

Schedule of Events

Poster Exhibition

Friday, April 14, 2023

Session 1: 2:00 p.m. – 3:30 p.m.

Session 2: 4:00 p.m. – 5:30 p.m.

Saturday, April 15, 2023

Session 3: 11:00 a.m. – 12:30 p.m.

Session 4: 1:00 p.m. – 2:30 p.m.

Student and Faculty Reception

Friday, April 14, 2023

5:30 p.m. – 6:30 p.m.

Reception Program

Welcome and Introductions

Caroline McGuire

Executive Director, Enrichment Programs and Director,
Office of Undergraduate Research

Keynote Speaker

Anne D'Alleva

Provost and Executive Vice President for Academic Affairs,
University of Connecticut

Presentation of the Mentorship Excellence Awards

Faculty Awards

Na Zhang

Assistant Professor, Human Development and Family
Sciences

Nominated by **Victoria Almazán '25** (CLAS) & **Abigail
Ricketts '24** (CLAS)

Presented by **Stephanie Schofield '23** (CLAS)

Wendy Mok

Assistant Professor, Molecular Biology and Biophysics

Presented by **Stephanie Schofield '23** (CLAS)

Graduate Student Award

Chelsea Garcia

Ph.D. Student, Nutritional Sciences

Presented by **Paige Dossias '23** (CAHNR)

Closing Remarks

Jennifer Lease Butts

Associate Vice Provost, Enrichment Programs and
Director, Honors Program

About Frontiers in Undergraduate Research

The Frontiers Poster Exhibition is a multidisciplinary research forum showcasing undergraduate research, scholarship, and creative projects at the University of Connecticut. Frontiers 2023 is the twenty-sixth annual Frontiers event sponsored by the Office of Undergraduate Research (OUR). This year's exhibition includes 198 students presenting posters for 187 research and creative projects at the Storrs in-person exhibition. 10 students will present 10 research and creative projects at the Stamford in-person exhibition on April 18, 2023. Additional projects can be viewed in the online exhibition at ugradresearch.uconn.edu/frontiers2023.

Students' projects span the disciplines and include both independent research and work pursued in collaboration with other undergraduates. The projects presented reflect the invaluable contributions of research mentors, including graduate students, postdoctoral scholars, staff, and faculty members. We hope you enjoy meeting our wonderful students and learning about their innovative projects.

About the Office of Undergraduate Research

The Office of Undergraduate Research (OUR) is a resource for students interested in enriching their undergraduate experience through participation in research, scholarship, and creative activity. OUR provides information and advising to assist students in identifying relevant opportunities, as well as several funding programs to support the students and their faculty mentors.

Many of the Frontiers presenters have received financial support for their projects from the OUR, which awarded over \$560,000 in 2021-22 in support of students' research and creative endeavors. These awards are funded by the Office of Undergraduate Research with generous support from the Office of the Provost, the Office of the Vice President for Research, the deans of the schools and colleges, and private donations from alumni, parents, and other friends of UConn and undergraduate research.

Sequential Listing of Poster Presentations

This listing of projects includes the undergraduate student authors and their faculty mentors. Please note that this is not a comprehensive listing of mentors: many projects also reflect the contributions and mentorship of dedicated graduate students, post-doctoral scholars, and research staff members.

- Friday Session 1 presentations are listed on pages 5-13.
- Friday Session 2 presentations are listed on pages 14-20.
- Saturday Session 3 presentations are listed on pages 21-28.
- Saturday Session 4 presentations are listed on pages 29-35.
- An alphabetical listing of presenters begins on page 38.

SESSION 1 PRESENTATIONS

1. Religious Identity and Diabetes: A Muslim American Perspective

Elisa Shaholli, Economics & English

Advisor: Brenda Brueggemann, Professor, English & Women's, Gender, and Sexuality Studies

Advisor: Metin Cosgel, Professor, Economics

Advisor: Kelley Newlin Lew, Associate Professor, Nursing

2. Forced Displacement and Its Impact on Children's Education in Developing Countries: A Case Study of Syrian Refugees in Jordan

Nour Al Zouabi, Individualized Major: Rights, Health, and Refugees & Molecular and Cell Biology

Advisor: Jordan Levy, Visiting Assistant Professor, Anthropology

3. Parental Smoking and Race-Gender Disparities in Children's Risk Behaviors and Health Profiles

Jasmine Aboumahboob, Individualized Major: Human Physiology and Sociomedical Sciences

Advisor: Ryan Talbert, Assistant Professor, Sociology

4. Possible Motivations Behind Vaccine Hesitancy Among Black Americans During the Covid-19 Pandemic and the Importance of Cultural Competence in Health Campaigns

Zaryah Gordon, Biological Sciences

Advisor: Martina Powell, Assistant Professor in Residence, Women's, Gender, and Sexuality Studies

Advisor: Louise Lewis, Professor, Ecology and Evolutionary Biology

5. Implementing and Culturally Adapting a Family Education Program for Lost to Intervention in Early Hearing Detection and Intervention: Undergraduate Training & Reflections Post Publication

Emily LaSpada, Speech, Language, and Hearing Sciences

Ashley Cortes, Cognitive Science

Jennifer Lopez, Psychological Sciences & American Sign Language Studies

Advisor: Torri Ann Woodruff-Gautherin, Research Associate, Speech, Language, and Hearing Sciences

6. Possible Effects of Sexual Health Education on Health Behaviors and Indicators

Chloe Lafosse, Psychological Sciences

Advisor: Felicia Pratto, Professor, Psychological Sciences

7. Mental Health and Stressors Among Pre-Medical Students at the University of Connecticut

Skylar Rabouin, Physiology and Neurobiology

Advisor: John Redden, Associate Professor in Residence, Physiology and Neurobiology

8. Mental Health Matters: The Link Between Depression and Condomless Sex Among Malaysian Men Who Have Sex with Men

Jerome Jacobs, Allied Health Sciences

Advisor: Roman Shrestha, Assistant Professor, Allied Health Sciences

9. Living and Dying in 'Cancer Alley': Using Human Rights Law and Environmental Justice to Create a Litigation Framework for Marginalized Communities

Neeharika Sistu, Individualized Major: Global Health & Molecular and Cell Biology

Advisor: Audrey Chapman, Professor, Public Health Sciences

10. Gun Violence Prevention Online: Analyzing Social Media Posts of the NRA and Everytown

Nicholas Xenophontos, Sociology & Mathematics

Advisor: Mary Bernstein, Professor, Sociology

11. What the Hell Do You Have to Lose?: Black Voters, Racial Resentment and the 2020 Election

Mason Holland, Political Science

Advisor: Paula McClain, James B. Duke Distinguished Professor of Political Science, Political Science, Duke University

12. Advancing Environmental and Climate Justice Within Marginalized Urban CT Communities

Romina Flores Diaz, Political Science & History

Advisor: Mayra Rodríguez González, Assistant Extension Educator, Urban and Community Forestry, UConn Extension

13. Exposure to the Beating of Rodney King, Acquittal of Offending Officers, and Substance Use Among Black Americans

Joseph Annan-Kingsley, Individualized Major: Global Health and Social Inequalities

Advisor: Ryan Talbert, Assistant Professor, Sociology

14. Whom Do You Trust?: A Look into the Effects of Political Polarization on One's Trust in the Federal Government

Gabriella Pattavina, Political Science

Advisor: Jeffrey Ladewig, Associate Professor, Political Science

Advisor: Matthew Singer, Professor, Political Science

15. Private Matters: Comparing the Supreme Court's Protection of Informational and Decisional Privacy Claims

Katherine Smith, Political Science & Sociology

Advisor: Kristin Kelly, Associate Professor, Political Science

Advisor: Matthew Singer, Professor, Political Science

16. HPV Vaccine Initiation and Follow-Through Trends from 2011-2020

Caitlyn Shetland, Molecular and Cell Biology

Advisor: Sharon Smith, Professor, Pediatrics

17. Disparities in The Success Rates of Treatment For Small Cell Lung Cancer

Laura Gallagher, Molecular and Cell Biology

Advisor: Charles Giardina, Professor, Molecular and Cell Biology

18. Why Talk About Your Worries? Daily Variations In Problem Anxiety Talk

Stephanie Ballas, Diagnostic Genetic Sciences & Psychological Sciences

Advisor: Kimberli Treadwell, Associate Professor, Psychological Sciences

19. Emotion Regulation Moderates Pain-Associated Daily Exercises in People with Chronic Lower Back Pain

Andrew DeBenedictis, Psychological Sciences & English

Advisor: Crystal Park, Professor, Psychological Sciences

20. Cats Say Meow: Parent Use of Generics Reflected in Child Language Level

Julia Johnson, Cognitive Science

Advisor: Letitia Naigles, Professor, Psychological Sciences

21. The Effects of Musical Training on Cochlear Health in College Students

Morgan Main, Physiology and Neurobiology & Speech, Language, and Hearing Science

Advisor: Erika Skoe, Associate Professor, Speech, Language, and Hearing Sciences

22. Improving Access to Connecticut Summer Meal Programs Using Geographic Information Systems (GIS)

Aidan Caron, Political Science & Geographic Information Science

Advisor: Xiang (Peter) Chen, Assistant Professor, Geography

23. A Qualitative and Quantitative Study on the Iterative Design of the Feedback Process of Medication Reconciliation Through the Utilization of Pharmacy Team Interviews

Yesenia Contreras, Allied Health Sciences

Advisor: Thomas Agresta, Professor, Family Medicine

Advisor: Sean Jeffrey, Clinical Professor, Pharmacy Practice

24. Dynamic Transcriptomic and Proteomic Responses of Circulating Immune Cells in Response to Subsequent Days of Exercise Heat-Stress

Soohyun Oh, Exercise Science

Advisor: Elaine Lee, Associate Professor, Kinesiology

Advisor: Lawrence Silbart, Professor Emeritus, Allied Health Sciences

Advisor: Anthony Vella, Professor, Immunology

25. Investigating the Role of Srp in Programmed Cell Death in the *Drosophila* Ovary

Haley Grayson, Physiology and Neurobiology

Advisor: Jianjun Sun, Associate Professor, Physiology and Neurobiology

26. The Role of Olfactory Receptors in Behavioral Response to Ammonia in *Drosophila melanogaster*

Claire Sullivan, Physiology and Neurobiology

Advisor: Karen Menuz, Associate Professor, Physiology and Neurobiology

27. Ovarian Dilp8 Is Important for the Release of Mature Eggs in Virgin Conditions

Katarina Yacuk, Physiology and Neurobiology

Advisor: Jianjun Sun, Associate Professor, Physiology and Neurobiology

28. Examining RUNX2 Expression During Odontoblasts Differentiation and Repair in Mouse Incisors

Kaila Lujambio, Allied Health Sciences

Advisor: Mina Mina, Professor, Pediatric Dentistry

Advisor: Sierra Root, Research Instructor, Skeletal Biology and Regeneration

29. Selfish Genetic Elements in Actinobacteriophages

Catherine Jennings, Biological Sciences

Advisor: J. Peter Gogarten, Distinguished Professor, Molecular and Cell Biology

30. A DNA-Peptide Crosslink (DpC) Increases Mutagenicity in SOS-Induced *Escherichia coli*

Alessandra Bassani, Molecular and Cell Biology & Italian Literary and Cultural Studies

Advisor: Ashis Basu, Professor, Chemistry

Advisor: Andrei Alexandrescu, Professor, Molecular and Cell Biology

31. Reversion of Analytical Flow in Mass Spectrometry for Detection and Separation of Various Bacterial Lipid Classes

Heather MacKinnon, Molecular and Cell Biology & Spanish

Advisor: Anthony Provatás, Assistant Research Professor, Chemistry & Center for Environmental Sciences and Engineering

Advisor: Frank Nichols, Professor, Periodontology

32. Calculating Thyroid Hormones (T3 and T4) in Whale Blow by Quadrupole Time of Flight/Tandem Multiple Reaction Monitoring Mass Spectrometry

Rachel Murphy, Physiology and Neurobiology

Advisor: Anthony Provatás, Assistant Research Professor, Chemistry & Center for Environmental Sciences and Engineering

33. The Role and Mechanism of Homologous Chromosome Pairing

Romir Raj, Biomedical Engineering

Advisor: Jelena Erceg, Assistant Professor, Molecular and Cell Biology

Advisor: Mayu Inaba, Assistant Professor, Cell Biology

34. Role of Perimuscular Connective Tissue Injury and Repair in Fibrodysplasia Ossificans Progressiva

Rayna Esch, Molecular and Cell Biology

Advisor: David Goldhamer, Professor, Molecular and Cell Biology

35. Wireless Sensor Development Using Arduino for Bridge Joint Monitoring

Daisy Ren, Civil Engineering

Advisor: Shinae Jang, Associate Professor in Residence, Civil and Environmental Engineering

36. Synthesizing Cisplatin Loaded Mesoporous Silica Nanoparticles for the Intraperitoneal Treatment of Ovarian Cancer

Ananya Aggarwal, Molecular and Cell Biology

Advisor: Xiuling Lu, Professor, Pharmaceutical Sciences

37. Impact of Heat and Humidity on Aspirin Tablets' Chemical Stability

Lyla White, Pharmacy Studies

Advisor: Bodhi Chaudhuri, Professor, Pharmaceutical Sciences

38. Extraction of CBD from Personal Care Products Followed by Liquid Chromatography Coupled with UV Detection

Jacob Esposito, Chemistry

Isabella McGrath, Environmental Sciences

Rachel Murphy, Physiology and Neurobiology

Advisor: Anthony Provatas, Assistant Research Professor, Chemistry & Center for Environmental Sciences and Engineering

39. The Effects of Poor Maternal Nutrition During Gestation on IgG Concentrations in Sheep Offspring Circulation

Vianna Bassani, Animal Science & Pathobiology

Advisor: Sarah Reed, Associate Professor, Animal Science

40. PFAS Found in Oyster Tissue

Jerushka Joseph, French

Advisor: Anthony Provatias, Assistant Research Professor, Chemistry & Center for Environmental Sciences and Engineering

Advisor: James Stuart, Professor Emeritus & Senior Research Scientist, Chemistry & Center for Environmental Sciences and Engineering

41. Direct Measurements of Electron Density, Temperature, and Chemical Abundance of HII Regions in NGC 4254

Eric Habjan, Physics

Advisor: Christopher Faesi, Assistant Professor, Physics

42. Assessing the Association of a Metric of Transport Equity and Social Deprivation: A Case Study in Perú

Leonardo Gamez, Civil Engineering & Latino and Latin American Studies

Advisor: Davis Chacón-Hurtado, Assistant Research Professor, Civil and Environmental Engineering

43. What Data Do We Have to Study Trends in *Hymenoptera* Populations?

Julia Morin, Natural Resources

Advisor: Chris Elphick, Professor, Ecology and Evolutionary Biology

44. After They Move: Attributes Associated with the Appearance of the Fresh Watermark on Juvenile Alewives (*Alosa pseudoharengus*)

Erin Lindsay, Ecology and Evolutionary Biology & Anthropology

Advisor: Eric Schultz, Professor, Ecology and Evolutionary Biology

45. Red and White Muscle in Migratory and Non-Migratory Alewives

Gracie Berthiaume, Ecology and Evolutionary Biology & Environmental Sciences

Advisor: Eric Schultz, Professor, Ecology and Evolutionary Biology

Advisor: Foivos Alexandros Mouchlianitis, Fulbright Scholar, Ecology and Evolutionary Biology

46. The First Genome Reference for the Tropical Legume, *Inga vera*, and Comparative Analysis of Genes Involved in Nitrogen Fixation Among the Fabaceae

Harshita Akella, Molecular and Cell Biology

Advisor: Jill Wegrzyn, Associate Professor, Ecology and Evolutionary Biology

47. Folly, Adieu

Anthony Sellitto, Puppet Arts

Advisor: Matthew Cohen, Professor, Dramatic Arts

SESSION 2 PRESENTATIONS

1. *Cenabis Bene: A Culinary Odyssey Through Apicius*

Kathryn Atkinson, Nutritional Sciences & Individualized Major: Food Studies

Advisor: Alexia Smith, Associate Professor, Anthropology

2. A Zooarchaeological Metadata Analysis of Animal Domestication in the Neolithic Northern Levant

Ashlyn Cartier, Anthropology

Advisor: Natalie Munro, Professor, Anthropology

Advisor: Richard Sosis, Professor, Anthropology

Advisor: Sara Johnson, Associate Professor, Literatures, Cultures, and Languages & History

3. Special Education Teachers' Stress and Stress Management in the Era of COVID-19

Derek Mason, Special Education

Advisor: Catherine Little, Professor, Educational Psychology

4. ChatGPT in Action: How We Can Use AI to Support Learning in Classrooms, Individualized Study, and Writing Centers

Alexander Solod, Computer Science

Advisor: Tom Deans, Professor, English

5. Analysis of the School-to-Prison Pipeline, Policies, and Future Implications

Sheylian Berrios-Hernandez, Human Development and Family Sciences

Advisor: Laura Donorfio, Associate Professor, Human Development and Family Sciences

6. Awareness and Utilization of Healthcare Services and Resources in Underserved Communities of Connecticut

Radha Patel, Molecular and Cell Biology

Advisor: Sharon Smith, Professor, Pediatrics

Advisor: Mary-Kate Nowobilski, University Affiliate, Connecticut Children's Medical Center

7. The Correlation Between Colorism and Discriminatory Policing Amongst Latin American and Latin Caribbean Populations in the United States

Dashiel Matos, Psychological Sciences

Advisor: Ryan Talbert, Assistant Professor, Sociology

8. The Cycle of Inequality: Understanding the Impact of White Flight on Educational Inequity

Sudiksha Mallick, Political Science

Advisor: Bhoomi Thakore, Professor, Sociology

9. A Moral Wage: Exploring Republican Presidential Administrations' Moral Framing of the Minimum Wage

Musa Hussain, Political Science & Sociology

Advisor: Ruth Braunstein, Associate Professor, Sociology

10. Black False Consciousness and the 2020 Election

Mason Holland, Political Science

Advisor: Fred Lee, Associate Professor, Political Science

11. The Price of 'Winning Hearts and Minds' Concerning Jacqueline Hazelton's Coercion Theory of Counterinsurgency Success

Rebekah Wesler, Political Science

Advisor: Matthew Singer, Professor, Political Science

Advisor: Jennifer Sterling-Folker, Professor, Political Science

Advisor: Jeremy Pressman, Professor, Political Science

12. Arming Abuse: U.S. Arms Transfers in Relation to Human Rights

John Higgins, Political Science & Philosophy

Advisor: Matthew Singer, Professor, Political Science

Advisor: Evan Perkoski, Assistant Professor, Political Science

13. Interest in Long-Acting Injectable Pre-Exposure Prophylaxis (LAI-PrEP) for HIV Prevention Among Men Who Have Sex With Men (MSM)

Sana Gupta, Statistics

Advisor: Roman Shrestha, Assistant Professor, Allied Health Sciences

14. Acceptability and Feasibility of Pre-Exposure Prophylaxis (PrEP) Two-Way Short Message Service (SMS) Text Message Reminders in Communities of People Who Inject Drugs (PWID)

Olivia Kennedy, Allied Health Sciences

Advisor: Roman Shrestha, Assistant Professor, Allied Health Sciences

15. Diet Quality Assessment in Patients Undergoing Medication-Assisted Treatment for Opioid Use Disorder

Anders Kleinbeck, Molecular and Cell Biology

Advisor: Roman Shrestha, Assistant Professor, Allied Health Sciences

Advisor: Andrei Alexandrescu, Professor, Molecular and Cell Biology

16. Designing a mHealth App-Based Intervention to Address the Harm Reduction Needs of Malaysian Men Who Have Sex with Men (MSM) Who Engage in Chemsex: Findings from a Qualitative Study

Christopher Uyar, Allied Health Sciences

Advisor: Roman Shrestha, Assistant Professor, Allied Health Sciences

17. Adaptation of a Theory-Based Clinic-Affiliated Mobile App to Deliver HIV Testing, Pre-Exposure Prophylaxis, and Gender-Affirming Care Services for Transgender Women in Malaysia

Sihlelelwe Dlamini, Molecular and Cell Biology

Advisor: Roman Shrestha, Assistant Professor, Allied Health Sciences

18. Changes in Bimanual Coordination During Dual Joystick Operated Ride-On-Car Training in Children with Hemiplegic Cerebral Palsy

Emily Tully, Biological Sciences

Aarthi Tippireddy, Physiology and Neurobiology

Advisor: Sudha Srinivasan, Assistant Professor, Kinesiology

19. Effects of Creative Movement & Play Based Interventions on Motor Skills of Children with Autism Spectrum Disorder: Results from a Randomized Controlled Trial

Sharanya Chandu, Physiology and Neurobiology & Healthcare Management

Advisor: Sudha Srinivasan, Assistant Professor, Kinesiology

20. Identification of the Risk Factors Associated with Estrogen Deficiency-Induced Bone Loss in Peri- and Postmenopausal Women

Dave Patel, Nutritional Sciences

Advisor: Ock Chun, Professor, Nutritional Sciences

21. Environmental Context and Referential Ambiguity: A Human Simulation Paradigm Study

Georgia Capobianco, Psychological Sciences

Advisor: Umay Suanda, Assistant Professor, Psychological Sciences

22. Defining the Role of TIGIT as an Immune Checkpoint Inhibitor in Ovarian Cancer

Sarah San Vicente, Molecular and Cell Biology

Advisor: Andrew Wiemer, Associate Professor, Pharmaceutical Sciences

Advisor: Xiuling Lu, Professor, Pharmaceutical Sciences

Advisor: Patricia Rossi, Associate Professor In Residence, Molecular and Cell Biology

23. A Single Gene Association Study for Dyslexia: Expanding Our Understanding of the Relationship Between NRSN1 and Reading Disorders

Rhea Koyambreth, Psychological Sciences & Physiology and Neurobiology

Advisor: Nicole Landi, Associate Professor, Psychological Sciences

24. Linking Metabolic Effects of Ketone Bodies on Larval Developmental Timespan and Adult Cognitive-Behavioral Outcomes in *Drosophila melanogaster*

Dariana Mota, Physiology and Neurobiology & Molecular and Cell Biology

Advisor: Geoffrey Tanner, Assistant Professor in Residence, Physiology and Neurobiology

25. SLO-1 and PCDR-1 Regulate Sleep Neuron RIS Activity in *C. elegans*

Juwon Kang, Biological Sciences

Advisor: Zhao-Wen Wang, Professor, Neuroscience

26. The Localization of Cytochrome P450s in *Drosophila*

Tijhuan Grant-Christie, Physiology and Neurobiology

Advisor: Karen Menuz, Associate Professor, Physiology and Neurobiology

27. Differentially Expressed Genes Between Male and Female *Drosophila melanogaster* May Confer Success in Mating

Jude Icoy, Physiology and Neurobiology

Advisor: Karen Menuz, Associate Professor, Physiology and Neurobiology

28. Effects of 4-Aminopyridine on Neonatal Hippocampal Slices of *KCNQ2* Knockout Mice

Srivani Agnihotram, Physiology and Neurobiology & Speech, Language, and Hearing Sciences

Advisor: Anastasios Tzingounis, Professor, Physiology and Neurobiology

29. X Chromosome Mapping

Aksir Bhura, Physiology and Neurobiology

Advisor: Jianzhong Yu, Assistant Professor, Physiology and Neurobiology

30. Exposomics and Endocrine-Disrupting Chemicals: Analysis of the Effect of Everyday Environmental Stressors on Human Health

Selena Anderson, Chemistry

Simon Corraera, Chemistry

Sebastian Kania, Chemistry

Advisor: James Stuart, Professor Emeritus & Senior Research Scientist, Chemistry & Center for Environmental Sciences and Engineering

Advisor: Anthony Provas, Assistant Research Professor, Chemistry & Center for Environmental Sciences and Engineering

31. Comparing Air Pollution at Schools with Socioeconomic Status Across the United States

Alliana Snead, Chemical Engineering

Advisor: Kristina Wagstrom, Associate Professor, Chemical and Biomolecular Engineering

32. Expanding Understanding of Regioselective Control in Ring Opening Reactions Through Flow Chemistry

Sebastian Malespini, Molecular and Cell Biology

Advisor: Kerry Gilmore, Assistant Professor, Chemistry

33. Determining How the TM3, Sb Ser Balancer Chromosome Contributes to the Meiotic Drive of the B Chromosomes in *Drosophila melanogaster*

Ryan Gado, Molecular and Cell Biology

Advisor: Stacey Hanlon, Assistant Professor, Molecular and Cell Biology

34. The Relationship of Novel Human Genes to 3D Genome Organization and Function

Nitanta Garag, Biomedical Engineering

Advisor: Jelena Erceg, Assistant Professor, Molecular and Cell Biology

35. Mechanistic Examination of Protist Mediated Plant Growth Through the Comparative Development of *Medicago truncatula*

Shane Connolly, Biological Sciences

Advisor: Daniel Gage, Professor, Molecular and Cell Biology

36. Conserving the Butternut Tree Through Genomics: Sequence, Assembly, and Annotation of a Threatened Walnut

Cristopher Guzman, Molecular and Cell Biology

Hannah LeVasseur, Molecular and Cell Biology & Sociology

Advisor: Jill Wegrzyn, Associate Professor, Ecology and Evolutionary Biology

Advisor: Rachel O'Neill, Distinguished Professor, Molecular and Cell Biology

37. Acceleration of Nonradiative Charge Recombination Reactions at Larger Distances in Kinked Donor-Bridge-Acceptor Molecules

Amrita Makhijani, Healthcare Management

Advisor: Tomoyasu Mani, Assistant Professor, Chemistry

38. Correlation Analysis of Twitter Sentiment and Fossil Fuel Stock Valuation

Pranav Tavildar, Computer Science & Individualized Major: Data Science

Advisor: Jun Yan, Professor, Statistics

39. Testing an Automatic Continuously Variable Transmission for Bicycles

Ethan Wicko, Mechanical Engineering

Advisor: Thomas Mealy, Machine Shop Engineer, Mechanical Engineering

41. Dominating Sets of Cartesian Product of Complete Graphs

Hanzhang Yin, Mathematics

Advisor: Walter Carballosa Torres, Assistant Teaching Professor,
Mathematics & Statistics, Florida International University

42. Polyadenylation in Intergenic Transcription

Benjamin Hoffman, Molecular and Cell Biology

Advisor: Xiuchun Tian, Professor, Animal Science

43. Microbiome Analysis for Reproductive Efficiency in Beef Cattle

Emma Forster, Animal Science

Advisor: Breno Fragomeni, Assistant Professor, Animal Science

44. Validation of iSperm CASA Using Frozen Thawed Bovine Semen

Henry Schober, Animal Science

Advisor: Xiuchun Tian, Professor, Animal Science

45. Are House Sparrows Reservoirs for Native Nest Ectoparasites?

Elizabeth Cochrane, Natural Resources and the Environment

Advisor: Sarah Knutie, Assistant Professor, Ecology and Evolutionary
Biology

46. Have Warming-Induced Changes in Body Size and Abundance Contributed to Long-Term Changes in the Biomass of *Acartia tonsa* in the 21st Century?

Maria Isabel Ocasio Lopez, Biological Sciences

Advisor: Hans Dam, Professor, Ecology and Evolutionary Biology

47. Refugees' Post-Resettlement Barriers to Accessing Healthcare Services in the Northeastern United States During COVID-19

Nour Al Zouabi, Individualized Major: Rights, Health, and Refugees &
Molecular and Cell Biology

Advisor: Sara Silverstein, Assistant Professor, History & Human Rights

Advisor: Elizabeth Holzer, Associate Professor, Sociology

SESSION 3 PRESENTATIONS

1. One World to Share: Exploring Cultural Appropriation in Opposition to Appreciation

Hailey Ngo, Art – Illustration/Animation

Advisor: Douglas Degges, Assistant Professor, Art and Art History

2. Here, There, and Everywhere? Placing Digital Ethnographic Method in Anthropological Tradition

Joshua Ellenberg, Anthropology & German

Advisor: Samantha Archer, PhD Student, Anthropology

3. Disparities in Health Care Coverage and the Intersection of Race/Ethnicity, Sexuality, and Gender Identity

Dina Alnabulsi, Sociology

Advisor: Ryan Talbert, Assistant Professor, Sociology

4. Generalized Mistrust and Willingness to Use Psychiatric Medication Among Latinx Adults

Jade Rivera, Pharmacy Studies

Advisor: Ryan Talbert, Assistant Professor, Sociology

5. Incarceration and Ethnoracial Variation in Mental and Physical Health Among Women

Kavya Sajeev, Allied Health Sciences

Advisor: Ryan Talbert, Assistant Professor, Sociology

6. Examining Epistemic Cultures in Academic Medicine Through Female Genital Cosmetic Surgery

Lydia Margolien, Statistics & Individualized Major: Health Policy and Disparities

Advisor: Jane Pryma, Assistant Professor, Sociology

7. Spotlighting Student Success: Understanding the Role Played by First Year Programs at the University of Connecticut

Hannah Peterson, Allied Health Sciences

Nicole Pinto, Physiology and Neurobiology

Shannon Ahearn, Political Science

Advisor: Amanda Wilde, Academic Advisor, Fine Arts

8. The Impact of Painful Procedures in the Neonatal Intensive Care Unit (NICU) on Preterm Infant Stress and the Hypothalamus-Pituitary-Adrenal Axis

Zachary Giguere, Physiology and Neurobiology

Advisor: Sharon Casavant, Assistant Professor, Nursing

9. Exploratory Study of Sleep Disturbance in Breast Cancer Survivors Through Examination of Estrogen Related Factors (Age, Medication, Gut Microbiome) and Non-Estrogen Related Factors (Anxiety and Leisure Activity)

Katherine Aceves, Nursing

Advisor: Michelle Judge, Associate Professor, Nursing

10. Covert Racist Language in Local Level Housing Conflicts

Lily Forand, Political Science

Advisor: Jeffrey Dudas, Professor, Political Science

Advisor: Matthew Singer, Professor, Political Science

11. The People vs Company: Exploring the Effects of Consumer Boycotts on Corporate Social Responsibility in the Israeli-Palestinian Conflict

Soumya Ganti, Political Science

Advisor: Jeremy Pressman, Professor, Political Science

12. Investigating Persistence Behavior in Children with Developmental Language Disorder

Madison Formanek, Speech, Language, and Hearing Sciences

Advisor: Tammie Spaulding, Associate Professor, Speech, Language, and Hearing Sciences

13. The Relationship Between Birth Plans and Patient Experience: A Case Study

Leah Burstein, Nursing

Advisor: Carrie Eaton, Assistant Clinical Professor, Nursing

14. Implementing a Family Education Program for Lost to Intervention: Undergraduate Training and Reflections

Emily LaSpada, Speech, Language, and Hearing Sciences

Advisor: Kathleen Cienkowski, Associate Professor, Speech, Language, and Hearing Sciences

Advisor: Torri Ann Woodruff-Gautherin, Research Associate, Speech, Language, and Hearing Sciences

15. "Let Freedom Ring": Comparing the Speeches of Black and Indigenous Political Thinkers of the Civil Rights Era

Jalyn Brown, Political Science

Advisor: Jane Gordon, Professor, Political Science

Advisor: Matthew Singer, Professor, Political Science

16. Conditions of Control: Investigating the Effect of ADHD Symptoms on Efficacy of tDCS for Improving Inhibitory Control

Athena May, Psychological Sciences

Lauren Miller, Cognitive Science

Advisor: Eiling Yee, Associate Professor, Psychological Sciences

17. Comparison of Single-Cell RNA Sequencing Between Human Ependymoma and Mouse Models of Human Ependymoma

Emily Hutchinson, Physiology and Neurobiology

Advisor: Joseph LoTurco, Professor, Physiology and Neurobiology

18. Investigating the Expression of Presynaptic Proteins in Hypothalamic Arousal Neurons

Sara Bernardo, Biological Sciences

Advisor: Alexander Jackson, Associate Professor, Physiology and Neurobiology

19. The Development of the Inferior Olivary Nuclei and Its Connections to the Cerebellum

Jasmine Aboumahboob, Individualized Major: Human Physiology and Sociomedical Sciences

Advisor: James Li, Professor, Genetics and Genome Sciences

20. Improvements in Motor Coordination and Movement Control of Children with Hemiplegic Cerebral Palsy Following a Ride-On-Toy Navigation Training Program

Andrea Hernández Ferraiuoli, Physiology and Neurobiology

Caroline Burkhard, Exercise Science

Advisor: Sudha Srinivasan, Assistant Professor, Kinesiology

21. Collapsin Response Mediator Protein 1 (Crmp1) Promotes Retinal Ganglion Cell Survival After Optic Nerve Injury

Mahit Gupta, Biological Sciences

Ashiti Damania, Molecular and Cell Biology

Advisor: Ephraim F. Trakhtenberg, Assistant Professor, Neuroscience

22. Role of Developmentally Regulated MicroRNAs in Retinal Ganglion Cell Survival and Axon Regeneration After Optic Nerve Crush

Ashiti Damania, Molecular and Cell Biology

Advisor: Ephraim F. Trakhtenberg, Assistant Professor, Neuroscience

23. Obesity-Induced Metabolic Dysfunction and Inflammation in the CETP-ApoB100 Transgenic Mouse Model

Abigail Interrante, Molecular and Cell Biology

Advisor: Ji-Young Lee, Professor, Nutritional Sciences

Advisor: Young-Ki Park, Assistant Research Professor, Nutritional Sciences

24. Formulation of Ophthalmic In Situ Gel for the Delivery of Loteprednol Etabonate

Delia Lin, Molecular and Cell Biology & Statistics

Advisor: Diane Burgess, Distinguished Professor, Pharmaceutical Sciences

25. Characterizing Neurons Containing Calcium-Binding Proteins and Sex Hormone Receptors in the Amygdala of Female and Male Rats

Rebecca Tripp, Physiology and Neurobiology

Advisor: Linnaea Ostroff, Assistant Professor, Physiology and Neurobiology

26. The Efficacy of CDK4/6 Inhibitory Drug Therapy on Cyclin D1 Mutated Parathyroid Neoplasia

Sindy Gorka, Molecular and Cell Biology

Advisor: Jessica Costa-Guda, Assistant Research Professor, Molecular Oncology

27. Cancer Stem Cells and Iodine Nanoparticle Labeling of Orthotopic Human Triple Negative Breast Cancer and Its Brain-Homing Homolog in Athymic Mice

Jessica Ortega, Pathobiology

Katherine Bohner, Molecular and Cell Biology

Advisor: Henry Smilowitz, Associate Professor, Cell Biology

Advisor: Paulo Verardi, Associate Professor, Pathobiology and Veterinary Science

28. Loading and Localization of Iodine Nanoparticles (INPs) in Advanced Patient Derived Xenograft (PDX) High-Grade Gliomas (Glioblastoma Multiforme, GBM) with Closed and Open Blood-Brain Barriers (BBB)

Katherine Bohner, Molecular and Cell Biology

Jessica Ortega, Pathobiology

Advisor: Henry Smilowitz, Associate Professor, Cell Biology

Advisor: David Knecht, Professor Emeritus, Molecular and Cell Biology

29. Role of TEAD1 in TGF- β 1 Induced EMT and Renal Fibrosis

Lavana Gulati, Molecular and Cell Biology

Advisor: Melanie Tran, Instructor, Nephrology

Advisor: Yanlin Wang, Professor, Medicine

30. Effect of Monoiodoacetate Dose on Pain Development in a Rat Osteoarthritis Model

Aydin Calsetta, Physiology and Neurobiology

Advisor: Lakshmi Nair, Associate Professor, Orthopedic Surgery

31. Progress on the Synthesis of First and Second Generation Septanose Glycomemetics

Meghan Kennedy, Molecular and Cell Biology & Chemistry

Advisor: Mark Peczuh, Professor, Chemistry

32. Synthesis of Diboronic Acid Azocine for Application Towards CRAC Channels

Sahiti Bhyravavajhala, Chemistry & Molecular and Cell Biology

Advisor: Michael Kienzler, Assistant Professor, Chemistry

33. The Effects of Sox9 Gene Knockout in a Mouse Model of FOP

Erik Choi, Physiology and Neurobiology & Economics

Advisor: David Goldhamer, Professor, Molecular and Cell Biology

34. EGFR Family Signaling in the Chondroprogenitor Response to Articular Cartilage Injury

Michelle Antony, Molecular and Cell Biology & Individualized Major: Community Health

Advisor: Caroline Dealy, Associate Professor, Craniofacial Sciences, Biomedical Engineering, Orthopedic Surgery & Cell Biology

35. Understanding the Relationship Between B Chromosomes and Chromosome 4 Segregation in *Drosophila melanogaster*

Ayushi Patel, Molecular and Cell Biology

Shell Chen, Molecular and Cell Biology

Advisor: Stacey Hanlon, Assistant Professor, Molecular and Cell Biology

36. Maximizing Modelling Accuracy: NOE Restraints for MD Simulations

Milan Patel, Physics

Advisor: Eric May, Associate Professor, Molecular and Cell Biology

37. Emerging PFAS Risk Assessment in Drinking and Ground Water

Noah Liguori-Bills, Chemistry

Advisor: Anthony Provas, Assistant Research Professor, Chemistry & Center for Environmental Sciences and Engineering

Advisor: James Stuart, Professor Emeritus & Senior Research Scientist, Chemistry & Center for Environmental Sciences and Engineering

38. UHLPC-QToF Detection, Identification and Quantification of PFAS in PPE

Hannah LeVasseur, Molecular and Cell Biology & Sociology

Advisor: Anthony Provatas, Assistant Research Professor, Chemistry & Center for Environmental Sciences and Engineering

Advisor: James Stuart, Professor Emeritus & Senior Research Scientist, Chemistry & Center for Environmental Sciences and Engineering

39. 6 Degrees of Freedom (DOF) Robotic Arm

Hritish Bhargava, Engineering Physics

Advisor: Jason Lee, Associate Professor, Mechanical Engineering

40. Structural Differences and Protein Dynamics Brought by Variant Pro220Leu in Elastin

Zyaja Huggan, Mechanical Engineering

Advisor: Anna Tarakanova, Assistant Professor, Mechanical Engineering & Biomedical Engineering

41. Discovery of Chaotic Dynamics in Differential Equation Models Through Numerical Optimization of Lyapunov Exponents

Jennifer Kim, Biomedical Engineering

Advisor: Pedro Mendes, Director, Center for Cell Analysis and Modeling

Advisor: Sherli Koshy Chenthittayil, Data Analyst, Office of Institutional Effectiveness

42. DNA Extraction Techniques Optimized for Genome Assembly of Deep-Sea Tubeworm *Tevnia jerichonana*

Brittany Tagg, Animal Science

Advisor: Rachel O'Neill, Distinguished Professor, Molecular and Cell Biology

43. Poor Maternal Nutrition in Sheep Alters mRNA Expression of Epigenetic Genes in Muscle Tissue of F1 Male Offspring

Stephanie Royko, Animal Science & Pathobiology

Advisor: Kristen Govoni, Professor, Animal Science

44. Mapping of Beaver Dams in Connecticut Using Aerial Imagery

Jennifer Paul, Natural Resources

Advisor: Chandi Witharana, Assistant Professor in Residence, Natural Resources and the Environment

45. How Does Crab Activity in Sediment-Amended Salt Marsh Restorations Alter the Flux Rates of GHGs (CO₂, CH₄, N₂O)?

Stefania Payares Arteaga, Environmental Sciences

Advisor: Beth Lawrence, Associate Professor, Natural Resources and the Environment

46. FAIR Data Principles: Biocuration for Plant Health in a Changing World

Meghan Myles, Ecology and Evolutionary Biology & Applied Mathematics

Madison Gadomski, Molecular and Cell Biology

Isabella Harding, Molecular and Cell Biology

Advisor: Jill Wegrzyn, Associate Professor, Ecology and Evolutionary Biology

47. Are Pathogens from Wet Forests More Host-Specific?

Abigail Bar, Ecology and Evolutionary Biology & Applied Mathematics

Advisor: Robert Bagchi, Associate Professor, Ecology and Evolutionary Biology

SESSION 4 PRESENTATIONS

1. Let Us Sing: Contemporary Art Songs for Young Singers

Sarah Marze, Music Composition & Voice Performance

Advisor: Kenneth Fuchs, Professor, Music

Advisor: Constance Rock, Associate Professor, Music

2. Art About Us: Sculptures of the Fat Feminine Body

Kendalyn Zipf, Art – Sculpture/Ceramics

Advisor: Monica Bock, Professor, Art and Art History

3. Shakespearean Constellations

Sarah Bradshaw, English

Advisor: Charles Mahoney, Professor, English

Advisor: Gregory Semenza, Professor, English

Advisor: Evelyn Tribble, Professor, English

4. "Kids on Bikes": Writing Sci-Fi for the 21st Century

Yewande Olumide, Psychological Sciences

Advisor: Darcie Dennigan, Associate Professor in Residence, English

5. Risk and Protective Factors for Multiracial Young Adults' Identity, Inter-Group Attitudes, and Well-Being: The Role of Family Background and Socialization

Laysha Valmo Cedeno, Human Development and Family Sciences

Nathan Velazquez, Pathobiology

Advisor: Annamaria Csizmadia, Associate Professor, Human Development and Family Sciences

6. Associations Between Parent Involvement with Educare and Child Outcomes

Jennifer Sarcona, Human Development and Family Sciences

Advisor: Rachel Cohen, Associate Professor, Human Development and Family Sciences

7. Women's Empowerment and Contraception Use Across Regions of India

Megha Rana, Molecular and Cell Biology

Advisor: Ryan Talbert, Assistant Professor, Sociology

8. Autism, Gender, and Identity in College Students

Jessica Cooper, Elementary Education

Advisor: Catherine Little, Professor, Educational Psychology

9. Expanding Teacher Diversity and Learning Achievements: Understanding and Supporting the Teaching Career Decision Making of Minoritized Students

Jannatul Anika, Biology Education

Advisor: Catherine Little, Professor, Educational Psychology

Advisor: Todd Campbell, Professor, Curriculum and Instruction

Advisor: Jason Irizarry, Dean, Neag School of Education

10. Beyond the Bechdel: Representation of Women in Popular and Critically Acclaimed Films

Molly McGuigan, Communication

Advisor: Kirstie Farrar, Associate Professor, Communication

11. Accommodation or Assimilation: How Well Are the Needs of Spanish Speakers in the United States Being Met?

Sarah Propp, Political Science

Advisor: Jennifer Sterling-Folker, Professor, Political Science

12. Tuned In and Sworn In: Examining Senators' Preferences During Supreme Court Confirmation Hearings Over the Ages of Television and Polarization

Julia Katsovich, Political Science & Statistics

Advisor: Kimberly Bergendahl, Associate Professor in Residence, Political Science

13. Accumulating Evidence About STEM Educational Experiences

Mayurapriyan Somalinga, Psychological Sciences

Advisor: Kathleen Lynch, Assistant Professor, Educational Psychology

14. Christian World Views Study on Bereaved Individuals

Emma Ratnavel, Physiology and Neurobiology

Advisor: Crystal Park, Professor, Psychological Sciences

15. Removal of Rights Inspiring Social Change in a Post World War II Argentina

Trevor Donahue, Anthropology & Environmental Studies

Advisor: Françoise Dussart, Professor, Anthropology

16. North Korean Deforestation Solutions: How a Multi-Level Approach Can Facilitate Inter-Korean Cooperation

Alex Dominguez, Art & Individualized Major: Global Studies

Advisor: Eleanor Ouimet, Assistant Professor, Anthropology

17. The Intersection of Synthetic Herbicide Policy, Exposure, and Health at UConn

Katherine Hayward, Individualized Major: Global Health

Advisor: Eleanor Ouimet, Assistant Professor, Anthropology

18. Capital Storming Demographics

Kyle Makalusky, Psychological Sciences & Sociology

Advisor: Ryan Talbert, Assistant Professor, Sociology

19. Testing the Limits: Exploring Regime Response to Solidarity, Adaptation, and Domestic Protest Movements

Elannah Devin, Political Science & Economics

Advisor: Jeremy Pressman, Professor, Political Science

Advisor: Matthew Singer, Professor, Political Science

20. Health Insurance and Asthma Outcomes in African American Children: A Systematic Review

Iqra Asif, Allied Health Sciences

Advisor: Pablo Kokay Valente, Assistant Professor, Allied Health Sciences

21. Development of ToM in Autistic Youth: The Potential Impact of Language

Jaydel Hernandez, Psychological Sciences & Human Development and Family Sciences

Advisor: Letitia Naigles, Professor, Psychological Sciences

Advisor: Grace Corrigan, Research Assistant, Psychological Sciences

22. Apples to Oranges: The Effects of Semantic Context on Referential Ambiguity

Marissa Ciccarini, Molecular and Cell Biology

Advisor: Umay Suanda, Assistant Professor, Psychological Sciences

23. Exploring Gender Differences in Social and Communication Skills in Autistic Toddlers

Claire Murphy, Molecular and Cell Biology

Advisor: Deborah Fein, Distinguished Professor, Psychological Sciences

24. Does Listening Equal Learning? An Examination of the Effect of Attention on Adaptation to Novel Speech

Emma Hodges, Cognitive Science

Advisor: Rachel Theodore, Associate Professor, Speech, Language, and Hearing Sciences

25. The Impact of Personality on Non-Native Speech Sound Perception

Michelle Shavnya, Speech, Language, and Hearing Sciences

Advisor: Emily Myers, Professor, Speech, Language, and Hearing Sciences & Psychological Sciences

26. Speech Perception After Mild Traumatic Brain Injury

Arden Ricciardone, Speech, Language, and Hearing Sciences

Advisor: Emily Myers, Professor, Speech, Language, and Hearing Sciences & Psychological Sciences

27. The Role of Ketone Bodies in Delaying Neurodegeneration Caused by Traumatic Brain Injuries in the *Drosophila melanogaster* Model

Francine Cai, Physiology and Neurobiology

Advisor: Geoffrey Tanner, Assistant Professor in Residence, Physiology and Neurobiology

28. The Effects of Bacterial Glycine Lipids on Adipose Tissue Inflammation and Function

Paige Dossias, Nutritional Sciences

Advisor: Christopher Blesso, Associate Professor, Nutritional Sciences

29. Buprenorphine-Assisted Treatment for Opioid Use Disorder: Impact of Psychiatric Disorder Severity on Substance Use Treatment Outcomes

Jenna Polidoro, Psychological Sciences

Advisor: Carla Rash, Associate Professor, Medicine

30. The Use of RNA Interference to Modulate Inflammatory Cytokine Expression Pertinent to Sepsis from Covid-19

Bethany Lafontaine, Medical Laboratory Sciences

Advisor: Lawrence Silbart, Professor Emeritus, Allied Health Sciences

Advisor: Jessica Malek, Assistant Professor in Residence, Allied Health Sciences

31. The Role of Nuclear β -Adrenergic Receptors in Mediating Cardiomyocyte Apoptosis

Moira Renee Agcaoili, Physiology and Neurobiology

Advisor: Kimberly Dodge-Kafka, Professor, Cell Biology

Advisor: Anastasios Tzingounis, Professor, Physiology and Neurobiology

32. Next Generation of Vaccines: Investigating the Adjuvancy of Different Nucleic Acid Nanoparticle Surface Modifications to Allow for Successful Delivery of Encapsulated mRNA

Samantha Veczko, Chemistry & Pathobiology

Advisor: Jessica Rouge, Associate Professor, Chemistry

33. Nanoparticle-Mediated Inhibition of Acute Myeloid Leukemia

Joshua Yu, Molecular and Cell Biology

Advisor: Xiuling Lu, Professor, Pharmaceutical Sciences

34. Elucidating the Impact of SOS-Response Timing in *Escherichia coli* Following Treatment with Fluoroquinolone Topoisomerase Inhibitors

Stephanie Schofield, Molecular and Cell Biology

Advisor: Wendy Mok, Assistant Professor, Molecular Biology and Biophysics

35. Development of a Central Nervous System (CNS) In Vitro Model for Cell Specific Drug Delivery Using Janus Base Nanomaterials

Laura Thurber, Biomedical Engineering

Advisor: Yupeng Chen, Associate Professor, Biomedical Engineering

36. Creating a Bioinformatic Pipeline for Rapid Identification and Typing of Bacterial and Yeast Infections

Paul Isaac, Molecular and Cell Biology & Diagnostic Genetic Sciences

Advisor: Stephen Lanno, Lecturer, Allied Health Sciences

37. Command Line Interface vs Galaxy: Bioinformatic Analysis of Whole Virus Genomes

Chesney Romer, Pathobiology

Advisor: Guillermo Risatti, Professor, Pathobiology and Veterinary Science

38. Deep-Sea Coral Genome Assemblies Enable Ocean Acidification Studies

Emily Trybulec, Molecular and Cell Biology

Advisor: Rachel O'Neill, Distinguished Professor, Molecular and Cell Biology

39. Probing the Selectivity of a Green Catalyst

Geoffrey Wadey, Chemistry & Molecular and Cell Biology

Ethan Mercier, Chemistry

Advisor: Nicholas Leadbeater, Associate Professor, Chemistry

40. Extraction of Microcystins and Other Common Cyanotoxins from Connecticut Freshwater Systems Through Evaporation Followed by Ultra-Performance Liquid Chromatography-Tandem Mass Spectrometry

Marisa Vatteroni, Chemistry

Advisor: Anthony Provatás, Assistant Research Professor, Chemistry & Center for Environmental Sciences and Engineering

41. Increasing the Intensity of a UV Laser System to Etch Parylene-C at the Micron Scale

Rebecca Bender, Biomedical Engineering

Advisor: Martin Han, Associate Professor, Biomedical Engineering

42. Construction of a Microelectrode Array Using a Platinum Microwire Cable

Nihal Kamath, Biomedical Engineering & French

Advisor: Martin Han, Associate Professor, Biomedical Engineering

43. Effects of the Invasive Plant, *Phragmites australis*, on Tidal Marsh Insect Communities and Its Dietary Repercussions for Saltmarsh Birds

Carlin Eswarakumar, Ecology and Evolutionary Biology

Advisor: Chris Elphick, Professor, Ecology and Evolutionary Biology

44. Integration of Plastic Waste into Concrete to Reduce Plastic Wastes and Improve the Properties of Concrete

Audrey Larson, Materials Science and Engineering

Advisor: Kay Wille, Associate Professor, Civil and Environmental Engineering

Advisor: Douglas Adamson, Professor, Chemistry

Advisor: Baikun Li, Professor, Civil and Environmental Engineering

45. Analysis of Black Hole Accretion and Feedback in the CAMELS Simulations Using Artificial Intelligence

Sofya Levitina, Physics & Mathematics-Statistics

Advisor: Daniel Anglés-Alcazar, Associate Professor, Physics

46. Monitoring Air Pollution in the North End of Hartford, CT

Jocelyn Phung, Chemical Engineering

Advisor: Kristina Wagstrom, Associate Professor, Chemical and Biomolecular Engineering

47. Designing a Portable Particulate Matter Monitor

Shihao Zhai, Chemical Engineering

Advisor: Kristina Wagstrom, Associate Professor, Chemical and Biomolecular Engineering

Special Thanks

The Office of Undergraduate Research wishes to thank the deans of the represented schools and colleges, the Office of the Provost, the Office of the Vice President for Research, and the generous donors to Enrichment Programs and to the Honors Program for their support of undergraduate research. In addition, we thank the following individuals for their support:

Radenka Maric, *President, University of Connecticut*

Anne D'Alleva, *Provost and Executive Vice President for Academic Affairs*

Jeffrey Shoulson, *Senior Vice Provost for Academic Affairs*

Jennifer Lease Butts, *Associate Vice Provost, Enrichment Programs and Director, Honors Program*

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Melissa Berkey, *Assistant Director*

Jodi Eskin, *Program Administrator and Advisor*

Emily Schwab, *BOLD Program Director and Advisor*

OUR Peer Research Ambassadors

Michelle Antony '23 (CLAS)

Anabelle Bergstrom '25 (CLAS)

Erik Choi '23 (CLAS)

Alex Clonan '22 (ENG, CLAS)

Kira Cuneo '23 (ENG)

Alyssa Daniels '23 (CLAS)

Alexandra Goldhamer '23 (CLAS)

Paul Isaac '23 (CLAS, CAHNR)

Jerome Jacobs '23 (CAHNR)

Ayushi Patel '23 (CLAS)

Stephanie Schofield '23 (CLAS)

Elisa Shaholli '23 (CLAS)

Alphabetical Listing of Presenters with Poster Numbers

S1 denotes a Session 1 presentation – Friday, April 14 at 2:00 p.m.

S2 denotes a Session 2 presentation – Friday, April 14 at 4:00 p.m.

S3 denotes a Session 3 presentation – Saturday, April 15 at 11:00 a.m.

S4 denotes a Session 4 presentation – Saturday, April 15 at 1:00 p.m.

Aboumahboob, Jasmine – 3 (S1),
19 (S3)

Aceves, Katherine – 9 (S3)

Agcaoili, Moira Renee – 31 (S4)

Aggarwal, Ananya – 36 (S1)

Agnihotram, Srivani – 28 (S2)

Ahearn, Shannon – 7 (S3)

Akella, Harshita – 46 (S1)

Al Zouabi, Nour – 2 (S1), 47 (S2)

Alnabulsi, Dina – 3 (S3)

Anderson, Selena – 30 (S2)

Anika, Jannatul – 9 (S4)

Annan-Kingsley, Joseph – 13 (S1)

Antony, Michelle – 34 (S3)

Asif, Iqra – 20 (S4)

Atkinson, Kathryn – 1 (S2)

Ballas, Stephanie – 18 (S1)

Bar, Abigail – 47 (S3)

Bassani, Alessandra – 30 (S1)

Bassani, Vianna – 39 (S1)

Bender, Rebecca – 41 (S4)

Bernardo, Sara – 18 (S3)

Berrios-Hernandez, Sheylian – 5
(S2)

Berthiaume, Gracie – 45 (S1)

Bhargava, Hritish – 39 (S3)

Bhura, Aksir – 29 (S2)

Bhyravavajhala, Sahiti – 32 (S3)

Bohner, Katherine – 27 (S3), 28
(S3)

Bradshaw, Sarah – 3 (S4)

Brown, Jalyn – 15 (S3)

Burkhard, Caroline – 20 (S3)

Burstein, Leah – 13 (S3)

Cai, Francine – 27 (S4)

Calsetta, Aydin – 30 (S3)

Capobianco, Georgia – 21 (S2)

Caron, Aidan – 22 (S1)

Cartier, Ashlyn – 2 (S2)

Chandu, Sharanya – 19 (S2)

Chen, Shell – 35 (S3)

Choi, Erik – 33 (S3)

Ciccarini, Marissa – 22 (S4)

Cochrane, Elizabeth – 45 (S2)

Connolly, Shane – 35 (S2)

Contreras, Yesenia – 23 (S1)

Cooper, Jessica – 8 (S4)

Correra, Simon – 30 (S2)

Cortes, Ashley – 5 (S1)

Damania, Ashiti – 21 (S3), 22 (S3)

DeBenedictis, Andrew – 19 (S1)

Devin, Elannah – 19 (S4)

Dlamini, Sihlelelwe – 17 (S2)

Dominguez, Alex – 16 (S4)

Donahue, Trevor – 15 (S4)

Dossias, Paige – 28 (S4)

Ellenberg, Joshua – 2 (S3)

Esch, Rayna – 34 (S1)

Esposito, Jacob – 38 (S1)

Eswarakumar, Carlin – 43 (S4)

Flores Diaz, Romina – 12 (S1)

Forand, Lily – 10 (S3)

Formanek, Madison – 12 (S3)

Forster, Emma – 43 (S2)

Gado, Ryan – 33 (S2)

Gadomski, Madison – 46 (S3)

Gallagher, Laura – 17 (S1)
 Gamez, Leonardo – 42 (S1)
 Ganti, Soumya – 11 (S3)
 Garag, Nitanta – 34 (S2)
 Giguere, Zachary – 8 (S3)
 Gordon, Zaryah – 4 (S1)
 Gorka, Cindy – 26 (S3)
 Grant-Christie, Tijhuan – 26 (S2)
 Grayson, Haley – 25 (S1)
 Gulati, Lavana – 29 (S3)
 Gupta, Mahit – 21 (S3)
 Gupta, Sana – 13 (S2)
 Guzman, Cristopher – 36 (S2)
 Habjan, Eric – 41 (S1)
 Harding, Isabella – 46 (S3)
 Hayward, Katherine – 17 (S4)
 Hernandez, Jaydel – 21 (S4)
 Hernández Ferraiuoli, Andrea – 20
 (S3)
 Higgins, John – 12 (S2)
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 Hoffman, Benjamin – 42 (S2)
 Holland, Mason – 11 (S1), 10 (S2)
 Huggan, Zyaja – 40 (S3)
 Hussain, Musa – 9 (S2)
 Hutchinson, Emily – 17 (S3)
 Icoy, Jude – 27 (S2)
 Interrante, Abigail – 23 (S3)
 Isaac, Paul – 36 (S4)
 Jacobs, Jerome – 8 (S1)
 Jennings, Catherine – 29 (S1)
 Johnson, Julia – 20 (S1)
 Joseph, Jerushka – 40 (S1)
 Kamath, Nihal – 42 (S4)
 Kang, Juwon – 25 (S2)
 Kania, Sebastian – 30 (S2)
 Katsoyich, Julia – 12 (S4)
 Kennedy, Meghan – 31 (S3)
 Kennedy, Olivia – 14 (S2)
 Kim, Jennifer – 41 (S3)
 Kleinbeck, Anders – 15 (S2)
 Koyambreth, Rhea – 23 (S2)
 Lafontaine, Bethany – 30 (S4)
 Lafosse, Chloe – 6 (S1)
 Larson, Audrey – 44 (S4)
 LaSpada, Emily – 5 (S1), 14 (S3)
 LeVasseur, Hannah – 36 (S2), 38
 (S3)
 Levitina, Sofya – 45 (S4)
 Liguori-Bills, Noah – 37 (S3)
 Lin, Delia – 24 (S3)
 Lindsay, Erin – 44 (S1)
 Lopez, Jennifer – 5 (S1)
 Lujambio, Kaila – 28 (S1)
 MacKinnon, Heather – 31 (S1)
 Main, Morgan – 21 (S1)
 Makalusky, Kyle – 18 (S4)
 Makhijani, Amrita – 37 (S2)
 Malespini, Sebastian – 32 (S2)
 Mallick, Sudiksha – 8 (S2)
 Margolien, Lydia – 6 (S3)
 Marze, Sarah – 1 (S4)
 Mason, Derek – 3 (S2)
 Matos, Dashiel – 7 (S2)
 May, Athena – 16 (S3)
 McGrath, Isabella – 38 (S1)
 McGuigan, Molly – 10 (S4)
 Mercier, Ethan – 39 (S4)
 Miller, Lauren – 16 (S3)
 Morin, Julia – 43 (S1)
 Mota, Dariana – 24 (S2)
 Murphy, Claire – 23 (S4)
 Murphy, Rachel – 32 (S1), 38 (S1)
 Myles, Meghan – 46 (S3)
 Ngo, Hailey – 1 (S3)
 Ocasio Lopez, Maria Isabel – 46
 (S2)
 Oh, Soohyun – 24 (S1)
 Olumide, Yewande – 4 (S4)
 Ortega, Jessica – 27 (S3), 28 (S3)
 Patel, Ayushi – 35 (S3)
 Patel, Dave – 20 (S2)
 Patel, Milan – 36 (S3)
 Patel, Radha – 6 (S2)
 Pattavina, Gabriella – 14 (S1)
 Paul, Jennifer – 44 (S3)

Payares Arteaga, Stefania – 45 (S3)	Snead, Alliana – 31 (S2)
Peterson, Hannah – 7 (S3)	Solod, Alexander – 4 (S2)
Phung, Jocelyn – 46 (S4)	Somalinga, Mayurapriyan – 13 (S4)
Pinto, Nicole – 7 (S3)	Sullivan, Claire – 26 (S1)
Polidoro, Jenna – 29 (S4)	Tagg, Brittany – 42 (S3)
Propp, Sarah – 11 (S4)	Tavildar, Pranav – 38 (S2)
Rabouin, Skylar – 7 (S1)	Thurber, Laura – 35 (S4)
Raj, Romir – 33 (S1)	Tippireddy, Aarthi – 18 (S2)
Rana, Megha – 7 (S4)	Tripp, Rebecca – 25 (S3)
Ratnavel, Emma – 14 (S4)	Trybulec, Emily – 38 (S4)
Ren, Daisy – 35 (S1)	Tully, Emily – 18 (S2)
Ricciardone, Arden – 26 (S4)	Uyar, Christopher – 16 (S2)
Rivera, Jade – 4 (S3)	Valmo Cedeno, Laysha – 5 (S4)
Romer, Chesney – 37 (S4)	Vatteroni, Marisa – 40 (S4)
Royko, Stephanie – 43 (S3)	Veczko, Samantha – 32 (S4)
Sajeev, Kavya – 5 (S3)	Velazquez, Nathan – 5 (S4)
San Vicente, Sarah – 22 (S2)	Wadey, Geoffrey – 39 (S4)
Sarcona, Jennifer – 6 (S4)	Wesler, Rebekah – 11 (S2)
Schober, Henry – 44 (S2)	White, Lyla – 37 (S1)
Schofield, Stephanie – 34 (S4)	Wicko, Ethan – 39 (S2)
Sellitto, Anthony – 47 (S1)	Xenophontos, Nicholas – 10 (S1)
Shaholli, Elisa – 1 (S1)	Yacuk, Katarina – 27 (S1)
Shavnya, Michelle – 25 (S4)	Yin, Hanzhang – 41 (S2)
Shetland, Caitlyn – 16 (S1)	Yu, Joshua – 33 (S4)
Sistu, Neeharika – 9 (S1)	Zhai, Shihao – 47 (S4)
Smith, Katherine – 15 (S1)	Zipf, Kendalyn – 2 (S4)

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