A TRADITION OF CELEBRATING OUR COMMUNITY OF LEARNERS
Dear Friends and Colleagues,

The School of Arts & Sciences at the University of Richmond is a community of faculty, staff, and students who explore, discover, and learn together. Today we gather to celebrate the creation of knowledge and to share in that new knowledge. Throughout the school year and summer, the School of Arts & Sciences supported hundreds of students in faculty-mentored research and scholarship that culminates in today’s 37th A&S Student Symposium.

Despite the challenges presented by COVID-19 over the past two-plus years, our resilient students and faculty have continued to look inward and outward to learn more about themselves and all of us, from the Race and Racism Project to the examination of the effects of COVID-19 on campus and abroad. As the coordinator for this year’s A&S Student Symposium, I invite you to converse with presenters and learn about artifacts dug up on campus, the battle against invasive species here in Virginia, and the impressive work of so many students and their faculty mentors. I invite you to touch a costume designed by a student for a student-directed play or be touched by an exhibit on the struggles of women in war-torn Syria. I invite you to open your eyes, your ears, and your mind.

This gathering could not have happened without the tireless work of many individuals that I hope you will see during the Symposium. Thanks to Interim Dean Dan Palazzolo, Associate Dean Kelling Donald, and the Undergraduate Research Committee for providing funds throughout the year to students and faculty to produce the work you see today. The staff of the Dean’s Office, in particular Jennifer Lo Prete, Carolyn Smart, Robert Plymale, and Liza Williams, and the staff of the Technology Learning Center are providing major logistical support for the Symposium. I wish to also thank the academic administrative support team of several departments and programs who helped in securing spaces for the event, as well as the staff of the Modlin Center for the Arts for hosting the event.

I’m particularly proud to bring the Symposium back together in person this spring, in a time of renewal and optimism. Thank you for helping us celebrate the remarkable scholarship of our undergraduate students.

Sincerely,

Eugene Wu, Ph. D.
Associate Professor of Biology and Biochemistry
Biochemistry and Molecular Biology Program Coordinator
Arts & Sciences Student Symposium Coordinator

COVID-19 Mitigation: All participants and visitors to the A&S Student Symposium are encouraged to wear a high quality mask where it’s practical to limit the possibility of transmitting COVID-19. If you are not feeling well or exhibit COVID-19 symptoms, please stay home.
On the cover

STUDENT-LED, FACULTY-MENTORED WORK

The School of Arts & Sciences remains committed to supporting undergraduate research through A&S Summer Fellowships, part of the Richmond Guarantee program. Whether it’s in the lab, the art studio, or the archives, student-led, faculty-mentored is a hallmark of the School of Arts & Sciences experience. We are proud to share and celebrate this work at the A&S Student Symposium.

DEPARTMENT OF CLASSICAL STUDIES

Fragmentary Dish. Linoleum block print by Danny Saravia Romero showing the relief design on a Warwick China ceramic dish c. 1905. The dish is one of many finds excavated near Maryland Hall in 2019 and mended and studied by Danny and research teammates Emily Dixon and Lindsey Stevens in summer 2021. This linoleum block print was created with the help of Jen Thomas in the University’s Book Arts Studio.

DEPARTMENT OF GEOGRAPHY & ENVIRONMENT

Image created by Eli Beech-Brown through research conducted under a NASA SERVIR grant that focuses on combining the results of a machine learning algorithm with object-based image analyses to map informal road networks from high resolution of satellite images in the Peruvian-Brazilian Amazon borderlands. This image shows deforestation in the Southwestern Amazon.

DEPARTMENT OF BIOLOGY

Fluorescence microscopy image of cultured cells that behave like neurons (CAD cells) taken from student research conducted in the Omar Quintero-Carmona Lab. This student research group uses these cells (CAD) as a model system to understand how cells organize and transport their mitochondria. There are a number of human diseases that result when mitochondrial transport is impaired, and this group is working to understand what genes are involved in normal mitochondrial transport.
Symposium Locations & Times

MODLIN CENTER FOR THE ARTS  |  1:00-5:00 P.M.

BOOTH LOBBY
Symposium Check-In  |  Poster Presentations

COURTYARD 3:00-5:00 P.M.
King of Pops Refreshment Cart

M104  |  Artist Presentations

GOTTWALD CENTER FOR THE SCIENCES  |  1:00-5:00 P.M.
Room A100  |  Room A201  |  Room C200

KELLER HALL  |  1:00-5:00 P.M.
Room V206  |  Keller Hall Art Gallery

BOOKER HALL OF MUSIC  |  1:00-5:00 P.M.
Room B102  |  Room 207  |  Room 226

*University themed yard signs will mark each location.*

To support all students who are presenting in the session, please stay for the duration of each panel.

PHOTOGRAPHY

Video and photographs taken during the Symposium will be used in University publications and on the website. If you do not wish to be included in videos or photographs, please alert the photographer and/or videographer.
Artist Presentations

MODLIN CENTER FOR THE ARTS, ROOM M104

1:30-2:45 P.M.
SANA MOUAYD AZEM
The Story She Holds
FACULTY MENTOR: Sonja Bertucci

3:15-4:45 P.M.
SHERLEY ARIAS-PIMENTEL
“I wish I lived in a world where education is ...”
FACULTY MENTOR: Patricia Herrera, Sylvia Gale

MACLAINE BAMBERGER
Pandemic Art
FACULTY MENTOR: Megan Driscoll

KELLER HALL ART GALLERY

3:15-4:45 P.M.
MEGAN SALTERS
A Sense of Place
FACULTY MENTOR: Sonja Bertucci

CAROLE WEINSTEIN INTERNATIONAL CENTER

JULIA BRITTAI
At the Intersection of Contagion and Connection: HIV/AIDS and Richmond’s LGBTQ+ Community
FACULTY MENTOR: Laura Browder
Note: Work presented on April 21, 2022.
Oral Presentations

BOOKER HALL OF MUSIC, ROOM B102

1:00-1:25 P.M.  Richard Waller, session moderator

MAKY ESPINOZA
Pygmies and Nilotic Scenes in Roman Visual Culture: An Analysis of Proto-Racism in Colonial Othering
FACULTY MENTOR: Megan Driscoll, Agnieszka Szymanska

1:25-1:50 P.M.  Richard Waller, session moderator

HADLEY BECKSTRAND
Michaelina Wautier: Overcoming Institutional Barriers for Women Artists in Early Modern Europe
FACULTY MENTORS: Megan Driscoll, Elena Calvillo

1:50-2:10 P.M.  Richard Waller, session moderator

HADLEY BECKSTRAND
Harnett Fellow
FACULTY MENTOR: Richard Waller

BOOKER HALL OF MUSIC, ROOM B207

1:00-1:15 P.M.  Ernest McGowan, session moderator

JILLIAN YATES
Racism, Pandemics, and the GRTC
FACULTY MENTOR: Laura Browder

1:15-1:45 P.M.  Ernest McGowan, session moderator

MARIA PERRY, GRACE CHAHAL, MAIA DEMITRACK, WILL KARMEN, NIKKI MAY
Race and Racism Project
FACULTY MENTOR: Ernest McGowan, Melissa Ooten
Oral Presentations

1:45-2:15 P.M. Ernest McGowan, session moderator

RAZAN KHALIL, CHRIS MITCHELL, KAITLYN O’LEARY, NY’ASIA FLOWERS, LAUREN OLIGINO
Race and Racism Project
FACULTY MENTOR: Ernest McGowen

2:30-2:45 P.M. Monika Siebert, session moderator

SHIRA GREER
“Freer and More Human:” Latin American Liberation Theology, Violence, and Fugitivity
FACULTY MENTORS: Armond Towns, Abigail Cheever

2:50-3:05 P.M. Monika Siebert, session moderator

MOLLY KATE KREIDER
“He Seemed to Watch the Slow Flowing of Time Beneath Him:” Temporality, Narrative Time, and the Southern Gaze in Light in August
FACULTY MENTOR: Peter Lurie

3:05-3:30 P.M. Monika Siebert, session moderator

REDA ANSAR
Postcolonial Pakistan: Mohsin Hamid
FACULTY MENTOR: Monika Siebert

4:00-4:15 P.M. Elizabeth Outka, session moderator

MAYA LIEBERMAN
Blurred Realities: “AIDS Plays” in American Theatre
FACULTY MENTOR: Elizabeth Outka

4:20-4:40 P.M. Elizabeth Outka, session moderator

JOSIE HOLLAND
World-Making, Queer Temporality, and Alternative Futurism in Speculative Fiction
FACULTY MENTOR: Nathan Snaza

4:40-5:05 P.M. Elizabeth Outka, session moderator

SEJONG TAKENAKA
How Writing in Young Adult Fiction is Used for Family, Academia, and Social Identities
FACULTY MENTOR: Elisabeth Gruner
Oral Presentations

BOOKER HALL OF MUSIC, ROOM B226

2:30-2:45 P.M.  David Brandenberger, session moderator

HANNAH LEVINE
The Ford Foundation and Central America
FACULTY MENTORS: Nicole Sackley, Timothy Barney

2:45-3:00 P.M.  David Brandenberger, session moderator

JOHN LIANG
An Investigation on Andrei Vlasov and the Russian Liberation Movement
FACULTY MENTOR: David Brandenberger

3:00-3:15 P.M.  David Brandenberger, session moderator

JANIS PARKER
Framing Capital Punishment in Virginia History
FACULTY MENTOR: Pippa Holloway

3:15-3:40 P.M.  David Brandenberger, session moderator

JOHN JONES SPENCER
Noble Pagans and Satanic Saracens: Literary Portrayals of Islam in Medieval Italy and Iberia
FACULTY MENTORS: Joanna Drell, Sydney Watts

4:00-4:25 P.M.  Michelle Kahn, session moderator

CAMERON DONEZ
The Limits of Absolutism; The Second World War in Yugoslavia and German Ideological Insufficiency
FACULTY MENTORS: Michelle Kahn, David Brandenberger

4:25-4:50 P.M.  Michelle Kahn, session moderator

CHARLES TABOR
Moctezuma and the Emergence of a Historical Dialogue in Sixteenth-Century New Spain
FACULTY MENTOR: Manuella Meyer

4:50-5:15 P.M.  Michelle Kahn, session moderator

CARLY KESSLER
Building Back Greener
FACULTY MENTORS: Eric Yellin, Abigail Cheever
Oral Presentations

KELLER HALL, ROOM V206

1:00-1:20 P.M.  Yvonne Howell, session moderator

ALEX PISTOLESI
Parallel tra la retorica del fascismo di Mussolini e il populismo di Salvini (Parallels between Mussolini’s fascism and the populism of Salvini)
FACULTY MENTOR: Lidia Radi

1:20-1:40 P.M.  Yvonne Howell, session moderator

TEJA KINNEY
The Geographer Drank His Globe Away: A New Translation From Russian
FACULTY MENTOR: Yvonne Howell

2:30-2:50 P.M.  Tom Mullen, session moderator

LOGAN JONES-WILKINS
Ecuador’s Bumpy Road to Modernity
FACULTY MENTOR: Tom Mullen

2:50-3:15 P.M.  Tom Mullen, session moderator

CALVIN HOGG
Reigen: Disorienting Sex and Disease
FACULTY MENTOR: Caroline Weist

3:20-3:45 P.M.  Tom Mullen, session moderator

REIDE PETTY
The Vivifying Gifts: Sincerity and the Semiotic Construction of Cholera in Pushkin’s Boldino Works
FACULTY MENTOR: Yvonne Howell

4:00-4:20 P.M.  Mary Finley-Brook, session moderator

ROBERTO CHIA-BALMACEDA
The Costs to our Communities: An Environmental Justice Analysis on the Development of the Mountain Valley Pipeline
FACULTY MENTOR: Mary Finley-Brook
Oral Presentations

4:20-4:40 P.M.  Mary Finley-Brook, session moderator

FRANK HANSON
Energy Insecurity in Sub-Saharan Africa
FACULTY MENTOR: Mary Finley-Brook, Guoping Huang

4:40-4:55 P.M.  Mary Finley-Brook, session moderator

JASSIEM KONRAD
The Belt and Road Initiative: Railway Projects in Nigeria
FACULTY MENTOR: Mary Finley-Brook

GOTTWALD SCIENCE CENTER, ROOM A100

1:30-1:50 P.M.  Jonathan Richardson, session moderator

RYAN SZYKOWNY
The Effects of Demolition Projects on Rat Activity in Urban Areas
FACULTY MENTOR: Jonathan Richardson

1:50-2:15 P.M.  Jonathan Richardson, session moderator

KATHRYN GRAGE
Iterative Forecasting Models Create Accurate Predictions for the Near-Future Spread of an Invasive Insect Pest
FACULTY MENTORS: Jonathan Walter, Kristine Grayson

2:30-2:55 P.M.  Linda Boland, session moderator

LEAH GHAZALI, ARIANA SOSA
Deletion of Alternative Ribosomal Proteins in Mycobacterium smegmatis
FACULTY MENTOR: Sladjana Prisic

2:55-3:20 P.M.  Linda Boland, session moderator

JULIETTE COPELAND
Phytochemicals and Neurodegeneration
FACULTY MENTORS: Melinda Yang, Kristine Nolin
Oral Presentations

3:20-3:45 P.M. Linda Boland, session moderator

JEAN GONZALES
Reactive Oxygen Species and Cysteine Modulation of Inwardly-Rectifying Potassium Channels
FACULTY MENTOR: Linda Boland

4:00-4:25 P.M. Omar Quintero-Carmona, session moderator

KATHRYN REDA
The Cytoskeleton, Mitochondria, and Charcot Marie Tooth Syndrome
FACULTY MENTOR: Omar Quintero-Carmona

4:25-4:50 P.M. Omar Quintero-Carmona, session moderator

JOSEPH RHODENHISER
Myosin-XIX Patterning on Mitochondria: A Super-resolution Microscopy Approach
FACULTY MENTOR: Omar Quintero-Carmona

GOTTWALD SCIENCE CENTER, ROOM A201

1:30-1:45 P.M. Mike Norris, session moderator

GWYNETH WELSH
The Topology of Exceptional Points
FACULTY MENTOR: Lipan Ovidiu

1:45-2:00 P.M. Mike Norris, session moderator

JACK RECKNER
A Chemical and Electrochemical Approach to CO2 Reduction
FACULTY MENTOR: Michael Norris

2:00-2:20 P.M. Mike Norris, session moderator

JULIA VIDLAK
Synthetic and Computational Study of Bis(phosphino)pyrrole Ligands and Their Transition Metal Complexes
FACULTY MENTOR: Miles Johnson
Oral Presentations

2:30-2:55 P.M. Prateek Bhakta, session moderator

KAYLA LAMBERT, NATE LEVY
Modeling Kidney Function
FACULTY MENTOR: Lester Caudill

2:55-3:20 P.M. Prateek Bhakta, session moderator

LANDIN BARNEY
Dependence of Index of Refraction of Rare-Earth Metal Oxides with Temperature
FACULTY MENTOR: Mariama Dias

3:20-3:45 p.m. Prateek Bhakta, session moderator

IOANA-ANDREEA CRISTESCU, YING ZHU
Generating Optimal Liver Allocation System
FACULTY MENTOR: Prateek Bhakta

GOTTWALD, ROOM C200

1:00-1:20 P.M. Nicole Maurantonio, session moderator

KAMENE MANG’OKA
Poverty Porn in the Rhetoric of Ford’s Foundation Philanthropy
FACULTY MENTORS: Timothy Barney, Nicole Sackley

1:20-1:40 P.M. Nicole Maurantonio, session moderator

JORDYN LOFTON
Aesthetics of the Old South: Why Contemporary Plantation Weddings Still Exist
FACULTY MENTOR: Nicole Maurantonio

1:45-2:00 P.M. Nicole Maurantonio, session moderator

HAYLEY SIMMS
James River Plantations Research Project
FACULTY MENTOR: Nicole Maurantonio
2:30-2:50 P.M. Stephen Long, session moderator

GEORGE ESTRADA
Aquinas and Suarez on Law
FACULTY MENTOR: Kevin Cherry

2:50-3:15 P.M. Stephen Long, session moderator

KEVIN GOU
Predicting Migration in the Sahel
FACULTY MENTOR: Stephen Long

3:15-3:30 P.M. Stephen Long, session moderator

HANNAH GRACE HOWELL
Rhetorical Invention and Iconographies of Protest in La Casa de Papel
FACULTY MENTOR: Paul Achter

4:00-4:15 P.M. Jennifer Erkulwater, session moderator

HANTANG QIN
Examining the Initial Government COVID Response Between the US and Australia
FACULTY MENTOR: Maia Linask

4:15-4:40 P.M. Jennifer Erkulwater, session moderator

SANDEEP KUMAR
Exploring Heterogenieties in COVID-19 Spread and Management
FACULTY MENTOR: Jennifer Erkulwater
Poster Presentations

All poster presentations will be held in the Modlin Center for the Arts Booth Lobby. To locate specific posters please consult poster layout map in this program.

MODLIN CENTER FOR THE ARTS

1:15-2:15 P.M.

CAMERON KEELEY-PARKER
Investigations of the Role Cerium Plays in Catalysis and Antimicrobial Activity
FACULTY MENTOR: Dominique Williams
POSTER #1

ANDREW COOK, CAROLYN FALCO
Detecting the Influence of Arginine Methylation on Ded1 in vivo and in vitro
FACULTY MENTOR: Angie Hilliker
POSTER #2

RACHEL PAK
Development of a Next Generation Matrix Model for Rickettsia parkeri in Amblyomma maculatum (Gulf Coast tick)
FACULTY MENTOR: Jory Brinkerhoff
POSTER #3

MIKAYLA QUINN
Bryophytes of Goochland County
FACULTY MENTOR: John Hayden
POSTER #4

PARKER ERNST
Assessing Human Influence on Ranavirus Infections in Vulnerable Turtle Populations
FACULTY MENTORS: Jennifer Sevin, Jory Brinkerhoff
POSTER #5
37TH ANNUAL STUDENT SYMPOSIUM: CELEBRATING OUR COMMUNITY OF LEARNERS

Poster Presentations

POSTER PRESENTATION FLOORPLAN
ALL POSTER PRESENTATIONS WILL BE HELD IN THE MODLIN CENTER FOR THE ARTS BOOTH LOBBY

POSTERS 1-10
POSTERS 11-23
POSTERS 24-39
POSTERS 40-53

BOX OFFICE
COUSINS
STUDIO
THEARE
ENTRY TO
KELLER HALL
SYMPOSIUM
INFORMATION
TABLE

DOOR TO
PARKING
BATHROOMS
M104
ALICE JEPSON THEARE
UNIVERSITY
MUSEUMS
BOOKER HALL

POSTERS COURTYARD
POSTER SESSION 1: 1:15-2:15 P.M.

ALEX ROBERTSON
Assessing Movement of Freshwater Snails Between Rock Pools with Spray Paint Mark-Recapture
FACULTY MENTOR: Kristine Grayson
POSTER #6

WESLEY TSAI
Analyzing Reference Panel Size in Searching for Human Genetic Continuity
FACULTY MENTOR: Melinda Yang
POSTER #7

ANNA LIU
The Effect of EGCG on RAW 264.7 Macrophages’ Immune Response When Challenged with Woodsmoke
FACULTY MENTOR: Shannon Jones
POSTER #8

ALBERT WU
Beta-Adrenergic Receptor Signaling Reduces Pro-Inflammatory Signaling and Promotes the M2 Phenotype in the RAW264.7 Macrophage Cell Line
FACULTY MENTOR: Krista Stenger
POSTER #9

TONY IANNIELLO
Genetic Continuity of Human Populations in South Asia
FACULTY MENTOR: Melinda Yang
POSTER #10

EMILY BREW
Examining The Inflammatory Effects of Woodsmoke on Murine Macrophages
FACULTY MENTOR: Shannon Jones
POSTER #11

DOMINIQUE PHAM
Seed Bank Dynamics of the Emerging Invasive Species: Wavyleaf Basketgrass (Oplismenus undulatifolius)
FACULTY MENTOR: Carrie Wu
POSTER #12
Poster Presentations

POSTER SESSION 1: 1:15-2:15 P.M.

BETTY DUAN
The Evolutionary History of the Derived ADH1B Alleles
FACULTY MENTOR: Melinda Yang
POSTER #13

DAISY BROOKS, ASHLEY FALLAS
Characterizing the Agrobacterium/Plant Interface
FACULTY MENTOR: B. Daniel Pierce
POSTER #14

JANHAVI BHALERAO
The Effects of Effort-Based Reward Training and Chemogenetic Activation of the Lateral Habenula on Behavioral and Neuroendocrine Responses in Stressful Contexts
FACULTY MENTORS: Kelly Lambert, Jacy Jacob
POSTER #15

NYIYRA ASAMOAH
Toxicity of E-Cigarettes
FACULTY MENTOR: Shannon Jones
POSTER #16

MICHAEL BAMBHA
Analysis of Phosphinopyrrole Isomers and Their Complexes
FACULTY MENTOR: Miles Johnson
POSTER #17

RAMSEY GOODNER
Synthesis of 2,3-dihydroisoxazoles from ketones and N-benzyl nitrones
FACULTY MENTOR: Wade Downey
POSTER #18

TRAVIS GREENE
Using Halogen Bonding to Detect Opioids
FACULTY MENTOR: Carol Parish
POSTER #19
HELEN XIA
Addition of indoles to nitrones via Friedel–Crafts silyloxyaminoalkylation
FACULTY MENTOR: Wade Downey
POSTER #20

BENJAMIN SOLOMON, MASON ORTIZ
Exploration of Structural and Chemical Properties of New Transition Metal Complexes of 2-PyridylNaphthyridine Ligands
FACULTY MENTORS: Emma Goldman, Raymond Dominey
POSTER #21

NAM PHAM
Can Inductive Effects be Quantified through Halogen Bonding: A Computational Assessment for Aromatic Systems
FACULTY MENTOR: Kelling Donald
POSTER #22

KARTHIK LALWANI
Sintering-Based In-Situ Synthesis and Characterization by TEM of Noble Metal Nanoparticles for Ceramic Glaze Color Control
FACULTY MENTORS: Leo Leopold, Ryan Coppage
POSTER #23

CAITLIN SALES
Determining the Medial Axis Structure for V-wall and Parabolic Model Under Multiple Controls
FACULTY MENTOR: Jeremy LeCrone
POSTER #24

KARTIKEY SHARMA
Markov Chains and the Degree Sequence Problem
FACULTY MENTOR: Prateek Bhakta
POSTER #25
ANDRÉ SHANNON, NIKITA MOROZOV, ANGELA STEFANOVSKA, CHRIST ATHIOGBEY, VI PHAM, GRANT SZAJDA, OHENEBA BERKO
*Explaining Automated Voice Processing Systems*
FACULTY MENTOR: Douglas Szajda
POSTER #26

LOGAN WEST, HECTOR GOMEZ, RILEY PLACE, ANNA FRISBIE
*Dead Wolf to Red Wolf: Virginia Reintroduction*
FACULTY MENTORS: Peter Smallwood, Todd Lookingbill
POSTER #27

CLAIRE KING, NINA VANATTA, CHARLES MILLER, MORGAN MALSTEAD
*Breathe Easier: A Multi-Pronged Approach to Evaluating and Addressing Disparities in Air Quality, Urban Heat, and Accessibility in Richmond*
FACULTY MENTOR: Todd Lookingbill
POSTER #28

ELI BEECH-BROWN
*Using Planet Data and Google Earth Engine to Automate Mapping of Informal Roads in the Amazon Borderlands.*
FACULTY MENTORS: Stephanie Spera, David Salisbury
POSTER #29

DELANEY DEMARET
*Tracking and Analysis of Socio-Environmental Impacts of Informal Road Building in the Amazon Borderlands*
FACULTY MENTORS: Stephanie Spera, David Salisbury
POSTER #30

ALLISON WALTERS
*Longitudinal Trends in Mental Health Among University of Richmond Students*
FACULTY MENTORS: Rick Mayes, Peter LeViness
POSTER #31

ISRAA DRAZ, ANDREW BRADY, HENLEY SMITH, MILES GOLDMAN, VY BUI
*Difference Sets with Symmetric Difference Properties*
FACULTY MENTOR: James Davis
POSTER #32
Poster Presentations

POSTER SESSION 1: 1:15-2:15 P.M.

LILY DICKSON, THOMAS SPIKER  
*Discontinuous Medial Axis Structures: Dubins Car*  
FACULTY MENTOR: Jeremy LeCrone  
POSTER #33

SOPHIA HARDTEN, CHLOE SECKART  
*An Evaluation of the Other-Race Effect Through the Attentional Blink*  
FACULTY MENTOR: Cindy Bukach  
POSTER #34

ANNA MARSTON  
*Demographic Disparities in College Students’ Psychological Adjustment During COVID-19*  
FACULTY MENTOR: Karen Kochel  
POSTER #35

CAM SMITH, BRIANNA CHARLETON, JASMIN RUBIERA  
*Do Autistic Traits in Typically Developing Individuals Impact the Structural Encoding of Faces as Measured by the N170 Component*  
FACULTY MENTOR: Cindy Bukach  
POSTER #36

ALEXIA REHLING  
*Coping Strategies of Grieving and Bereaved Students*  
FACULTY MENTOR: Kristjen Lundberg  
POSTER #37

JARED BRASSIL  
*Awareness of Partisan Bias in Political Decision-Making*  
FACULTY MENTOR: Kristjen Lundberg  
POSTER #38

LINDSAY EVERHART  
*Do Diversity, Equity, and Inclusion (DEI) Initiatives Cause More Harm Than Good for LGBTQ+ Employees?*  
FACULTY MENTOR: Kristjen Lundberg  
POSTER #39
Poster Presentations

Poster Session 1: 1:15-2:15 P.M.

Claire McLam, Sampson Valdez
Error Monitoring and Clinical Perfectionism: Relation of Neural Processing to Two Proposed Dimensions of a Standardized Assessment
Faculty Mentor: Cindy Bukach
Poster #40

Isabella Holmgren
Falling for Moses: The Role of Stroop Inhibition and Language Expertise
Faculty Mentor: Matthew Lowder
Poster #41

Mamie Ziegler
What Does “Avoidance Mode” Feel Like? The Effect of Avoidance Awareness on Negative Affect
Faculty Mentor: Laura Knouse
Poster #42

Liv Clayton, Lucy Patterson
Circumstances Influencing Likelihood to Become and Organ Donor
Faculty Mentor: Camilla Nonterah
Poster #43

Amara Nwangwu
Barriers in Access to Care and Depressive Symptoms – The Role of Race/Ethnicity and Gender
Faculty Mentor: Camilla Nonterah
Poster #44

Leon Zheng
Virginian News Coverage on Undocumented Immigrant Health
Faculty Mentor: Miguel Diaz-Barriga
Poster #45

Paige Willis
Lighting the Lavender Scare
Faculty Mentors: Maja White, Johann Stegmeir
Poster #46
TED CORL
Investigating the Redox Activity of Cu2+ Present in MEMO1
FACULTY MENTORS: Julie Pollock, Leo Leopold
POSTER #1

SYDNEY ROBINSON
Ruthenium Based Complexes in Photo-Activated Chemotherapy
FACULTY MENTOR: Julie Pollock, Michael Norris
POSTER #2

EMILY WARD
Characterization of Hypothetical Proteins in Proteus Mirabilis
FACULTY MENTOR: Jonathan Dattelbaum
POSTER #3

SAI POLURI
Analogs of 8-oxo-2’-deoxyguanosine
FACULTY MENTOR: Michelle Hamm
POSTER #4

HANNAH PARKER
Metabolic Map and Genetic Disorders
FACULTY MENTOR: Julie Pollock
POSTER #5

BRITTANY JOHNSON
Genetic Continuity in the Yellow River Basin
FACULTY MENTOR: Melinda Yang
POSTER #6

JESSICA GAROFALO
Investigation of the VirA Linker Domain to Characterize its Phenol Interactions
FACULTY MENTOR: B. Daniel Pierce
POSTER #7
KRISTEN STARKS
Investigation of the Effects of N-Acetylcysteine on Neurodegeneration in Drosophila Models of Spinocerebellar Ataxia 3
FACULTY MENTOR: John Warrick
POSTER #8

SARENNA ENRIGHT
Epithelial Cell Inflammation Induced by Woodsmoke
FACULTY MENTOR: Shannon Jones
POSTER #9

MORGAN ABDO
MLST of B. burgdorferi
FACULTY MENTOR: Jory Brinkerhoff
POSTER #10

AMARA TAYLOR, IVY DE SOUZA
Air Pollution and it’s Affects on the Immune System
FACULTY MENTOR: Shannon Jones
POSTER #11

AIYAH ADAM
Mechanisms Underlying Dravet Syndrome
FACULTY MENTOR: Colleen Carpenter
POSTER #12

NESSA OKOROANYANWU, LESLEY BOADU
Carcinogen Effects on Epithelial Cells
FACULTY MENTOR: Shannon Jones
POSTER #13

JEAN AZAR-TANGUAY
Spin-Flip CCSD Characterizations of Heteroaromatic Pyrrole Diradicals
FACULTY MENTOR: Carol Parish
POSTER #14
Poster Presentations

POSTER SESSION 2: 2:30-3:30 P.M.

Catherine Bayas
Investigating Molecular Interactions of MEMO1 with SRC and Estrogen Receptor Alpha
FACULTY MENTOR: Julie Pollock
POSTER #15

Mimi Visestamkul, Alexsas Mwango Misoka
Incorporation of dCTP and dATP opposite OdG and analogues with KT R677A
FACULTY MENTORS: Michelle Hamm
POSTER #16

Kingsley Dwomoh, Zach Rome, Felix Minami
Continuous Flow Synthesis of Polyfunctionalized Pyrroles
FACULTY MENTOR: Emma Goldman, Raymond Dominey
POSTER #17

Leon Zheng, Juliette Copeland
Antimicrobial Natural Products
FACULTY MENTOR: Kristine Nolin
POSTER #18

Zena Abro, Vicky Osenga
Synthesis of Biaryl Phosphatran Ligands for Transition Metal-Catalyzed Cross-Coupling Reactions
FACULTY MENTOR: Miles Johnson
POSTER #19

Sebastian Mendoza-Gomez
Spin Flip TDDFT/CCSD Characterization of FURAN
FACULTY MENTOR: Carol Parish
POSTER #20

Camryn Carter
Interference of the hACE2 and SARS-CoV2 RBD interaction with Repurposed Molecules
FACULTY MENTOR: Carol Parish
POSTER #21
HELENE LEICHTER  
*The Sculpting of ‘The Veiled Lady’*  
FACULTY MENTOR: Alicia Diaz  
POSTER #22

KATHRYN GRAGE  
*Iterative Forecasting Models Create Accurate Predictions for the Near-Future Spread of an Invasive Insect Pest*  
FACULTY MENTORS: Jonathan Walter, Kristine Grayson  
POSTER #23

VIOLET JETTON, DOMINIQUE PHAM  
*Mapping and Analyzing the Distribution of Wavy Leaf Basket Grass*  
FACULTY MENTORS: Carrie Wu, Beth Zizzamia  
POSTER #24

ANNA FRISBIE  
*The Potential Effects of Transboundary Road-Building in the Southwestern Amazon Shared by Peru and Brazil*  
FACULTY MENTORS: Stephanie Spera, David Salisbury  
POSTER #25

WILLIAM HEINLE  
*Deforestation in Multiuse Protected Areas in Madagascar*  
FACULTY MENTORS: Sandra Joireman, John Scrivani  
POSTER #26

CHARLES MULLIS  
FACULTY MENTOR: Todd Lookingbill  
POSTER #27

WILLIAM DAVIS  
*Transmediality of S.T.A.L.K.E.R.*  
FACULTY MENTOR: Yvonne Howell  
POSTER #28
OLIVIA BARLOW, YUNZE WANG, YIXUAN ZHAO, DITRICK MWALONGO, AAMY BAKRY, HANNAH LI
Towards a Mathematical Model of the Effect of Inhaled Toxicants and Antioxidants on the Inflammatory Response
FACULTY MENTORS: Marcella Torres, Kathy Hoke
POSTER #29

ELEAZER AFOTEY
FINTEC in Ghana
FACULTY MENTOR: Douglas Szajda
POSTER #30

MILES GOLDMAN, ISRAA DRAZ, YUHAN ZHOU, IVANA FILIPOVIC, HENLEY SMITH, ANDREW BRADY, MEREDITH SCHULTEN, VY BUI
Difference Sets, Designs, and Relative Difference Sets
FACULTY MENTOR: Jim Davis
POSTER #31

ANNA FORTUNATO, DYLAN HOOPER
Space Race to the Curved Base: Discontinuous Medial Axis Structures in Various Obstacle Spaces and Control Models
FACULTY MENTOR: Jeremy LeCrone
POSTER #32

ERIN BURNS
Driving is a No (New) Brainer: The Impact of Adult Neurogenesis on Cognitive Learning in Male Long-Evans Rats
FACULTY MENTORS: Kelly Lambert, Jacy Jacob
POSTER #33

BRIANNA CANTRALL
Optimal Method for Reconstructing Polychromatic Maps from Broadband Observations with an Asymmetric Antenna Pattern
FACULTY MENTOR: Emory Bunn
POSTER #34
Poster Presentations

POSTER SESSION 2: 2:30-3:30 P.M.

JOSEPH STERLING
Estimation of pure B power in polarized CMB data via Gibbs sampling
FACULTY MENTOR: Emory Bunn
POSTER #35

HELEN WALLACE, MCKENNA LAUBER
The Motivated Use of Colorblindness in a University-Wide Movement for Racial Justice
FACULTY MENTORS: Kristjen Lundberg, Crystal Hoyt
POSTER #36

SADIE WENGER, KELLY SAVERINO
An Exploration of Tool-Use, Flexible Cognition, and Cultural Behaviors in Semi-Natural Java Macaques
FACULTY MENTORS: Kelly Lambert, Jacy Jacob
POSTER #37

BRIANNA CHARLTON
Other Race Faces Look the Same: Is Motivation Enough to Diminish this Effect?
FACULTY MENTORS: Cindy Bukach
POSTER #38

EMMA BENDER, MACKENZIE SEWARD, JEN SCHLUR, ANNIE BECKERMAN
Predictors of Attitudes Towards BLM
FACULTY MENTOR: Jane Berry
POSTER #39

KAYLA SCHILTZ, EMILY HUESMAN
Are Racial Microaggressions Related to Colorblind and White Privilege Ideologies?
FACULTY MENTOR: Jane Berry
POSTER #40

LAYLA COBRINIK
The Warmline Study
FACULTY MENTOR: Kristjen Lundberg
POSTER #41
POSTER SESSION 2: 2:30-3:30 P.M.

**ALLISON WALTERS**  
*Stigma and Anxiety as Barriers to Help-Seeking Among University of Richmond Students*  
FACULTY MENTOR: Kristjen Lundberg  
POSTER #42

**HYE WON HONG**  
*Friendship in a Pandemic: An Experimental Intervention to Test the Protective Role of Friendship Quality*  
FACULTY MENTORS: Kristjen Lundberg, Karen Kochel  
POSTER #43

**ANTONIO CARDOSO**  
*Individual Differences in Processing of Garden-Path Sentences: The Role of Obsessive Compulsive Personality Traits*  
FACULTY MENTOR: Matthew Lowder  
POSTER #44

**ADDI MANSINI**  
*Examining Protective Quality of Sense of Belonging and Friendship Quality on Peer Victimization Outcomes*  
FACULTY MENTOR: Karen Kochel  
POSTER #45

**CAMERON MCKENDRICK**  
*Evaluating Hyperfocus Prevalence through Ecological Momentary Assessment*  
FACULTY MENTOR: Laura Knouse  
POSTER #46

**MICHALA DINI**  
*The Emotional Mechanisms of Altruism Born of Suffering*  
FACULTY MENTOR: Kristjen Lundberg  
POSTER #47

**ISABELLE WARREN, ELIZABETH POPOVICH, CAROLINE GLASER**  
*Support for BLM: The Role of Childhood Factors and Time Since the 2020 Uprisings*  
FACULTY MENTOR: Jane Berry  
POSTER #48
Poster Presentations

POSTER SESSION 2: 2:30-3:30 P.M.

JEN SCHLUR, EMMA BENDER, ANNIE BECKERMAN, MACKENZIE SEWARD, OLIVIA HARDING
Bots Invaded Our Study of Black Lives Matter
FACULTY MENTOR: Jane Berry
POSTER #49

KATHRINA DURANTE
Committed to the Cause or Performative Posting?: Developing a Measure of Internal and External Motivations for Online Activism
FACULTY MENTOR: Kristjen Lundberg
POSTER #50

ALISON ZHANG
Racial Homogeneity at Home and Race Essentialism: The Role of Interracial Friendship
FACULTY MENTORS: Kristjen Lundberg, Karen Kochel
POSTER #51

ALISA FOMINYKH
The Economic Blitzkrieging of Russia
FACULTY MENTOR: Michael Marsh-Soloway
POSTER #52

RAY BARR
Individualized History: Tobacco Workers Interred at East End Cemetery
FACULTY MENTOR: Elizabeth Baughan
POSTER #53
DANNY FRASCELLA
Effect of Retinoic Acid Receptors (RAR) on Spinal Cord and Hindbrain Territories in Danio rerio
FACULTY MENTOR: Isaac Skromne
POSTER #1

JOSHUA PANDIAN
The Effect of Microbiome Composition on Rickettsia parkeri Prevalence in Peromyscus leucopus and Sigmodon hispidus
FACULTY MENTOR: Jory Brinkerhoff
POSTER #2

CORRI COOPER
Autophagy-Mediated Neurodegeneration in Drosophila with Human Machado-Joseph Disease
FACULTY MENTOR: John Warrick
POSTER #3

GABRIEL OFFENBACK, COLE FISHBERG
Pro-inflammatory Signaling in RAW264.7 macrophages
FACULTY MENTOR: Krista Stenger
POSTER #4

NINA PRICE
Physiological Actions of Hydrocinnamic Acid on Cardiac Ion Channels
FACULTY MENTOR: Linda Boland
POSTER #5

JONATHAN KAN
Tick Behavior in Varying Environments
FACULTY MENTOR: Jory Brinkerhoff
POSTER #6

LONDON NEMMERS, ANNA ALI
The Effects of Desiccation Stress on Desert Soil Nematodes
FACULTY MENTOR: Amy Treonis
POSTER #7
Poster Presentations

POSTER SESSION 3: 3:45-4:45 P.M.

ALLISON NGUYEN
Leaf Ecophysiological Responses to Light Availability in Oplismenus undulatifolius, a Shade Tolerant Invasive Plant
FACULTY MENTOR: Carrie Wu
POSTER #8

GRACE DAVIS
Examining Critical Thermal Limits of Lymantria dispar Regarding Geographic Differences
FACULTY MENTORS: Kristine Grayson, Jonathan Walters
POSTER #9

BRENDAN CROCKETT, NICK GONZALES
Tracking Wild Rat Brains: Emerging Neurobiological Differences Between Urban Wild-Trapped and Laboratory Rats (Rattus norvegicus)
FACULTY MENTOR: Kelly Lambert
POSTER #10

EMILY CASSADY
Testing the Ability of Environmental Growth Chambers to Replicate Outdoor Growth Conditions Using the Invasive Forest Insect Lymantria dispar (L.)
FACULTY MENTORS: Kristine Grayson, Hannah Coovert
POSTER #11

SINEAD DOWLING, KATHLEEN GARCHITORENA, ANNIE KWON
Mutational Analysis of the Agrobacterium VirA Sensor Kinase Reveals AND/OR Gating Control
FACULTY MENTOR: B. Daniel Pierce
POSTER #12

LEEANN DEMPSEY
The Effect of Wood Smoke on Human Lung Epithelial Cells
FACULTY MENTOR: Shannon Jones
POSTER #13
POSTER SESSION 3: 3:45-4:45 P.M.

ELENA MECCHI, ANH NGUYEN, LYNDAA CEVALLOS
Does Calcium Binding Affect Miro-binding to MYO19 or TRAK1 or 2 in Mitochondria?
FACULTY MENTOR: Omar Quintero-Carmona
POSTER #14

KHARMA HALL
Stxbp1b Epilepsy Modelling in Zebrafish
FACULTY MENTOR: Colleen Carpenter-Swanson
POSTER #15

ELSA KATARINA ACOSTA
An In-Silico Investigation of G-quadruplex Stabilization by DNA Telomerase Inhibitors
for Anti-Cancer Applications
FACULTY MENTOR: Carol Parish
POSTER #16

JACOB AIRAS, TRAVIS GREENE
Using Halogen Bonding to Detect Opioids
FACULTY MENTOR: Carol Parish
POSTER #17

ANDREW FELIX
Green Synthesis of Pyrroles
FACULTY MENTOR: William O’Neal
POSTER #18

TESSA YARBROUGH
Electron Delocalization and Aromaticity in Inorganic Analogues of Small Ring Systems
FACULTY MENTORS: Kelling Donald
POSTER #19

LIAM DAY
Cerium(IV) Complexes in Biological Assays and Phosphate Bond Cleavage
FACULTY MENTORS: Dominique Williams
POSTER #20
MAK CALLENDER  
*Expression, Purification, and Activity Investigation of STK1*  
FACULTY MENTOR: Julie Pollock  
POSTER #21

MICHAEL RODRIGUEZ, TYLER CHONG  
*Synthesis of Styrenes from Aldehyde-aldehyde Aldol Coupling Products*  
FACULTY MENTOR: Wade Downey  
POSTER #22

HALEY GLADDEN  
*Small Molecule Interference with the hACE2 and SARS-CoV RBD Complex Junction*  
FACULTY MENTOR: Carol Parish  
POSTER #23

SADIESHA TAYLOR  
*Synthesis of Unsymmetrical Bis(phosphine)pyrrole Ligands and Their Nickel Complexes*  
FACULTY MENTOR: Miles Johnson  
POSTER #24

CHARLI CHEN  
*Spin Flip TDDFT/CCSD Characterization of Thiophene Di-radicals*  
FACULTY MENTOR: Carol Parish  
POSTER #25

JOLAN MOTYKA  
*Mining Nature for New Antibiotics*  
FACULTY MENTOR: Jonathan Dattelbaum  
POSTER #26

MARISSA GOODALL  
*Alternative Medicine & Black, College-Educated Women*  
FACULTY MENTORS: Rick Mayes  
POSTER #27
NOAH ROBINSON, NAM PHAM, WILLIAM RICE, PAIGE DELSA
*Strong Halogen Bonding Tendencies Below Period Two*
FACULTY MENTORS: Donald Kelling
POSTER #28

EMILY DIXON, DANIEL SARAVIA-ROMERO
*Concessions Uncovered: Westhampton Park in Context*
FACULTY MENTOR: Elizabeth Baughan
POSTER #29

TAYLOR GRINDLE
*Liberosis*
FACULTY MENTOR: Alicia Díaz
POSTER #30

KAYLA SCHILTZ
*Hush*
FACULTY MENTOR: Alicia Díaz
POSTER #31

TAYLOR COLEMAN, INDYA WOODFOLK, KATHRYN GRAGE, VIRGINIA MEAD
*Management Strategies for Improving the Quality of Westhampton Lake*
FACULTY MENTORS: Peter Smallwood, Todd Lookingbill
POSTER #32

TAYLOR COLEMAN
FACULTY MENTOR: Stephanie Spera
POSTER #33

ELIZA HERRENKOHL, ELSPETH COLLARD
*COVID-19 within Indigenous Communities of the Peruvian Amazon: An Ucayali Case Study*
FACULTY MENTORS: Stephanie Spera, David Salisbury
POSTER #34
ELIZA HERRENKOHL, BOB CHIABALMACEDA, ELIZA HERRENKOHL, ANTONIA KEMPE, SURAYA SOUIDI  
Conservation Efforts in Richmond, Virginia  
FACULTY MENTOR: Todd Lookingbill  
POSTER #35

LINDSEY BARNARD  
The Geolocation of Facebook and Twitter Posts on the Proposed Highway between Pucallpa, Peru and Cruzeiro do Sul, Brazil  
FACULTY MENTORS: David Salisbury, Stephanie Spera  
POSTER #36

JULIA STEVERMER  
Defining the Holodomor a Title and Accountability to the Ukrainian Terror Famine of 1932-1933  
FACULTY MENTOR: David Brandenberger  
POSTER #37

KELLY SAVERINO, SADIE WENGER  
An Exploration of Tool-Use, Flexible Cognition, and Cultural Behaviors in Semi-Natural Java Macaques  
FACULTY MENTOR: Kelly Lambert  
POSTER #38

WILSON BERRY  
Examining the Relationship Between Interracial Contact and Support for Social Change on the UR Campus  
FACULTY MENTOR: Kristjen Lundberg  
POSTER #39

RYAN WIGGINTON  
Do ADHD Symptoms Strengthen the Relationship Between Depression/Anxiety and Avoidance?  
FACULTY MENTOR: Laura Knouse  
POSTER #40
Poster Presentations

POSTER SESSION 3: 3:45-4:45 P.M.

MAMIE ZIEGLER, ALISON ZHANG, HOOR UL AIN
Personality Matters: Neuroticism and Conscientiousness are Associated with College Students’ Avoidance in Daily Life
FACULTY MENTOR: Laura Knouse
POSTER #41

EVE RIDENHOUR, MIRANDA MOE
Popular Children’s Perceived Competence in School-Based Peer Interactions
FACULTY MENTOR: Karen Kochel
POSTER #42

ELENA BAGNOLI, ALYSSA HENDRICKS, BAILEY SANTAGUIDA
How Positive Psychology Benefits the Well-Being of Solid Organ Transplant Recipients
FACULTY MENTOR: Camilla Nonterah
POSTER #43

MARY SANCHEZ
Cultural Femininity in Denmark
FACULTY MENTOR: Olivier Delers
POSTER #44

SHAYLEN LAFFERTY
Props & Posters: Perfect Arrangement
FACULTY MENTOR: Johann Stegmeir
POSTER #45

LIAM KEENAN, EMMA SLOANE, SHAYLEN LAFFERTY, PAIGE WILLIS, GABRIEL MATTHEWS, OONA ELOVAARA, OLIVE GALLMEYER
Perfect Arrangement - Sound Design
FACULTY MENTOR: Maja White
POSTER #46

EMMA SLOANE
Perfectly Queer: Directing an LGBTQ+ Production
FACULTY MENTORS: Walter Schoen
POSTER #47
POSTER SESSION 3: 3:45-4:45 P.M.

OLIVE GALLMEYER
*The Lavender Scare on Stage: Perfect Arrangement Dramaturgical Research*
FACULTY MENTOR: Walter Schoen
POSTER #48

SHAYLEN LAFFERTY, EMMA SLOANE, PAIGE WILLIS, GABRIEL MATTHEWS, LIAM KEENAN, OLIVE GALLMEYER, OONA ELOVAARA
*Perfect Arrangement*
FACULTY MENTOR: Johann Stegmeir
POSTER #29

GABRIEL MATTHEWS
*Scenic Design for Perfect Arrangement*
FACULTY MENTORS: Vicki Davis
POSTER #50

OONA ELOVAARA
*Costume Design for the production of Perfect Arrangement*
FACULTY MENTOR: Johann Stegmeir
POSTER #51
Though we have an expansive and diverse list of expertise, experiences, and learning opportunities we pride ourselves on being a tight-knit community of lifelong learners bound together by one common mission. Our A&S community — made up of students, faculty, alumni, and staff — questions the unknown, seeks answers, and thrives by learning how to turn new-found knowledge into action. From art history to physics, Arts & Sciences prepares students to be committed lifelong learners who challenge societal and intellectual barriers, who provide ethical leadership, and who lead sustainable and meaningful lives.

Every Richmond student begins their undergraduate career in Arts & Sciences, placing us at the heart of Richmond’s liberal arts experience. We implement a broad-based, integrative educational approach while valuing the power of an inclusive community where faculty, students, alumni, and staff all inquire, discover, and take risks together.

Together, we’re fostering intellectually nimble global leaders capable of critical thinking and adaption in a diverse and ever-changing world.
A TRADITION OF CELEBRATING OUR COMMUNITY OF LEARNERS

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