

Welcome

Welcome to Boston University's 26th Annual Undergraduate Research Symposium! We are honored to have you engage with our high-achieving students and supportive faculty mentors who have collaborated over the past year working on groundbreaking research.

UROP connects BU undergraduate students with funded, faculty-mentored research projects. The program is flexible, allowing research study in any academic area university-wide, for any full-time undergraduate student at BU. Our mission is to increase student access to research experiences through funded, faculty mentored opportunities university-wide. Projects may be undertaken at either the Charles River or Medical Campus, on a volunteer basis, for a stipend, or for academic credit.

Enjoy and be inspired!

Phil Haberkern
Director

Melissa Johnson
Associate Director

Molly Powers
Program Administrator

Acknowledgements

UROP is primarily supported by Boston University's Office of the Provost. We also thank our faculty advisory committee for their efforts in reviewing applications and guiding UROP to achieve its mission. Most importantly, we thank our faculty mentors for providing learning environments for our undergraduates and thus making UROP possible.

In addition, we thank the following financial sponsors for their generosity:

Funds from faculty research grants

Boston University Arts Initiative

Boston University Newbury Center

Clare Boothe Luce Program of the Henry Luce Foundation

Friends & Family of Dr. Mark Riemen

Friends & Family of Dr. Mary Erskine

Dr. Loren E. Wold

National Science Foundation

New England Biolabs

Presentation Times

Student presenters are split into two groups

Poster Session 1:










11AM to 12PM

Poster Session 2:

12PM to 1PM

Symposium Map Key

What do you want to learn?

	Biological Sciences
	Physical Sciences
	Social Sciences
	Arts & literature
	Sargent: Health & Rehabilitation Sciences
	Medical Sciences
	Computational & Mathematical Sciences
	Engineering
	Electronic Poster

Biological Sciences

Jasmine Akinpelu

Project Title: Investigating Mitochondrial Activity in Mutant Muscle Cells

Faculty Mentor: Frank Naya

Poster Number: 91

Presentation Time: 11:00 AM

Ethan Anderson

Project Title: Investigating gut-ovary tissue crosstalk using *Drosophila melanogaster*

Faculty Mentor: Kim McCall

Poster Number: 1

Presentation Time: 12:00 PM

Shantelle Bartley

Project Title: Assessing Heat Resilience and Energy Allocation of Cryptic Coral Lineages in Palau

Faculty Mentor: Sarah Davies

Poster Number: 2

Presentation Time: 11:00 AM

Matthew Boberg

Project Title: Developmental spatial gene expression patterning and candidate shRNA targets for understudied schizophrenia risk genes

Faculty Mentor: Ali Brack

Poster Number: e1

Presentation Time: 11:00 AM

Sophie Bodine

Project Title: Defining the Relationship between VEGF and Wnt5 signals to PMCs and Jun expression and function in PMCs

Faculty Mentor: Cynthia Bradham

Poster Number: 3

Presentation Time: 11:00 AM

Caoimhe Bodnar

Project Title: Impact of Holobiont on Cnidarian Immunity and Transcription Factor NF- κ B

Faculty Mentor: Thomas Gilmore

Poster Number: 5

Presentation Time: 11:00 AM

Luke Buza

Project Title: Big Cat Endocasts Reveal Hunting Behaviors

Faculty Mentor: Eva Garrett

Poster Number: e2

Presentation Time: 11:00 AM

Jordyn Choe

Project Title: Validation and Characterization of Viral Peptides Affecting Cellular Proliferation and Apoptosis

Faculty Mentor: Juan Fuxman Bass

Poster Number: 4

Presentation Time: 12:00 PM

Hannah Connell

Project Title: Translating an Oceanographic Book from Spanish to English: Caribbean Basin and Marine Protected Areas of Nicaragua

Faculty Mentor: Ethan Deyle

Poster Number: 6

Presentation Time: 12:00 PM

Luciano Foranoce

Project Title: Recapitulation of the Arabidopsis alf3 Mutant by Transformation with the Mutant Allele

Faculty Mentor: John Celenza

Poster Number: 8

Presentation Time: 12:00 PM

Isabella Hirt

Project Title: Strain-Dependent Rates of Wolbachia Accumulation in Drosophila Oocytes

Faculty Mentor: Horacio Frydman

Poster Number: 7

Presentation Time: 11:00 AM

Flora Kerner

Project Title: Does clutch size reduction influence male-female interactions and levels of parental care in the clown anemonefish Amphiprion percula?

Faculty Mentor: Peter Buston

Poster Number: 9

Presentation Time: 11:00 AM

John Lee

Project Title: Deciphering NEXMIF Gene Consequences: Neuronal Activity, Social Interaction, Potential Interventions in an ASD Mouse Model

Faculty Mentor: Hengye Man

Poster Number: 11

Presentation Time: 11:00 AM

Evelyn Liew

Project Title: Combined Effects of Warming Temperatures and Reduced Snowpack on Nutrient Cycling in a Northern Hardwood Forest

Faculty Mentor: Pamela Templer

Poster Number: 10

Presentation Time: 12:00 PM

Erika Meagher

Project Title: Tissue specific and environmental regulation of glucosinolate biosynthesis in Arabidopsis

Faculty Mentor: John Celenza

Poster Number: 13

Presentation Time: 11:00 AM

Christian Mei

Project Title: TFBS prediction in early *Drosophila melanogaster* embryos

Faculty Mentor: Zeba Wunderlich

Poster Number: 12

Presentation Time: 12:00 PM

Sarah Osman

Project Title: Regulation of anti-herbivory compound in *Arabidopsis thaliana*

Faculty Mentor: John Celenza

Poster Number: 14

Presentation Time: 12:00 PM

Nicole Padro-Luna

Project Title: Cell-type specific contributions to behavioral deficits in a model of complement 4 overexpression

Faculty Mentor: Luke Fournier

Poster Number: 16

Presentation Time: 12:00 PM

Gabriela Porto Machado

Project Title: Neuropixel Experimental Framework Design

Faculty Mentor: Jeff Gavornik

Poster Number: 18

Presentation Time: 12:00 PM

Jacob Purinton

Project Title: Identification of viral cis regulatory elements and their regulation mechanisms

Faculty Mentor: Juan Fuxman Bass

Poster Number: 20

Presentation Time: 12:00 PM

Cheng Yang (Jason) Shi

Project Title: Investigating Defective Phagocytosis in Draper Deficient Drosophila Brain

Faculty Mentor: Kim McCall

Poster Number: 24

Presentation Time: 12:00 PM

Rhea Singh

Project Title: Genetic and neural sources of individual differences in goal-directed learning

Faculty Mentor: Jerry Chen

Poster Number: e1

Presentation Time: 12:00 PM

Sofia Weaver

Project Title: Remote Measurement of Morphological Traits on Wild Critically Endangered Yellow-Tailed Woolly Monkeys (*Lagothrix flavicauda*) in Perú

Faculty Mentor: Christopher Schmitt

Poster Number: 25

Presentation Time: 12:00 PM

Max Wertheimer

Project Title: Characterizing the epithelial sheath as a barrier to professional phagocytes during apoptosis in the ovary

Faculty Mentor: Kim McCall

Poster Number: e2

Presentation Time: 12:00 PM

Pamela Yang

Project Title: The effects of draper gene knockdown in different tissues on ovarian function in *Drosophila melanogaster*

Faculty Mentor: Kim McCall

Poster Number: 15

Presentation Time: 11:00 AM

Nicole Zaksorn

Project Title: The Impact of Global Dlk1-Dio3 Knockdown on Cardiomyocyte Directed Stem Cell Differentiation

Faculty Mentor: Francisco Naya

Poster Number: 22

Presentation Time: 12:00 PM

Nina Zhao

Project Title: Assessing Impact of Marsh Hydrology Restoration on Habitat at the Marsh-Scale

Faculty Mentor: Leslie Kaufman

Poster Number: 17

Presentation Time: 11:00 AM

Physical Sciences

Axel Almaguer Gaona

Project Title: Detecting Exotic Particles Through Solar Radiation Pressure Measurement Via MEMS Resonators

Faculty Mentor: Pritiraj Mohanty

Poster Number: 19

Presentation Time: 11:00 AM

Parnian Asgari

Project Title: Synthesis, characterization and reactivity of a series of iron and molybdenum Perfluoropinacolate Complexes

Faculty Mentor: Linda Doerrer

Poster Number: e3

Presentation Time: 11:00 AM

Brenden Blakley

Project Title: Silicon uptake kinetics vary by macroalgae genera

Faculty Mentor: Robinson Fulweiler

Poster Number: 21

Presentation Time: 11:00 AM

Yi-Ting Chen

Project Title: Anisotropic Galaxy-Galaxy Lensing by IllustrisTNG Galaxies

Faculty Mentor: Tereasa Brainerd

Poster Number: 28

Presentation Time: 12:00 PM

Alice Fan

Project Title: Application of a PISA Assay for Detection of Rocaglate Binding to DEAD-box Helicases

Faculty Mentor: John Porco

Poster Number: 30

Presentation Time: 12:00 PM

Jennifer Flores

Project Title: Photoreduction reaction catalyzed by Rieske non-heme iron oxygenase VanA derived from thermophilic bacterial source

Faculty Mentor: Pinghua Liu

Poster Number: 23

Presentation Time: 11:00 AM

Daniel Gorham

Project Title: Synthesis of Bifunctional Salen Cobalt Catalyst for Ring Opening Polymerizations

Faculty Mentor: Aaron Beeler

Poster Number: 26

Presentation Time: 11:00 AM

Pareesha Haresh

Project Title: Defining the structure and function of GT-A fold enzymes in Bacteria

Faculty Mentor: Karen Allen

Poster Number: 27

Presentation Time: 11:00 AM

Soyoon Kang

Project Title: Optimization of Expression and Purification of Yeast Primase

Faculty Mentor: Deborah Perlstein

Poster Number: 39

Presentation Time: 11:00 AM

Jingxuan Li

Project Title: Global survey of whistler mode waves in the Earth's magnetosheath using THEMIS observations

Faculty Mentor: Wen Li

Poster Number: 29

Presentation Time: 11:00 AM

Kelsey Mangis

Project Title: A Study of Spatial Distributions of Cluster Galaxies in a CDM Computer Simulation

Faculty Mentor: Tereasa Brainerd

Poster Number: 31

Presentation Time: 11:00 AM

Russell Mapaye

Project Title: Probing Jupiter's Upper Atmosphere Through H₃⁺ Emissions and Ganymede's Shadow

Faculty Mentor: Luke Moore

Poster Number: 33

Presentation Time: 11:00 AM

Camille Mauceri

Project Title: 4 Dimensional Tracking Studies in the ATLAS Experiment

Faculty Mentor: Zeynep Demiragli

Poster Number: 32

Presentation Time: 12:00 PM

Elliott Mendenhall

Project Title: Spectroscopy of Calcium Ferrite (CaFe₂O₄) for Use in Calcium-Ion Batteries

Faculty Mentor: Kevin Smith

Poster Number: 34

Presentation Time: 12:00 PM

Alaina Minarik

Project Title: Synthesis and Characterization of a Pt-Gd Tetramer

Faculty Mentor: Linda Doerrer

Poster Number: 35

Presentation Time: 11:00 AM

Angel Morales

Project Title: Changes in the Jet of the Blazar 1510-089, Powered by a Super-massive Black Hole

Faculty Mentor: Alan Marscher

Poster Number: 37

Presentation Time: 11:00 AM

Amira Oladokun

Project Title: Large Scale Synthesis of Key Building Blocks to Access Spiromeroterpenoids and Simplified Derivatives

Faculty Mentor: John Porco

Poster Number: 36

Presentation Time: 12:00 PM

Sydney Peacock

Project Title: A Satellite-Based Analysis of Chlorophyll-a and Sediment Discharge Trends at the Intersection of Rivers and the Java Sea in Pekalongan, Indonesia

Faculty Mentor: Magaly Koch

Poster Number: 38

Presentation Time: 12:00 PM

Marvens Ravix

Project Title: Exploring the miR-726 Gene's Role in Color Vision using CRISPR/Cas9 in Zebrafish

Faculty Mentor: Daniel Cifuentes

Poster Number: 85

Presentation Time: 12:00PM

Luke Saunders

Project Title: Confirmation of LArTPC Calibration Methods for protoDUNE and DUNE

Faculty Mentor: Zeynep Demiragli

Poster Number: e3

Presentation Time: 12:00 PM

Ruoshui Xu

Project Title: Synthesis and Characterization of Spinel Calcium Ferrite and Its Dopants.

Faculty Mentor: Kevin Smith

Poster Number: 41

Presentation Time: 11:00 AM

Social Sciences

Ananya Agarwal

Project Title: Jaunpur Social Network Study

Faculty Mentor: Mahesh Karra

Poster Number: 43

Presentation Time: 11:00 AM

Taelor Anderson

Project Title: Evolving Minds: Natural Selection in Third-Grade Classrooms

Faculty Mentor: Deborah Kelemen

Poster Number: 40

Presentation Time: 12:00 PM

Brooke Bedell

Project Title: Investigating the Role of Vasculature as Scaffolding in the Migration of New Neurons in an Adult Songbird HVC

Faculty Mentor: Benjamin Scott

Poster Number: 45

Presentation Time: 11:00 AM

Amana Bhumitra

Project Title: Music and Society: The Effects of Capitalism on Busking

Faculty Mentor: Leland Clarke

Poster Number: e7

Presentation Time: 12:00 PM

Taylor Bolan

Project Title: Overcoming COVID-19: An analysis of the cultural coping mechanisms utilized by Black families in the face of adversity

Faculty Mentor: Stephanie Curenton

Poster Number: 42

Presentation Time: 12:00 PM

Samantha Brayton

Project Title: Exploring the influence of family cohesion on families with autistic youth during the adult transition period

Faculty Mentor: Kristin Long

Poster Number: 44

Presentation Time: 12:00 PM

Elliott Carlisle

Project Title: Characterizing the clinical features of PANDAS and PANS: A profile of patients within MassGeneral for Children's Pediatric Neuropsychiatry and Immunology Program

Faculty Mentor: Alyssa Farley

Poster Number: 48

Presentation Time: 12:00 PM

Demian Choi

Project Title: Following the Waters: A Comparison Between Haitian Vodou and Cuban Lukumí Ritual Usage of Water and the "Cooling Head"

Faculty Mentor: Margarita Guillory

Poster Number: 57

Presentation Time: 12:00 PM

Joseph Clark

Project Title: Exploring the potential for a successful urban insurgency in Afghanistan

Faculty Mentor: Thomas Barfield

Poster Number: 47

Presentation Time: 11:00 AM

Michael Dupre

Project Title: Democracy From The Dust: Ethnonationalism's Role in the State Building of Eastern Europe

Faculty Mentor: John Stone

Poster Number: 52

Presentation Time: 12:00 PM

Sevillana Ettinger

Project Title: Investigating the relation between callous-unemotional traits and parenting from years three to five

Faculty Mentor: Kimberly Saudino

Poster Number: 56

Presentation Time: 12:00 PM

Dima Ghalili

Project Title: The Use of Technology in Academics

Faculty Mentor: Andrea Mercurio

Poster Number: 50

Presentation Time: 12:00 PM

Shumin Guan

Project Title: Navigating Expectations: Asian American Parents' Perspectives on Autistic Youth's Transition to Adulthood

Faculty Mentor: Kristin Long

Poster Number: 49

Presentation Time: 11:00 AM

Riley Hennessy

Project Title: Gender Inclusion at Summer Camp

Faculty Mentor: Daniel Kleinman

Poster Number: 76

Presentation Time: 12:00 PM

Tori Keefauver

Project Title: Using prairie voles to model the effects of social deprivation on microglia

Faculty Mentor: Kyle Gobrogge

Poster Number: e4

Presentation Time: 11:00 AM

Kelvin Kuang

Project Title: Feature extraction and classification of autism spectrum disorder through convolutional neural networks

Faculty Mentor: Arash Yazdanbakhsh

Poster Number: e19

Presentation Time: 11:00 AM

Ankita Kumar

Project Title: Deeper into Children's Explanatory Preferences About Non-Living Natural Objects

Faculty Mentor: Deborah Kelemen

Poster Number: 54

Presentation Time: 12:00 PM

David Lee

Project Title: Latent Space Exploration of Generative Adversarial Networks on Alzheimer's Disease MRI Scans

Faculty Mentor: Arash Yazdanbakhsh

Poster Number: e5

Presentation Time: 11:00 AM

Emma Longo

Project Title: How Fossil Fuel Companies Use Native Advertisements to Shift Environmental Narratives in U.S. Media

Faculty Mentor: Michelle Amazeen

Poster Number: e6

Presentation Time: 11:00 AM

Sofia Marin

Project Title: Exploring Women's Perceptions and Experiences with the Clean Girl Aesthetic: Factors Influencing Participation and Non-Participation

Faculty Mentor: Heather Schoenfeld

Poster Number: e5

Presentation Time: 12:00 PM

Emma Martin

Project Title: Time-Series Classification in Machine Learning: Long Short-Term Memory Networks

Faculty Mentor: Arash Yazdanbakhsh

Poster Number: 51

Presentation Time: 11:00 AM

Jack Martin

Project Title: Investigating the Impact of Loneliness on Radicalization into Extremism

Faculty Mentor: Jessica Stern

Poster Number: 58

Presentation Time: 12:00 PM

Sarah McArdle

Project Title: Investigating How Heterosexual University Students Desire and Construct Romantic Relationships

Faculty Mentor: Alya Guseva

Poster Number: 53

Presentation Time: 11:00 AM

Caroline Metcalf

Project Title: Zooarchaeology and Animal Use at Birsama, Israel

Faculty Mentor: Catherine West

Poster Number: 60

Presentation Time: 12:00 PM

Angel Miller

Project Title: Fostering Development: Exploring Parental Traits and Supportive Language in Parent-Child Interactions

Faculty Mentor: Amanda Tarullo

Poster Number: 55

Presentation Time: 11:00 AM

Carolyn Moyle

Project Title: Exploring the potential for a successful urban insurgency in Afghanistan

Faculty Mentor: Thomas Barfield

Poster Number: 46

Presentation Time: 11:00 AM

Jonathan Mu

Project Title: Visual-Haptic Crossmodal Aftereffects in Curvature Perception

Faculty Mentor: Arash Yazdanbakhsh

Poster Number: 62

Presentation Time: 12:00 PM

Nasra Noor

Project Title: The Evolution of Education Systems from 1970s Somalia: Barre's Secular Push and the Role of Islamic Education

Faculty Mentor: Betty Anderson

Poster Number: e8

Presentation Time: 11:00 AM

Camille Ofulue

Project Title: The Consequences of Counseling: The Effects of Same-Race Dyads on Black Mental Health Professionals

Faculty Mentor: Celeste Curington

Poster Number: 59

Presentation Time: 11:00 AM

Edison Park

Project Title: Time Perception Modulation by States of Discomfort Induced by the Cold Pressor Task

Faculty Mentor: Sam Ling

Poster Number: 64

Presentation Time: 12:00 PM

Luke Pemberton

Project Title: Conjunctive representation of what and when in primary visual cortex

Faculty Mentor: Marc Howard

Poster Number: 66

Presentation Time: 12:00 PM

Thomas Piernikowski

Project Title: Subject Use in Spanish-Speaking Bostonians

Faculty Mentor: Daniel Erker

Poster Number: 61

Presentation Time: 11:00 AM

Maria Sol Sanchez

Project Title: Exploring the Associations between Affect and Persistence Decisions

Faculty Mentor: Joseph McGuire

Poster Number: 63

Presentation Time: 11:00 AM

Ari Schifman

Project Title: How Emotions Shape Children's Judgements of Fairness

Faculty Mentor: Peter Blake

Poster Number: 65

Presentation Time: 11:00 AM

Hannah Semaya

Project Title: Third Culture Kids and the Varying Perceptions of Community

Faculty Mentor: Jonathan Mijs

Poster Number: 68

Presentation Time: 12:00 PM

Kelsey Smith

Project Title: Maternal age and income in relation to sociocontextual risk and child cognitive function

Faculty Mentor: Amanda Tarullo

Poster Number: 67

Presentation Time: 11:00 AM

Reshma Subramonian

Project Title: The Path to Moksha: Examining Attitudes Towards Mental Health In Upper Middle Class Families in Chennai, India

Faculty Mentor: Merav Shohet

Poster Number: 77

Presentation Time: 11:00 AM

Jasmin Tagijeva

Project Title: Assessing the Relationship Between Mental Health, Trauma, and Individual Radicalisation

Faculty Mentor: Jessica Stern

Poster Number: 69

Presentation Time: 11:00 AM

Katrina Tronco

Project Title: For My Family: Transnational Kinship, Care, and the Filipino Diaspora

Faculty Mentor: Merav Shohet

Poster Number: 71

Presentation Time: 11:00 AM

Andrea Ventura

Project Title: The Advocacy and Socio-political Thought of Paulina Luisi, Unsung Latin American Feminist

Faculty Mentor: Andrei Mamolea

Poster Number: e7

Presentation Time: 11:00 AM

Victor Verma

Project Title: Using Large Language Models for Massive Political Science Data Scraping

Faculty Mentor: Jetson Leder-Luis

Poster Number: e6

Presentation Time: 12:00 PM

Allison Vidovich

Project Title: Against Transracialism: Not Just Ethically Wrong but Metaphysically Impossible

Faculty Mentor: Derek Anderson

Poster Number: 72

Presentation Time: 12:00 PM

Isabella Villafuerte

Project Title: Children believe that they will feel better than peers when treated unfairly

Faculty Mentor: Peter Blake

Poster Number: 74

Presentation Time: 12:00 PM

Juneau Wang

Project Title: Comparing auditory and visual temporal attention

Faculty Mentor: Rachel Denison

Poster Number: 73

Presentation Time: 11:00 AM

Claire Williams

Project Title: The Effect of Extreme Weather Events on US Military Installations

Faculty Mentor: Rosella Cappella Zielinski

Poster Number: e9

Presentation Time: 11:00 AM

Amanda Wu

Project Title: Determination of Biodiversity within Gunung Palung National Park using Camera Trap Data

Faculty Mentor: Cheryl Knott

Poster Number: 78

Presentation Time: 12:00 PM

Yusen Wu

Project Title: Game of Truth: Leveraging Large Language Model to Examine the Spread of Misinformation

Faculty Mentor: Dokyun Lee

Poster Number: 75

Presentation Time: 11:00 AM

Arts & Literature

Nathan Duong

Project Title: Refugee Laws as Determinants of Racial Identity in Diasporas: A Study in the Plurality of Vietnamese Americans' Racial Self Imaginings

Faculty Mentor: Takeo Rivera

Poster Number: e11

Presentation Time: 11:00 AM

Hanna Dworkin

Project Title: The Philosophy of Grief: To Philosophize is to Learn to Live

Faculty Mentor: Matthew Parfitt

Poster Number: 79

Presentation Time: 11:00 AM

Spencer Hart-Thompson

Project Title: Music Through the Scope of Disability: Collaborative and Inclusive Pedagogies

Faculty Mentor: Ruth Debrot

Poster Number: e9

Presentation Time: 12:00 PM

Kennedy Harwood

Project Title: Contemporary Observational Painting: Mapping the Relevance of Plein Air in the 21st Century

Faculty Mentor: Josephine Halvorson

Poster Number: e10

Presentation Time: 12:00 PM

Virginia Jansen

Project Title: Price's Musical Tapestry: The Influence of Spirituals on the Chamber Music of Florence Price

Faculty Mentor: Leland Clarke

Poster Number: e11

Presentation Time: 12:00 PM

Kathryn Lakin

Project Title: Too Many Cooks in the Kitchen: Food Production in The Handmaid's Tale

Faculty Mentor: Marie McDonough

Poster Number: 83

Presentation Time: 11:00 AM

Eitan Marshall-Pinko

Project Title: Justice, Law, and the State: Policing the Creek Nation (1867-1907)

Faculty Mentor: Sarah Phillips

Poster Number: 80

Presentation Time: 12:00 PM

Shi Qing Elizabeth Natalie Ng

Project Title: The Decolonization of Women's Traditional Fashion - Contemporary Uses of the Sari

Faculty Mentor: Arianne Chernock

Poster Number: 82

Presentation Time: 12:00 PM

Anna Paradise

Project Title: Unveiling the Mask: An Interdisciplinary Investigation of Women's Artistic Tradition in Mask-Making.

Faculty Mentor: Felice Amato

Poster Number: e12

Presentation Time: 12:00 PM

Mackenzie Pike

Project Title: Literature Review: Disability Studies Approaches in Medieval and Early Modern Scholarship

Faculty Mentor: Amy Appleford

Poster Number: 84

Presentation Time: 12:00 PM

Grant Powicki

Project Title: International Theater Through the Prague Quadrennial 2023

Faculty Mentor: Jon Savage

Poster Number: e13

Presentation Time: 12:00 PM

Zachary Sherman

Project Title: My Hidden Neighbor: The Co-existence of Jewish Refugees and Former Nazi Officers in Post-War Argentina

Faculty Mentor: Rady Roldan

Poster Number: 86

Presentation Time: 12:00 PM

Bryan Teoh

Project Title: The Tale of Genji Poetry Database Project: Utilizing Technology for Literary Analysis

Faculty Mentor: Keith Vincent

Poster Number: e10

Presentation Time: 11:00 AM

Sierra Wilkins

Project Title: Historical and Anthropological Analysis of Boone, North Carolina and its Community's Boundaries Formed Throughout the Late 19th and 20th Centuries

Faculty Mentor: Betty Anderson

Poster Number: 88

Presentation Time: 12:00 PM

Kenneth Wong

Project Title: Unveiling Mystical Insights: Rediscovering Medieval Women's Intellectual Legacy in Global Middle Ages and Contemporary Impact

Faculty Mentor: Philip Haberkern

Poster Number: 87

Presentation Time: 11:00 AM

Emily Yoder

Project Title: Medieval Studies: A Global Future

Faculty Mentor: Sunil Sharma

Poster Number: e14

Presentation Time: 12:00 PM

Yu Zeng

Project Title: Migrating the "Tale of Genji Poetry Database" to Next.js for Enhanced Security

Faculty Mentor: Keith Vincent

Poster Number: e10

Presentation Time: 11:00 AM

Sargent: Health & Rehabilitation Sciences

Sorochi Anyaibe

Project Title: Characterizing the Eating Timing Behavior of Urban and Rural Households in Ghana Using the Automatic Ingestion Monitor (AIM-2).

Faculty Mentor: Megan McCrory

Poster Number: 89

Presentation Time: 11:00 AM

Noah Barrow

Project Title: Analysis of Walking Speed and Propulsion Symmetry Changes After Functional Electrical Stimulation Training in Individuals Post-Stroke

Faculty Mentor: Lou Awad

Poster Number: 93

Presentation Time: 11:00 AM

John Barton

Project Title: Quantifying the flourishing of a hospitality experience: a system of measurement to define the relationship between received hospitality and human flourishing in consumer settings

Faculty Mentor: Makarand Mody

Poster Number: 95

Presentation Time: 11:00 AM

Marion Bensing

Project Title: Beat Processing in Relation to Language Fundamentals Among Preschool Children

Faculty Mentor: Jennifer Zuk

Poster Number: e12

Presentation Time: 11:00 AM

Courtney Dunsmuir

Project Title: Investigating relationships between somatosensory feedback and functional speech outcomes

Faculty Mentor: Cara Stepp

Poster Number: 90

Presentation Time: 12:00 PM

Anita Keltcher

Project Title: Preprocessing Data to Understand Cortico-Basal Ganglia-Thalamic Loop Role in Speech Production

Faculty Mentor: Frank Guenther

Poster Number: 92

Presentation Time: 12:00 PM

Kaden Litzinger

Project Title: Gaps in the System: Eliciting Perspectives of Fathers Living with and Beyond Cancer

Faculty Mentor: Robin Newman

Poster Number: 97

Presentation Time: 11:00 AM

Audrey Lucerne

Project Title: Protein Expression of Caveolin-1 Increases with Age in Vascular Smooth Muscle

Faculty Mentor: Kathleen Morgan

Poster Number: 94

Presentation Time: 12:00 PM

Kledion Naksi

Project Title: Creating and Analyzing Dietary Baseline Data to Measure Nutritional Adequacy of Indian Household Contacts of Diagnosed Tuberculosis Patients

Faculty Mentor: Lindsey Locks

Poster Number: 99

Presentation Time: 11:00 AM

Celina Nguyen

Project Title: Are tendencies toward social motivation and pleasure associated with daily social experiences? An experience sampling study

Faculty Mentor: Daniel Fulford

Poster Number: 101

Presentation Time: 11:00 AM

Renzo Quintero

Project Title: The effects of bilingualism and input variability in children's word-learning

Faculty Mentor: Kimberly Crespo

Poster Number: e13

Presentation Time: 11:00 AM

Soumya Sathe

Project Title: Identifying Psychological Vulnerabilities to Differentiate Eating Disorder Behaviors

Faculty Mentor: Anthony Rosellini

Poster Number: 103

Presentation Time: 11:00 AM

Utkarsh Tannan

Project Title: Sequence-Perturbation Project: Assessing the Relationship between Auditory and Somatosensory Feedback in Speech Development

Faculty Mentor: Andrew Meier

Poster Number: 105

Presentation Time: 11:00 AM

Kalei Volk

Project Title: To what extent can Lombard responses be explained by feedback v.s. feedforward speech motor control processes?

Faculty Mentor: Cara Stepp

Poster Number: 107

Presentation Time: 11:00 AM

Medical Sciences

Nalia Abney

Project Title: Gestational Opioid Exposure Alters Neonatal Mouse Ultrasonic Vocalization (USV) Profiles During Spontaneous Withdrawal: Role of Kappa Opioid Receptor Activation

Faculty Mentor: Camron Bryant

Poster Number: 109

Presentation Time: 11:00 AM

Audrey Cantillon

Project Title: Exploring the Strengths of Mothers with Histories of Substance Misuse

Faculty Mentor: Michelle Stransky

Poster Number: 98

Presentation Time: 12:00 PM

Josephine Carlson

Project Title: Enhancing Motivational Responses to Facial Expressions through Targeted Transcranial Magnetic Stimulation for Addressing Social Avoidance Behavior

Faculty Mentor: Michael Esterman

Poster Number: 100

Presentation Time: 12:00 PM

Faith Cerbo

Project Title: Investigating the role of KLHDC-X as a bimodal regulator of viral infection

Faculty Mentor: Florian Douam

Poster Number: e15

Presentation Time: 12:00 PM

Jacqueline Chang

Project Title: A Retrospective Chart Review of the Boston Medical Center Coping Clinic

Faculty Mentor: Margaret Lee

Poster Number: 102

Presentation Time: 12:00 PM

Clara Chung

Project Title: Investigating the Connection between Alzheimer's Disease and Down Syndrome through Correction of X-linked Gene Dysregulation

Faculty Mentor: Ella Zeldich

Poster Number: 104

Presentation Time: 12:00 PM

Zaari Isabella Colón

Project Title: Investigating the mechanism of α -MSH to enhance the survival of Retinal Ganglion Cells in Mice Eyes following an Ischemia/Reperfusion injury

Faculty Mentor: Tat Fong Ng

Poster Number: 111

Presentation Time: 11:00 AM

Aakash Dave

Project Title: Exploring the Role of MIRT1 in Neuroblastoma Cells

Faculty Mentor: Hui Feng

Poster Number: 106

Presentation Time: 12:00 PM

Rohan Dupaguntla

Project Title: Effects of Perinatal Choline Supplementation on Cortical and Hippocampal Synaptic Marker Levels in the APP NLGF Mouse Model of Alzheimer's Disease

Faculty Mentor: Tiffany Mellott

Poster Number: 108

Presentation Time: 12:00 PM

Maura Farrell

Project Title: Effector Functions of Hormonal Contraceptive Antibody (HCA) Variants

Faculty Mentor: Deborah Anderson

Poster Number: e16

Presentation Time: 12:00 PM

Grace Field

Project Title: Investigating the impact of altered myelination in Trisomy 21 using hOLS

Faculty Mentor: Ella Zeldich

Poster Number: 113

Presentation Time: 11:00 AM

Colin Gao

Project Title: Resolvin Therapy of Injured Cardiomyocytes with Leakage of Intracellular H-FABP as a Quantitative Readout

Faculty Mentor: James Hamilton

Poster Number: 115

Presentation Time: 11:00 AM

Elena Green

Project Title: Establishing a High-Throughput Assay for the Identification of G-protein Interacting Peptides

Faculty Mentor: Mikel Garcia-Marcos

Poster Number: 117

Presentation Time: 11:00 AM

Maxine Hsiung

Project Title: Presynaptic Cannabinoid Receptor Localization on Lateral Prefrontal Cortex and Amygdala Inputs to Anterior Cingulate Cortex

Faculty Mentor: Maria Medalla

Poster Number: 110

Presentation Time: 12:00 PM

Clifton Johnson

Project Title: Unraveling the Role of Microglia: Characterizing Phagocytic Activity and Morphological Phenotypes

Faculty Mentor: Tuan Leng Tay

Poster Number: 119

Presentation Time: 11:00 AM

Han Kahvecioglu

Project Title: Identifying and locating sub-populations of inhibitory neurons along the Entorhinal Cortex

Faculty Mentor: Jean-Pierre Roussarie

Poster Number: 112

Presentation Time: 12:00 PM

Olivia Kierul

Project Title: Study the role of novel genes in kidney macula densa cell development

Faculty Mentor: Weining Lu

Poster Number: 96

Presentation Time: 12:00PM

Monica Laryea

Project Title: Assessing the Synergistic Interactions of Alternative Lengthening of Telomeres (ALT) Pathway Targeted Chemotherapeutics: Ataxia telangiectasia and Rad3-related protein & Translesion Synthesis Inhibitors

Faculty Mentor: Monica Laryea

Poster Number: 114

Presentation Time: 12:00 PM

Charles Lau

Project Title: Defining the role of SNAIL-CoREST interactions in melanoma development, tumor cell plasticity, and targeted therapy resistance

Faculty Mentor: Rhoda Alani

Poster Number: 123

Presentation Time: 11:00 AM

Nicholas Leung

Project Title: Calibrating an Accelerometer, Magnetometer and Gyroscope within a Combined Sensor Body Frame in the MRI Environment

Faculty Mentor: Simon Warfield

Poster Number: 81

Presentation Time: 11:00 AM

Joyce Liang

Project Title: siRNA Mediated Knockdown of PAX3: Investigating Effects of NMD Target Genes

Faculty Mentor: Deborah Lang

Poster Number: 116

Presentation Time: 12:00 PM

Easton Liaw

Project Title: Developing a super-sensitive Meso Scale Discovery (MSD) immunoassay for a novel biomarker in chronic kidney disease.

Faculty Mentor: Weining Lu

Poster Number: 125

Presentation Time: 11:00 AM

Liuqian Ling

Project Title: Senescence is related to liver damage in aged mice

Faculty Mentor: Zhen Y. Jiang

Poster Number: 118

Presentation Time: 12:00 PM

Haile Luong

Project Title: Development of semi-automated recombinant mycobacterial cell wall hydrolase enzymatic assays using the Octet BLI System

Faculty Mentor: Lingyi Deng

Poster Number: e17

Presentation Time: 12:00 PM

Teodora Misic

Project Title: Ultrasonic vocalization syllable composition during neonatal opioid withdrawal in BALB/c substrains and the effect of Zhx2 genetic variants on behavior.

Faculty Mentor: Camron Bryant

Poster Number: 127

Presentation Time: 11:00 AM

Kristina Nicolas

Project Title: Investigating the Pathogenic Role of PIM1 in Idiopathic Pulmonary Fibrosis

Faculty Mentor: Giovanni Ligresti

Poster Number: 131

Presentation Time: 11:00 AM

Kohji Numata

Project Title: Investigating Structural RNA Components that Lead to Innate Immunity Evasion for YFV-17D

Faculty Mentor: Florian Douam

Poster Number: 120

Presentation Time: 12:00 PM

Juan Pagán

Project Title: The Role of Melanocortin Receptors in Regulating the Thyroid Axis

Faculty Mentor: Ricardo da Costa e Sousa

Poster Number: 122

Presentation Time: 12:00 PM

Susie Jiaying Pan

Project Title: Prevalence of helminth co-infections among persons with tuberculosis in South India: a cross sectional analysis

Faculty Mentor: Pranay Sinha

Poster Number: e18

Presentation Time: 12:00 PM

Jaii Pappu

Project Title: Characterization of an Infectious Recombinant West Nile Virus Expressing Green Fluorescent Protein For Visualization of In Vitro Infection

Faculty Mentor: Florian Douam

Poster Number: 124

Presentation Time: 12:00 PM

Sarah Park

Project Title: Investigation of the Effect of Netarsudil on the Inner Wall Endothelial Cells of Schlemm's Canal of Human Eye Using Serial Block-face Scanning Electron Microscopy

Faculty Mentor: Haiyan Gong

Poster Number: 126

Presentation Time: 12:00 PM

Olivia Perry

Project Title: Impact of XMAP215 on Craniofacial Development in *Xenopus Laevis*

Faculty Mentor: Laura Lowery

Poster Number: e14

Presentation Time: 11:00 AM

Sanjana Prudhvi

Project Title: A subcellular enrichment approach to profile the proteome of different mouse brain regions

Faculty Mentor: Manveen Sethi

Poster Number: 128

Presentation Time: 12:00 PM

Samaa Rasheed

Project Title: The Effects of Lactic Acid on epithelial integrity and HIV susceptibility

Faculty Mentor: Deborah Anderson

Poster Number: 129

Presentation Time: 11:00 AM

Jillian Schmottlach

Project Title: Investigating the role of TrkB/BDNF signaling in lung capillary endothelial cells

Faculty Mentor: Giovanni Ligresti

Poster Number: 132

Presentation Time: 11:00 AM

Erie Shivers

Project Title: Microvasculature Changes in Postmortem Human Prefrontal Dorsolateral Cortices with Stage III to IV Chronic Traumatic Encephalopathy (CTE)

Faculty Mentor: Ann McKee

Poster Number: 133

Presentation Time: 11:00 AM

Su Yeon Song

Project Title: Optimizing CRISPR mutagenesis to understand mechanism of hematopoietic progenitor migration.

Faculty Mentor: Elliott Hagedorn

Poster Number: 135

Presentation Time: 11:00 AM

Rutu Tatke

Project Title: The effect of MSC-EVs on the inflammatory profile in a rhesus monkey model of cortical injury

Faculty Mentor: Tara Moore

Poster Number: 137

Presentation Time: 11:00 AM

Olivia Velte

Project Title: The Alpha2 Adrenergic Agonist Guanfacine Attenuates Chronic Alcohol-Induced Temporal Order Memory Deficits in Mice

Faculty Mentor: Valentina Sabino

Poster Number: 139

Presentation Time: 11:00 AM

Samuel Wu

Project Title: Network efficiency and robustness shape the number of microRNAs encoded in a genome

Faculty Mentor: Daniel Cifuentes

Poster Number: e15

Presentation Time: 11:00 AM

Claire Wu

Project Title: Distal Enhancer Regulation of ARPC5 in Melanoma

Faculty Mentor: Deborah Lang

Poster Number: 143

Presentation Time: 11:00 AM

Michelle Yung

Project Title: Morphologic Changes in the Distal Aqueous Outflow Pathway Responsible for Thrombospondin-1-Induced Outflow Facility Decrease in Porcine Eyes

Faculty Mentor: Haiyan Gong

Poster Number: 130

Presentation Time: 12:00 PM

Angela Zhang

Project Title: The role of thyroid hormone receptor beta signaling in the hypothalamic paraventricular nucleus on thyroid hormone action.

Faculty Mentor: Ricardo H. Costa-e-Sousa

Poster Number: 134

Presentation Time: 12:00 PM

Jamie Zheng

Project Title: Innate Immune Memory in Mice Peritoneal Cells

Faculty Mentor: Andrew Taylor

Poster Number:

Presentation Time:

John Zhao

Project Title: Histone Epigenetic Effects of α -MSH

Faculty Mentor: Andrew Taylor

Poster Number: e16

Presentation Time: 11:00 AM

Computational & Mathematical Sciences

Jared Grossman

Project Title: Spatial Dynamics of Neuronal Systems

Faculty Mentor: Gabriel Ocker

Poster Number: 145

Presentation Time: 11:00 AM

Zhandong Jiao

Project Title: Predicting Tremor from Subthalamic Nucleus Spectral Powers

Faculty Mentor: Emily Stephen

Poster Number: 96

Presentation Time: 11:00 AM

Lavya Midha

Project Title: Developing an image-processing model that can be used to analyze classroom placement in K-12 schools.

Faculty Mentor: Patricia Fabian

Poster Number: e19

Presentation Time: 12:00 PM

Vineet Raju

Project Title: Enhancing Multi-Threaded Workflows in Secrecy

Faculty Mentor: John Liagouris

Poster Number: e20

Presentation Time: 12:00 PM

Caiwei Zhang

Project Title: Jump Process Simulation Algorithms for Modeling Biological Systems with Memory Optimization

Faculty Mentor: Samuel Isaacson

Poster Number: e4

Presentation Time: 12:00 PM

Rohin Bajaj

Project Title: Assessing the Utility of AlphaFold Protein Models for Drug Design

Faculty Mentor: Diane Joseph-McCarthy

Poster Number: 147

Presentation Time: 11:00 AM

Isabelle Boegholm

Project Title: Scaling Channel Count in Fibers using Topological Confinement

Faculty Mentor: Siddharth Ramachandran

Poster Number: 149

Presentation Time: 11:00 AM

Piergiulio Bressan

Project Title: Early Functional and Behavioral Outcomes of Ischemic Stroke in Young Mice

Faculty Mentor: David Boas

Poster Number: 138

Presentation Time: 12:00 PM

Henry Chow

Project Title: Establishing a Model of Tendon Explant Overuse

Faculty Mentor: Brianne Connizzo

Poster Number: 136

Presentation Time: 12:00 PM

Aidan Donovan

Project Title: Detection and Correction of Out-of-plane Motion in 2D DIC

Faculty Mentor: Emma Lejeune

Poster Number: 151

Presentation Time: 11:00 AM

Ricardo Fernandez

Project Title: Engineering Uterine Fibroid Organoids: A preliminary study with MCF7 spheroids.

Faculty Mentor: Catherine Klapperich

Poster Number: 153

Presentation Time: 11:00 AM

Jivesh Jain

Project Title: Deep Learning for Blood Pressure Estimation

Faculty Mentor: Darren Roblyer

Poster Number: 155

Presentation Time: 11:00 AM

Allen Jang

Project Title: Effects of post-mortem interval on myelin integrity in rhesus monkey brain tissue

Faculty Mentor: Irving Bigio

Poster Number: 140

Presentation Time: 12:00 PM

Jacob Labovitz

Project Title: Effects of Nucleoside Imbalance on Glial Cell Proliferation

Faculty Mentor: Timothy O'Shea

Poster Number: e18

Presentation Time: 11:00 AM

Nikhil Lahiri

Project Title: Development of Tumor-On-A-Chip Model to Study Breast Cancer-Macrophage Crosstalk

Faculty Mentor: Joe Tien

Poster Number: 157

Presentation Time: 11:00 AM

Joseph Licata

Project Title: Analysis of Inflammatory Biomarkers in a Sleep Study on Major Depressive Disorder

Faculty Mentor: Laura Lewis

Poster Number: 142

Presentation Time: 12:00 PM

Audrey Lindsay

Project Title: Investigating the Effects of Audio Stimulation and Deep Brain Stimulation on Mouse Locomotion

Faculty Mentor: Xue Han

Poster Number: 144

Presentation Time: 12:00 PM

Emily Long

Project Title: Blood Flow Oscillations in Post-stroke Recovery

Faculty Mentor: David Boas

Poster Number: 146

Presentation Time: 12:00 PM

Arnav Mankad

Project Title: Fluidic System Integrated with a Soft Bleeding Sensor for Colonoscopy

Faculty Mentor: Sheila Russo

Poster Number: 159

Presentation Time: 11:00 AM

Emily McCarthy

Project Title: Priming cells for increased survival and glia-repair in hemorrhagic stroke lesions

Faculty Mentor: Timothy O'Shea

Poster Number: 148

Presentation Time: 12:00 PM

Suhani Mitra

Project Title: Digital Logic Design for Residue Number System to Binary Number System Conversion

Faculty Mentor: Ajay Joshi

Poster Number: 150

Presentation Time: 12:00 PM

Sohail Mohammed

Project Title: Implantable Radiofrequency (RF) coil development for ultra-high resolution fMRI of awake mice with 14 Tesla MRI scanner

Faculty Mentor: Chen Yang

Poster Number: 161

Presentation Time: 11:00 AM

Shakaani Nasankar

Project Title: Measurement of Cartilage Crosslinks using Raman Spectroscopy

Faculty Mentor: Michael Albro

Poster Number: 152

Presentation Time: 12:00 PM

Hawa Ndiaye

Project Title: Development of Patterned 2D Platform to Study Human Induced Pluripotent Stem Cell Derived Cardiomyocyte Behavior In Vitro

Faculty Mentor: Jeroen Eyckmans

Poster Number: 154

Presentation Time: 12:00 PM

Takaya Niibori

Project Title: Establishing a Model of Graded Cellular Senescence in Tendon Explants

Faculty Mentor: Brianne Connizzo

Poster Number: 163

Presentation Time: 11:00 AM

Julia Nowak

Project Title: Delivery of Genetic Cues for Increased Anti-Tumor Immunity

Faculty Mentor: Michelle Teplensky

Poster Number: 165

Presentation Time: 11:00 AM

Joscelynn Palen

Project Title: Mechanosensitive Ion Transport in Nanoparticle-blocked Nanopores

Faculty Mentor: Chuanhua Duan

Poster Number: 156

Presentation Time: 12:00 PM

Abderrahman Rhmari Tlemcani

Project Title: Immunofluorescence characterization of polarized macrophages

Faculty Mentor: Joe Tien

Poster Number: 158

Presentation Time: 12:00 PM

Noah Robitshek

Project Title: IoT Based Vibration and Sleeping Position Sampling for Animal Monitoring

Faculty Mentor: WenZhan Song

Poster Number: e17

Presentation Time: 11:00AM

Hanna Schlegel

Project Title: Highly Sensitive and Robust Soft Capacitive Pressure Sensors

Faculty Mentor: Tommaso Ranzani

Poster Number: 166

Presentation Time: 11:00 AM

Varun Shah

Project Title: Mapping the architectural differences of the extracellular matrix generated by senescent and normal cardiac fibroblasts.

Faculty Mentor: Jeroen Eyckmans

Poster Number: 160

Presentation Time: 12:00 PM

Armaan Vasowalla

Project Title: Semi-Autonomous Driving of a Soft Robot for Bronchoscopy Procedures

Faculty Mentor: Sheila Russo

Poster Number: e8

Presentation Time: 12:00 PM

Ilyoung Yang

Project Title: Design and Implementation of Replaceable Shape Memory Alloy Artificial Muscles for Soft Robot Limbs

Faculty Mentor: Andrew Sabelhaus

Poster Number: 162

Presentation Time: 12:00 PM

Anne Marie Zambon

Project Title: Classifying Brainstem Cell Types that Receive Motor Cortex Input Via Anterograde Transsynaptic Tracing and mFISH

Faculty Mentor: Michael Economo

Poster Number: 164

Presentation Time: 12:00 PM

Yiwen Zhang

Project Title: Photothermal Spectroscopy for Characterization of Phase Transitions in Smart Materials at Submicron Scale

Faculty Mentor: Michelle Sander

Poster Number: 141

Presentation Time: 11:00 AM