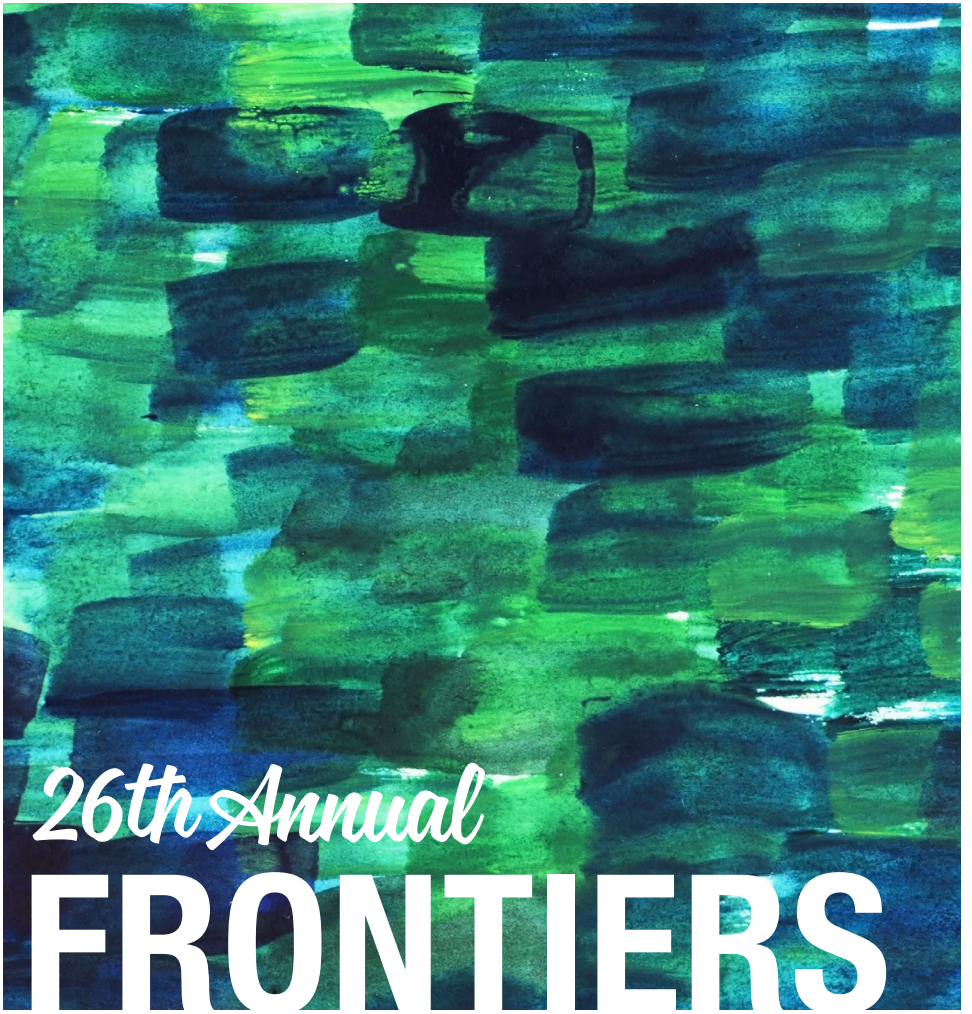

UNDERGRADUATE RESEARCH POSTER EXHIBITION

April 14, 2023

2:00-3:30 p.m. • 4:00-5:30 p.m.

April 15, 2023

11:00 a.m.-12:30 p.m. • 1:00-2:30 p.m.

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 Provatas, 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 Provatas, 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 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

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 Correra, Chemistry
Sebastian Kania, Chemistry
Advisor: James Stuart, Professor Emeritus & Senior Research Scientist, Chemistry & Center for Environmental Sciences and Engineering
Advisor: Anthony Provatas, 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-β1 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 Glycomemitics
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 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

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 (CO_2, CH_4, N_2O)?
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 Provatas, 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*

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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)
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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)
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Donahue, Trevor – 15 (S4)
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Ellenberg, Joshua – 2 (S3)
Esch, Rayna – 34 (S1)
Esposito, Jacob – 38 (S1)
Eswarakumar, Carlin – 43 (S4)
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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)
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Gordon, Zaryah – 4 (S1)
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Grant-Christie, Tijhuan – 26 (S2)
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Patel, Milan – 36 (S3)
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Peterson, Hannah – 7 (S3)
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Propp, Sarah – 11 (S4)
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Raj, Romir – 33 (S1)
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Ratnavel, Emma – 14 (S4)
Ren, Daisy – 35 (S1)
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White, Lyla – 37 (S1)
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Zhai, Shihao – 47 (S4)
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