

# CURF Spring Research Symposium

April 10-12, 2025

Posters in Game Room and 2<sup>nd</sup> Floor Lobby of Houston Hall

**Friday, April 11, 1:30-3:00 PM: Live Poster Presentations in Game Room and 2<sup>nd</sup> Floor Lobby**

**Friday, April 11, 3:00-5:00 PM: Live Oral Presentations in Ben Franklin Room (2<sup>nd</sup> Floor, Houston Hall)**

## Posters

### Game Room

**Tess Asness**, Cognitive Science

*Characterization of Dopaminergic Synapses in Tissue-Engineered Nigrostriatal Pathways*

Supporting Program: College Alumni Society Research Grant

Mentor: Kacey Cullen

**Valeria Bonomie**, Health and Societies

*When Health Comes Knocking: Community Health Programming and Universal Coverage in Argentina*

Supporting Program: Gelfman International Summer Fund

Mentor: Adam Mohr

**Alex Boyko**, Biology

*Investigating the Role of Diet-Microbiome Interactions on Host Glucose Regulation*

Mentor: Kathryn Wellen

**Matt Calumpit**, Biophysics

*Influence of Polypharmacy on Fentanyl Overdose Deaths in the US: An Observational Cross-Sectional Study*

Mentor: Eric Gross

**Bingling Chen**, Biology

*Extracellular Matrix Stiffness Dependent Behavior of Dental Pulp Stem Cells*

Supporting Program: College Alumni Society Research Grant

Mentor: Kyle Vining

**Daniel Cho**, Biology

*Effect of IL-10 Blockade on the Circadian Gating of Lung Inflammation*

Supporting Program: Grants for Faculty Mentoring Undergraduate Research

Mentor: Shaon Sengupta

**Lila Dimasi**, Psychology

*Evaluating Personal Qualities in College Admissions: A Human-AI Comparison*

Supporting Program: College Alumni Society Research Grant

Mentor: Angela Duckworth

**Bamelak Duki**, Biology

*Engineering Interlocked Circular RNA: A Rational Design Approach*

Mentor: Lijun Zhou

**Bilal Elfayoumi**, Neuroscience

*Lysosomal Galcer Accumulation Amplifies TNF $\alpha$  Secretion in T $\mu$ i Macrophages Upon Inflammatory Stimuli*

Supporting Program: Pincus-Magaziner Family Undergraduate Research and Travel Fund

Mentor: F. Chris Bennett

**Sarah Garrison**, Cognitive Science

*The Impacts of Socioeconomic Status on Risk and Ambiguity Preferences*

Supporting Program: College Alumni Society Research Grant

Mentor: Joseph Kable

**Eleanor Grauke**, History

*Washwomen, Widows, and Ward Leaders: Benevolent Societies as Instruments of Freedom by Black Women in Northern Cities, 1830-1840*

Supporting Programs: College Alumni Society Research Grant, Wolf Humanities Center Undergraduate Research Grant

Mentor: Sarah Gronningsater

**Harper Green**, Biology

*Investigation of Tumorigenic Characteristics in High-Grade Serous Ovarian Cancer after ZNF148 Knockdown*

Mentor: Ronny Drapkin

**Manya Gupta**, Political Science

*Culture, Health, and Cooking Fuels in India: Analysing the Implementation of the Pradhan Mantri Ujjwala Yojana*

Supporting Program: College Alumni Society Research Grant

Mentor: Tariq Thachil

**C.H. Henry**, Communication

*Understanding the Strategy Behind U.S. Presidential Campaign Songs*

Supporting Program: College Alumni Society Research Grant

Mentor: Kim Woolf

**Kamara Holmes**, Biochemistry

*Synthesis and Characterization of Fluorinated Cytosporone-Like Compounds: Small Molecule Activation of NR4A1, a Potential Target for Treating Cocaine Use Disorder*

Supporting Program: College Alumni Society Research Grant

Mentor: Elizabeth Heller

**Yerahm Hong**, Bioengineering

*Developing a Model of Naturalistic Focal Seizures*

Supporting Program: Class of 1971 Robert J. Holtz Fund

Mentor: Ethan Goldberg

**Ariana Javaheri**, Cognitive Science

*Impact of Trauma and Stressful Life Events on Sleep Disturbances and Cognition*

Mentor: Philip Gehrman

**Jean Jin**, Biochemistry

*Investigating Non-Catalytic Activity of Ten-Eleven Translocation Enzyme 1 in the Mammalian Germline*

Supporting Program: Vagelos Molecular Life Sciences

Mentor: Marisa Bartolomei

**Srijan Kalva**, Neuroscience

*The Effects of Omega-3 Fatty Acid Supplementation on Neuropathology*

Supporting Program: College Alumni Society Research Grant

Mentor: Daniel Cullen

**Euel Kebebew**, International Relations

*Beyond Balancing: Ethiopia's Foreign Policy in a Multipolar World*

Supporting Program: College Alumni Society Research Grant

Mentor: Valeriya Kamenova

**Sadie Kilar**, Psychology

*Associations Between Parental Depressive Symptoms and Video-Elicited Emotions*

Supporting Program: Andrea Mitchell Center Undergraduate Research Grant

Mentor: Rebecca Waller

**Sage Leland**, Bioengineering

*Machine Learning Automated Pose Estimation Identifies a Distinct Social Behavioral Profile Following Psychosocial Stress in Male Mice*

Supporting Program: University Scholars

Mentor: Amelia Eisch

**Blake Lippman**, Biology, and **Jessica Silverstein**, Biology

*Large Language Model Performance on Cognitive Impairment Screening: A Prospective Simulated Patient Study*

Mentor: Ari Friedman

**Adelaide Lyall**, Sociology

*"We Left a Great Life": African Immigrant Incorporation in Maine*

Supporting Programs: Andrea Mitchell Center Undergraduate Research Grant, Benjamin Franklin

Scholars Summer Funding, Gelfman International Summer Fund

Mentor: Emilio Parrado

**Ananya Madhira**, Neuroscience

*Using EEG to Examine Gestural Facilitation of Language Comprehension in Primary Progressive Aphasia*

Supporting Program: American Academy of Neurology

Mentor: Branch Coslett

**Sabirah Mahmud**, International Relations

*SEEDS OF REBELLION: How Long-Term Repression Shapes Student Movement Culture*

Supporting Program: College Alumni Society Research Grant

Mentor: Valeriya Kamenova

**Annabelle Paradise**, Earth and Environmental Science

*Subsea Energy Security in Europe*

Supporting Program: College Alumni Society Research Grant

Mentor: Benjamin Schmitt

**Julia Park**, Chemistry

*Synthesis of a Non-Aggregating Phthalocyanine with Enhanced Two-Photon Absorption Cross-Section*

Supporting Programs: College Alumni Society Research Grant, Chemistry Department

Mentor: Sergei Vinogradov

**Sophia Powell**, History

*In Search of a Right: Collegiate Reproductive Activism, 1965-1972*

Supporting Program: History Department Undergraduate Research Fund

Mentor: Brent Cebul

## **Posters**

### **2<sup>nd</sup> Floor Lobby**

**Yash Rajpal**, Bioengineering

*Absorbent Hydrogel-Concrete for Sustainable Cooling*

Supporting Program: VIPER

Mentor: Shu Yang

**Logan Saenz**, History of Art

*Revolutionary Re-Figuration: Empire and Subjectivity in Nicaraguan Art*

Supporting Program: College Alumni Society Research Grant

Mentor: Hannah Feldman

**Myka Salvacion**, Biology

*The Role of HLA-G and DR5 in NK-Cell Mediated Killing of MYC-N-Amplified Neuroblastoma*

Mentor: John Maris

**Alexandria Sambrano**, Anthropology

*On the Locomotor Skeleton of Hylobates Lar: The Development of the Knee in an Arboreal Biped*

Supporting Program: College Alumni Society Research Grant

Mentor: Myra Laird

**Helena Saven**, Psychology

*Adverse Childhood Experiences and Response to Physical Touch Among Parents of Young Children*

Supporting Program: MindCORE

Mentor: Rebecca Waller

**Anjali Shankar**, Chemistry

*Temporal and Cell-specific Changes to Cellular Iron Sequestration and Lipid Peroxidation Following Neonatal Hypoxic-ischemic Brain Injury*

Mentor: Joshua Dunaief

**Heejoon Shin**, Chemistry

*Understanding VACV A35R Functions in MHC Class I and II Antigen Presentation*

Supporting Program: College Alumni Society Research Grant

Mentor: Laurence Eisenlohr

**Anyia Sinha**, International Relations, and **Riya Sinha**, Philosophy, Politics and Economics

*Protecting Rights and Improving Livelihoods: Addressing Gender-Based Mistreatment and Economic Vulnerability Among Syrian Refugees in Jordan*

Supporting Program: Grants for Faculty Mentoring Undergraduate Research

Mentor: Erik Wibbels

**Pranav Sompalle**, Biophysics

*Deep Learning-Based Detection of Xylazine Exposure from Wound Imaging*

Mentor: Jeanmarie Perrone

**Catherine Tang**, Health and Societies

*Enhancing Primary Care Integration: Addressing Substance Use Disorder in Young MSM to Optimize Primary Care and Mitigate HIV Risk*

Supporting Program: College Alumni Society Research Grant

Mentor: Renata Sanders

**Jessica Thomas**, Psychology

*Psychopathy in the Public Eye: The Impact of Differential Explanatory Models on Perceptions of Moral Blame*

Supporting Program: College Alumni Society Research Grant

Mentor: Geoffrey Goodwin

**Chenglu Wang**, Mathematics

*On Global Dimension of Bound Quivers*

Supporting Program: University Scholars

Mentor: Daniel Krashen

**Annie Xia**, Biology

*Characterizing Impacts of Retinoic Acid and Polyamine Synthesis Inhibition on Neuroblastoma Outcomes*

Supporting Program: College Alumni Society Research Grant

Mentor: Michael Hogarty

**Alex Yim**, English

*Modernization, Genre, and the Time Being*

Supporting Program: College Alumni Society Research Grant

Mentor: Paul Saint-Amour

**Sophia Young**, Psychology

*Investigating Social Support and Expectations for the Future across Sexual Minority and Straight Youth*

Supporting Program: College Alumni Society Research Grant

Mentor: Sara Jaffee

## **Oral Presentations**

**Friday, April 11<sup>th</sup>, Ben Franklin Room (Houston Hall 2<sup>nd</sup> Floor)**

- 3:00 – 3:05      **Welcome Remarks**
- 3:05 – 3:15      **Benita Balogun**, Biology  
*An Investigation of SCD-101: A Botanical Extract with Promising Anti-sickling Capabilities in Patients with Sickle Cell Disease (SCD)*  
 Supporting Program: University Scholars  
 Mentor: Oshieza Abdulmalik
- 3:20-3:25      **Connor Nakamura**, History  
*Cloaked Radicalism: Bayard Rustin and the Socialist Civil Rights Strategy*  
 Supporting Program: College Alumni Society Research Grant  
 Mentor: Brent Cebul
- 3:25-3:35      **Thomas Li**, Mathematical Economics  
*Luxury Exclusivity in the Digital Age: A Conjoint Approach*  
 Supporting Program: College Alumni Society Research Grant  
 Mentor: Jere Behrman
- 3:35-3:45      **Madeline Kohn**, Urban Studies  
*Traversing Boundary Identities in Maramures County, Romania*  
 Supporting Program: Paul & Kathleen Barthmaier Award  
 Mentor: Taije Silverman
- 3:45-3:55      **Ryan Tannir**, Biology  
*A Multi-Antigen Targeting Chimeric Antigen Receptor (CAR) T Cell Therapy for Solid Tumors*  
 Supporting Program: College Alumni Society Research Grant  
 Mentor: Leyuan Ma
- 4:00-4:10      **Camellia Bui**, Psychology, and **Luke Finkelstein**, Political Science  
*Efficacy and Acceptability of a Mental Health Chatbot for College Students*  
 Supporting Program: College Alumni Society Research Grant  
 Mentor: Melissa Hunt
- 4:10-4:20      **HongJu Lee**, Neuroscience  
*RNA Sequencing of Spatially Inverted Xenopus Embryos Expressing Delayed Zygotic Genome Activation*  
 Supporting Program: College Alumni Society Research Grant  
 Mentor: Matthew Good
- 4:20-4:30      **Rheem Abbas**, Africana Studies  
*The Line in the Sand: Museum Collection Practices and the Erasure of Nubia*  
 Supporting Program: University Scholars  
 Mentor: Ali Dinar

- 4:30-4:40     **Jenny Li**, Biology  
*DNA Methylation-Based Stratification of Pediatric Thyroid Tumor Invasiveness*  
Supporting Program: College Alumni Society Research Grant  
Mentor: Wanding Zhou
- 4:40-4:50     **Stela Rosa Marra**, Economics  
*Trends in Leisure Over the Years: Un Updated Study*  
Mentor: Aislinn Bohren
- 4:50-5:00     **Nathan Susser**, Philosophy, Politics and Economics  
*The Multifaceted Nature of Happiness*  
Supporting Program: College Alumni Society Research Grant  
Mentor: Sudeep Bhatia