

UNIVERSITY OF DELAWARE

UNDERGRADUATE RESEARCH PROGRAM

# **SYMPOSIUM FOR UNDERGRADUATE RESEARCH AND CREATIVE ACTIVITY**



# 2025 Symposium for Undergraduate Research and Creative Activity<sup>1</sup>

*Harker ISE Lab*

Thursday, August 14, 2025

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. Caring for Communities: Research on Environmental and Social Interventions 2. Academic Inquiries into Displacement, Identity, and Collective Action 3. Music, Learning, and the Shaping of Culture	ISE 202 ISE 205 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. Political Action, Rights, and Government Response 2. Exploring Sustainability, Identity, and Technology in Fashion 3. Material Culture Interdisciplinary Cohort 4. Exploring Justice System Practices and Their Impact 5. The Power of Art in Shaping Visual Narratives	ISE 202 ISE 205 ISE 207 ISE 302 ISE 305
11:30 – 12:45	<i>Oral Session 3</i> 1. Urban Renewal, Environmental Justice, and Social Narratives 2. Advancements in Chemical Engineering, Biochemistry, and Food Sciences 3. Technology, Gender, and Political Thought 4. Visual Communication in Shaping Identity and Society	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. Conservation, Craft, and Cultural Reconstruction 2. Studies in Psychology and Brain Sciences 3. Technology, Identity, and Social Impact 4. Exploring Identity, Memory, and Culture Through Art	ISE 202 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. Narratives of Place, Memory, and Connection 2. Bridging Cultures: From Ancient Civilizations to Contemporary Poetics and Performance 3. Innovative Approaches in Youth Education and Healthcare	ISE 202 ISE 205 ISE 207
3:00-5:00	UD Creamery Ice Cream	Commons

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<sup>1</sup>Please pardon any misspellings or errors



August 2025

Dear Attendees of the 16th Annual Symposium for Undergraduate Research and Creative Activity,

It is my great pleasure to welcome you to this annual celebration of the research accomplishments of our talented young scholars.

Forty-two years ago, in the summer of 1983, I was an undergraduate researcher myself, participating in an NSF REU program at Woods Hole Oceanographic Institution. That 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. It is no exaggeration to say that my path to becoming an educator, engineer, and now Interim Vice Provost for Undergraduate Education and Dean of the Honors College began with that summer of research.

To our student presenters: I hope your research experience this summer has been equally transformative. Research can be challenging and unpredictable, but through those obstacles come growth—the art of persistence, the satisfaction of discovery, and the skills that will serve you in any future endeavor. We are all born as curious explorers, intently studying the world around us. By choosing to continue that 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 your invaluable guidance and encouragement. Your willingness to involve students in meaningful scholarly work sustains the long tradition of undergraduate research that is 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 to all of our attendees: thank you for being here to engage with our students' work. I hope you leave today as inspired and impressed as I always am by what our students can accomplish in just ten short weeks.

Cordially,

**Michael Chajes, Ph.D., P.E.**

Interim Vice Provost for Undergraduate Education

Dean of the Honors College

Professor of Civil, Construction, and Environmental Engineering



August 2025

Dear Friends of Undergraduate Research:

Welcome to the University of Delaware's 16th Annual Symposium for Undergraduate Research and Creative Activity. Over the past ten weeks, over 500 students have been engaged in conducting research projects across all academic disciplines. 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 has the potential to illuminate shared human experiences, to provide answers to complex problems, to make groundbreaking discoveries. Throughout the summer, students have spent countless hours in research labs, libraries, design studios, field sites, and other settings developing their 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. I especially want to thank the staff of the Undergraduate Research Program for making this event possible. Special gratitude is also 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.

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 2025 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. **Nunez, Sebastian** (DSU+UD Summer Engineering Research Experience), Electrical Engineering, Delaware State University, Aziz Banawi  
*Developing a Cost-Effective Prototype for Residential and Agricultural Desalination Using Vapor Condensation Technology*
2. **Galindo, Wilkin** (DSU+UD Summer Engineering Research Experience), Electrical Engineering, Delaware State University, Ken Barner  
*SAM-Powered Object Removal in Ariel 3D Reconstruction*
3. **Chavez, Galicia Juan Pablo** (DSU+UD Summer Engineering Research Experience), Computer Science, Delaware State University, Sunita Chandrasekaran  
*AI-Powered Security Scanning: Next-Generation Website Vulnerability Detection*
4. **Beckford, Kioni-Lee** (DSU+UD Summer Engineering Research Experience), Engineering Physics, Delaware State University, Paul Imhoff  
*Evaluating the Impact of Biochar on Soil Functionality: Mitigating Runoff and Improving Water Retention in Compacted Roadside Soils*
5. **Hinshaw, Bethany**, Bridgewater College, Nathan Lazarus, Electrical and Computer Engineering  
*Wearable Liquid Metal Haptics for Medical Applications*
6. **Papili, Samantha** (Community Engagement Initiative), Health Behavior Science, Elizabeth Orsega-Smith, Health Sciences  
*Exergame Play and the Relationship to Psychosocial Factors in Older Adults*
7. **Garcia, Joseth** (DSU+UD Summer Engineering Research Experience), Computer Science, Delaware State University, Satwik Patnaik  
*LoPher: SAT-Hardened Logic Embedding on Block Ciphers*
8. **Lewis, Kamari** (McNair Scholars Program), Health Behavior Science, Elizabeth Orsega-Smith, Health Behavior & Nutrition Sciences  
*Exploring Physical and Cognitive Contributors to Virtual Bowling Scores in Senior Center Participants*
9. **Amamio, Jimmart** (Community Engagement Initiative), English, Lois Stoehr, Art/Museum Studies  
*Milford Museums and Landmark internship experience*
10. **Diaz, Mariel**, Rowan University, Nektarios Tsoutsos, Electrical and Computer Engineering  
*TUF-Luck: A Secure 3D Printing Bootloader*
11. **Urbanavage, Abigail** (UD Envision), Pre-Veterinary Medicine, Benham Abasht, Animal and Food Science  
*Primer Design and PCR Optimization for High-Multiplex Long-Range Amplification*
12. **McDine, Marissa** (INBRE), Communication, Jennifer Accord  
*Enhancing Communication at the Delaware Museum of Nature and Science*

13. **Munson, Hope** (Advanced Research Projects Admin. and Department of Energy), Mechanical Engineering, Suresh Advani, Center for Composite Materials  
*Examining the Structural and Microscopic Differences of Carbon Fiber, Epoxy, and UV Resin Composites with Varying Resin Ratios and Compaction Levels*
14. **Purdue, Russell** (Department of Energy), Mechanical Engineering, Suresh Advani, Center for Composite Materials  
*TBD*
15. **Yaroch, Benjamin** (Department of Energy), Mechanical Engineering, Suresh Advani, Center for Composite Materials  
*PRODUCTION OF CARBON FIBER 3D PRINT FILAMENT WITH CONSISTANT FIBER LENGTH*
16. **Nichols, Matthew** (Rochester Institute of Technology), Mechanical Engineering, Suresh Advani, Center for Composite Materials  
*EFFECT OF THERMOPLASTIC BINDERS ON INTERLAMINAR SHEAR STRENGTH OF ADDITIVELY MANUFACTURED THERMOSET COMPOSITES*
17. **Fevrin, Alexander** (Summer Scholars Program), Mechanical Engineering, Suresh Advani, Mechanical Engineering  
*Composite Manufacturing and Material Processing*
18. **Segura, Christopher** (U.S. Army CCDC Army Research Laboratory and Department of Energy), Mechanical Engineering, Suresh Advani, Center for Composite Materials  
*VARIATION OF UV-EPOXY RATIOS AND COMPACTION PRESSURES IMPACT ON PART CONSOLIDATION*
19. **Bielewicz Levi** (Summer Scholars Program), Chemistry, Jocelyn Alcántara-García, Chemistry and Biochemistry  
*Single-sided NMR as a Tool for Non-invasive Oil Classification and Quality Control*
20. **Chowdhury, Shayon** (Newark Charter), Mollav Ali, Center for Composite Materials  
*TBD*
21. **Pallus, Sarah** (Delaware-INBRE Summer Scholar), Biochemistry, Ariel Alperstein, Chemistry and Biochemistry  
*Understanding the Impact of ATP on  $\alpha$ B-crystallin's Chaperone Function*
22. **Flaiz, Xavier** (Summer Scholars Program), Biochemistry, Ariel Alperstein, Chemistry and Biochemistry  
*Monitoring Cell-Plastic Interactions in Cultured Lung Cells through Raman Microscopy*
23. **Culley, Magnus** (Summer Scholars Program), Computer Science, John Aromando, Computer and Information Sciences  
*Measuring the Application of Various Open Source AI Models for Intro Computer Science Course Integration*
24. **Patel, Haiya and Layton, Emily** (Summer Scholars Program), Computer Science, John Aromando, Computer and Information Sciences  
*Enhancing Blackpy's Instructor Interface and Tools: Identification and Isolation of Key Data Points to Track Student Struggle*
25. **Mans, Eric** (Saint Louis University), Austin Brockmeier, Electrical and Computer Engineering  
*Pinpointing EEG Components Spatial Origin from their Temporal Content*
26. **Aubain, Angelina** (INBRE), Bio-Chemistry, Spelman College, Alfred Bacon  
*SER-109 (Vowst) in Prevention of Clostridioides Difficile in High-Risk Population*

27. **Pang, Ethan** (Swarthmore College), Mohsen Badiey, Electrical and Computer Engineering  
*Passive Acoustic Monitoring for Fish Sounds in the Delaware Bay*
28. **Nunez-Zavala, Jaime and Glass, Brendan** (Summer Scholars Program), Electrical Engineering, Mohsen Badiey, Electrical Engineering  
*M.A.R.S. Rx (Marine Acoustic Recording System)*
29. **Andrade, Paige** (UD Envision), Pre-veterinary Medicine, Kali Kniel, Animal and Food Sciences  
*Surveillance of Zoonotic Bacterial Pathogens in Agricultural Environments*
30. **Jones, Adia** (UD Envision), Pre-Veterinary Medicine, Harsh Bais, Plant and Soil Science  
*Role of Synthetic communities (SynCom) in ergothioneine uptake in plants*
31. **Chen, Hannah** (CANR Summer Institute), Computer Engineering, Texas A&M University, Yin Bao, Plant and Soil Science  
*Ground-Based Robotic Phenotyping: Early Season Stand Counting*
32. **Nguyen, Anh Van “Summer”** (Graduate College), Psychology, University of South Florida, Christina, Barbieri, School of Education  
*Parents’ Experience during Negative Life Events: How COVID-19 Stress and Perceived Impacts Predict Parent-Child Informant Discrepancies*
33. **Nazari, Brishna** (Computer Information Sciences & INBRE), Computer Science, R. Leila Barmaki, Computer & Info Sciences  
*ACA in Action: A Personalized AI Companion for Alzheimer’s Support*
34. **Blackburn, Logan** (Summer Scholars Program) Computer Engineering, Kenneth Barner, Electrical Engineering  
*Adapting 3D Gaussian Splatting for Photorealistic Drone Mapping*
35. **Borodin, Evan** (Summer Scholars Program), Environmental Science, Chandranath Basak, Geological Sciences  
*Stable Carbon Isotopes as a Proxy for Bottom Water Oxygenation in the Labrador Sea*
36. **Beringer, Victoria** (INBRE), Applied molecular biology and biotechnology, Mona Batish, Medical Molecular Sciences  
*Role of CircZNF609 in Ewing Sarcoma: Molecular Insights and Therapeutic Potential*
37. **Bolanos, Andres** (Summer Scholars Program), Chemical Engineering, Alexandra Bayles, Chemical Engineering  
*Interfacial Behavior and Transport of PFAS-Analog Surfactants in Biomimetic Systems*
38. **Danduri, Varsha** (INBRE), Computer Science, Rahmat Beheshti, Computer & Info Sciences  
*TBD*
39. **Scholl, Meyer** (UD Envision), Chemistry and Plant Science, Jesus Beltran, Plant and Soil Science  
*Investigating the Influence of Temperature on Pollen Development and Tube Growth*
40. **Yiournas-KneippZoe** (UD Envision), Agriculture and Natural Resources, Jesus, Beltran, Plant and Soil Science  
*Effect of Absciscic Acid (ABA) on Leaf Angle Modulation in Arabidopsis thaliana and Tomato (Solanum lycopersicum)*
41. **Baker, Phoebe**, Plant Science, Alyssa Betts, PLSC  
*Investigating variation of zoospore production among Pythium graminicola isolates from DE corn fields*
42. **Douglass, Matthew** (Biology & INBRE), Biological Sciences (BS), Jeremy Bird, Biology  
*Protecting E. coli Against T4 Bacteriophage Infection Using a*



43. **Villa, Isabella** (INBRE) Applied Molecular Biology and Biotechnology Interest, Jeremy Bird. Biology  
*How the COX2 Promoter's Unique Sequence Affects the First Step of Mitochondrial Transcription Initiation*
44. **Fletcher, Sean** (College of Health Sciences & INBRE), Honors Medical Diagnostics, Subhasis Biswas, Medical Molecular Sciences  
*Dissecting HPV Pathogenicity: An Integrated Machine Learning Framework to Identify Critical Oncogenic Features in the E1 Helicase*
45. **Sajjad, Tayyaba** (Summer Scholars Program), Applied Molecular Biology and Biotechnology, Esther Biswas, Health and Exercise Sciences  
*Extraction and Optimization Experiments of the ABCA4 ECD1 Domain by Detergent and Affinity-Based Methods*
46. **Alam, Hamza** (Summer Scholars Program), Chemical Engineering, Mark Blenner, Chemical Engineering  
*Aptamer-Controlled Split Ribozyme Assembly for Gene Expression*
47. **Bedekar, Arnav** (Summer Scholars Program), Chemical Engineering, Mark Blenner, Chemical Engineering  
*Incorporation of Nonstandard Amino Acids and Development of a High-throughput Screen for Enzymatic Plastic Oxidation*
48. **Gottlieb, Shirly** (Summer Scholars Program), Chemical Engineering, Mark Blenner, Chemical Engineering  
*Optimizing Linker Length and Flexibility for Enhanced Surface Display in *Y. lipolytica**
49. **Nicosia, Jacob** (Summer Scholars Program), Chemical Engineering, Mark Blenner, Chemical Engineering
50. **Weissman, Andrew** (Summer Scholars Program), Chemical Engineering, Mark Blenner, Chemical Engineering  
*Development of a Tunable Genetic Fuse for Biocontainment*
51. **Zdanowicz, Magdalena** (Summer Scholars Program), Applied Molecular Biology and Biotechnology, Mark Blenner, Chemical Engineering  
*Establishing a 3D Tumor Spheroid Co-Culture Containing TAMs for the Future Evaluation of CAR-M Polarization*
52. **Robinson, Mackenzie** (Summer Scholars Program), Chemistry, Svilen Bobev, Chemistry and Biochemistry  
*The Synthesis and Characterization of NaCaSb*
53. **Schaeffer, Caden** (Summer Scholars Program), Chemical Engineering, Arijit Bose, Physics and Astronomy  
*Determining plasma parameters from X-ray images in Inertial Confinement Fusion*
54. **Alvarez, Camilo** (Summer Fellows), Economics, Thomas Bridges, Economics, Generational and Gender Differences in Discretionary Consumption Under Economic Precarity: Post-COVID Trends Among Gen Z
55. **Jacard, Martin** (Summer Fellows), Economics, Thomas Bridges, Economics  
*Subsidizing Inequality: The Socioeconomic Composition and Externalities of Greek Life*
56. **Melanson, Samantha** (Summer Scholars Program), Wildlife Ecology Conservation Jeffrey Buler, Entomology and Wildlife Ecology  
*Nesting Activity and Behavior of the Diamondback Terrapin*

57. **McKenna, Kaitlyn** (Summer Scholars Program), Neuroscience, Roxana Burciu, Kinesiology and Applied Physiology  
*Resting-State Functional Connectivity Changes in Prodromal Individuals Progressing to Parkinson's Disease*
58. **Fields, Taryn** (INBRE), Human Physiology, Katie Butera, Physical Therapy  
*Higher MEP is associated with shorter stride length in adults with low back pain*
59. **Bailey, Alexis** (INBRE), Public Health, Delaware State University, Kimberly Canter  
*TBD*
60. **Farley, Virginia** (Summer Scholars Program), Marine Science, Aaron Carlisle, Marine Studies  
*Mouth Gape of Facultative Ram Ventilating Sharks (*Squalus acanthias*) in Response to Increased Swim Speed*
61. **Ortiz, Amber** (Summer Scholars Program), Marine Biology, Aaron Carlisle, Marine Studies  
*Do Atlantic Spiny Dogfish Share a Menu?: Exploring Intra-School Diet Variability of Atlantic Spiny Dogfish (*Squalus acanthias*) Through Stable Isotope Analysis*
62. **Binns, Desiree** (Summer Fellows), Biomedical Engineering, Joshua Cashaback, Biomedical Engineering  
*Continuous Reaching Reveals Real Time Decision Dynamics Under Sensory Uncertainty*
63. **Charles, Farrah** (McNair Scholars Program), Health Behavior Science, Sheau Ching Chai, Health Behavior & Nutrition Sciences  
*Associations Between Added Sugar Intake and Bone Mineral Density in Postmenopausal Women*
64. **Hutchinson, Alexander** (CHARM REU), Materials Science & Eng., Physics, Chitrleema Chakraborty, MSE, PHYS  
*A Facile and Deterministic Transfer Method for 2D van der Waals Heterostructures in Quantum Devices*
65. **Nguyen, Anthony** (INBRE), Health Sciences, Clara Chan, Earth Sciences  
*Defining Foundational Media Conditions for Enriching the Isolation-Resistant *Leptothrix ochracea**
66. **Jose, Angeline and Parks, Jasmine** (Summer Scholars Program), Neuroscience, Clara Chan, Biological Sciences  
*Purification and characterization of metal-oxidizing proteins from *Leptothrix cholodnii* SP-6*
67. **Hou, Alex** (CUR), CHEG, Northwestern University, Wilfred Chen, CHEG  
*Immobilization of Ethanol Dehydrogenase on Encapsulin Nanoparticles*
68. **Rowland, Madeline** (INBRE), Psychology and English, Williams College, Hungcheng Chen  
*Tattoo-less Radiation Therapy: Assessing Setup Accuracy with Surface Guided Imaging*
69. **Chittakone, Samantha** (Summer Scholars Program), Environmental Engineering, Yu-Ping Chin, Civil and Environmental Engineering  
*Summer Scholars 2025: Stemflow-Groundwater Interactions in Mid-Atlantic Ghost Forests*
70. **Kim, Ryan** (Summer Scholars Program), Environmental Engineering, Yu-Ping Chin, Civil and Environmental Engineering  
*Unraveling the Impact of Wildfire Smoke on Canopy-Derived Dissolved Organic Matter and Dissolved Black Carbon Dynamics*
71. **Fadadu, Nova** (Summer Scholars Program), Mechanical Engineering, Gregory Chirikjian, Mechanical Engineering  
*YOLOv11 Model Comparison Using COCO128*

# POSTER

## SESSION II

### 10:15 - 11:45AM

72. **Singh, Ankit** (Pei C. Chiu Graduate Student Support Fund), Chemistry (biochemistry), University of North Carolina at Chapel Hill, Pei Chiu, Civil, Construction, and Environmental Engineering  
*The Capacity and Mechanism with which Microbes Interact with Biochar*

73. **Armstrong, Navin** (INBRE), Neuroscience, Johns Hopkins University, Ho Ming Chow, Communication Sci & Disorders  
*TBD*

74. **Marly, Aiden** (Summer Scholars Program), Statistics, Sebastian Cioaba, Mathematical Sciences  
*Disproving Conjectures in Spectral Graph Theory Using AI*

75. **Neal, Kayla** (Graduate College), Biotechnology, James Madison University, Deb Jaisi, Plant & Soil Science  
*Recycling Cow Bone Wastes for Novel Slow-Release Phosphorus Fertilizer*

76. **Dennis, Kyle** (Summer Scholars Program), Environmental Science, Vaishnavi Tripuraneni, Environmental Science  
*Inequities in the urban environment - tree canopy cover and redlining in Wilmington, DE*

77. **Salako, Olumuyiwa** (Summer Scholars Program), Operations Management, Edward Hartono, Operations Management  
*The Evolution of Business Analytics in Big Corporations*

1. **Donovan, Peyton** (CHARM REU), Mechanical Engineering, University of Maryland Baltimore County, Comes Ryan, MSE  
*Potential real-time optimization of thin film synthesis via RHEED machine learning*

2. **Oulkar, Pratima** (INBRE/EDH Summer Scholars), Biomedical Engineering, Stephanie Cone, Biomedical engineering  
*Wearable Mechanical Stimulators and Shear Wave Tensiometry Devices for Improving Tendon Function and Recovery*

3. **Cooke, Ashley** (INBRE), Nursing, Lauren Covington, Nursing  
*TBD*

4. **Saylor, Ethan** (Community Engagement Initiative), Art, Jon Cox, Robyn O'Halloran, Art  
*Animated Ghost Storytelling*

5. **Hayes, Kayla** (Cooperative Extension), Human Development and Family Sciences Gina Crist, Cooperative Extension  
*Understanding Current Family Learning Needs: Human Development and Relationships*

6. **Sharett, Ava** (CANR Summer Institute), Environmental Science, Spelman College, Michael Crossley, Entomology and Wildlife Ecology  
*Effect of Food Waste Composition on Growth of Black Soldier Fly Larvae at UD's Upcycling Site*

7. **Plumitallo Jessica** (ENWE Summer Scholars), Insect Ecology & Conservation (minor in Landscape Horticulture), Michael Crossley, Entomology and Wildlife Ecology

*Monitoring the Migration of Pest Species  
Over Delaware from Suction Trap Data*

8. **Antoszewski, Trinity** (ENWE Summer Scholars / UD Envision), Insect Ecology & Conservation (minor in Environmental Soil Sciences), Michael Crossley, ENWE  
*“Who’s that nematode?” Morphological identification of slug-associated nematodes in the Mid-Atlantic US*
9. **Heintzelman, Elizabeth** (INBRE Animal Bioscience), Michael Crossley, Entomology and Wildlife Ecology  
*Monitoring human pathogens in insects farmed on food waste*
10. **Harrison, Todd** (UD Envision Animal Science), Pennsylvania State University, Michael Crossley, Entomology and Wildlife Ecology  
*Black soldier fly (*Hermetia illucens*) larvae used to break down food waste attract abundance of blowflies (Diptera: Calliphoridae), but are not negatively affected by their presence*
11. **Dominguez Coterio, Elizabeth** (McNair Scholars Program), University Studies, Sambeeta Das, Mechanical Engineering  
*TBD*
12. **Bell, Teri** (INBRE), Biology, Psychology Delaware State University, Kim Davidow  
*TBD*
13. **Mehta, Simran** (UD Envision), Environmental and Resource Economics, Kelly Davidson, Applied Economics and Statistics  
*Subsidized Insurance Use and Floodplain Location: Exploring Prevented Planting Among Agricultural Landowners*
14. **Replogle, Timothy** (Summer Scholars Program), Mechanical Engineering, Chelsea Davis, Mechanical Engineering  
*Fast Tack Restoration*
15. **Bryant, Jared** (DSU+UD Summer Engineering Research Experience), Information Technology, Delaware State University, Yixiang Deng  
*Key Cellular Measurements for Accurate Breast Tumor Classification*
16. **Li, Winnie** (INBRE), Computer Science, Yixiang. Deng, Computer & Info Sciences  
*TBD*
17. **Lange, Ryan** (DEI), CHEG, Vlachos Dionisios, CHEG  
*Tuning Oxygen Functionalities in Carbon for Enhanced Microwave-Assisted Catalysis*
18. **Roberts, Elisabeth** (DEI), CHEG, Vlachos Dionisios, CHEG  
*Effects of Branching on Polyethylene Adsorption on Catalytic Surfaces*
19. **Tolocka, Ashley** (DEI), CHEG, Vlachos Dionisios, CHEG  
*Pretreatment of Polyamide-6 Multilayer Films by Hydrolysis over TiO<sub>2</sub> to Enable Hydrocracking Deconstruction*
20. **Castle, Lucas** (Army Research Laboratory), Computer Science, Sagar Doshi, Center for Composite Materials  
*TBD*
21. **Joseph, Scilla** (National Science Foundation and Department of Energy), Mechanical Engineering, Sagar Doshi, Center for Composite Materials  
*TBD*
22. **Szulc, Olivia** (Arts & Sciences & INBRE), Biological Sciences (BS) & Psychology (BA), Mary Dozier, Psychological & Brain Sciences  
*Parental Sensitivity as Related to Infant Hippocampal and Amygdala Volume*
23. **Bordelon, Lily** (INBRE), Psychology Mary Dozier, Psychological & Brain Sciences  
*The Association Between Parental Intrusiveness and Friendship Quality in Adolescence*

24. **Steinman, Evelyn** (Mentor & INBRE), Psychology, Mary Dozier, Psychological & Brain Sciences  
*Cascading Effects of Maternal Emotional Neglect on Parenting and Child Outcomes*
25. **Neyra, Madelynn** (Summer Scholars Program), Neuroscience, Mary Dozier, Psychology  
*Parental Sensitivity Moderates the Association Between Cortical Thickness and Depressive Symptoms*
26. **Billings, Anna** (INBRE), Nutrition and Medical Sciences, Wayne Duffus  
*TBD*
27. **Mast, Isabelle** (UD Envision), Animal Biosciences, Aditya Dutta, Animal and Food Science  
*Investigating Proteomic Master Regulators to Enhance Reproductive Efficiency in Broiler Breeders*
28. **Ortega, Esmeralda** (Graduate College), Psychology, University of California, Berkeley, F. Sayako Earle, Communication Sciences & Disorders  
*The Impact of Sleep on Executive Function: Exploring the Roles of Stress and Chronotype*
29. **Gaeta, Natalie** (Summer Scholars Program), Biomedical Engineering, Dawn Elliot, Biomedical Engineering  
*Evaluating Intervertebral Disc Geometry using Magnetic Resonance Imaging*
30. **Bonelli, Hailey** (ART Summer Scholar), Biomedical Engineering, Dawn Elliott, Biomedical Engineering  
*The effect of sex differences on tendon mechanics following overload*
31. **Kalb, Isabella** (CANR Unique Strengths), Wildlife Ecology and Conservation, Vincenzo Ellis, Entomology and Wildlife Ecology  
*Borrelia burgdorferi prevalence and ectoparasite diversity in white-footed mice*
32. **Hess, Jenna** (Summer Scholars Program), Chemical Engineering, Thomas Epps, Chemical Engineering  
*Leveraging the anion-binding ability of lignin-inspired compounds to enhance Li<sup>+</sup> transference number in solid polymer electrolytes*
33. **Hegge, Ian**, CHEG, Thomas Epps, CHEG  
*Toward Predictive Structure–Depolymerization Relationships in Polyesters*
34. **Tavares, Devin**, CHEG, Thomas Epps, CHEG  
*Understanding the Influence of Structural Sugar Content on Product Yields in a Forest Residue Biorefinery*
35. **Pham, Laura**, Chemical Engineering, Thomas Epps, Chemical Engineering  
*The effect of thickness on conductivity of Nafion-based blend membranes*
36. **Mahugu, Arielle** (University of Delaware Research Foundation), Biological Sciences Ibra Fancher, Kinesiology & Applied Physiology  
*Visceral Adipose Tissue-Derived Fatty Acids Impair Endothelial Kir2.1 Channels in Obesity*
37. **Higginson, Charlotte** (Summer Scholars Program), Human Services, Heather Farmer, Human Services  
*Discrimination as a Psychosocial Risk Factor for Multimorbidity: A Literature Review Centered on the Health of Black Adults*
38. **Szelestei, Logan** (McNair Scholars Program), Human Services, Psychology Heather Farmer, Education & Human Development  
*Lifetime Trauma and Purpose in Life Among Older Adults*
39. **Sobet, Gem** (McNair Scholars Program), Political Science, Alicia Fontnette, Africana Studies

*The Politics of Today's Traditional Womanhood: Empowerment or Oppression?*

40. **Maletta, Gabriella** (INBRE), Human Physiology and Medical Scholars, Velia Fowler, Biology  
*Identification and Localization of Septins in Human Erythroblasts*
41. **Brenner, Benjamin** (Summer Scholars Program), Biochemistry, Joseph Fox, Chemistry and Biochemistry  
*Stereoselective Alpha Alkylation of Trans-Cyclooctene and Analysis of Conditions-Dependent Product Ratios*
42. **Sergi, Sarah** (NIH), CHEG, Cathy Fromen, CBE  
*Development of Photodegradable PEG-based Nanoparticles to Investigate Macrophage Survival*
43. **Akala, Vilina** (Summer Scholars Program), Biomedical Engineering, Catherine Fromen, Chemical Engineering  
*Optimizing Magnetic Bead Capture to Analyze Inflammatory and Anti-Inflammatory Extracellular Vesicles*
44. **Anilkumar, Adhya** (Summer Scholars Program), Biomedical Engineering, Catherine Fromen, Chemical Engineering  
*Characterization of Bacteriophage and Macrophage Interactions for Applications in Pulmonary Therapeutics*
45. **Svenson, Ryan** (Summer Scholars Program), Chemical Engineering, Catherine Fromen, Chemical Engineering  
*ECM-mimetic Peptides to Modulate Human Macrophages*
46. **Thomas, John** (Summer Scholars Program), Chemical Engineering, Catherine Fromen, Chemical Engineering  
*Generating Realistic Breathing Profiles for the TIDAL Model*
47. **Sherwood, Emerson** (INBRE), Marine Sciences, Concentration in Marine Biology  
Jeff Fuhrmann, Plant & Soil Sciences  
*TBD*
48. **Barone, Francesco** (Summer Scholars Program), Chemical Engineering, Eric Furst, Chemical Engineering  
*Passive Microrheology on a Phone*
49. **Stare, Dylan** (Summer Scholars Program), Chemical Engineering, Eric Furst, Chemical Engineering  
*Interaction of Coiled Coil Peptides*
50. **Morrell, Chandler** (McNair Scholars Program), Neuroscience, Psychology, Philip Gable, Psychological and Brain Sciences  
*Neurological Similarities in Incentivized Goal-Pursuit Between College-Aged Young Adults and Addicts in Recovery*
51. **Wehner, Marian** (INBRE), Biological Sciences, Deni Galileo, Biological Sciences  
*The Impact of Sublethal Doses of Radiation on Behavior and Marker Expression in Glioblastoma Stem Cells*
52. **Shuhay, Matthew** (INBRE), Biological Sciences, Deni Galileo, Biology  
*Investigating FGFR and FAK Signaling in Glioblastoma Stem Cells*
53. **Cooper, Caroline** (Summer Scholars Program), Mathematical Sciences, Mahya Ghandehari, Mathematical Sciences  
*Limit Structures and Quantum Games*
54. **Chesley, Aeila** (INBRE), Applied Molecular Biology and Biotechnology, Arit Ghosh, Bio-Imaging Center  
*TBD*
55. **Southwick, Ashton** (Summer Scholars Program), Physics, John Gizis, Physics and Astronomy  
*Time Series Analysis of a Flaring L-Dwarf: WISEP J190648.47+401106.8*

56. **McKeown, Victoria** (INBRE), Biomedical Engineering, Jason Gleghorn, Biomedical Engineering  
*Modeling Flow-Induced Deformation of Hydrogel Stromal Compartment in a Microphysiological Device*
57. **Ngo, Dylan** (INBRE), Liberal Studies (Medical Scholars Concentration), Jason Gleghorn, Biomedical Engineering  
*Engineering immunomodulatory capacity on lymph node-targeted drug delivery carriers*
58. **Cruz, Agnes** (McNair Scholars Program), Biological Sciences, Jason Gleghorn, Biomedical Engineering  
*TBD*
59. **Maniyatte, Aaron** (Summer Fellows), Biomedical Engineering, Jason Gleghorn, Biomedical Engineering  
*TBD*
60. **Buckley, Emily** (Summer Scholars Program), Biological Sciences, Jason Gleghorn, Biomedical Engineering  
*Validating an In Vitro Controlled Membrane Buckling Platform to Study Gut Physiology*
61. **Chatfield, Ryann** (Summer Scholars Program), Biomedical Engineering, Jason Gleghorn, Biomedical Engineering  
*Investigating Alginate Loading and Release Kinetics for Controlled Delivery Applications*
62. **Cybyk, Lydia** (Summer Scholars Program), Biomedical Engineering, Jason Gleghorn, Biomedical Engineering  
*Controlled Membrane Buckling to Pattern Complex Epithelial Morphology in Microphysiological Systems*
63. **Desai, Harsh** (Summer Scholars Program), Biomedical Engineering, Jason Gleghorn, Biomedical Engineering  
*Optimizing Primary Cell Membrane Isolation for Improved Biomimetic Drug Delivery Technology Manufacturing*
64. **Peleg, Tamar** (Summer Scholars Program), Applied Molecular Biology and Biotechnology, Jason Gleghorn, Biomedical Engineering  
*Protify: a Low Code Protein Property Prediction Tool – Subcellular Localization and Taxonomy Case Studies*
65. **Mey, Kara** (Community Engagement Initiative), Cognitive Science, Roberta Golinkoff, Education  
*Hocus Pocus, The Magic of Language in Focus: A Language Sciences Outreach Program for Elementary School Children*
66. **Orzelowski, Jessica**, Kinesiology, Karin Gravare Silbernagel, Physical Therapy  
*Achilles Tendon Morphology and Symptom Severity at the Insertion with Injury*
67. **Mochache, Joy** (AHA), Nutrition and Medical Sciences, Jody Greaney, Health Behavior and Nutrition Sciences  
*Rapid onset blood pressure reactivity to acute stress in young adults with major depressive disorder*
68. **Miller, Conor** (INBRE), Biomedical Engineering, Neel Greer  
*Using shotgun metagenomics to sequence a human serum sample from an unsolved public health case*
69. **Friedman, Dylan** (UD Envision), Pre-veterinary Medicine, Tanya Gressley, Animal and Food Science  
*Bioavailability of Different Formulations of Rumen-Protected Lysine in Dairy Cattle*
70. **Dunn, Jarrod** (Summer Scholars Program), Mathematical Sciences, Dominique Guillot, Mathematical Sciences  
*Positive Definite Functions over Finite Fields*
71. **Christine, Parrish** (CHARM REU), Chemical Engineering, Chemistry, University of Tulsa, Lars Gundlach, CHEM, PHYS

*Precise Calibration of THz Electric Field amplitude and Application to Novel Materials Characterization*

72. **Downs, Kathleen** (Mentor & INBRE), Kinesiology, Jocelyn Hafer, Kinesiology & Applied Physiology  
*Gait and Fatigue in Response to Walking in Knee Osteoarthritis*

73. **O'Cain, Jonluke** (Summer Scholars Program), Marine Biology, Edward Hale, Marine Studies  
*Comparing Epibiont Recruitment Adjacent to Oyster Aquaculture and Natural Habitat in Delaware Bay, USA*

74. **Wilen, Kayla** (UD Envision), Landscape Architecture, Zach Hammaker, Plant and Soil Science  
*Designing Resilience: A Community Framework for Greening the Route 9 Corridor*

75. **Moore, Jada** (DSU+UD Summer Engineering Research Experience), Engineering Physics: Bioengineering, Delaware State University, Michael Hast  
*Additive Manufacturing of PCL Scaffolds for Bone Regeneration*

76. **Whitcomb, Jackson** (Industry Summer Scholar), Landscape Architecture, Anna Wik  
*Riverview Cemetery 5-Year Plan*

77. **WABUKOYA, SONIA** (DSU+UD Summer Engineering Research Experience), ELECTRICAL ENGINEERING, Delaware State University, Monique Head  
*Thermal Behavior Monitoring of Microplastic-Embedded Concrete Using Raspberry Pi and Digital Sensors*

78. **Sabir, Aleena** (Industry Summer Scholar), Landscape Architecture, James Zimmerman  
*Developing a Framework for Campus Landscape Management Planning*

79. **Baker, Jacob** (Summer Scholars Program), Computer Engineering, Steven Hegedus, Electrical Engineering  
*Study of Degradation in Electrical Conductivity of Carrier Transport Materials for Perovskite Solar Cells*

80. **Horn, Amelia** (Industry Summer Scholar), Landscape Architecture, James Zimmerman  
*Blending Ecology and Design: Creating a Woodland Fern Garden*

81. **Benitez-Cruz, Maribel** (Summer Scholars Program), Computer Engineering, Steven Hegedus, Computer Engineering  
*Evaluating Perovskite Solar Cell Stability Through J-V Testing and Light Soaking Analysis*

82. **Ramos, Eddiel** (Center for Plastics Innovation), Chemical Engineering, University of Puerto Rico- Humacao, Emil Hernandez-Pagan, Chemistry and Biochemistry  
*Polymorph selectivity through halide precursors in the synthesis of metal chalcogenides nanomaterials*

83. **Azato, Nina** (Summer Scholars Program), Chemistry, Emil Hernández-Pagán, Chemistry and Biochemistry  
*Colloidal Synthesis and Characterization of  $\kappa$ -In<sub>2</sub>Se<sub>3</sub>*

84. **Adodoadji, Patience**, Department of Chemistry & Biochemistry, Environmental Science, Emil Hernández-Pagán, Chemistry and Biochemistry  
*Converting Glycerol into Added-Value Products using Electrochemistry and Metal Oxide Catalysts*

85. **Génesis, Arroyo-Santana** (CHARM REU), Chemistry, University of Puerto Rico - Río Piedras, Emil Hernandez-Pagan, CBEMSE  
*Synthesis of Colloidal Inorganic Nanocrystals for Broadband Light Harvesting in Organic/Inorganic Hybrid Systems*



86. **Diego, Castillo-Mora** (CHARM REU), Chemistry, University of Puerto Rico - Río Piedras, Emil Hernandez-Pagan, CBEMSE  
*Functionalized Interfaces for Hybrid Photocatalytic Materials*
87. **Broussard, Alessandra** (Education Human Dev & INBRE), Biological Sciences (BS) and International Relations, Allison Karpyn, Human Development  
*Reducing Food Stigma Through Community-Centered Pantry Practices*

## POSTER SESSION III 12:00 - 1:30PM

1. **Monroe, Kaeden** (Summer Scholars Program), Mechanical Engineering, Jill Higginson, Mechanical Engineering  
*Magnitude and Timing of Smart Sensor Loads During Walking*
2. **Thomas, Rachel** (INBRE), Nursing, Chris Hoch, Nursing  
Correlates of Self-Care Behaviors in Adults with Heart Failure: A Secondary Analysis of 2021-2023 NHANES Data
3. **Riley, Amber** (Graduate College), Public Health, West Chester University, Jennifer Horney, Epidemiology  
*Frontline Perspectives: WIC Clinic Emergency Preparedness Following Hurricane Helene*
4. **Fay, Jacob** (CANR Unique Strengths), Wildlife Ecology and Conservation, Alex Huddell, Plant and Soil Science  
*Testing a non-destructive method for estimating corn nitrogen uptake*
5. **Kery García, Naomi** (Center for Plastics Innovation), Chemical Engineering, Polytechnic University of Puerto Rico, Marianthi Ierapetritou, CBE

Simulation and Quantification of a Novel PU Recycling Process

6. **Bilbrough, Cole** (INBRE), English, Chijioke Ikomi  
*TBD*
7. **Kikuchi, Moe** (CANR Summer Institute), Cellular and Molecular Biology and Global Health, DePauw University, Deb Jaisi, Plant and Soil Science  
*Assessment of Phosphorus Adsorption and Desorption Characteristics on Micronutrient Doped Biochar*
8. **Yeargan, Cate** (UD Envision), Chemistry (Environmental Concentration), Deb Jaisi, Plant and Soil Science  
*Exploring the mechanisms of phosphorus uptake and recycling in soils using the stable isotope labeling technique*
9. **Hoffman, Celia**, Ecology and Evolution, University of Pittsburgh, Deb Jaisi, Plant and Soil Sciences  
*Effects of Land Use on Soil Phosphorus Fractions in the Florida Everglades*
10. **McGrane-Moffitt, Nolan**, Grinnell College, Jamie Phillips, Electrical and Computer Engineering  
*Material Parameters and Device Models for Thermoradiative Energy Conversion*
11. **Lugo, Victoria** (McNair Scholars Program), Psychology, English, John Jeka, Kinesiology & Applied Physiology  
*Effects of Transcranial Photobiomodulation on Motor Symptoms in Individuals with Parkinson's Disease – A Pilot Study*
12. **Hofstetter, Sydney** (CHARM REU), Chemical Engineering, University of Maryland Baltimore County, Xinqiao Jia, BISC, BME, MSE  
*Bioorthogonal Polymerization of Coiled-Coil Bundlemer Peptides and Elastin-Like Peptides to introduce thermal responsiveness into the hybrid copolymer*

13. **Bischoff, Meggan** (Summer Scholars Program), Neuroscience, Curtis Johnson, Biomedical Engineering  
*Using Magnetic Resonance Elastography to Characterize Tissue Mechanics of the Aging Rodent Brain*
14. **Caridi, Abigail** (Summer Scholars Program) Biomedical Engineering, Curtis Johnson, Biomedical Engineering  
*MRE Use in Skeletal Muscle Biomechanical Property Characterization*
15. **Penna, Kaelin** (Summer Scholars Program), Biological Sciences, Curtis Johnson, Biomedical Engineering  
*Exploring Hippocampal Changes in Ovariectomized Rats using Magnetic Resonance Elastography*
16. **Cunningham, Jessica and Vitz, Connor** (Summer Scholars Program), Computer Science, Nazim Karaca, Computer and Information Sciences  
*Analyzing Content Validity of Exams in Introduction to Computer Science I*
17. **Arora, Daivik** (Biology & INBRE), Biological Sciences, Austin Keele, Biology  
*How do neurons mature? Discerning factors that control the development of somatosensory neurons.*
18. **Marovich, Justin** (INBRE), Biological Sciences, Austin Keeler, Biology  
*TBD*
19. **Varshney, Aadi** (Summer Fellows), Biological Sciences, Austin Keeler, Biological Sciences  
*Investigation of Sexually Dimorphic Cold-Induced Nociception and Response using Cold Allodynia Assays in Mice*
20. **Snouffer, Lily** (Mentor & INBRE), Biological Sciences, William Kenkel, Psychological & Brain Sciences  
*TBD*
21. **Seth, Brielle** (Summer Fellows), Neuroscience, William Kenkel, Neuroscience  
*Methodological studies assessing context-dependent conditioning in prairie voles*
22. **Tran, Rachel** (Summer Scholars Program), Biomedical Engineering, Will Kenkel, Psychology  
*Using Implantable Radiotelemetry to Assess Energy Balance in Rats Delivered by Cesarean Section*
23. **Park, Somin** (Summer Scholars Program), Biomedical Engineering, Chi Keung, Biological Sciences  
*HAX-1 Fragment Improves Cardiomyocyte Survival Upon ER and Oxidative Stresses*
24. **Zhang, Cynthia** (Summer Scholars Program), Neuroscience, Chi Keung, Biological Sciences  
*Designing an Interfering Peptide to Improve Cardiac SERCA Activity By Targeting Hsp90-HAX-1 Interaction*
25. **Lyons, Grace** (Summer Scholars Program), Neuroscience, Anna Klintsova, Neuroscience  
*Single Day Developmental Alcohol Exposure in a Rodent Model of FASD May Reduce Perineuronal Net Density in the Thalamic Reticular Nucleus*
26. **Herrera Galvez, Lisandro** (CHARM REU, Biochemistry, California State University Dominguez Hills, April Kloxin, Engineering  
*Thermoresponsive Resilin-Coiled Coil Fusion Proteins for Programmable Self-Assembly*
27. **Marshall, Kalein** (CHARM REU), Biochemistry, University of New Hampshire, April Kloxin, Engineering  
*Influence of fabrication strategy on PEG microgel size, polydispersity, and release behavior*

28. **Nilaj, Katherine** (CHARM REU), Chemistry, Music, University of Central Florida, April Kloxin, Engineering  
*Synthesis and Purification of Responsive Peptides for Bottlebrush Construction*
29. **Harritty, Brian**, Materials Science and Engineering, April Kloxin, Engineering  
*Peptide Synthesis for Hydrogel Biomaterials*
30. **Montagne Simran** (Summer Scholars Program), Materials Science and Engineering, April Kloxin, Engineering  
*Characterizing Mechanical Changes in Hydrogels Induced by Drying and Rehydration Processes*
31. **Moore, Caroline** (Summer Scholars Program), Materials Science and Engineering, Christopher Kloxin, Materials Science  
*Effect of Substrate Moisture and Polymer Composition on Pull-Off Adhesion Strength*
32. **Carson, Sarah** (Center for Plastics Innovation), Applied Mathematics, LaShanda Korley, CBE and MSE  
*Modeling Chain Scission Mechanisms for Predictive Plastic Degradation*
33. **Jones, Jayla** (CHARM REU), Biomedical Engineering, LaShanda Korley, CBE, MSE  
*Peptide-polyurea hybrids: An emerging strategy for functional materials with tunable architecture*
34. **Colan Morillo, Alondra** (INBRE), Biological Sciences, Delaware Tech Comm College, Kelley Kovatis  
*Breathing Patterns in Infants Before and After Extubation*
35. **Pheris, Julianne** (Biology & INBRE), Biological Sciences, Amber Krauchunas, Biology  
*TBD*
36. **Aitken, Grace** (INBRE), Biological Sciences, Amber Krauchunas, Biology  
*Investigating the Role of Genes Y53F4B.9 and C01G12.9 in C. elegans Fertility Defects*
37. **Sekowski, Benjamin** (INBRE), Biology, Amber Krauchunas, Biology  
*Importance of Copa-1 in reproduction*
38. **Davidson-Hawes, Zoe** (INBRE), Psychology, Jennifer Kubota, Psychological & Brain Sciences  
*Interracial Contact Training Shapes Face Recognition*
39. **Phan, Nathan** (Center for Plastics Innovation), Chemical Engineering, Ohio State University, Aditya Kunjapur, CBE  
*TBD*
40. **Buddhikot, Anoushka** (Summer Scholars Program), Chemical Engineering, Aditya Kunjapur, Chemical Engineering  
*Kinetic Characterization of L-threonine Transaldolases with Enhanced Affinity for L-threonine*
41. **Jang, Jae June** (Summer Scholars Program), Chemical Engineering, Aditya Kunjapur, Chemical Engineering  
*Determining Conserved Residues for OMeY Incorporation in Essential Genes*
42. **Rogers, Braden** (Summer Scholars Program), Chemical Engineering, Aditya Kunjapur  
*Non-Standard Amino Acid Incorporation into Surface-Displayed Bacterial Epitopes*
43. **Taylor, William** (Summer Scholars Program), Mathematical Sciences, Deniz Kutluay, Mathematical Sciences  
*Knot Recognition via Machine Learning*
44. **LaSalle, Caroline** (Summer Scholars Program), Biomedical Engineering, Brian Kwee, Biomedical Engineering  
*Amphiregulin-Releasing Hydrogels for Treating Ischemic Muscle Injuries*

45. **Martin, James** (Summer Scholars Program), Medical Diagnostics, Brian Kwee, Biomedical Engineering  
*Tissue Engineering Strategies for Improved Muscle Regeneration*
46. **Akins, Kayla** (UD Envision), Pre-veterinary Medicine, Brian Ladman, Animal and Food Science  
*Characterization of Contemporary Newcastle Disease Virus Field Isolates*
47. **Jefferson, Kira** (McNair Scholars Program), Cognitive Science, Alyssa M. Lanzi, Communication Sciences & Disorders  
*Assessment of Lexical Markers in Older Black/African American Adults at Risk for Alzheimer's Disease*
48. **Marquez-Henriquez, Kel** (Education Human Dev & INBRE), Communications and Women and Gender Studies, Eric Layland, Human Development  
*A Preliminary Step: Exploring the Intersection of LGBTQ+ and Latinx Identity*
49. **Saxon, Shawn** (Summer Scholars Program), Computer Engineering, Nathan Lazarus, Electrical Engineering  
*Technological Innovation & Entrepreneurship for those with Disabilities*
50. **Ng, Angelina** (Health Sciences & INBRE), Health Behavior Science, Daehyoung Lee, Behavior Health & Nutrition  
*Characteristics of Mobile App Use and Preferences for Mobile Health to Promote Physical Activity Among Autistic Adults: a Conventional Content Analysis*
51. **Ondobo, Ian** (INBRE), Pre-Medical, University of Connecticut, Marshala Lee-McCall  
*Evaluating the Impact of a Medical School Pathway Program: A Three-Part Study of the Harrington MCAT Prep Program*
52. **Bernhart, Zachary** (NIIMBL), CHEG, Abraham Lenhoff, CHEG  
*Retention of Host-Cell Proteins in Monoclonal Antibody Products*
53. **Burrus, Nicolas** (American Heart Association), Neuroscience, Shannon Lennon, Kinesiology & Appl Physiology  
*Vascular Function in Former Repeated Head Impact Athletes and Non-Contact Athletes*
54. **Smith, Harmony** (McNair Scholars Program), Psychology, Chrysanthi Leon, Sociology  
*Constructing Guilt: The Interplay of Psychological, Societal, and Legal Construct in the Prison System*
55. **Castro, Janelle** (Summer Fellows), Political Science, Chrysanthi Leon, Criminal Justice  
*Mental Prison: How Mental Health Struggles Are Exacerbated by the Carceral System*
56. **Donahue, Matthew** (Summer Scholars Program), Mathematical Sciences, Shuxing Li, Mathematical Sciences  
*Near-factorization of finite groups*
57. **Tchuente, Deron** (Biology & INBRE), Biology, Joohyun Lim, Biology  
*TBD*
58. **Elton, Cassidy** (CANR Summer Institute), Chemistry, University of Pittsburgh at Bradford, Matt Limmer, Plant and Soil Science  
*Effect of herbicide safeners on glutathione concentrations in rice*
59. **Singh, Pragya** (INBRE), Biological Sciences, Connie Lin  
*TBD*
60. **de Jesús, Sebastian** (Center for Plastics Innovation), Chemical Engineering, University of Puerto Rico Mayaguez Campus, Dongxia Liu, CBE  
*TBD*

61. **Paparella, Dante** (Summer Fellows), Chemical Engineering, Dongia Liu, Chemical Engineering  
*Zeolite modifications to the cathode catalyst layer to enable stable and selective CO<sub>2</sub> electrolysis towards multi-carbon products*
62. **Johnson, Matthew** (Center for Plastics Innovation), Chemical Engineering, San Jose State University, Raul Lobo, CBE  
*Thermal Degradation of Polystyrene via Radical Initiator Pathways*
63. **Lakatta, Annelise** (INBRE), Biological Sciences, Eileen Loftus, Science Writer & Communication  
*Enhancing Internal and External Impact Through Scientific Communication in Healthcare*
64. **McQuiston, Dylan** (Summer Scholars Program), Medical Diagnostics, Lucas Lu, Mechanical Engineering  
*Comparison of Histologic Assessment Methods in Osteoarthritic Knee Research*
65. **Kappen, Chloe** (Summer Scholars Program), Biomedical Engineering, X. Lucas, Mechanical Engineering  
*Resveratrol's Effects on Subchondral Bone in Osteoarthritis Rat Model*
66. **Perry, Rachel** (Summer Scholars Program), Biomedical Engineering, X. Lucas, Mechanical Engineering  
*Metformin's Effect on Bovine Articular Cartilage Chondrocyte Metabolic Activity*
67. **Chandler, Ja'Den** (DSU+UD Summer Engineering Research Experience), Engineering, Delaware State University, Liora Mael  
*TBD*
68. **Vargas, Alexander**, New Jersey Institute of Technology, Mario Junior Mencagli, Electrical and Computer Engineering  
*Exploring Metamaterials and Metasurfaces for Analog Wave-Based Computing*
69. **Hoefler, Ryan** (American Heart Association Edwards), Human Physiology, Chris Martens, Kinesiology & Appl Physiology  
*Association Between Heart Rate Variability and Whole Brain Stiffness Across the Lifespan*
70. **Daga, Kirti** (Summer Scholars Program), Biological Sciences, Christopher Martens, Kinesiology and Applied Physiology  
*The Effect of Acute Moderate-Intensity Aerobic Exercise on Neuroprotective Biomarkers*
71. **Zevan, Declan** (Summer Scholars Program), Electrical Engineering, Richard Martin, Electrical Engineering  
*Embedded System Design for Parkinson's Disease*
72. **Pennisi, G** (Summer Scholars Program), Computer Engineering, Bennett Maruca, Physics and Astronomy  
*Delaware Atmospheric Plasma Probe Experiment*
73. **Gant, Erica**, Environmental Studies, Vaishnavi Tripuraneni, Geography and Spatial Sciences  
*Rocky Mountain Ecology, Education, and Programming*
74. **Abrams, Emma**, Environmental Economics, Leah Palm-Forster  
*Economic experiments to understand behavior in response to environmental risks exacerbated by climate change.*
75. **Hrynashka, Maryia** (ART+CBER), Engineering, Mona Batish, MMSC  
*Selective Isolation of Cytosolic DNA from Human Cancer Cell Lines*
76. **Nehru, AJ** (Summer Undergraduate Biden School Fellows Program), Economics, Mix, Troy, Public Administration  
*Futures Council, DE: Necessity, Feasibility, and Structure*

77. **Herron, William** (INBRE ART),  
Chemical Engineering, Aditya, Kunjapur,  
Chemical and Biomolecular Engineering  
*Investigation of Post-Translational  
Reduction of Nitrated proteins in E. coli*
78. **Bhasin, Riddhima**, Biological Sciences,  
Rachel Davidson, Civil Construction &  
Environmental  
*Engineering Electrochemical Deposition of  
Nanostructured Cobalt and Copper Oxide  
Battery Electrodes*

## POSTER SESSION

### IV

### 1:45 - 3:15PM

1. **Gordon, Jacob** (INBRE), Computer  
Science, Matthew Mauriello, Computer &  
Info Sciences  
*Toward integrating Large Language  
Models with Multi-armed bandit for  
personalized interventions in digital mental  
health*
2. **Rodriguez-Leon, Axel** (Summer Fellows),  
Computer Science, Matthew Mauriello,  
Computer and Information Sciences  
*Evaluating User Experiences of Co-  
Creative Artificial Intelligence Integration  
in Video Game Character Creation*
3. **Jenkins, Taylor** (Summer Scholars  
Program), Computer Science, Matthew  
Mauriello, Computer and Information  
Sciences  
*Learning Gap Diagnostic and Support  
System: Analyzing Student Performance  
and Educator Input to Personalize Online  
Education*
4. **Muhammadi, Shukria** (Summer Scholars  
Program). Computer Science, Matthew  
Mauriello, Computer and Information  
Sciences

*Enhancing Usability and Data Curation  
Through Front-End Design and Social  
Media Integration in the SMIDGen System*

5. **Nguyen, Khang and Tran, Duy** (Summer  
Scholars Program), Computer Science,  
Matthew Mauriello, Computer and  
Information Sciences  
*Designing AI-Assisted Feedback for  
Prompt Learning: A Framework for  
Human-AI Collaboration in Classification  
Tasks*
6. **Nikolaeva, Victoria** (Summer Scholars  
Program), Computer Science, Matthew  
Mauriello, Computer and Information  
Sciences  
*Understanding Users, Supporting Minds:  
AI-powered Chatbot Development for  
Adults with ADHD*
7. **Pappu, Varun** (Summer Scholars  
Program), Computer Science, Matthew  
Mauriello, Computer and Information  
Sciences  
*Framing vs. Feeling: Decoding the Dual  
Forces Behind News Polarization*
8. **Stapley, Liam** (Summer Scholars  
Program), Computer Science, Matthew  
Mauriello, Computer and Information  
Sciences  
*Human Centered Evaluation of CLAP-  
Based Emotion Annotations for  
Therapeutic Music Using MTurk*
9. **Conti, Toby** (Summer Scholars Program),  
Wildlife Ecology Conservation, Kyle  
McCarthy, Entomology and Wildlife  
Ecology  
*Animals' Use of Incidental Passageways  
By Month*
10. **Kwon, April** (Summer Scholars Program),  
Cognitive Science, Stuart McCaughey,  
Psychology  
*Music & Sensory Perception/Attention*
11. **Haverly, Jillian** (INBRE), Biological  
Sciences, Daniel McDevit, Assoc in Arts  
**Prog**

12. **Rother, Colden** (Summer Scholars Program), Electrical Engineering, Rodney McGee, Electrical Engineering  
*Lin Control Pilot Parser*
13. **Twumasi, Naana** (INBRE), Biological Sciences (Pre-Dentistry), Delaware State University, Daniel Meara
14. **Ziegler, Lauren** (INBRE), Human Physiology, Melissa Melough, Behavior Health & Nutrition  
Extraction and Characterization of Microplastics in Powdered Infant Formulas
15. **Gotz, Zahra** (DSU+UD Summer Engineering Research Experience), Engineering Physics, Delaware State University, Mario Mencagli  
*All-Digital Antenna Design and Ridge Gap Waveguide Simulation for 100 GHz Wireless Communication*
16. **Lefkowitz, Lars** (UDRF REU), Chemical Engineering, Marco Messina, Department of Chemistry and Biochemistry  
*Design of 3- and 4-arm Miktoarm Star Polymers for Drug Delivery*
17. **Roat, Anna** (NSF, Coastal Critical Zone Network), Environmental Science, American University, Holly Michael, Earth Sciences and Civil & Environmental Engineering  
*Impact of Tidal Inundation on the Soil Oxygen Dynamics of Two Salt Marsh Plant Species*
18. **Williams, Ella** (Cooperative Extension), Biology and Environmental Science, Salisbury University, Jarrod Miller, Cooperative Extension, Plant and Soil Sciences  
*From Sensors to Solutions: Understanding Coastal Salinity*
19. **Ballenger, Luke** (Office of Naval Research), Computer Engineering, Mark Mirotznik, Center for Composite Materials
20. **Thacker, Jai** (Office of Naval Research), High School, Mark Mirotznik, Center for Composite Materials  
TBD
21. **Walck, Alexander** (Office of Naval Research), Mechanical Engineering Mark, Mirotznik, Center for Composite Materials  
*DRONE BASED RADAR SENSING BASED ON LUNEBURG LENS ANTENNA*
22. **Quezada, Eric**, The University of Texas at El Paso, Mohsen Badiey, Electrical and Computer Engineering  
*Data analysis for synthetic seal signals collected during PLUTOS first trials*
23. **Piazza, Isabella**, Environmental Science, Pinki Mondal, Department of Geography & Spatial Sciences  
*The Influence of Environmental Factors on Olive Ridley Nesting Behavior*
24. **McPhail, Quinn** (Dickerson Extension Scholar), Environmental Science, Blake Moore, Cooperative Extension  
*Combining Trails and Technology to Promote Environmental Literacy*
25. **Lara-Medina, Naomi** (McNair Scholars Program), Cognitive Science, Giovanna Morini, Communication Sciences & Disorders  
*The Effect of Accented Speech on Word Recognition During Bilingual Code-Switching*
26. **Boettger, Catherine** (Industry Summer Scholar), Landscape Architecture, Catherine Morrissey, Agriculture  
*Silent Historians: The Evolution of College Campuses in the United States*
27. **Romano, Joseph** (Envision) Plant Science, Qi Mu, Plant and Soil Science  
*Analyzing infection dynamics between Pythium and maize grown in two container types under greenhouse conditions*

28. **Driscoll, Cassidy** (Summer Scholars Program), Biochemistry, Jeffrey Mugridge, Chemistry and Biochemistry  
*Determining the biochemical basis of AlkBH4's tRNA modifying activity*
29. **Payne, Rebecca** (Summer Scholars Program), Biological Sciences, Jeffrey Mugridge, Chemistry and Biochemistry  
*Identifying and Characterizing Interaction Partners of Iron(II)/Alpha-Ketoglutarate-Dependent Dioxygenase FTO*
30. **Meadows, Miles** (CHARM REU) Chemical Engineering, Victoria Muir, CBE  
*Designing Bioprinted Agar-Based Scaffolds for Investigating Bacterial Migration*
31. **Duke, Brooke** (UD Envision), Pre-Veterinary Medicine, Shafeekh Muyyarikkandy, Animal and Food Science  
*Characterization of Probiotic Properties of a Novel Strain of Enterococcus Faecium*
32. **Madamopoulos, Christos**, National Technical University of Athens, Nektarios Tsoutsos, Electrical and Computer Engineering  
*3D Printer Vulnerabilities To Side Channel Attacks*
33. **Bogdan, Jessica** (INBRE), Neuroscience, Joshua Neunuebel, Psychological & Brain Sciences  
*TBD*
34. **Fowler, Abby** (Summer Scholars Program), Neuroscience, Joshua Neunuebel, Neuroscience  
*Determining Timescales for Mouse Social Behavior Segmentation*
35. **Pucciarelli, Juliana** (Summer Scholars Program), Neuroscience, Joshua Neunuebel, Neuroscience  
*Investigating the Vital Functions of Mice with Skin-Specific Piezo2 Excision*
36. **Ring, Thomas** (Summer Scholars Program), Neuroscience, Joshua Neunuebel, Neuroscience  
*Quantification of Main Olfactory Epithelium Thickness in Mice With Impaired Olfactory Function*
37. **Patel, Aarushi** (Summer Scholars Program), Biological Sciences Anja Nohe Biological Sciences  
*Age-Induced Reprogramming of the Transcriptional, Signaling, and Metabolic Landscapes in Murine Bone Marrow Mesenchymal Stem Cells*
38. **Salim, Masoud** (Summer Scholars Program) Biological Sciences, Anja Nohe, Biological Sciences  
*Determining The Effectiveness of The Peptide CK2.1 In Reverting Osteoarthritis Symptoms In DMM Mice Using Hydrogen Particles*
39. **Elioff, Louis** (Summer Scholars Program), Computer Engineering, Andrew Novocin, Electrical Engineering  
*Destination Steam*
40. **Duh, Amy** (Summer Scholars Program), Marine Science, Matthew Oliver, Marine Studies  
*Multi-Scale Satellite Observations of Lagrangian Coherent Structures in Ocean Flows*
41. **Schenkenberger, Marisa** (Summer Undergraduate Biden School Fellows Program), Public Policy, Francis O'Malley, Institute for Public Administration  
*How Politics Shape Civics Education in America*
42. **Vitabile, Ava** (Summer Scholars Program), Fine Arts, Cynthia Ott, Fine Arts  
*How Can an Artist Impact Climate Change?*
43. **Balakhani, Bijan** (Summer Fellows), Physics, Miao-Jung, Yvonne Ou, Mathematical Sciences  
*TBD*



44. **Adjei, Channele** (INBRE), Human Physiology/Liberal Studies, Laura Owens, *Longitudinal Assessment of BMD Following Bisphosphonate Administration in Pre- and Postpubertal Children with Cerebral Palsy*
45. **Oliver, Samantha** (CURB), CHEG. Terry Papoutsakis, CHEG  
*TBD*
46. **Boddie, Leif** (Angela Santoro '05 Undergraduate Summer Research Award in MMSC), Medical Diagnostics, Vijay Parashar, Department of Medical & Molecular Sciences  
*Regulation of Second Messenger Synthesis in Mycobacterium tuberculosis*
47. **Agarwal, Raghav** (Summer Scholars Program), Applied Molecular Biology and Biotechnology, Vijay Parashar, Biological Sciences  
*Decoding DegU Oligomerization in the SwrA-Mediated Control of Bacillus subtilis Swarming Motility*
48. **Rogozinski, Isabella** (UD Envision), Pre-veterinary Medicine, Mark Parcels, Animal and Food Science  
*Cloning, Expression and Purification of Viral Capsid, and Nucleocapsid Proteins for Chicken IgY Generation*
49. **Robledo, Kailey** (Janice Seitz Extension Scholar), Meteorology and Climate Science, Twila Parish-Short, Cooperative Extension  
*The Cross-Disciplinary Learning in 4-H: How STEAM Initiatives Foster Collaboration and Innovation Among (Delaware) Youth*
50. **Caputo, John and Manzoni, Thomas** (Biology & INBRE), Biology, Justin Parreno, Biology *Fibronectin Coating of Tissue Culture Polystyrene to Improve Superficial Zone Chondrocyte Expansion*
51. **Arranguetz, Mark** (INBRE), Human Physiology, Justin Parreno, Biology *The Role of Actin-Stabilizing Protein, Tropomyosin 3.1, in Regulating Chondrocyte Homeostasis*
52. **Ingerson, Samantha** (Summer Fellows), Biomedical Engineering, Justin Parreno, Biological Sciences  
*Chemical Targeting of Hypoxic Signaling to Enhance Chondrocyte Repair Potential*
53. **Roussaw, Kamron** (DSU+UD Summer Engineering Research Experience), Engineering, Delaware State University, Satwik, Patnaik  
*TBD*
54. **Mackin, Avery**, Rowan University, Satwik Patnaik, Electrical and Computer Engineering  
*AI-driven secure hardware design approach*
55. **West, Nicholas** (Summer Scholars Program), Computer Engineering Satwik Patnaik, Computer Engineering  
*Standardizing Hardware Security Research: Attacks, Defenses, and Benchmarks*
56. **Colón Delgado, Nelson** (CHARM Reu), Chemistry, University of Puerto Rico - Mayagüez, Christian Pester, MSE  
*Surface-Immobilized Photocatalysts for Wastewater Treatment Under Visible Light*
57. **Kinnaird, Hunt** (INBRE), Environmental Science, Jennifer Peterson, Entomology & Wildlife Ecology  
*TBD*
58. **King, Olivia** (CHARM REU), Biomedical Engineering, Saint Louis University, Darrin Pochan, MSE  
*The Effect of Peptide Length on Liquid Crystal Formation of Single Charged Bundlemers*
59. **Garcia, Alicia** (Cooperative Extension & USDA NPDN Pollok Project), Plant

Science, Jill Pollok, Cooperative Extension,  
Plant and Soil Sciences  
*Evaluating Primer and DNA Polymerase  
Master Mix Interactions to Detect  
Candidatus Phytoplasma asteris*

*Integration of Algae-Based Biochar Core-  
Shell Particles in Thermoplastic  
Composites: Correlating Feedstock,  
Processing Techniques, and Interfacial  
Design with Mechanical Performance*

60. **Punter, Zaina** (INBRE), Applied  
Molecular Biology and Biotechnology  
Shawn Polson, Computer & Info Science  
*RAD51 Superfamily and RecA-like  
Superfamily II Helicases as Indicators of  
Phage Infection Strategy*
61. **Shelly, Jacob** (INBRE), Biological  
Sciences, Delaware Tech Comm College,  
Shawn Polson, Computer & Info Sciences  
*TBD*
62. **Vasil, Nolan** (Summer Scholars Program),  
Computer Science, Shawn Polson,  
Bioinformatics  
*Automating Viral Replication Module  
Detection: A Pipeline for Environmental  
Phage Metagenomics*
63. **Akella, Meghana**, Clemson University,  
Chemistry, Sai Pradeep, Center for  
Composite Materials  
*TBD*
64. **Barry, Alexander**, Clemson University,  
Mechanical and Aerospace Engineering,  
Cornell University, Sai Pradeep, Center for  
Composite Materials  
*TBD*
65. **Miller, Luke** (Clemson University),  
Mechanical Engineering, Sai Pradeep,  
Center for Composite Materials  
*TBD*
66. **Mirotznik, Benjamin**, (Clemson  
University), Electrical Engineering, Sai  
Pradeep, Center for Composite Materials  
*Automated Test Bed for Passive Millimeter  
Wave Imaging*
67. **Stutzman, Rebecca** (Clemson University),  
Chemical Engineering, Sai Pradeep, Center  
for Composite Materials
68. **Czapor, Kelly** (Summer Scholars  
Program), Biomedical Engineering,  
Christopher Price, Biomedical Engineering  
*Uptake of Elastin-Collagen Nanovesicles  
By LPS-Activated Macrophages and the  
Effects of Dexamethasone Delivery on  
Inflammation*
69. **Kachala, Elaine** (Summer Scholars  
Program), Biomedical Engineering  
Christopher Price, Biomedical Engineering  
*A Tissue Clearing Protocol for Optimal  
Imaging of Collagen-Targeting  
Nanovesicles in Osteoarthritic Joints*
70. **Richardson, Walique** (DSU+UD Summer  
Engineering Research Experience),  
Electrical Engineering, Delaware State  
University, Roxanne, Radpour  
*Non-Destructive Spectroscopy of Inks and  
Pigments Using Terahertz Time domain  
Spectroscopy and Fiber optic Reflectance  
Spectroscopy*
71. **Watters, Aram** (INBRE), Biology Health  
Professions, Delaware State University,  
Asanthi Ratnasekera  
*TBD*
72. **Brook, Megan** (Lomax Extension  
Scholar), Susatrainable Food Systems, Abby  
Reeves  
*Fresh to You Farm, Plant and Soil Sciences  
Silage Tarps as a Weed Management Tool  
in Organic Vegetable Production*
73. **Atchley, Nathaniel** (UD Envision),  
Agriculture and Natural Resources, Abby  
Reeves, Plant and Soil Science  
*Silage Tarps as a Weed Management Tool  
in Organic Vegetable Production*
74. **Gontu, Sanjana** (UD Summer Fellows),  
Biology, Darcy Reisman, Physical Therapy  
*Step Activity Monitoring After Stroke*

**75. David, Darch**, (CHARM REU), Physics,  
University of Alabama in Huntsville, Yafei  
Ren, PHYS

*Calculation of the exchange coupling  
parameters in CrSBr based on density  
functional theory using*

**76. Bellingham, Samantha** (American Heart  
Association Edwards), Nutrition and  
Dietetics, Shannon Robson, Health  
Behavior & Nutrition Sc

*Exploring the Association Between Dietary  
Patterns and Blood Pressure and  
Endothelial Function in Middle-aged  
Adults*

**77. Bodio, Elizabeth** (Summer Scholars  
Program), Chemistry, Joel Rosenthal  
Chemistry and Biochemistry

*Synthesis of Extended Isocorroles as a  
Photosensitizer for Photodynamic Therapy*

**78. Umoh, Oviyanna** (McNair Scholars  
Program), Psychology, Neuroscience,  
Tania Roth, Psychological and Brain  
Sciences

*Epigenetic Changes in FKBP5 Following a  
Modified Attachment and Biobehavioral  
Catch Up Intervention*

**79. Owen, Amelia** (Summer Scholars  
Program), Chemical Engineering, Mark  
Blenner, Chemical Engineering

*Investigating Bacteriophage Influence on  
Plastic-Degrading Mealworm Microbiomes*

**80. Fuentes Bautista, Jadira Aurora** (Angela  
Santoro '05 Undergraduate Summer  
Research Award in MMSC), Applied  
Molecular Biology & Biotechnology Mona  
Batish, Department of Medical &  
Molecular Sciences

*Direct lncRNA Interactome Mapping:  
Amplification-Based Proteomics*

1. **Dietrich, Vivienne** (Graduate College),  
Psychology, Lafayette Colleg, Teomara  
Rutherford, School of Education

*The Dual Drive: Intrinsic and Extrinsic  
Motivation in Collegiate Football*

2. **Hannum, Norah** (Graduate College),  
Psychology, University of Maryland,  
Teomara Rutherford, School of Education

*Self-Regulation in Education: Examining  
Parent Reports and Behavioral  
Observations of Emotional Regulation and  
Executive Function in School-Aged  
Children*

3. **Ziemba, Sydney** (Industry Summer  
Scholar), Biochemistry, Jessica Sampson,  
Chemistry and Biochemistry

*Stirring Effects in High Throughput  
Experimentation*

4. **Tran, Ken** (Summer Scholars Program),  
Biochemistry, Jessica Sampson, Chemistry  
and Biochemistry

*Improving Product Quantification in High-  
Throughput Experimentation via Petasis  
Reaction*

5. **Leyva-Cortes, Rosnel** (Columbia  
University), Vishal Saxena, Electrical and  
Computer Engineering

*Silicon Meets Synapse: Automation of  
Analog Integrated Circuit Layout*

6. **Bellino, Nicolina** (CANR Unique  
Strengths), Pre-veterinary Medicine, Carl  
Schmidt

*Animal and Food Science Genetic  
regulation of post hatch liver development  
in the chicken*

7. **Wang, Lindsey** (Mentor & INBRE),  
Electrical Engineering, Manuel Schottdorf,  
Psychological & Brain Sciences

**POSTER SESSION V**  
**3:30 - 5:00PM**

*Towards a Quantitative Assessment of PMT Performance Over Time*

8. **Kouma, Jax** (Summer Fellows), Neuroscience, Jaclyn Schwarz, Neuroscience  
*Identifying key time points of the onset of anhedonia in a novel rat model of postpartum depression*
9. **Maxim, Lucy** (Summer Scholars Program), Biomedical Engineering, Jaclyn Schwarz, Neuroscience  
*Analyzing the Efficacy of Amphiregulin for Attenuating Immune Activation Associated with Hypoxic-Ischemic Encephalopathy using BV2 Microglia Cell Culture*
10. **Stevens, Abigail** (Summer Scholars Program), Biological Sciences, Erica Selva, Biological Sciences  
*The Role of N-linked Glycosylation in Wnt Signaling*
11. **Eimont, Arianna**, (INBRE), Neuroscience, Jennifer Semrau, Kinesiology & Applied Physiology  
*Examining Proprioceptive Error Across Distances in Individuals With Stroke*
12. **Pathak, Neehal** (INBRE), Human Physiology/ KAAP, Fabrizio Sergi, Biomedical Engineering  
*The Effects of EMG Normalization Methods on Analyzing Task-Dependent Wrist Stretch Reflexes*
13. **Spinelli, Connor** (INBRE), Biomedical Engineering, Fabrizio Sergi, Biomedical Engineering  
*Impact of Pre-Processing Parameters on Stretch Reflex EMG: A Comparative Analysis*
14. **Rodriguez, Gabriella** (Summer Scholars Program), Biomedical Engineering, Fabrizio Sergi, Biomedical Engineering  
*Developing a New Protocol for the Inhibition of Long-Latency Stretch Reflexes Using TMS and a Wrist Robot*
15. **Ruzek, Filip** (Summer Scholars Program), Mechanical Engineering, William Shafarman, Materials Science  
*Enhancing CdTe Solar Cell Efficiency through CSS Heat Treatments*
16. **Lovett, Sarah** (Biology & INBRE), Biological Sciences, Lisha Shao, Biology  
*Investigating the role of Neuropeptide F in social isolation-induced food choice changes in Drosophila melanogaster*
17. **Anokye, Roselyn** (DSU+UD Summer Engineering Research Experience), Engineering Physics: Bioengineering, Delaware State University, Bill Sharfarman  
*Quantifying Pinhole Defects in CdTe Thin Films for Solar Cell Applications*
18. **Agrawal, Chinmay** (Summer Scholars Program), Computer Science, Weisong Shi, Computer and Information Sciences  
*Intelligent Intersection Control: Camera-Based Vehicle Tracking and Adaptive Signaling*
19. **Querey, Julia** (INBRE), Biological Sciences, Scott Siegel  
*Evaluating Delays in the Breast Cancer Care Continuum at Helen F. Graham Cancer Center & Research Institute*
20. **Huerta, Samantha** (McNair Scholars Program), Kinesiology, Karin Gravare Silbernagel, Physical Therapy  
*Pain and Functional Differences Between Runners and Non-Runners with Achilles Tendinopathy: A retrospective study*

21. **Allen-Poku, Henry** (INBRE), Kinesiology, Delaware State University, Sheri Silfies, Physical Therapy  
*Dynamic Trunk Control Assessment using an IMU-Based Seated Balance Task: A Pilot Study*
22. **Patel, Krish** (Summer Scholars Program), Biomedical Engineering, John Slater, Biomedical Engineering  
*Effect of Cancer Cell Density on Permeability of Microvessels*
23. **Grimsley, Jasmine** (ACEE/CHEG), CHEG, Kevin Solomon, CHEG  
*Controlling protein expression through single stranded DNA triggered riboswitches*
24. **Rodney, Meredith** (CURB), CHEG, Kevin Solomon, CHEG  
*Profiling Yarrowia lipolytica for Growth and Engineering on <C3 Carbon Intermediates*
25. **Pecson, Zoe** (INBRE), Chemical Engineering, Kevin Solomon, Biomolecular Engineering  
*TBD*
26. **Futty, Austin** (NSF CAREER), AMBB, Kevin Solomon, CHEG  
*Development and Optimization of a Prokaryotic Argonaute Base Editing System*
27. **Merrill, Tim** (NSF CAREER), Bio , Kevin Solomon, CHEG  
*Engineering pAgos for Enhanced Gene Editing Activity*
28. **Gravuer, Conrad** (Summer Scholars Program), Chemical Engineering , Kevin Solomon, Chemical Engineering  
*Engineering plant-virus like particles to control the aspect ratio for nanovaccine design*
29. **Gupta, Arya**, Biochemistry, Kevin Solomon, CHEG  
*TBD*
30. **Scanzera, Nicholas** (Summer Scholars Program), Exercise Science, Alvin Su, Biomedical Engineering  
*Meniscus Displacement following Segmental Meniscus Allograft Transplant*
31. **McQuaid, Evelyn** (Biology & INBRE), Chemical Engineering, Molly Sutherland, Biology  
*Engineering Single Amino Acid Mutations to Analyze Beta-cap of CcsBA System II Cytochrome c Biogenesis Pathway*
32. **Spindle, Tyana** (Mentor & INBRE), Animal Science, Molly Sutherland, Biology  
*Engineering Single Amino Acid Mutations to Analyze Heme Interactions in System I Cytochrome c Biogenesis*
33. **Beauchamp, Em** (Summer Scholars Program), Women's Studies, Douglas Tallamy, Entomology and Wildlife Ecology  
*A Case Against Mosquito Spraying: Mosquito Spraying Effects on Non-target Lepidopteran Larval Fitness*
34. **Hagen, Erik** (Summer Scholars Program), Insect Ecology and Conservation , Douglas Tallamy  
*How Well Do Keystone Lepidoptera Plants Support Other Insect Taxa?*
35. **Tang, Brandon** (UD Envision), Mechanical Engineering, Juzhong Tan, Animal and Food Science  
*Optimizing Extrusion Processing Conditions for the Development of Puffed Snacks Made from Lima Beans, the Cornerstone Crop of the State of Delaware*

36. **Melo, Karen** (INBRE), Biology, Jessica Tanis, Biology  
*How Nicotinamide Riboside affects rate of paralysis in c. elegans*
37. **Parekh, Krisha** (Summer Fellows), Biological Sciences, Jessica Tanis, Biological Sciences  
*TBD*
38. **Rauch, Jessica** (Summer Scholars Program), Biological Sciences, Jessica Tanis, Biological Sciences  
*Impact of the RAB-28 GTPase on the biogenesis and uptake of extracellular vesicles*
39. **Snyder, William** (Summer Scholars Program), Biological Sciences, Jessica Tanis, Biological Sciences  
*Defining a cytoplasmic role for a histone methyltransferase in C. elegans muscle*
40. **Rippon, Jacob** (NSF REU Site in Sustainable Resilient Transportation Systems), Civil Engineering, Jovan Tatar, Civil, Construction, and Environmental Engineering  
*Microstructural Characterization of the Interface between Ultra-high-performance Concrete and Standard Concrete*
41. **Christenbury, Elie** (INBRE), Medical Laboratory Technician, Delaware Tech Comm College, Andre Pasqua Tavares, Biology  
*TBD*
42. **Fleming, Marissa** (Summer Scholars Program), Fine Arts, Aaron Terry, Fine Arts  
*Punk Now: The Evolution of Rebellion and Culture*
43. **Obika, Kamila**, Fashion Design and Product Innovation/Fashion Merchandising, Kedron Thomas, Anthropology  
*The Intention-to-Action Gap: Circular Solutions for Ralph Lauren*
44. **Szura, Eva** (Industry Summer Scholar), Biological Sciences, Shunji Tomatsu, Biological Sciences  
*Non-invasive functional assessment and pathogenesis of Morquio A through multiple visit ADL survey analysis*
45. **Smith, Kristin** (UD Envision), Environmental Science and Policy, Wilmington University, Tara Trammell, Plant and Soil Science  
*Soil Physiochemical Characteristics in Forest Gaps Across Multiple Eastern U.S. Cities*
46. **Morefield, Maya** (Summer Scholars Program), Marine Science, Arthur Trembanis, Marine Studies  
*Inlet Bedform Dynamics: Bedform Morphology and Sediment Variation in Roosevelt Inlet*
47. **Adlani, Yusra** (INBRE), Human Physiology and Liberal Studies Medical Scholars, Arianna Trionfo  
*The Impact of Immediate Postoperative Weight-Bearing on Surgical Outcomes for Femoral and Tibial Derotation Osteotomies*
48. **Walker, Camryn** (Summer Fellows), Environmental Science, Vaishnavi Tripuraneni, Geography  
*Green Stormwater Infrastructure Survey in Wilmington*
49. **Hoober, Cameron** (Graduate College), Aerospace Engineering, Illinois Institute of Technology/Wheaton College, Tyler Van Buren, Mechanical Engineering  
*Affordable Flow Visualization: A 3D-Printed Helium-Filled Soap Bubble (HFSB) Generator for Aerodynamic Testing*
50. **Munson, Allison** (Graduate College), Mechanical Engineering, Ohio State University, Tyler Van Buren, Mechanical Engineering  
*Optimizing FFF printing parameters for watertightness in 3d printed parts made of PETG*

51. **Mohammadi, Khadija** (INBRE)  
Computer Science, Maryam Vaziri-Pashkam, Psychological & Brain Sciences  
*How We Grasp the World – Literally*
52. **Murtaugh, Megan** (Cooperative Extension), Materials Science and Engineering, Jenn Volk, Cooperative Extension  
*Creating Outreach Materials on Environmental and Sustainability Topics*
53. **Brownstein, Gavin** (Summer Scholars Program), Chemical Engineering, Norman Wagner, Chemical Engineering  
*Product Oriented Development of Xanthan Konjac Agar Solvent Gels for Art Conservation*
54. **Burchell, Paige** (Summer Scholars Program), Meteorology and Climatology, Shuai Wang, Geography  
*Observational Analysis of Land Effect on Tropical Cyclone Wind Profiles Before Landfall*
55. **Hansen, Gavin** (Summer Scholars Program), Chemistry, Donald Watson, Chemistry and Biochemistry  
*Enantioselective Synthesis of Six-Membered Lactams via Intramolecular Aza-Heck Reactions*
56. **Librizzi, Matt** (Summer Scholars Program), Exercise Science, Daniel White, Physical Therapy  
*Assessing the Accuracy of Patient Recalled Diagnoses in an Online Cohort of Adults with Rheumatic Conditions.*
57. **Dokus, Gabriel** (Summer Scholars Program), Applied Mathematics, Rajinda Wickrama, Mathematical Sciences  
*Deep Reinforcement Learning for Pairs Trading: A Comparative Study with Traditional Threshold-Based Strategies*
58. **Butler, Sydney** (UD Envision), Wildlife Ecology and Conservation, Chris Williams, Entomology and Wildlife Ecology  
*The Impact of Different Source Translocations on Northern Bobwhite Habitat Use and Movement in Pennsylvania*
59. **Maxa, Grant** (American Heart Association Edwards), Human Physiology, Melissa Witman, Kinesiology & Appl Physiology  
*Central Arterial Wave Reflection in Duchenne Muscular Dystrophy: Role of Ambulation and Corticosteroid Treatment*
60. **Lakhani, Raina** (INBRE), Biological Sciences, English, Melissa Witman, Kinesiology & Applied Physiology  
*TBD*
61. **Tevald, Anna** (Summer Scholars Program), Marine Biology, Andrew Wozniak, Marine Studies  
*The Effect of Organic Matter Lability on Nitrous Oxide Production Dynamics in Coastal Sediments*
62. **Gallagher, Lindsay** (INBRE), Biomedical Engineering, Elizabeth Wright-Jin  
*Immunomodulatory Biomaterials for Treatment of Hypoxic Ischemic Encephalopathy*
63. **Telacki, Elliott** (Summer Fellows), Marine Biology, Jennifer Wyffels Bioinformatics  
*Development and Digestion: Enzymatic Liquefaction of Egg Jelly Layers during Zebra Shark Incubation*
64. **Kiernan, Elizabeth** (ACEE/CHEG), CHEG, Yushan Yan, CHEG  
*Investigation of Current Distribution in HEMCC Devices*
65. **McClaine, Ethan** (CURB), CHEG, Yushan Yan, CHEG  
*Enhancing Mechanical Strength of Carbon-Ionomer Membranes for Hydroxide Exchange Membrane Carbon Capture Devices*
66. **Alberding, Carson** (Summer Scholars Program), Computer Science, Chengmo Yang, Computer Engineering

*Resilient Driving Intelligence: Fault Recovery in Semantic Segmentation Models*

*The Synthesis of Biotinylated-NAB2 for Biolayer Interferometry Studies with E3 Ligase Nedd4*

67. **Henderson, Ryan** (Summer Scholars Program), Electrical Engineering, Chengmo Yang, Electrical Engineering  
*RTL-to-Layout Design and Power Side-Channel Vulnerability Evaluation*
68. **Tapel, Daryl** (Summer Scholars Program), Computer Engineering, Chengmo Yang  
Computer Engineering  
*Accelerating AI on Small Devices: Using FPGAs to Run Transformer Kernels*
69. **Rustagi, Aditya** (Office of Naval Research), The Charter School of Wilmington, Shridhar Yarlagaadda, Center for Composite Materials  
*TBD*
70. **Geary, Violet** (UD Envision), Animal Science, Alex Yitbarek, Animal and Food Science  
*Pathogenicity of C. perfringens Under Different Iron Doses Using a Chicken Embryo Model*
71. **Bajoria, Aditya** (Summer Scholars Program), Applied Mathematics, Xu Yuan, Computer and Information Sciences  
*Transformers for PlanetScope Coastal Analysis*
72. **Markland, Michelle** (INBRE), Delaware State University, Xuyi Yue, Radiology  
*Evaluation of Imaging Agents for Multiple Sclerosis by Targeting VEGFR3*
73. **Hernandez, Orlando** (DSU+UD Summer Engineering Research Experience), Electrical Engineering, Delaware State University, Yuping Zeng  
*TCAD Design and Performance Simulation of FeFETs*
74. **Marion, Tessa** (Summer Scholars Program), Biochemistry, Zhihao Zhuang, Chemistry and Biochemistry

75. **Moquin, Phillip** (Summer Scholars Program), Biochemistry, Zhihao Zhuang, Chemistry and Biochemistry  
*Analysis of the Ubiquitin Microenvironment via Photocatalytic Dexter Energy Transfer*
76. **DelJones, Gwen** (CHARM REU), Materials Science & Engineering, Rutgers University New Brunswick, Joshua Zide, MSE  
*Etch Processing of ErAs/III-V Nanocomposite Materials for Terahertz Photoconductive Antennas (PCAs)*
77. **Thompson, Xavier** (DSU+UD Summer Engineering Research Experience), Bioengineering, Delaware State University, Ryan Zurakowski  
*TBD*

## Oral Session One

### 8:30 – 9:45am

#### Caring for Communities: Research on Environmental and Social Interventions (ROOM 202)

**Moderator: Anna Wik**

**Cruz, Shakira and Anderson, Phebe** (Industry Summer Scholars), Civil Engineering/Landscape Architecture, Anna Wik, Civil Engineering  
*Living Lab Community Engagement, Green Infrastructure, and Place Making Research*

**Langham, Previn** (Industry Summer Scholar), Environmental Studies, Lindsay Naylor, Environmental Studies  
*Social Impacts of Agrivoltaic Systems in Puerto Rico*



**O'Neal, Isaac** (Summer Undergraduate Biden School Fellows Program), Public Policy and Economics, Stephen Metraux, Center for Community Research & Service  
*Survey Data on Homelessness in Sussex County, Delaware*

**Adelman, Allison** (Summer Undergraduate Biden School Fellows Program), Public Policy, Julia O'Hanlon, Institute for Public Administration  
*Caring for Delaware Communities*

**Rosenthal, Maxwell** (Summer Undergraduate Biden School Fellows Program), International Relations, Kelly Sherretz, Institute for Public Administration  
*How States Are Staffing for the Increasing Mental & Behavioral Health Needs in Public Schools*

### **Academic Inquiries into Displacement, Identity, and Collective Action (ROOM 205)**

**Moderator: Tricia Wachtendorf**

**Kim, Daeun and Muntz, Sara** (Industry Summer Scholars), Sociology/Anthropology, Tricia Wachtendorf, Sociology  
*Making Research Accessible: Disaster Impacts on Renters and Mitigation Decision-Making*

**Bais, Vatsala** (Summer Undergraduate Biden School Fellows Program), Public Policy, Jennifer Reitz, Institute for Public Administration  
*From Crisis to Shelter: The Role of Modular Construction in Post-Disaster Recovery*

**Castillo, Amalia** (McNair Scholars Program), Psychology, Eric K. Layland, Education & Human Development  
*Systematic Review of Family Impact on Racial Minority LGBTQ+ Youth Positive Development: Identifying Gaps in the Literature*

**Chrisostam, Nithila** (Summer Scholars Program), Psychology, Dael Norwood, Psychology  
*Student Unionization: An Interdisciplinary, Cross-Cultural Analysis*

**Tiongson, Amber** (Summer Scholars Program), International Relations, Monica Frichtel, International Relations  
*Reclaiming Black Identity Through Hip Hop Dance in Eurocentric Cultures: The Cultural Glue Between the United States and Argentina*

### **Music, Learning, and the Shaping of Culture (ROOM 302)**

**Moderator: Noelia Archambeault de Hernández**

**Canty, Georgia; Ghani, Amenah; Bachi, Emily and Cinaglio, Dario** (Summer Fellows), Music Education, Aimee Pearsall-Kramer, Music  
*Songwriting and Curriculum Writing for a Children's Songbook based in Social Emotional Learning*

**Irwin, Kelly** (Summer Scholars Program), Applied Music – Voice, Noelia Archambeault de Hernández, Applied Music - Voice  
*Vocal Health Stigma in Music Undergraduate Degree Programs*

**Kaufman, Jenna** (Summer Scholars Program) Art, Aaron Terry, Art  
*The Times They Are A-Changin': Music and Counterculture in New York*

**Lisiecki, Haley** (Summer Scholars Program), Visual Communication, Katie Leech, Visual Communication  
*Feel the Music*

**Dunn, Carson** (Summer Scholars Program), Art, Edward Winn, Art  
*Creating and Exploring Worlds: Researching to be a Technical Artist*

## **Oral Session Two**

**10:00 – 11:15am**

**Political Action, Rights, and Government Response (ROOM 202)**

**Moderator: Katherine Feldkamp**

**McGregor, Bo** (Summer Scholars Program), Political Science, Lindsay Hoffman, Political Science

*The Dark Side of Political Participation: Predicting Engagement in Uncivil Participation*

**Johnson, Seaanna** (McNair Scholars Program), Philosophy, Political Science, Kyong-Min Son, Political Science & International Relations

*A Whole New World: Rethinking Immigration as a natural right*

**Sarwari, Frohar** (Summer Scholars Program), Public Policy, Richard Hanley, Public Policy  
*A Comparative Analysis of Abortion Laws and Practices in Afghanistan and the United States*

**Deutsch, Aaron** (Summer Undergraduate Biden School Fellows Program), Public Policy and Political Science, Chase Barnes, Institute for Public Administration  
*Reimagining Civic Education: Applying the Build-Measure-Learn Model to Government Training*

**Farley, Alasqa** (Industry Summer Scholar), Economics, A.R. Siders, Economics  
*The Role of Local Government Capacity in Predicting Hazard Mitigation Funding in North Carolina*

**Exploring Sustainability, Identity, and Technology in Fashion (ROOM 205)**

**Moderator: Adriana Gorea**

**Adams, Ellena and Neuvelt, Nicole** (Industry Summer Scholar), Apparel Design, Adriana Gorea, Apparel Design  
*Mapping Functional Apparel User Needs for Theater Costumes: An Interdisciplinary Collaboration with UD Community Music School*

**Gbason-Krah, Saynani** (Summer Scholars Program), Apparel Design, Adriana Gorea, Apparel Design  
*Knitwear Reimagined: Advancing Sustainable Men's Knitwear With Traditional and Modern Technology*

**Nieves, Jalyssa** (Summer Scholars Program), Apparel Design, Katya Roelse, Apparel Design  
*Reimagined Royalty*

**Kulis, Antonina** (Industry Summer Scholar), Fashion Merchandising, Sheng Lu, Fashion Merchandising  
*Exploring Sustainable Fiber Preferences in the U.S. Apparel Industry*

**DiGiulio, Isabella** (Summer Scholars Program), Fashion Merchandising, Nokyeon Kim, Fashion Merchandising  
*Fashion and Social Engagement in Older Adults: The Influence of Self-Perceived Age Identity on Their Relationship*

**Material Culture Interdisciplinary Cohort (ROOM 207)**

**Moderator: Rosalie Rolon Dow**

**Gupman, Sophia** (Industry Summer Scholar), Kelly Cobb  
*Material Movement: Experimental Plaid and Painted Warp—A Practice-Based Response to Letty Esherick's Vest*

**Coates Riley** (Summer Scholars Program), Anthropology, Kedron Thomas, Anthropology  
*Infinite Inspiration: Creativity at the Intersection of Material and Digital Culture within the TTRPG Community*

**Dobbins, Chloé** (Summer Scholars Program),  
Sociology, Kedron Thomas, Sociology  
*Exploring Maasai Traditional Dress: Tourism,  
Secondhand Clothing, and Identity*

**Hearn, Lily** (Summer Scholars Program),  
Art Conservation, Lu, Ann, Art Conservation  
*Red Earthenware: What Archaeological  
Evidence Reveals about 18th and 19th Century  
Women's Untold Labor in the Delaware Valley*

**Herniter, Chava; Orenstein, Rowan;  
Rodriguez, Ivonne, and Sanchez, Vivan**  
(Summer Scholars Program), Art Conservation,  
Dilia López-Gydos, Art Conservation  
*Securing the Seams: Examination and  
Preparation of 1920s Garments for Display*

### **Exploring Justice System Practices and Their Impact (ROOM 302)**

**Moderator: Patricia Sloane-White**

**Bossi, Morgan** (Summer Scholars Program),  
Women's Studies, Angela Hattery, Women's  
Studies  
*Power, Process, and Protection: The Role of  
Judicial Discretion and Litigant Knowledge in  
PFA courtrooms*

**Corey, Ceili** (Summer Scholars), English,  
Angela Hattery, English  
*Toward a Trauma-Informed Courtroom:  
Practices for Justice with Compassion*

**Livingstone, Margaret** (Summer Scholars  
Program), Political Science, Angela Hattery,  
Political Science  
*"What am I supposed to be asking her? This is  
difficult": Challenges and Solutions to Pro Se  
Litigation of Protection From Abuse (PFA)  
Petitions*

**Hussain, Rabia** (Summer Scholars Program),  
Criminal Justice, Chrysanthi Leon, Criminal  
Justice  
*Exploring the Reintegration Experiences of  
Formerly Incarcerated Individuals*

**Levine, Sophie** (Summer Scholars Program),  
Criminal Justice, Chrysanthi Leon, Criminal  
Justice  
*Gender Associations of Filicide*

### **The Power of Art in Shaping Visual Narratives (ROOM 305)**

**Moderator: Brandan Henry**

**Bradley, Josephine** (Summer Scholars  
Program), Art, Brandan Henry, Art  
*Civil Unrest: Artistic Reflections on Political  
Conversations*

**Dao, Chelsea** (Summer Scholars Program),  
Fine Arts, Brandan Henry, Fine Arts  
*Faith in Chains*

**Dulaney, Jocelyn** (Summer Scholars  
Program), Fine Arts, Brandan Henry, Fine Arts  
*Hearstronaut*

**Edmonds, Olivia** (Summer Scholars  
Program), Fine Arts, Brandan Henry, Fine Arts  
*The Hollow Sun*

**Centeno, Yasir** (Summer Scholars Program),  
Visual Communication, Brandan Henry, Visual  
Communication  
*Illustration In Motion: The Exploration of Film  
and Videography Through Illustration*

## **Oral Session Three 11:30am – 12:45pm**

### **Urban Renewal, Environmental Justice, and Social Narratives (ROOM 202)**

**Moderator: Kedron Thomas**

**Deutsch, Katie; Graham, Tessa and Willmes,  
Matthew** (Community Engagement Initiative),  
Landscape Architecture, Zachery Hammaker,  
Landscape Architecture  
*Route 9 Revitalization in the CDC*

**Saeedi, Faizi** (Summer Undergraduate Biden School Fellows Program), Public Policy and Women & Gender Studies, Erin Nescott, Center for Community Research & Service  
*Shelter and Nature*

**Roth, Elizabeth** (Summer Scholars Program), Kedron Thomas, Anthropology  
*Staying in the Green: How Video Games Show the Interconnected Relationship Between the Economy, Environment, and Culture*

### **Advancements in Chemical Engineering, Biochemistry, and Food Sciences (ROOM 205)**

**Moderator: Mark Blenner**

**Choudhury, Snehal** (Center for Plastics Innovation), Chemical Engineering, LaShanda, Korley, CBE and MSE  
*Fabrication of Aligned Nanofiber Blends for Packaging*

**Miraji-Khot, Agni** (Center for Plastics Innovation), Chemical and Biomolecular Engineering, Mark Blenner, Chemical and Biomolecular Engineering  
*Characterization of biofilm formation on LDPE using bacterial isolates from plastic degrading mealworm*

**Letnaunchyn, Jacob** (Summer Scholars Program), Chemistry, Don Watson, Chemistry and Biochemistry  
*Asymmetric Reductive Cyclizations of Tethered Aryl Halides*

**Kercadó, Darién** (Graduate College), Chemistry, Carsten Milsman, Chemistry & Biochemistry  
*Development of Photoluminescent Earth-Abundant Metal Complexes*

**Serrano, Shelby** (McNair Scholars Program), Animal Biosciences, Muhammed Shafeekh Muyyarikkandy, Animal & Food Sciences  
*Evaluation of live and heat-inactivated probiotics on muscle development in chicken embryos during hyperglycemia*

### **Technology, Gender, and Political Thought (ROOM 207)**

**Moderator: Dannagal Young**

**Bossard, Xen** (Summer Scholars Program), English, Mahasveta Barua, English  
*Effectiveness of Artificially Generated Content on College Entrance Examination Preparation*

**Carrillo Soto, Julio** (McNair Scholars Program), Statistics, Sebastian Cioaba, Mathematical Sciences  
*Disproving conjectures in spectral graph theory with AI*

**Register, Iyanna** (McNair Scholars Program), Communication, Dannagal Young, Communication  
*Gender Ideology in Women's Online Spaces*

**Sullins, Amayah** (McNair Scholars Program), Criminal Justice, Eric Rise, Sociology & Criminal Justice  
*Scared Spaces, Secular Places: Muslim Prayer Rights and Public School Accommodations*

**Munson, Dalton** (Summer Scholars Program), History, Michael Frassetto, History  
*Realpolitik: Metternich, Bismarck, and the Necessity of Pragmatism*

**Wojciechowski, Elizabeth** (UDARI), Communication, Nancy Karibjanian, Media Communication and Women and Gender Studies  
*A College Journalist's Guide to Reporting on Anti-Racism Protests*

*Scott, Julia* (Summer Scholars Program), Art, Amy Hicks, Art  
*Delaware's Marsh Migration: What Is It, and What Can We Do?*

### **Visual Communication in Shaping Identity and Society (ROOM 302)**

**Moderator: Robyn Phillips**



**Brown, Joycelyn** (Summer Scholars Program),  
Visual Communication, Robyn Phillips-  
Pendleton

*Visual Communication Diary of a Mad Black  
Girl with Curls*

**Porter, Maryanne** (Summer Scholars  
Program), Visual Communication, Katie  
Leech, Visual Communication

*Designing for Freedom: How Book Banning  
Shapes Education and Society*

**Protack, Miranda** (Summer Scholars  
Program), Visual Communication, Ashley  
Pigford, Visual Communication

*Whispers of Glory: The Overlooked Greatness  
of Women in Sports*

**Sekscinski, Madeline** (Summer Scholars  
Program), Visual Communication, Aaron  
Terry, Visual Communication

*Land and Life in Delaware*

**Jackson, Aliyah** (Summer Scholars Program),  
Animal Science, Hassan El-Amin, Animal  
Science

*Conveying Black Experiences Through  
Performance*

**Hundley, Gavin** (Summer Scholars Program),  
Art, Amy Hicks, Art

*The Rainhill Trials*

## Oral Session Four 2:00pm – 3:15pm

### Conservation, Craft, and Cultural Reconstruction (ROOM 202)

**Moderator: Dilia López-Gydosh**

**Hiles, Katrina and Shidle, Laura** (Summer  
Scholars Program), Art Conservation, Joyce  
Hill, Art Conservation

*A Shrimper's Tale: Lining and Adhesive  
Removal on a 19th-Century Marine Landscape*

**Terrell, Chloe** (McNair Scholars Program),  
Art Conservation, Melissa A. Tedone, Art  
Conservation

*Victorian Arsenic Dye: The Poison Book  
Project*

**Griffin, Madison** (Summer Scholars  
Program), Art Conservation, Joyce Stoner, Art  
Conservation

*'Le Sorelle: treatment report and next steps*

**Krukosky, Loki** (Summer Scholars Program),  
Fine Arts, Greg Shelnut, Fine Arts

*Thoughtful Reconstruction- Historical  
Japanese Clothing In The Modern Era*

**Castro, Janice** (McNair Scholars Program),  
Fine Arts, Mary Katie Leech, Art & Design

*Amplifying Hispanic Voices Through  
Typography*

### Studies in Psychology and Brain Sciences (ROOM 205)

**Moderator: Regina Wright**

**Lunn, Simone** (McNair Scholars Program),  
Neuroscience, Psychology, Dayan Knox,  
Psychological Brain Sciences

*Inhibiting The Ventral Hippocampus in  
Control Animals Can Alter The Effects of  
Traumatic Stress on Fear Extinction*

**Miller, Callie** (Summer Scholars Program),  
Anthropology , Jennifer Trivedi,  
Anthropology

*The Impact of COVID-19 On College Student  
Experience*

**March, Isabela** (Summer Scholars Program),  
Cognitive Science, Giovanna Morini,  
Cognitive Science

*Playing in English vs. Spanish: Examining the  
role of bilingual caregivers' gesture use during  
toy play interactions*

**Perez Rangel, Melissa** (McNair Scholars  
Program), History, Psychology, Naomi  
Sadeh Psychological Brain Sciences

*The Effects of Time of Trauma on Empathy*

**Simons, Tori** (Summer Scholars Program),  
Art, William Starkey, Art

*Enrolled and Anxious*

## Technology, Identity, and Social Impact (ROOM 207)

**Moderator: Laura Ahlstrom**

**Osinubi, Catherine** (Summer Scholars Program), Management Information Systems, Edward Hartono, MIS  
*Utilizing MIS to Revitalize Businesses: Phase 5*

**Ding, Yifan** (Summer Scholars Program), Management Information Systems, Hye-Shin Kim, Fashion and Apparel Studies  
*Fashion's Digital Frontier: How Xiaohongshu Influencers Redesign Chinese Consumer Preferences*

**Barry, Fanta** (Summer Scholars Program), Management Information Systems, Karen McDougal, MIS  
*Optimizing Financial Literacy and Family Services in Black Communities*

**Vazquez, Antonia** (McNair Scholars Program), Finance, Laura Ahlstrom Lerner School of Business & Economics  
*Sense of Self-Efficacy and Connectedness in Female Business Students*

**Nguyen, Anh Van “Summer”** (Graduate College), Psychology, University of South Florida, Christina Barbieri, School of Education  
*Parents’ Experience during Negative Life Events: How COVID-19 Stress and Perceived Impacts Predict Parent-Child Informant Discrepancies*

## Exploring Identity, Memory, and Culture Through Art (ROOM 302)

**Moderator: Katherine Feldkamp**

**Figueroa, Bear** (Summer Scholars Program), Art, David Brinley, Art  
*For Me to Know and You to Find Out: Transgender Identity Through Mixed Media*

**Sayn, Alyse** (Summer Scholars Award), Art & Design, David Brinley, Art & Design

*Nostalgia Through Art: An Artistic Exploration of Memory and Identity*

**Dizon, Angelo** (Summer Scholars Program), Art, David Brinley, Art  
*Nagtatagumpay: Transgender Experiences in the 21st Century*

**Binet, Ashley** (Summer Scholars Program), Fine Arts, David Brinley, Fine Arts  
*Social/Inner Identity: Dual Nature of The Persona*

**Onu, Favour** (Summer Scholars Program), Fine Arts, David Brinley, Fine Arts  
*Depict of Cultural Diversity in Benin Kingdom*

## **Oral Session Five 3:30pm – 4:45pm**

### Narratives of Place, Memory, and Connection (ROOM 202)

**Moderator: Katherine Feldkamp**

**Williams, Leon** (Summer Scholars Program), Art, Jazmyn Crosby, Art  
*Bloom*

**Breakie, Aidan** (Summer Scholars Program), Art, Aaron Terry, Art  
*Project for the preservation of mid-century signage in Delaware*

**Beardsley, Marcus** (Summer Scholars Program), Ancient Greek and Roman Studies, Lauren Petersen, Ancient Greek/Roman Studies  
*Ports, Labor, and Community in the Roman East*

**Mobius, Jonna** (Summer Scholars Program), Art, Aaron Terry, Art  
*Paintings Interpreting WW2 Observation Towers*

**Loock, Kaitlin** (Summer Scholars Program), Art, Katie Leech, Art

*Horsemanship is Understanding: Equine Expressions and Ethical Horsemanship*

**Bridging Cultures: From Ancient Civilizations to Contemporary Poetics and Performance (ROOM 205)**

**Moderator: Denise Murphy-Rohr**

**Faircloth, Sheyenne** (McNair Scholars Program), English Education, Jessica Edwards, English  
*Rhetorical Surveillance of Black Language and Literature Across Genres*

**Saylor, Riel** (Summer Fellows), English, Christopher Penna, English  
*Place, Trauma, and Form in Contemporary Poetry*

**Ballah, Sabrina** (Summer Scholars Program), Chinese Studies, Yuanchong Wang, Chinese Studies  
*Macau: Where China & Portugal's Culture Blend*

**Barrett, Patrick** (Summer Scholars Program), Communication, Monica Frichtel, Communication  
*Designing Drama-Rich Pedagogy for the Elementary/Middle School Classroom: An Introduction to Frances Harper*

**Jones, Maya** (Summer Scholars Program), English, Monica Frichtel, English  
*Frances Harper Project*

**Innovative Approaches in Youth Education and Healthcare (ROOM 207)**

**Moderator: Nancy Getchell**

**Villamagna, Amelia and Doyle, Eve** (McConnell Health & Well-being Gift), Nutrition and Dietetics, Michelle Voegele, Cooperative Extension

*Fueling Fun with Nutrition Education at Local Summer Camps*

**Gibson, Mackenzie** (CANR Summer Institute), Prospective Anthropology, Mark Parcells, Animal and Food Science  
*UD Envision Summer 2025*

**Hovington, Darrianna** (Cooperative Extension), Sports Health, Karen Johnston, Cooperative Extension  
*Educating Youth on the Effects of Vaping*

**Shah, Bhavini** (Industry Summer Scholar), Medical Diagnostics, Victor Perez, Medical Diagnostics  
*Challenges Impacting Delaware Dental Professionals' Capacity to Care for Patients with Disabilities*

**Halfpenny, Keira** (Summer Scholars Program), Neuroscience, Philip Gable, Neuroscience  
*Impulsivity and the Neural Correlates for Frontal Asymmetry*

