grimsley, Jasmine** (Summer Scholars), Chemical Engineering, Kevin Solomon
Engineering ssDNA Guides for Next Generation Gene Editing with prokaryotic Argonautes (pAgos)
19. **Hinton, Alexander** (Summer Scholars), Chemical Engineering, Kevin Solomon
Characterizing the native retrotransposons of Neocallimastix frontalis to enable genetic modification of anaerobic gut fungi
20. **Miraji-Khot, Agni** (Summer Scholars), Chemical Engineering, Kevin Solomon
Colonization of the yellow mealworm gut with a synthetic microbial community for enhanced LDPE
21. **Thapa, Divyashree** (Summer Scholars), Applied Molecular Biology and Biotechnology, Kevin Solomon
Engineering recombinant barley stripe mosaic virus-like particles for nucleic acid delivery
22. **Moxley, Rowan** (Summer Scholars), Chemical Engineering, Kevin Solomon
Computational Identification and Characterization of Putative Baeyer–Villiger Monooxygenases from Tenebrio molitor Microbiomes for Future Low-Density Polyethylene Degradation
23. **Seno, Jillian** (Summer Scholars), Chemical Engineering, Kevin Solomon
Tunable Barley Stripe Mosaic Virus for PD-L1 Degradation
24. **Ali, Ariana** (DE-INBRE), Biological Sciences, Jia Song, Biological Sciences
25. **Cameron, Olivia** (DE-INBRE), Applied Molecular Biology & Biotechnology, Jia Song, Biological Sciences
Identifying the Temporal and Spatial Location of miR-31 Target Transcripts during Sea Urchin Development
26. **Nies, Summer** (Summer Scholars), Art, William Starkey, Art
Domestic Psychological Warfare: Resistance Against Propaganda
27. **Tien, Kaitlyn** (Summer Scholars), Chemical Engineering, Millicent Sullivan
Engineering a DNA-Protein Complex for Improved Nuclear Uptake and Gene Expression
28. **MacNicoll, Juliette and McQuaid, Evelyn** (National Science Foundation), Neuroscience, Molly Sutherland, Biological Sciences
The Analysis of the Beta-cap of CcsBA System II Cytochrome c Biogenesis Pathway
29. **Potluri, Haasini** (DE-INBRE), Biology, Venkata Ajay Narendra Talabattula, Research Nemours
Children's Health
30. **Moffett, Jenna** (U.S. Department of Agriculture's National Institute of Food and Agriculture HATCH REGULAR FY25), Food Science, Juzhong Tan, Animal and Food Science
Structure Modification of Orange and Grapefruit Peel Fibers by Pin-to-Plate Non-Thermal Plasma for Gut Microbiome Applications
31. **Fowler, Emily** (DE INBRE), Summer Scholars, Biological Sciences, Jessica Tanis, Biological Sciences

Investigating the effects of diet and loss of cbs-1 on C. elegans mitochondrial stress

32. **Eaton, Meredith** (DE-INBRE), Biological Sciences, Andre Tavares, Biological Sciences

Dynamic Regulation of SIX1 Protein Stability During Osteoblast Differentiation

33. **Lehmann, Bryan** (DE-INBRE), Biological Sciences, Andre Tavares, Biological Sciences

Investigating the Role of SWI/SNF Complex Proteins SMARCC1 and SMARCA4 in Regulating SIX-Family Transcriptional Activity

34. **Doyle, Adelyn** (NSF / EPSCoR), Marine Science, Antonette Todd, Agriculture and Natural Resources, Delaware State University

Determination of Efficiency between Molecular and Phenotypic Photosynthetic Predictors of Salt Stress in Common Bean (Phaseolus vulgaris L.)

35. **Taylor, William** (Summer Scholars), Mathematical Sciences, Ivan Todorov

Extended Quantum Games

36. **Flaherty, Vanessa** (DE-INBRE), Communication, Daniel Totzkay, Communication

Health Communication Strategies for Addressing Toxic Chemical Ingredients in Sunscreens and Preventing Skin Cancer

37. **Basha, Hannah** (Summer Scholars), Environmental Science, Vaishnavi Tripuraneni, Geography

Getting to the Root of It: A Case Study of Street Tree Metrics in the West Side of Wilmington, Delaware

38. **Agyemang, Lourdes** (McNair Scholars), Anthropology/Public Policy, Jennifer Trivedi, Anthropology

The Impact of Medical Racism on Public Health Communication

39. **Tomic, Nico** (Summer Scholars), Anthropology, Jennifer Trivedi, Anthropology

Towards an Understanding of the Interactions of Disability and Queer Identity in Undergraduate Students

40. **Spahr, Owen** (SEITZ JANICE A COOP EXT / New Castle County Cooperative Extension), Nutrition and Dietetics, Jenny, Trunfio, Cooperative Extension

Summer STEM Learning with 4-H

41. **Waltman, Connor** (Summer Scholars), Mechanical Engineering, Tyler Van

Lift Characteristics of Trapezoidal Fins

42. **Bubanj, Thomas** (Summer Fellows), Tyler Van Buren

Autonomous Hexacopter for Generating Brief Microgravity Windows

43. **Fidgeon, Connor** (Summer Fellows), Tyler Van Buren

Optimizing PrusaSlicer Settings for Watertight Fused Filament Fabrication (FFF) Components in Underwater Robotics

44. **Dubey, Araav** (DE-INBRE), Neuroscience, Timothy Vickery, Health Nutrition Exercise

Image segmentation explains variance in visual cortical region responses to natural images

45. **Rowe, Sarah** (DE-INBRE), Psychology and Criminal Justice, Timothy Vickery, Health Nutrition Exercise

Examining the Effect of Stimulus Similarity on Visual Statistical Learning Using Artificially Generated Scenes

46. **Berger, Emily** (Summer Scholars), Environmental Engineering, Carolyn Voter

Beneath the Surface: Soil Particle Size Analysis of Green Stormwater Infrastructure in Washington, D.C

47. **Schryver, Diana** (Summer Scholars), Chemical Engineering, Norman Wagner, Chemical and Biomolecular Engineering
Microfluidic Measurement of Blood Rheology for Diagnostics
48. **Nelms, Conner** (NSF), Chemical Engineering, Norman Wagner, Chemical Engineering
Geopolymers for terrestrial in-situ resource utilization construction applications
49. **Abraham, Benjamin** (DE-INBRE), Biomedical Engineering, Liyun Wang, Mechanical Engineering
Investigating the Effects Over Time of Implanted Hyaluronic Acid-based Hydrogels in Partially Resected Rat Parotid Salivary Gland
50. **Muiruri, Tianna** (DE-INBRE), Psychology, Liyun Wang, Mechanical Engineering
Investigation of Cellular Responses in Coup and Contrecoup Regions of Murine Brains Following Moderate Unilateral Impact Loading
51. **Gupta, Arya** (College of Arts and Sciences, Fox Chase Cancer Center, Tom Hofmann, NIH) Biochemistry, Amy Whitaker, Nuclear Dynamics and Cancer Program, Fox Chase Cancer Center
Oxidative Damage-Induced KRAS Transcription: Investigating the Role of Base Excision Repair in Pancreatic Cancer
52. **Wilson, Shay** (U.S. Department of Agriculture's National Institute of Food and Agriculture HATCH REGULAR FY25), Pre-Veterinary Medicine, Chris Williams, Entomology and Insect Ecology
Reintroduction of Northern Bobwhite Quail to Pennsylvania
53. **Foland, Skylar**, Chris Williams, ENWE
Breeding phenology of Rio Grande wild turkeys
54. **Lakhani, Raina** (American Heart Association), Biological Sciences, Melissa Witman, Kinesiology & Appl Physiology
The Effects of Subjective Sleep Quality on Macrovascular and Microvascular Function in First Responders
55. **Suescun, Angelica** (DE-INBRE), Psychology, Jonathan Wood, Physical Therapy
What is the effect of age in use-dependent learning?
56. **Kirkpatrick, Ava** (DE-INBRE), Neuroscience, Elizabeth Wright-Jin, Neurology Nemours
Children's Health
57. **Muigai, Travis** (DE-INBRE), Kinesiology, Changqing Wu, Animal and Food Sciences
58. **Barrera, Ava** (Summer Fellows), Jennifer, Wyffels
From Cannibal to Predator: Development of Sand Tiger Shark Teeth Analyzed Via Micro CT
59. **Verwys, Katie**, Chemical and Biomolecular Engineering, Yushan Yan, Chemical and Biomolecular Eng
The Future of NASCAR: A Low-Cost Anode for Hydrogen-Combustion Fuel Generation
60. **Courvoisier, Nathan and Tan, Angela** (CURB REU), Yushan Yan, Chemical and Biomolecular Eng
Analysis of Anode Catalyst Layer Fabrication Methods for PEM Water Electrolysis
61. **Coulibaly, Mohamadou**, Chemical Engineering, Yushan Yan, Chemical and Biomolecular Eng
Improving the Performance and Durability of Hydroxide Exchange Membrane Water Electrolyzers
62. **Murphy, Molly**, Chemical Engineering, Yushan Yan, Chemical and Biomolecular Eng

63. **Tan, Angela**, Chemical Engineering, Yushan Yan, Chemical and Biomolecular Eng
Investigating and Communicating the Rare Serpentine Barrens and Southern Ridge and Valley Dolomite Ecotopes
64. **Underwood, Anwen** (Summer Scholars), Chemical Engineering, Yushan Yan
Optimization and Exploration of A New Anode Catalyst Material for Improving Green Hydrogen Production
65. **Stutzke, Julia** (Summer Scholars), Applied Mathematics, Debra Yarrington
trAIIn: An AI Literacy Tool
66. **McClaine, Natalie** (NSF / EPSCoR), Environmental Engineering, Yangfend Yue, Agriculture and Natural Resources, Delaware State University
Development of a Schiff-Based Indium Ion-Selective Electrode for Phosphate Detection
67. **Shomide, Emmanuel** (DE-INBRE), Biological Sciences - Health Professions, Xuyi Yue, Radiology Nemours
Children's Health
68. **Lee, Dionna** (DE-INBRE), Biological Science, Zugui Zhang, Equity and Community Health Christiana Care Health Systems
Exploring Barriers to Palliative Care Utilization in the Outpatient Setting
69. **Tran, Ken** (Summer Fellows), Zhihao Zhuang
Semisynthesis of Fluorescent Monoubiquitinated PCNA to Study ScRad5 Role in Enabling Error-free DNA Damage Tolerance
70. **Onslow, Rowan** (Summer Scholars PRogram), Landscape Architecture, James Zimmerman, PLSC
Enhancing Campus Landscape Maintenance Through GIS Technology
71. **Quinonez, Marialuisa** (Summer Scholars Program), Landscape Architecture, James Zimmerman, PLSC
72. **Obradovic, Ana** (Summer Fellows), Biomedical Engineering, Ryan Zurakowski, Biomedical Engineering, *Quantitative Systems Pharmacology Modeling of Cisplatin-Induced Kidney Injury Following Intravenous and Lymph Node-Targeted Drug Delivery*
73. **Moen, Maxwell** (Summer Fellows), Whitman, Melissa
Exploring the Disease Progression of Duchenne Muscle Dystrophy (DMD) and Becker Muscle Dystrophy (BMD) Through Non-Invasive Endothelial Function Testing
74. **Chiu, Yeuk Yu**, Caltech, Kaustubh Khedekar
Fuel Cells for Drones
75. **Sharp, Sarah**, Entomology & Wildlife Ecology, Charles Bartlett, Entomology & Wildlife Ecology
Taxonomic review of the planthopper genus Ormenoides (Melichar) (Hemiptera, Auchenorrhyncha, Flatidae) with emphasis on Ormenoides venusta and Ormenoides subflava
76. **McQuaid, Evelyn** (National Science Foundation), Molly Sutherland, Biological Sciences
Bioinformatics Analysis of Bacteroides Species for the Occurrence of Multiple CcsBAs
77. **Muhammadi, Shukria** (Summer Fellows), Cognitive Science, Chengmo Yang and Jhon Abel Ordonez Ingali, Computer & Electrical Engineering
Breaking Virtual Reality Privacy By Exploiting Information via the Charging Cable
78. **Matthew Douglass** (Summer Scholars), Neuroscience, Cameron Grover, DSU Biological Sciences

Investigating Expression of Serotonin and Neurokinin-1 Receptors as a Cause of Respiratory Failure in Mice

Cohen Sid (Summer Scholars), Fine Arts,
Aaron Terry, Art
Visualizing Conservation

Fischer, Mel (Summer Scholars), Fine Arts,
Aaron Terry, Art
Sanctity

Simons, Victoria (Summer Scholars),
Visual Communication, Bill Starkey, Art
Stories Between the Tides

Clauss, Kelsey (Summer Scholars),
Mathematics and Economics, Ashley Pigford,
Art
Purposeful Pictures: Exploring the Relationship Between Children's Picture Book Illustration and Early Sequence Recognition

Kaufman, Jenna (Summer Scholars), Visual
Communication, Ashley Pigford, Art
Mixed Media Motion Graphics in the Music Industry
Student Unionization: An Interdisciplinary, Cross-Cultural Analysis

Strengthening Communities Through Public Service and Policy (ROOM 207)

Moderator: Julia O'Hanlon

Evans, James (Summer Undergraduate Biden School Fellows Program), Health Behavior Science, Julia O'Hanlon, Institute for Public Administration
Strengthening Healthy Aging in Delaware Through Applied Policy Research and Program Evaluation

Wentnick, Leah (Summer Undergraduate Biden School Fellows Program), Public Policy and Psychology, Julia O'Hanlon, Institute for Public Administration
Enhancing Connections Across Delaware's Food Systems Network

Hovington, Darrianna (SEITZ JANICE A COOP EXT / EXTENSION SCHOLARS / New Castle County Cooperative Extension),

Oral Session One

8:30 – 9:45am

Exploring Identity, Access, and Belonging (ROOM 202)

Moderator: Teresa Hickok

Solis-Gaytan, Jazmin (Summer Scholars), Associate in Arts in Elementary and Middle School Teacher Education, Teresa Hickok, Education
Examining the Effects of Common Lit's Before, During, and After Reading Framework on Middle School Students' Reading Comprehension of Informational Texts

Chandler, Jackson (Summer Scholars), Elementary Teacher Education, Sarah Curtis, Education
Research Concerning the Needs of College Students with Autism Spectrum Disorder and Another Minority Identity: A Preliminary Literature Review

Hammen, Grace (Summer Scholars), Fine Arts, Greg Shelnutt, Arts and Science
A Reflection of Self

Donnelly, Erin (Summer Scholars), English Education, Joy Esboldt, Education
Preparing to Teach Equitably: Knowledge, Confidence, and Clinical Experience in UD Teacher Preparation

Trageser, Mia (McNair Scholars), English, Kristen Poole, English
The Phenomenology of the Sermons of John Donne

Visual Narratives: Art, Design, and Storytelling (ROOM 205)

Moderator: Aaron Terry

Sports Health, Karen Johnston,
Cooperative Extension
Educating the Youth on the Facts and Effects of Vaping

O'Hara, Linda (SEITZ JANICE A COOP
EXT / EXTENSION SCHOLARS), Master of
Science - Health Promotion, Jennifer
Seabrook-Scott, Cooperative Extension
*Wits Workout: Preventing Cognitive Decline in
Older Adults*

Rush, Aubrey (Summer Undergraduate Biden
School Fellows Program), Media
Communication and Political Science, Erin
Nescott, Center for Community Research &
Service
*Data on Every Desk: Transforming
Information into Legislative Impact*

Current Challenges in Society, Governance, and Culture (ROOM 302)

Moderator: Erin Cassese

**Gilkey, Mara and Beck, Anna and
Sokolskiy, Lola** (Summer Scholars),
International Relations, Erin Cassese, Political
Science and Intl Relations
*Mental Health Professionals' Views on
Political Polarization*

Session, Jahnese (Summer Undergraduate Biden
School Fellows Program), International
Relations, Troy Mix, Institute for Public
Administration
*Delaware Immigration Trends and Policy
Opportunities*

DiBenedetto Julianna (Finnley) (Summer
Undergraduate Biden School Fellows Program),
Political Science and Global Studies, Troy Mix,
Institute for Public Administration
The State of Cybercrime in Delaware

Wicker, Raheem (McNair Scholars), Africana
Studies Major, Kai Marshall Green. Africana
Studies

*Rootwerk: Ballroom Culture as African
Cosmology*

Oral Session Two 10:00 – 11:15am

Visual Voices: Storytelling Through Art and Design (ROOM 202)

Moderator: Brandan Henry

Stackhouse, Jordyn (Summer Scholars),
Visual Communication, Brandan Henry, Art
*Behind the Scoop: Designing an Interactive
UDairy Experience*

Rut, Alyse (Summer Scholars), Fine Arts,
David Brinley, Art
The Place of Women: Artist and Subject

Figueroa, Bear (Summer Scholars), Visual
Communication, David Brinley, Art
*It's My Life (It's Mine): Trans Identity
Through Mixed Media*

Snyder, Rachel (Summer Scholars), Art
Blazo Kovacevic, Art
The Life of a Tripod Fish

Nickle, Charles (Summer Scholars) Fine Arts,
Blazo Kovacevic, Art
A Guide to the Human Form

Conservation, Craft, and Cultural Heritage (ROOM 205)

Moderator: Melissa Tedone

Fowler, Arthur (Summer Scholars), Art
Conservation, Melissa Tedone, Art
Conservation
*Creating an Annotated Bibliography of
Hazardous Heritage*

Hermon, Miranda (Summer Scholars), Art
Conservation, Melissa, Tedone, Art
Conservation

Trade Secrets: Recovering 19th and 20th Century Bookcloth Materials and Manufacturing Techniques

Hearn, Lily (McNair Scholars), Art Conservation, Melissa Tedone, Art Conservation
Poison and Pixels: The Role of Digitizing Collections in Hazardous Objects Preservation

Resurreccion, Grace, (Summer Scholars), Apparel Design, Katya Roelse, Fashion and Apparel Studies
Reimagining Ann Lowe: Translating Couture Embellishment Techniques for Hierarchical and Functional Ballet Costume Design

Advancing Food Systems Through Science and Innovation (ROOM 207)

Moderator: Shafeekh Muyyarikkandy

Segreto, Frank (U.S. Department of Agriculture's National Institute of Food and Agriculture), Animal Bioscience, Shafeekh Muyyarikkandy, Animal and Food Science
Strain-Dependent Modulation of Iron Homeostasis Gene Expression in Caco-2 Intestinal Epithelial Cells by Novel Probiotic Strains

Keichline, Mackenzie (CANR summer program), PVM, Shafeekh Muyyarikkandy, ANFS
*Evaluation of Novel Probiotics for Protection Against DSS-Induced Intestinal Injury in Wild-Type and Iron Homeostasis Mutant *Caenorhabditis elegans**

Adodoadji, Patience (McNair Scholars), Environmental Science, Lindsay Naylor, Geography and Spatial Science
The Impact of Agrivoltaics on Caribbean Food Systems

Langham, Previn (Summer Scholars), Environmental Studies, Lindsay Naylor, Geography

Caribbean Agrivoltaic Systems and Community Solar as Climate Adaptation

Cannetti, Christopher (CJ) (LOMAX COOP EXT SCHLARS FUND / DICKERSON COOP EXT SCHOLAR / CNTR FOOD SYST & SUSTAIN), Food and Agribusiness Marketing, Abby Reeves, Fresh to You Farm
Marketing Fresh, Local Food: A Branding and Outreach Strategy for UD Fresh to You

Music, Learning, and Community (ROOM 302)

Moderator: Katherine Feldkamp

Bachl, Emily and Capes, Autumn and Creighton, Gabriella and Harkness, Megan, (School of Music), Music Education, Aimee Pearsall-Kramer, Music
SEL Book Volume 1 and 2

Dolan, Kalina (Summer Scholars), Music Education - General/Choral, Aimee Pearsall-Kramer, Music Education
Effect of Body Image on Secondary Choral Classrooms

Herway, Rachel (Summer Scholars), Sunmin Yoon, Music
Musical and Cultural Fluency in the Philadelphia Sacred Harp Community

McDonnell, Julia (Summer Scholars), Applied Music – Instrumental, Zachary Feingold, Music
Cataloging and Performing Works for the Bassoon by Female Composers

Oral Session Three 11:30am – 12:45pm

Reimagining Apparel: Innovation Across the Fashion Industry (ROOM 202)

Moderator: Sheng Lu

Kennedy, Isa (Summer Scholars), Katya Roelse, Fashion and Apparel Studies
Multimodal Learning in Apparel Design

Gallagher, Hope (Summer Scholars), Fashion Merchandising, Sheng Lu, Fashion and Apparel Studies
What Tariff Hikes Mean for U.S. Fashion Companies' Apparel Sourcing and Merchandising? An Analysis of the 2026 Earnings Call Transcripts

Lockhart, Cynthia (Summer Scholars), Fine Arts, Nokyeon Kim, Fashion and Apparel Studies
Sustainable Makeover: Upcycling Consumer Clothing Waste Using Zero-Waste Design

Aguilera-DiazBrian (Summer Scholars), Apparel Design, Adriana Gorea, Fashion and Apparel Studies
Repurposing WHOLEGARMENT® Templates Through Modular Design for Sustainable Apparel

Murawiec, Yohanna (Summer Scholars), Fashion Merchandising, Adriana Gorea, Fashion and Apparel Studies
Stitch, Shape, and Trend: Developing a Machine-Knit Merchandising Line

Children, Communities, and the Structures That Shape Us (ROOM 205)

Moderator: Carla Guerron-Montero

Miraldi Hailey and Underwood, Abigail (Summer Scholars), Sociology, Jennifer Bouek, Sociology
The Racial Segregation of Childcare

Margiotta, Sophia (Summer Scholars), Anthropology, Sarah Lacy, Anthropology
My Experience Being Trained in the Archeological Excavation and Processing of Human Remains in Jucu, Romania

Matthews, Sophie (Summer Scholars), Anthropology, Sarah Lacy, Anthropology

Mapping Cultural Diffusion through Mortuary Practices in North Central Asia

Creative Expression: From Performance to Public Awareness (ROOM 207)

Moderator: Kimberly Schroeder

Kimball, Victoria (Summer Scholars), Criminal Justice, Monica Frichtel, Theatre and Dance
The Implementation of Theater Programs in Correctional Institutions and the Impact on Inmate Mental Health and Morale

Altman, Elana (Summer Scholars), Fashion Merchandising, Monica Frichtel, Theatre and Dance
New York City's Top Open Dance Studios: An Exploration of Teaching Practices and the Student Experience

Simmons-Walker, Giavonna (Summer Scholars), Fine Arts, Lynnette Overby, Theatre & Dance
Dance Education in Delaware – A Survey of Dance Studios

Laws, Nathaniel (Summer Scholar), Art, Jonathan, Cox, Art
Needle Of Fears

Vitabile, Ava (Summer Scholars), Fine Arts, David Brinley, Art
Love This View? Help Protect It.

Interdisciplinary Research for Public Impact (ROOM 302)

Moderator: Sebastian Cioaba

Walsh Hunter (Summer Undergraduate Biden School Fellows Program), Economics, William DeCoursey, Institute for Public Administration
Practical Use of AI in Public Policy & Planning

Kansagara, Vishv (Summer Scholars), Finance, Gerard Pinto, Finance

AI Infrastructure Listings and the Market for Nontechnology IPOs, 2015 to 2026

Richey, Kaylee (Summer Scholars), Statistics, Brittany Zakszeski, Education
Connecting School Climate to Learner Outcomes in Delaware Schools

Crump, Rebecca (Summer Scholars), Mathematics, Sebastian Cioaba, Mathematical Sciences
Farey Sequences and Pick's Theorem

Sullins, Amayah (McNair Scholars), Criminal Justice, Cresean Hughes, Criminal Justice
High School Student Well-Being, Risk Behaviors, and School Environments Before, During, and After COVID-19

Oral Session Four 2:00pm – 3:15pm

Material, Memory, and Meaning: Interdisciplinary Perspectives on Art (ROOM 205)

Moderator: Katherine Feldkamp

El-Khoury, Emma and Portnoy, Lina and Jimenez, Ava (Summer Scholars), Art Conservation, Brian Baade, Art Conservation
Conserving Hamilton "Buzz" Ware's Untitled (Germanic Village Scene): Treatment of a Historic Mural at Green Gate

Slader, Coleman (Summer Scholars), Art, Katie Delaney, Art
Primal Spirit

Martino, Emma (Summer Scholars), Fine Arts, Katie Delaney, Art
My Artistic Exploration: Where the Ordinary Becomes Sacred.

Navigating a Changing World: Economics, Identity, and Public Policy (ROOM 207)

Moderator: Alice Ba

Riemer, Sarah (Summer Scholars), International Relations, Alice Ba, Political Science and Intl Relations
Better Partners Than Adversaries: Comparing the Role of China's Asian Investment Infrastructure Bank to the World Bank

Turley, Nicholas (Summer Scholars), International Relations, Alice Ba, Political Science and Intl Relations
The Pattern of the Yasukuni Shrine Controversy

Ditchkus, Alessandra (Summer Scholars), International Relations, Rudolph Matthee, History
The Politics of Lebanese National Identity: A History of Arabism, Phoenicianism, and Sectarianism

Tesoro, Victoria (Summer Undergraduate Biden School Fellows Program), International Relations Major, Jennifer Reitz, Institute for Public Administration
Addressing Workforce Housing Shortages in Delaware: Challenges and Policy Options

Healy, John (Summer Undergraduate Biden School Fellows Program), Political Science, Lori Spagnolo, Institute for Public Administration
How the work of GAP at the IPA prepares Delaware for the future climate crisis

Investigating Life: From Memory and Communication to Biology (ROOM 302)

Moderator: Shriya Bagdi

March, Isabela (Summer Scholars), Cognitive Science, Giovanna Morini, Communication Sciences and Disorders
Gesture-Modality Patterns in Caregiver-Toddler Play Across Monolingual English and Bilingual Spanish-English Interactions

Mahdi Hussain (Summer Scholars), Neuroscience, F. Sayako, Communication Sciences and Disorders

Effects of Retention Delay and Sleep on Susceptibility to Misinformation and Memory Accuracy

Steinman, Evelyn (Summer Fellows), Mary Dozier, Psychological & Brain Sciences
Adverse Childhood Experiences and Recent Stressful Events as Related to Baseline Respiratory Sinus Arrhythmia

Torres, Sofia (LOMAX COOP EXT SCHLARS FUND), Plant Science, Jill Pollok, Cooperative Extension
Healthy Plants Start With Good Diagnostics

Dorez Talha (Summer Scholars), Biological Sciences, Austin Keeler, Biological Sciences
Sex hormones drive neuron subtype-specific changes in neural activity

Oral Session Five

3:30pm – 4:45pm

Public Institutions and Social Change (ROOM 202)

Moderator: Chase Barnes

Remis, Emma (Summer Undergraduate Biden School Fellows Program), Public Policy, Chase Barnes, Institute for Public Administration
Modernizing Local Government Training: Implementing the Build-Measure-Learn Model to Asynchronous Training Development

Perry, Kennedy (Summer Undergraduate Biden School Fellows Program) Civic Leadership and Policy Studies, Signe Bell, Center for Community Research & Service
McKinney Vento Through The Life Span

Tzun-Vicente Hilary (McNair Scholars), Political Science, Ju-A Hwang, English
The Influence of Religion on Voting Behavior Among Latinx Americans in the 2016, 2020, and 2024 U.S. Presidential Election

Webber, Alexa (Summer Scholars), Political Science, Jason Mycoff, Political Science and Intl Relations

Restrictive Election Law and Its Impact on Voter Turnout

Kim, Evelyne (Summer Scholars), Political Science, Kyong-Min Son, Political Science and Intl Relations

Artificial Realities: AI Epistemology and Political Belief in the Post-Truth Era

Stories of Belonging: Culture, Wellness, and Identity (ROOM 205)

Moderator: Katherine Feldkamp

Dunathan, Sara (Summer Scholars), Visual Communication, Katie Leech, Art
Her Turn in the Lineup: Designing Community Through Surf Culture

Loock, Kaitlin (Summer Scholars), Visual Communication, Katie Leech, Art
Horsemanship Continues With You: Rider Wellbeing as a Foundation of Horse Welfare

Mariani, Julie (Summer Scholars), Art, Jazmyn Crosby, Art
Preserving Manhattan's Chinatown

Williams, Leon (Summer Scholars), Fine Arts, Jazmyn Crosby, Art
It's a Gift

Dizon, Angelo (Summer Scholars), Visual Communication, Jazmyn Crosby, Art
Pangarap: Dreams for Transgender Filipinos' Future

Access, Equity, and Community Impact (ROOM 207)

Moderator: Andrea Pierce

Rosenthal, Max (Summer Undergraduate Biden School Fellows Program), International

Relations, Kelly Sherretz, Institute for Public Administration
Student Transportation Policy and Educational Access in Northern New Castle County

Winter, Dilana (Lana) (Summer Undergraduate Biden School Fellows Program), Public Policy and Philosophy, Kelly Sherretz, Institute for Public Administration
Innovation or Inequity? An Analysis of School Choice Policy

Sarwari, Frohar (Summer Undergraduate Biden School Fellows Program), Public Policy, Roger Hesketh, Center for Community Research & Service
What Community Development Practitioners in Delaware Actually Need

Gordy, Kayla (Summer Undergraduate Biden School Fellows Program), Civil Leadership and Policy Studies, Joy Jordan, Institute for Public Administration
Less Stress, More Success: Making Mediation Part of the School Day

Olvera, Arianna (Summer Undergraduate Biden School Fellows Program), Public Policy, Stephen Metraux, Center for Community Research & Service
Eviction in Delaware: Does "Right to Representation" Make a Difference?

Environmental Change and Human Response (ROOM 302)

Moderator: McKay Jenkins

Gottschling, Hope (Summer Scholars), Environmental Studies, McKay Jenkins, English
From the Bottom Up: How Small and Micro-Scale Environmental Initiatives Model the Future

Kapoor, Shayla (Summer Scholars), Energy and Environmental Policy, Tracy DeLiberty, Geography
The Psychology of Scarcity: How Diminishing Natural Resources Shape Human Behavior

Lynch, Jordan (DICKERSON COOP EXT SCHOLAR), Agriculture and Natural Resources, Brian Kunkel, Cooperative Extension
Monitoring the Scale, Managing the Moth

De Brito, Kayla (DICKERSON COOP EXT SCHOLAR), Plant Sciences, Sustainable Food Systems Blake Moore, Cooperative Extension
Blooming Better Communities: Native Plants and their Benefits

Compton, Jessica (DICKERSON COOP EXT SCHOLAR), Communication PhD - Media Communication, Jenn Volk, Cooperative Extension
Planting the Seeds for our Future: LEADelaware's Impact on Alumni and the Community

