



University of Delaware

Winter Showcase of Undergraduate Research, Scholarly, and Creative Works

February 13th, 2024

Welcome to the Undergraduate Research Winter Showcase! Please find below a scheduled list of our wonderful presenters. Thank you for attending, and please take a boxed lunch at your own convenience.

12:00-12:05: Introduction/Setting Up

12:05-12:43: 1st Lightening Talk Session

Andy Redder	Oxygen Evolution Catalysts for Green Hydrogen Production
Arriana Bisram	Genetic Fusion of RLP-Functionalized Coiled-Coil Constructs Exhibit Assembly Properties
Akshaya Shree Jawaharlal Nehru	Structured Finance for the Microfinance Industry
Cara McDonald	Human Relationship with Technology Through Video
Kelly Coleman	Mirror Palace: Properties and Conservation of Glass
Lufei Xu	Color & Animation Exercises: The Change of Seasons - Spring
Natalie Schmidt	Modeling Music
Qi Zhang	Utilizing and evaluating nanoscale characterization techniques by probing the responsive synthetic extracellular matrices
Farzana Mohseni	Women, Migration, Driving and Independence
Claire Kaufmann	Connect With Me Off the Court: How Much Do College Basketball Players Actually Care About Their Social Media Presence?

12:48-1:08: 1st Poster Session

1- Ansh Desai	Linear Multistep Methods Without Restarting
2- Abigail Caridi	Regional Analysis of Brain Mechanical Properties using Magnetic Resonance Elastography
3- Alyssa Perrin	Adapting a ppGpp Biosensor To Alternative E.coli Strains
4- Alania Mariano	Eyes Through a Cinema Camera
5- Alex Mulrooney	Accelerating Tensor Decompositions in Julia
6- Alyssa Wentzel	An Assessment of Social Vulnerability to Climate Change in Luzon, Philippines
7- Amanda Jose	Exploring Parenting Perspectives: A Study on Child Discipline and Relationships in India
8- Emily Borell	Effects of small-molecule inhibitors of FGFR, integrins, and FAK on glioblastoma stem cell motility and proliferation
9- Ethan Stoecker	Robotic Analysis of Rodent Knee Biomechanics
10- Emma Zarate	Magnetic resonance elastography captures subtle changes in stiffness between phases of the rat estrous cycle
11- Hannah Weile	The Use of Type III-A CRISPR-Cas Systems to Determine Sequence Importance in E. coli's Defense Against T4 Phage

12- Isaac Chandler	Bio-Inspired Unmanned Underwater Vehicles
13- Jo Griffin	Queer Joy Study
14- Kayla Wolf	Development of Targeted Epigenetic Modifications to Induce a Biomanufacturing Stress Tolerance in CHO cells
15- Kiera Grant	Project LAUNCH
16- Mekhi Williams	Developing a Fluorometric Assay for Detecting Enzyme Activity on LDPE
17- Connor Kosinski	Cathode Composition impact on Ferroelectric-Enhanced Li-S Batteries
18- Montana Edwards	Asymmetric Synthesis of 3,5-Substituted Hydantoins via an aza-Heck Cyclization
19- Kaitlyn Goblirsch, Melissa Grogin	Effects of behavioral intervention on mPFC and hippocampal projections to the nucleus reuniens in a rodent model of FASD
20- Nadia Brogran	The Effect of Locomotion on Epigenetic Regulation in the Developing Spinal Cord
21- Morgan Oliver	Human and Landscape Interaction in Rio de Janeiro
22- Rena So	Development of an Accelerated Platform for Vector Optimization using RMCE Facilitated Mini-pool Cloning
23- Riley McKeon	A systematic review of factors influencing physical activity and exercise in adults with intellectual disabilities
24- Riley Pennington	Promoting Inclusive Fitness: Improving Access for Adults with Intellectual Disabilities
25- Sophie Olson	Key Biochemical Insights of Human TRMT1 Methyltransferase and tRNA Binding Activity
26- Kaveri Srivastava	Computational Studies to Design Block Polymers for Thermal Conductivity Applications
27- Wesley Carson	Multi-label Classification of Antacid Tablets via LIBS Spectroscopy
28- Lindsey Wang	3D Organ Reconstruction From Preferential 2D Image Interpolation
29- Kristine Osinuga	Investigating Amygdala Activation during Emotion Regulation of Children whose Parents have a History of Depression
30- Lauren DeSantis	Characterizing a Serine Integrase Mediated Integration System in a Non-Conventional Yeast
31- Kaitlin Lupinacci	Synthesis of Peptidoglycan Disaccharide Capped Fragments for the Innate Immune System
32- Meghan Rogers	How Political Communication Effects Public Opinion in Northern India
33- Connor McCleery	Optimization of polysulfide trapping in Li-S batteries through ferroelectric framework
34- Adil Sheikh	Understanding Copper Crystal Formation through Electrodeposition

1:13-1:51: 2nd Lightning Talk Session

Casey Tyler	Historic Underwear Design: a Non-Binary Addition to a Binary Closet
Hanna White	Plasma Oxidation to Aid LDPE Biodegradation
Brishna Nazari	Driven: Refugee Resettlement and the American Dream
Ranyah Khan	Creating a soft haptic wearable using liquid metal electromagnetics
Catherine Osinubi	Utilizing MIS to Revitalize Businesses: A look into successful businesses and the systems
Thomas Burney	Original Character Animation and Storytelling Methods
Jason Puza	The Impact of Six1 Variants on Craniofacial Development
Gabriela Krochta	Genetic role of Six1 in Crainiofacial Development
Ryan Morris	Print and Physicality - A Study of Printmaking Processes

1:56-2:16: 2nd Poster Session

1- Altaf Bacchus	MMP-Degradable Hydrogel Microparticle Characterization
2- Andrew Ngo	Using Machine Learning to Predict Mental Health Psychometrics
3- Aaron Oster	Comparative Analysis of Automatic Unsupervised Clustering
4- Arjun Parab	Role of RNA-Binding Proteins in Lens Development and Age-Related Cataract Formation
5- Brandon Maravilla Garcia	Project robo-squid
6- Calista Shank	Larger Right Amygdala Volume Associated with Diurnal Cortisol Patterns in Early Adolescence
7- Chandler Morrell	Influence of Disgust on Emotional and Motivational Neural Processing
8- Daniel Tortorella	Synthesis and structural analysis of intermetallic phases and Zintl phases for thermoelectric applications as novel materials
9- David Adejoro	Project Squid
10- Grace Davis, Theresa Edery	Identifying circular RNA expression in human iPSC-derived cardiomyocytes
11- Dominic Carrea	Characterizing the abundance and diversity of avian malaria parasites within Papua New Guinean montane birds
12- Gabriel DaSilva	Confirming Cannibalism in an Emerging Waste Upcycler
13- Owen He	Co-Creative Production: Investigating the Impacts of Generative AI Models on Creative Satisfaction
14- Jan Ahmed	Longest Increasing Subsequences
15- Jacob Letnaunchyn	Assessment of Directing Groups in Reductive Homocoupling Reactions
16- Jenna Loquercio	The Impact of Surgical Masks from the COVID-19 Pandemic on Children's Gender Identification
17- Kara Taylor	Carolina Wren singing phenology and effects of territory intrusion on behavior

18- Taran Kermani	Confocal Characterization of Z. Mays Brace Root Development Mutants
19- Leah Alexander	BrainyAct Intervention Study
20- Maryanne Porter	The Problem with Disorder: What Mental Illness Feels Like vs How it's Diagnosed
21- Madison Endres	Understanding the effects of social stress and the role of various genes in processing the social environment
22- Megan Tarr	Elucidating Enzymatic Polyethylene Oxidation Mechanisms
23- Natalie Rivera	Inflammatory gene expression in fetal placenta tissue as a result of maternal immune activation
24- Gabriela Portillo	Understanding the Impact of Labels on Sustainable Latin American Coffee
25- Miguel Prysakar	Changes in Epigenetic Regulation in the PAG due to Early Life Adversity
26- Raktim Basu	Detection and quantification of cytosolic DNA by use of smFISH
27- Richard Gomes	Stress Reduction Training for Relationship and Personal Well-Being
28- Serene Abiy	Lepidoptera Global Habitat & Categorization
29- Shreeya Parekh	The Security of Work: Public Perceptions of Generative AI in Creative Writing and its Implications for Labor
30- Zoe Cronin	Evidence of Boundary Extension from Searchlight Analyses
31- Natalie Maurer	The Impact of Marital Quality on Eating Habits and Depression

2:21-2:59: 3rd Lightning Talk Session

Atif Bacchus	Using Pan-Inflammatory-Value as a Potential Prognostic Tool in Breast Cancer Patients
Mikul Duggal	Characterization of non-Arrhenius Break Point of Thermolysin
Jayden Lesko	Intergenerational Differences in Understanding the Term "Queer" Among LGBTQ+ Teens and Older Adults
Madeline Greenly	Female Deities and Their Effect on Woman in Hindu Society
Margaret Armstrong	The History of Creative Writing
Zoe Byer-Wein	Undoubtedly Politicians: The Religious Lives and Theological Influence of Pulcheria and Athenais-Eudokia, Augustae of the Theodosian Dynasty
Brooke Gaenzle	Investing Hydrodynamics and Sediment Transport Near Cape Shores
Faiza Saeedi	Exploring lives of Muslim Indian Women in India



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