20th Annual FRONTIERS IN UNDERGRADUATE RESEARCH POSTER EXHIBITION

April 7, 2017
3:00 p.m. - 4:30 p.m.

April 8, 2017
10:30 a.m. - 12:30 p.m.
Sponsored by
The University of Connecticut
Office of Undergraduate Research
Enrichment Programs
Honors Program
About Frontiers in Undergraduate Research

The Frontiers Poster Exhibition is a multidisciplinary research forum and the largest showcase of undergraduate research, scholarship, and creative projects at the University of Connecticut. Frontiers 2017 is the twentieth annual Frontiers event sponsored by the Office of Undergraduate Research (OUR). This year’s poster exhibition includes 236 students presenting posters for 207 research projects, with some students presenting on Friday or Saturday only.

The projects span the disciplines and include both independent research and work pursued in collaboration with other undergraduates as well as graduate student and faculty mentors. The presenters are among the top students at UConn and include Honors students, University Scholars, winners of OUR funding competitions, and nominees and winners of prestigious national scholarships. We hope you enjoy meeting our wonderful students and learning about their exciting work.

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 office 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 $395,000 in 2015-2016 to students for their research and creative work over the summer and during the academic year. These awards are funded by the Office of Undergraduate Research with generous support from the Deans of the schools and colleges, the Office of the Vice President for Research, the Provost’s office, and private donations from many, many alumni, parents, and other friends of UConn and undergraduate research.
Schedule of Events

Poster Exhibition  
Friday, April 7, 2017  
3:00 p.m. – 4:30 p.m.

Saturday, April 8, 2017  
10:30 a.m. – 12:30 p.m.

Student and Faculty Reception  
Friday, April 7, 2017  
4:30 p.m. – 5:30 p.m.

Introduction and Welcome

Caroline McGuire, Director, Office of Undergraduate Research

Presentation of the Mentorship Excellence Awards

Faculty Awards

Virginia Hettinger, Associate Professor, Political Science

Presented by Tom Cotton ’17 (ENG)

Morgan Tingley, Assistant Professor, Ecology and Evolutionary Biology

Presented by Genevieve Nuttall ’18 (CLAS), Sarah Rumsey ’19 (CLAS), and Nicholas Russo ’18 (CLAS)

Graduate Student Award

Amanda Coletti, Ph.D. Student, Physiology and Neurobiology

Presented by Emily Norton ’17 (CLAS)

Closing Remarks

Jennifer Lease Butts, Assistant Vice Provost, Enrichment Programs and Director, Honors Program
Sequential Listing of Poster Presentations

This listing of projects includes the undergraduate student authors and their faculty mentors. Many projects also include the contributions and mentorship of dedicated graduate students and post-doctoral scholars. In some cases students work with faculty outside their school or college; in most cases, research is grouped according to the student's major.

Please note that an “F” after the poster number signifies a presentation on Friday only and an “S” after the poster number signifies a presentation on Saturday only. An alphabetical listing of presenters begins on page 33.

**ROTUNDA**

1. **3D Printed Nerve Guidance Conduits for Peripheral Nerve Regeneration**
   Delaina Pedrick, Biomedical Engineering
   Advisor: Yen-Chih Huang, Associate Professor in Residence, Biomedical Engineering

2. **Microscope Integrable Robotic Automated Arm Powered by Arduino**
   Charmi Patel, Biomedical Engineering
   Advisor: Guoan Zheng, Assistant Professor, Biomedical Engineering

3. **The Effect of the High Intensity CrossFit Workout on Knee Joint Biomechanics**
   Emily Wycallis, Biomedical Engineering
   Alexa Kiernan, Biomedical Engineering and German
   Advisor: Krystyna Gielo-Perczak, Associate Professor in Residence, Biomedical Engineering

4. **Defluoridation of Drinking Water through Adsorption Using Naturally Occurring Zeolites**
   Jacob Struble, Chemical Engineering
   Colin Gerrity, Chemical Engineering
   Advisor: Julia Valla, Assistant Professor, Chemical and Biomolecular Engineering

5. **CoderTheTyler: Engaging and Understandable Computer Science Education for All**
   Tyler Daddio, Computer Science and Mathematics
   Advisor: Ion Mandoiu, Associate Professor, Computer Science and Engineering
6. Invasive Plant Solutions - Business Focused onRemoving Invasive Plants
Christian Allyn, Horticulture and Resource Economics
Advisor: Joseph Bonelli, Associate Extension Educator, UConn Extension
Advisor: Donna Ellis, Senior Extension Educator, Plant Science and Landscape Architecture

7. Analyzing the Effect of Hemoglobin's Microenvironment on its Glycation Sites through Amino Acid Labeling and Mass Spectrometry
Srinivas Srirangam, Molecular and Cell Biology
Advisor: Xudong Yao, Associate Professor, Chemistry

8. Influence of the Social Environment on the Behavior of Rat Pairs Exploring a Novel Open Field
Saheeb Ahmed, Physiology and Neurobiology
Logan Horbal, Physiology and Neurobiology
Advisor: Etan Markus, Professor, Psychological Sciences

9. Atypical White Matter Tract Development in the TS2-neo Mouse Model of Timothy Syndrome Mediated Autism Spectrum Disorder
Aiden Ford, Physiology and Neurobiology and Individualized Major: Neurodevelopment and Health
Advisor: R. Holly Fitch, Professor, Psychological Sciences

10. STEM Talk Magazine
Feny Rasania, Pathobiology
Divya Ganugapati, Cognitive Science
Lysette Johnson, Applied Mathematics
Katherine Sypher, Cognitive Science
Advisor: Kristen Govoni, Associate Professor, Animal Science

11. Summer for Koreans: Health Fair on Wheels
Mink Kim, Nursing
Seo-Yeon Lee, Allied Health Sciences
Advisor: Tania Huedo-Medina, Assistant Professor, Allied Health Sciences

12F. Effect of Integrin avb5 and Collagen on Mesoporous Silicate Nanoparticle Tumor Specific Targeting
Brian Liang, Molecular and Cell Biology and Sociology
Advisor: Xiuling Lu, Assistant Professor, Pharmaceutical Sciences
12S. Improving Nutrition at the Covenant Soup Kitchen
Ayush Mittal, Molecular and Cell Biology
Advisor: Hedley Freake, Professor, Nutritional Sciences
Advisor: Phoebe Godfrey, Associate Professor in Residence, Sociology

13. Reframing Music Performance Anxiety as Excitement: Examining Efficacy Using Psychological and Physiological Measures
Stephanie Lin, Physiology and Neurobiology and Psychological Sciences
Advisor: Blair Johnson, Distinguished Professor, Psychological Sciences
Advisor: Peter Kaminsky, Professor, Music
Advisor: John Redden, Assistant Professor in Residence, Physiology and Neurobiology

14. Examining the Impact of Women In Local Government on Social Programs and Female Empowerment in the Asia-Pacific
Rebecca Kaufman, Political Science and Human Rights
Advisor: David Richards, Associate Professor, Political Science and Human Rights

15F. Refugees and Global Governance
Lucas Bladen, Political Science and Human Rights
Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

15S. Stigmatized: A Study of Refugee and Economic Migrant Integration in French Politics and Culture
Lucas Bladen, Political Science and Human Rights
Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

Elizabeth Charash, History
Advisor: Mary Bernstein, Professor, Sociology

17F. Empathy and Empowerment in K-2 Read Aloud Sessions: An Analysis of the Inclusion of Multicultural Children’s Literature
Kaitlin Jenkins, Elementary Education and English
Advisor: Victoria Ford-Smith, Assistant Professor, English
Advisor: Douglas Kaufman, Associate Professor, Curriculum and Instruction
17S. Literature Selection and Empathy-Driven Curriculum in Secondary English Courses
Kaitlin Jenkins, Elementary Education and English
Advisor: Wendy Glenn, Professor, Curriculum and Instruction

18. From C to C: Chinese Cuisine in Connecticut
Jia Lun, Consumer Behavior
Advisor: Cathy Schlund-Vials, Professor, English, and Director, Asian and Asian American Studies Institute

Stephanie Koo, English and Biological Sciences
Advisor: Cathy Schlund-Vials, Professor, English, and Director, Asian and Asian American Studies Institute

20. Include/Exclude: Explorations of Xenophobia through Printmaking
Diana Abouchacra, Art – Printmaking
Advisor: Laurie Sloan, Associate Professor, Art and Art History

21. STAMPEDE: A Solo Exhibition of Sculptural Printmaking
Catherine Solari, Studio Art - Sculpture and Ceramics
Advisor: Monica Bock, Associate Professor, Art and Art History

22. BuyTown: The Pilot
Benjamin Piascik, Digital Media and Design
Advisor: Dan Pejril, Assistant Professor in Residence, Digital Media and Design

23. In the Library and Online: Social Media and Civic Discourse
Samantha Mairson, Digital Media and Design
Advisor: Clarissa Ceglio, Assistant Professor, Digital Media and Design
Advisor: Tom Scheinfeldt, Associate Professor, Digital Media and Design

24F. Sitting Pretty, Wood Bending
Hasan Zaidi, Studio Art - Sculpture
Advisor: Monica Bock, Associate Professor, Art and Art History
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25. Identifying and Using Critically Conscious Film to Address Education Inequity
Kathrine Grant, Secondary English Education and English
Advisor: Mark Kohan, Assistant Clinical Professor, Curriculum and Instruction
Advisor: Susan Payne, Associate Clinical Professor, Curriculum and Instruction

26F. Contrasting Classroom Observation Tools to Identify Effective Teaching
Rachael Orbe, Secondary English Education and English
Advisor: Rachael Gabriel, Assistant Professor, Curriculum and Instruction

26S. Teacher Perceptions of Math Anxiety in Themselves and Their Students
Amanda MacDonald, Elementary Education
Advisor: Catherine Little, Associate Professor, Educational Psychology

27F. What Do Professional Evaluators Need to Know and Be Able to Do? Preliminary Findings
Mindy Fan, Elementary Education
Advisor: Bianca Montrosse-Moorhead, Assistant Professor, Educational Psychology

Jennifer O'Brien, Elementary Education
Advisor: Catherine Little, Associate Professor, Educational Psychology

28F. The Parental Perception of Helmet Therapy for Infants with Plagiocephaly
Camille Van Allen, Nursing
Advisor: Jacqueline McGrath, Professor and Associate Dean, Nursing

28S. Teacher Perceptions of the Purposes of Social Studies Education
Rachel Forte, Secondary History/Social Studies Education and History
Advisor: Catherine Little, Associate Professor, Educational Psychology
29F. Neonatal Abstinence Syndrome: Exploring Neonatal Nurses' Attitudes, Knowledge, and Practice
Rachael Romisher, Nursing
Advisor: Xiaomei Cong, Associate Professor, Nursing

29S. Reflective Academic Journaling in High School English Classrooms
Jacqueline Bickley, English
Advisor: Catherine Little, Associate Professor, Educational Psychology

30. The Influence of Comfort Measures on the Infant's Microbiota in the Neonatal Intensive Care Unit (NICU)
Samantha Poveda, Nursing
Advisor: Xiaomei Cong, Associate Professor, Nursing

NORTH READING ROOM

31. Unexpected Outcomes of Reminiscence
Joseph Ferraro, Nursing
Advisor: Deborah McDonald, Associate Professor, Nursing

32. Factors Affecting Osteoarthritis Patient Pain Management Adherence
Gabrielle Young, Nursing
Advisor: Deborah McDonald, Associate Professor, Nursing

33. Identification of Barriers and Facilitators of Physical Activity Across the Lifespan
Erin Milner, Nursing
Advisor: Deborah McDonald, Associate Professor, Nursing

34. Investigating the Relationship Between Infant Weight Gain and Early Cessation of Breastfeeding in Late Preterm and Full-Term Infants
Lindsay Moore, Nursing
Advisor: Ruth Lucas, Assistant Professor, Nursing

35. Partnering with Health Care Professionals to Validate a Questionnaire to Identify the Needs of Children with Cancer and Their Parents During End of Treatment and Transition to Survivorship Care
Kirstie Oldham, Nursing
Advisor: Ruth Lucas, Assistant Professor, Nursing
36F. Using a Focus Group to Evaluate Modules on Self-Management of Irritable Bowel Syndrome
Jenny Yung, Nursing
Advisor: Angela Starkweather, Professor, Nursing

36S. Building Knowledge and Skills for Nursing Research and Team Science
Tadeu Oliveira, Nursing
Amanda Pinto, Nursing
Carleen Tan, Nursing
Anna Zhuang, Nursing
Advisor: Angela Starkweather, Professor, Nursing

37F. Evaluation of Association Between BMI, TLR4, and Postpartum Depressive Symptomatology
Brittany Molkenthin, Nursing
Advisor: Michelle Judge, Assistant Professor, Nursing
Advisor: Erin Young, Assistant Professor, Nursing
Advisor: Cheryl Beck, Distinguished Professor, Nursing

37S. Type 1 Diabetes and Healthcare Providers: Understanding Social Perceptions and Stigma
Victoria Sylvestre, Nursing
Advisor: Ruth Lucas, Assistant Professor, Nursing
Advisor: Laura Mauldin, Assistant Professor, Human Development and Family Studies
Advisor: Cathy Schlund-Vials, Professor, English, and Director, Asian and Asian American Studies Institute

38F. Until There is a Cure, There is Camp!
Jacqueline Ortiz, Nursing
Advisor: Cheryl Beck, Distinguished Professor, Nursing

38S. Investigating Potential Links Between Postpartum Depression, Work Activity, BMI and Inflammation
Jessica Sikka, Biological Sciences
Advisor: Michelle Judge, Assistant Professor, Nursing
39. Older Adults’ Response to Analgesic Adverse Drug Events: A Pilot Study
Candy Jin, Biological Sciences
Sarah Coughlin, Allied Health Sciences
Advisor: Deborah McDonald, Associate Professor, Nursing

40. Obesity Diagnosis in Pediatric Emergency Departments: A Missed Opportunity
Kristin Burnham, Pathobiology and Molecular and Cell Biology
Advisor: Arlene Albert, Professor, Molecular and Cell Biology
Advisor: Sharon Smith, Professor of Pediatrics, University of Connecticut School of Medicine

41. A Geographic Perspective of Access to Planned Parenthood and Affordable Care Act
Abigail Raynor, Individualized Major: Global Health
Advisor: Debarchana Ghosh, Assistant Professor, Geography
Advisor: Monica van Beusekom, Director, Individualized and Interdisciplinary Studies Program

42. Characterizing Macrolinguistic Deficits Following Closed Head Injury
Erin Hurley, Cognitive Science
Advisor: Carl Coelho, Professor, Speech, Language, and Hearing Sciences

43. An Analysis of Speaker Naturalness Following Intensive Therapy Targeting Prosody in Apraxia of Speech
Lisa Mueller, Speech, Language, and Hearing Sciences
Advisor: Carl Coelho, Professor, Speech, Language, and Hearing Sciences

44. Quality or Quantity? The Defining Factors of Bilingual Infants’ Later Word Production
Sarah Polcaro, Speech, Language, and Hearing Sciences
Kaleigh Constantine, Speech, Language, and Hearing Sciences
Kristen Fagan, Speech, Language, and Hearing Sciences
Advisor: Adrian Garcia-Sierra, Assistant Professor, Speech, Language, and Hearing Sciences
45. The Three Most Attractive Vowels to Infants: How Bilingual Caregivers' Speech Signal Influences Later Word Production
Noelle Wig, Speech, Language, and Hearing Sciences and Psychological Sciences
Allison Tozzi, Speech, Language, and Hearing Sciences
Pushpinder Singh, Physiology and Neurobiology
Advisor: Adrian Garcia-Sierra, Assistant Professor, Speech, Language, and Hearing Sciences

46. Interpersonal Functioning and Worry in General Anxiety Disorders and Social Anxiety Disorders
Alexandria Nuccio, Psychological Sciences
Advisor: Kimberli Treadwell, Associate Professor, Psychological Sciences

47. Post-Traumatic Stress in Children with Domestic Violence Exposure
Neha Pawar, Individualized Major: Global Health and Reproduction and Molecular and Cell Biology
Advisor: Damion Grasso, Assistant Professor, Psychiatry, UConn Health

48. Assessing the Concordance of Parent, Child, and Independent Evaluator Reports of Anxiety Symptoms
Alicia Bachtel, Psychological Sciences
Advisor: Golda Ginsburg, Professor, Psychiatry, UConn Health

49F. Investigating the Cross-Modal Dynamics of Music and Emotion in Childhood
Erica Scarpati, Speech, Language, and Hearing Sciences and Psychological Sciences
Advisor: Parker Tichko

49S. Comparing Joint Engagement in Children with Autism Spectrum Disorder and Typically Developing Children
Erin Micali, Psychological Sciences and Communication
Advisor: Letitia Naigles, Professor, Psychological Sciences

50. Prevalence of Frozen Language Forms in Children With Autism Spectrum Disorders
Daniel Wivell, Cognitive Science
Advisor: Letitia Naigles, Professor, Psychological Sciences
51F. Perceived Discrimination on Muslim Health
Sara Hasan, Psychological Sciences
Advisor: Rick Gibbons, Professor, Psychological Sciences

51S. Sanitation and its Health Impacts in Shanty Towns of Peru
Anuja Dulal, Individualized Major: Socio-Biomedical Perspectives on Health
Advisor: Pamela Erickson, Professor and Department Head, Anthropology

52F. Can Visual Shapes Influence Phoneme Perception?
Jessica Joseph, Psychological Sciences
Advisor: Eiling Yee, Assistant Professor, Psychological Sciences
Advisor: Emily Myers, Assistant Professor, Speech, Language, and Hearing Sciences

52S. Heritage Signers of Nicaragua: An Ethnographic Analysis
Therese O'Neill, Speech, Language and Hearing Sciences
Advisor: Marie Coppola, Assistant Professor, Psychological Sciences and Linguistics

53. A Sociometric Approach to Studying Pain in a Clinical Setting
Anika Obasiolu, Individualized Major: Psychosocial Health
Advisor: Dimitrios Xygalatas, Assistant Professor, Anthropology

54. Mu Rhythm and Social Learning in Infants
Sonia Limaye, Allied Health Sciences
Dilsara Liyanage, Psychological Sciences
Advisor: Kimberly Cuevas, Assistant Professor, Psychological Sciences

55. The Association between Community Factors and Exercise Intervention Efficacy for Cancer Survivors
Benjamin White, Psychological Sciences
Advisor: Blair Johnson, Distinguished Professor, Psychological Sciences

56. Attitudes Towards Interfaith Relationships, Religiousness, and Stress
Grant Zitomer, Psychological Sciences
Advisor: Crystal Park, Professor, Psychological Sciences

57. Siblings' Experiences with Chronic Illness: Wilderness-Based Program's Impact on Sense of Self
Stephanie Laprise, Human Development and Family Studies
Advisor: Preston Britner, Professor, Human Development and Family Studies
58F. Internet-Delivered Obesity Treatment Improves Symptoms of and Risk for Depression
Jacob Naparstek, Physiology and Neurobiology
Advisor: Tricia Leahey, Associate Professor, Allied Health Sciences

58S. The Impact of Parental Divorce and Post-Divorce Adjustment Patterns: An Analysis of Romantic Relationship Expectations and Processes
Nina Klein, Human Development and Family Studies
Advisor: Shannon Weaver, Associate Professor, Human Development and Family Studies

59. Perceptions of Sexuality, Consent, and Sexual Assault Among College Students
Isabella Randazzo, Human Development and Family Studies
Advisor: Kari Adamsons, Associate Professor, Human Development and Family Studies

60. Are Older Adults Who Maintain a Close Relationship with Their Children and Grandchildren More Physically Active?
Vincenza Brantle, Human Development and Family Studies and Spanish
Advisor: Deborah McDonald, Associate Professor, Nursing

61. Evaluation of Parenting Education for High-Risk Fathers: Relationship with a Child’s Mother as an Indicator of Paternal Involvement
Paige Forcier, Human Development and Family Studies and Psychological Sciences
Advisor: Beth Russell, Assistant Professor, Human Development and Family Studies

62. Parental Perceptions of Picky Eaters: The Role of Race and Exposure to Food Marketing
Amanda Craig, Human Development and Family Studies
Advisor: Marlene Schwartz, Professor, Human Development and Family Studies
Advisor: Svetlana Kalnova, Assistant Research Professor, Rudd Center

63F. The Politics of Remembering: The Influence of Race and Gender on the Representation of Women of Color in Nursing
Dacia Walcott, Political Science and History
Advisor: Thomas Long, Associate Professor in Residence, Nursing
Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science
63S. Do Low-Income Latino Children’s Narrative Representations of Parenting Predict their Academic Skills and Social Relations at the End of First Grade?
Danielle Ganci, Human Development and Family Studies
Advisor: JoAnn Robinson, Professor, Human Development and Family Studies

64. The Effects and Adaptation of Mandatory Diversity Education in Undergraduate Institutions
Vanessa Kania, Individualized Major: Gender, Race, and Inequality
Advisor: Glenn Mitoma, Assistant Professor, Curriculum and Instruction and Human Rights

65. The Effects of Hospital Acquisition of Physician Practices on Quality of Care
Rushi Shah, Physiology and Neurobiology and Individualized Major: Healthcare and Policy
Advisor: Resul Cesur, Assistant Professor, Finance
Advisor: Joseph Crivello, Professor, Physiology and Neurobiology

66F. Diameter Health - Using Data to Make Patients’ Lives Easier
Rebecca Axworthy, Communication and Individualized Major: Film Writing
Advisor: Tom Gaither, Diameter Health

66S. Connecticut Concussion Tracker
Samuel Schick, Statistics
Advisor: Joanne Conover, Associate Professor, Physiology and Neurobiology

67. Invisible Americans: A Legal History of Non-Citizen Nationality and U.S. Empire
Maye Henning, Political Science and Human Rights
Advisor: Charles Venator-Santiago, Associate Professor, Political Science

68. The Personal is Political: Gender and Political Ambition in College Students
Caitlin Briody, Political Science and Sociology
Advisor: Virginia Hettinger, Associate Professor, Political Science

69F. Don’t Steal My Seat! Incumbent Vulnerability in U.S. House Elections
Adam Kuegler, Political Science
Advisor: Thomas Hayes, Assistant Professor, Political Science
Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science
69S. Running Comes Before Winning: Explaining the Gender Gap in State Legislatures Across America
Marissa Piccolo, Political Science and Economics
Advisor: Virginia Hettinger, Associate Professor, Political Science

70. I Wish I Wasn't in Dixie: Early Voting Restrictions and their Effect on Black Turnout in North Carolina
Carl Costa, Political Science and History
Advisor: Jeffrey Ladewig, Associate Professor, Political Science

71. A Means to an End: How Lobbyists Form Relationships with the Members and Staff of the Connecticut State Legislature
Lindsey Heiman, Political Science and History
Advisor: Susan Herbst, President, University of Connecticut, and Professor, Political Science
Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

72. Analyzing Partisanship of Bush vs. Obama Supreme Court Appointees' Fourth Amendment Jurisprudence
Blake Giosa, Political Science and Sociology
Advisor: Kimberly Bergendahl, Assistant Professor in Residence, Political Science

73. The Polarization of Voting Laws
William Fricke, Political Science and Economics
Advisor: Paul Herrnson, Professor, Political Science

74F. The Political Future of Saudi Arabia
Paul DaSilva, Political Science and Economics
Advisor: Zaid Eyadat, Professor in Residence, Political Science and Human Rights
Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

74S. The Criminal Court System and Campus Sexual Assault: Is the Criminal Justice System Equitably Hearing Campus Sexual Assault Cases for the Victim and Perpetrator?
Eliza Conrad, Political Science and Management
Advisor: Kimberly Bergendahl, Assistant Professor in Residence, Political Science
75. Young Women’s Expectations and Preferences during the 2016 Democratic Primaries
Emma Morelli, Political Science
Advisor: Zehra Arat, Professor, Political Science

76. Shifting Tectonics: State and Civilian Responses to Secularism in Bangladesh
Rubayet Lasker, Political Science and Human Rights
Advisor: Shareen Hertel, Associate Professor, Political Science and Human Rights
Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

77. Patchwork Solidarity: Organized Labor within Latin America’s Garment Industry
Christopher Raymond, Human Rights and Management
Advisor: Shareen Hertel, Associate Professor, Political Science and Human Rights

78. Democratization Debunked: A Realist Analysis of US Democratization in Bosnia and Iraq
Ryan Kauer, Political Science and Spanish
Advisor: Stephen Dyson, Associate Professor, Political Science

79. Problematic Frames: The Perception of Muslim American Terrorists vs. Non-Muslim American Terrorists in the American Media
Madiha Shafqat, Political Science
Advisor: Shayla Nunnally, Associate Professor, Political Science

80. Seize the Memes of Production! The Propagation of Marxist Political Theory and Discourse through Internet Memes
Sebastián Chamorro, Political Science
Advisor: Fred Lee, Assistant Professor, Political Science

81. Violence Against Women and Girls: Evidence of the Normative Gap Between Rhetoric and Law
Susan Naseri, Political Science and Human Rights
Advisor: David Richards, Associate Professor, Political Science and Human Rights
82. Extremist Headhunting: How the Islamic State Radicalizes and Recruits Its Members Through Twitter
Mairead Loschi, Political Science and Communication
Advisor: Zaid Eyadat, Professor in Residence, Political Science and Human Rights

83. Representing America: How Citizens are Impacted by Descriptive Representation in Congress
Evelyn Luchs, Political Science
Advisor: Thomas Hayes, Assistant Professor, Political Science

84. Spiritual Social Justice: A Comparative Study of Religious Political Activism in the Same-Sex Marriage Movement
Erin Puglia, Political Science
Advisor: Kristin Kelly, Associate Professor, Political Science
Advisor: Jennifer Sterling-Folker, Alan R. Bennett Honors Professor and POLS Honors Director, Political Science

85F. Filling the Basket of Deplorables? Donald Trump’s Victory in the 2016 Republican Presidential Primary, the White Working Class and the Dawning of a New Era for the Republican Party
Peter Hopko, Political Science
Advisor: Ronald Schurin, Associate Professor in Residence, Political Science

85S. Ambassador Walworth Barbour - U.S.-Israeli Cold War Relations 1961 to 1973
Jacob Burte, Individualized Major: International Relations
Advisor: Frank Costigliola, Distinguished Professor, History

86F. Neuro-Political Ideology: An fMRI Study
Thomas Martella, Cognitive Science
Advisor: Mikhael Shor, Associate Professor, Economics

86S. Social Etiquette
Jamie Teplica, Sociology
Advisor: Andrea Voyer, Assistant Professor, Sociology

87. Phases of Public Ritual Sacrifice in Ancient Mesoamerica
Madeline Nicholson, Anthropology
Advisor: Richard Sosis, Professor, Anthropology
Advisor: Natalie Munro, Professor, Anthropology
88. Du Jiya's City: Writing Shanghai Sci-Fi in a Revision of Techno-Orientalism
Caitlyn Durfee, English and Chinese
Advisor: Cathy Schlund-Vials, Professor, English, and Director, Asian and Asian American Studies Institute
Advisor: Ellen Litman, Associate Professor, English
Advisor: Liansu Meng, Assistant Professor, Literature, Cultures, and Languages

89. Daniel Alarcón and the Peruvian Post-Conflict, Transnational Cultural Field
Emily Socha, Management and Spanish
Advisor: Guillermo Irizarry, Associate Professor, Literature, Cultures, and Languages

90. The Ship of Plato: A Theory of Dualistic-Teleological Identity
Christopher Caples, Philosophy
Advisor: Thomas Bontly, Associate Professor, Philosophy

91. Battle from the Homefront: How and Why Two Northern Women Helped Fight the Civil War
Helen Stec, History and English
Advisor: Peter Baldwin, Professor, History

92. Thalia and Music in the Arian Controversy
Madeline Caples, Classics and Ancient Mediterranean Studies
Advisor: Sean Northrup, Visiting Professor, History

93. The Role of Gradient Microenvironments in Supporting Termite Gut Community Diversity
Alyssa Pierne, Chemical Engineering
Advisor: Leslie Shor, Associate Professor, Chemical and Biomolecular Engineering

94. Influence of Physical Microstructure and Hydrophobicity on Soil Drying
Daniel Dougherty, Chemical Engineering
Advisor: Leslie Shor, Associate Professor, Chemical and Biomolecular Engineering

95. Biocompatibility of 3D Printer Material in Bacterial Cultures
Cameron Harrington, Chemical Engineering and Molecular and Cell Biology
Advisor: Leslie Shor, Associate Professor, Chemical and Biomolecular Engineering
96F. Influence of Electrostatic Interactions on Particle Tracking for Microrheology Analysis
Nur Hamideh, Chemical Engineering
Advisor: Leslie Shor, Associate Professor, Chemical and Biomolecular Engineering

96S. Gradient Osteochondral Matrix: Growth Factor Release and In Vitro Characteristics
Marisa Boch, Chemical Engineering and Molecular and Cell Biology
Advisor: Syam Nukavarapu, Assistant Professor, Orthopaedic Surgery, UConn Health

97. Co-patterning of Living Tissues in 3D Printed Microfluidic Chips
Christiane Nguyen, Chemical Engineering
Advisor: Savas Tasoglu, Assistant Professor, Mechanical Engineering

98F. Enhanced Photodynamic Efficacy of Porphyrin By Nanodisc Encapsulation
Christopher Tricard, Chemical and Biomolecular Engineering
Advisor: Mu-Ping Nieh, Associate Professor, Chemical and Biomolecular Engineering

98S. Bio-Inspired Sensitive and Reversible Mechanochromisms via Strain-Dependent Cracks and Folds
Cong Hu, Materials Science and Engineering
Advisor: Luyi Sun, Associate Professor, Chemical and Biomolecular Engineering

Hetal Patel, Materials Science and Engineering
Advisor: Seok-Woo Lee, Assistant Professor, Materials Science and Engineering

100F. Superelasticity of ThCr2Si2-type Intermetallic Compounds
Amanda Giroux, Materials Science and Engineering
Advisor: Seok-Woo Lee, Assistant Professor, Materials Science and Engineering

100S. Optimizing YAG Thermal Barrier Coatings Synthesized with Solution Precursor Plasma Spray with Taguchi Design of Experiment
Drew Cietek, Materials Science and Engineering
Advisor: Eric Jordan, Professor Emeritus, Mechanical Engineering
Advisor: Maurice Gell, Professor Emeritus, Materials Science and Engineering
101F. Factors Involved in Suppression of Human Vγ9Vδ2 T-Lymphocytes and Impact of Checkpoint Blockades on the Effector Functions of Vγ9Vδ2 T-Lymphocytes
MinJi Choi, Pharmacy
Adviser: Andrew Wiemer, Assistant Professor, Pharmaceutical Sciences

101S. Improving Gene Annotation to Facilitate Comparative Genomics in Five Walnut Species (Juglandaceae)
Anvin Thomas, Molecular and Cell Biology
Advisor: Jill Wegrzyn, Assistant Professor, Ecology and Evolutionary Biology

102F. Treatment for Acute Osteo-Articular Infections in Children, Is Clindamycin a Reasonable Empiric Option?
Caroline Liang, Pharmacy
Advisor: Jennifer Girotto, Associate Clinical Professor, Pharmacy Practice

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103. ErbB Family Kinase Distribution in Rheumatoid Arthritic Tissue
Tyler Ackley, Pharmacy and Molecular and Cellular Biology
Advisor: Caroline Dealy, Associate Professor, Department of Reconstructive Sciences, Department of Orthopaedic Surgery, Center for Regenerative Medicine and Skeletal Development, UConn Health

104. Strategies to Identify the Allosteric Binding Site on CB1
Brett Chen, Pharmacy
Advisor: Debra Kendall, Distinguished Professor, Pharmaceutical Sciences

105. Pharmacological Characterization of Novel Small Molecule Agonists Targeting Cannabinoid Receptor 2
Ashley Hine, Physiology and Neurobiology and Molecular and Cell Biology
Advisor: Debra Kendall, Distinguished Professor, Pharmaceutical Sciences

106F. Translesion Synthesis Inhibitors as Anti-Cancer Adjuvant Agents
Kelly Chan, Pharmacy
Advisor: Kyle Hadden, Associate Professor, Pharmaceutical Sciences
106S. Carbon Storage in the Mid-Depth Atlantic During Millennial Scale Climate Events
Matt Lacerra, Marine Sciences
Advisor: David Lund, Associate Professor, Marine Sciences

107F. Antibiotic Dosing Considerations in Pediatric Patients with Renal Dysfunction
Jennifer Mitri, Pharmacy
Advisor: Jennifer Girotto, Associate Clinical Professor, Pharmacy Practice

107S. Biotic Versus Abiotic Control of Body Size in a Marine Copepod
Wesley Huffman, Marine Sciences
Advisor: Hans Dam, Professor, Marine Sciences

108. Vitamin E Nanoliposome Characterization and Analysis for Use in Cosmetics
Brendan Clark, Pharmacy and Biological Sciences
Advisor: Ying Liu, ReinEsse, LLC
Advisor: Diane Burgess, Distinguished Professor, Pharmaceutical Sciences

109F. Background Studies at the Interaction Point for the Proposed Jefferson Lab Electron-Ion Collider
Christine Ploen, Physics
Advisor: Latifa Elouadrhiri, Senior Staff Scientist, Thomas Jefferson National Accelerator Facility
Advisor: Kyungseon Joo, Professor, Physics
Advisor: Kijun Park, Staff Scientist, Thomas Jefferson National Accelerator Facility

109S. The Ultimate LEGA-C: Does Age Really Drive the Spread in Rest-Frame Colors?
Rochelle Horanzy, Engineering Physics
Advisor: Katherine Whitaker, Assistant Professor, Physics

110. Negative Thermal Expansion in Two Incipient Ferroelastics
Connor Occhialini, Physics and Mathematics
Advisor: Jason Hancock, Assistant Professor, Physics
111. Metabolically Important Molecules in Bacterial Spores Determined Using 13C NMR
Stephen Abini-Agbomson, Biophysics
Advisor: Victoria Robinson, Associate Professor, Molecular and Cell Biology

112. Identification of Tyrosine Phosphorylation Sites on BipA
Akua Owusu, Molecular and Cell Biology
Advisor: Victoria Robinson, Associate Professor, Molecular and Cell Biology

113. Characterization of MyoD and Myf5 Double-Knockout Muscle Stem Cells During Muscle Development
Andreea Dinicu, Molecular and Cell Biology
Advisor: David Goldhamer, Professor, Molecular and Cell Biology

114. Exploring the Function of the Myf5 and MyoD Genes in Satellite Cells During Early Postnatal Myogenesis
Kristina Gaffney, Allied Health Sciences
Advisor: David Goldhamer, Professor, Molecular and Cell Biology
Advisor: Masakazu Yamamoto, Assistant Research Professor, Molecular and Cell Biology

115. Requirement of Degradation in Chemotaxis: Analysis of Non-Degradable Chemoattractant
Alex Marshall, Molecular and Cell Biology
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116. Regulation of WHIMP Activity by Rho-family GTPases
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117. Investigating Roles for Autophagy and the Actin Cytoskeleton in Promoting α-Synuclein Clearance in Parkinson’s Disease
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Advisor: Kenneth Campellone, Assistant Professor, Molecular and Cell Biology

118. Average Nucleotide Identity as a Distance-based Approach to Examine Phylogeny and Taxonomy
Sean Gosselin, Molecular and Cell Biology
Advisor: Peter Gogarten, Distinguished Professor, Molecular and Cell Biology
119. Prediction of Harmful Water Quality Parameters Combining Weather, Air Quality and Ecosystem Models with In-Situ Measurements
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Advisor: Marina Astitha, Assistant Professor, Civil and Environmental Engineering
Advisor: Penny Vlahos, Associate Professor, Marine Sciences

120F. The Intersection of Manufacturing Technologies and School Music Programs
Leslie Prunier, Mechanical Engineering
Advisor: Julian Norato, Assistant Professor, Mechanical Engineering
Advisor: Diane Van Scoter, Associate Professor in Residence, Materials Science and Engineering
Advisor: James Jackson, Adjunct Faculty, Music

120S. Assessing Federal Investments in Teacher Leadership at the Local Level
Molly Gondelman, English and Women’s, Gender, and Sexuality Studies
Kathrine Grant, Secondary English Education and English
Advisor: Jason Courtmanche, Lecturer, English, and Director, Connecticut Writing Project

121. Efficient Coupling for Finite State Markov Chains
Rachel Lonchar, Mathematics and Civil Engineering
Advisor: Iddo Ben-Ari, Associate Professor, Mathematics

122F. Beyond Capture: A Visual Body Condition Index to Evaluate Mule Deer Nutritional Condition
Rachel Smiley, Natural Resources
Advisor: Chadwick Rittenhouse, Assistant Research Professor, Natural Resources and the Environment

122S. Food Quality and Diet Preference in Mysis diluviana
Jessica Griffin, Environmental Science and Ecology and Evolutionary Biology
Advisor: Jason Stockwell, Associate Professor, Rubenstein School of Environment and Natural Resources, University of Vermont

123. Effects of Sphingolipids on LPS-mediated Inflammation in RAW264.7 Macrophages
Caitlin Porter, Nutritional Sciences
Advisor: Christopher Blesso, Assistant Professor, Nutritional Sciences
124. Generation of Tetracycline-Inducible Copenhagen and Wyeth Vaccinia Virus Strains for Vaccine Development
Sarah Robbins, Pathobiology and Molecular and Cell Biology
Advisor: Paulo Verardi, Associate Professor, Pathobiology and Veterinary Science

125. An Alternative Locus for the Rapid Generation of Recombinant Vaccinia Viruses
Martin Porebski, Pathobiology
Advisor: Paulo Verardi, Associate Professor, Pathobiology and Veterinary Science

126. The Role of ApoC-III on Dietary Absorption within the Intestine
Devisha Patel, Molecular and Cell Biology
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127. Acidification Treatments for the Control of Listeria Monocytogenes in Model Cheese Brines
Nathalia Millán-Borrero, Molecular and Cell Biology
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128. A FRET Based High Throughput Screen for PKC Activators and Inhibitors
Xiuyi (Alex) Yang, Molecular and Cell Biology
Advisor: Adam Zweifach, Associate Professor, Molecular and Cell Biology

129. Investigating Prophylactic Potential of Neoepitope Immunization Against Cancer in a Murine Model
Ryan Englander, Molecular and Cell Biology and Chemistry
Advisor: Pramod Srivastava, Professor, Immunology, and Director, Carole and Ray Neag Comprehensive Cancer Center, UConn Health

130. Let it Glo: Investigating Adenylate Cyclase and cAMP in Plants
Jishnu Bhatt, Molecular and Cell Biology and Plant Biotechnology
Advisor: Gerald Berkowitz, Professor, Plant Science and Landscape Architecture

131. Two Lichens, One Fungus: The Identity of Dendriscocaulon intricatulum
Dinah Parker, Biological Sciences
Advisor: Bernard Goffinet, Professor, Ecology and Evolutionary Biology
132. Can Extinction Likelihood be Predicted by Physical and Behavioral Characters of Wetland Bird Species?
Michael Stankov, Ecology and Evolutionary Biology
Advisor: Chris Elphick, Associate Professor, Ecology and Evolutionary Biology

133. What Correlates with Telomere Length in American Kestrels (*Falco sparverius*)?
Kathleen Callery, Ecology and Evolutionary Biology
Advisor: Chris Elphick, Associate Professor, Ecology and Evolutionary Biology

134. Examination of Reproductive Investment of Ninespine Stickleback, *Pungitius pungitius*, Infected with the Cestode *Schistocephalus pungitii*
Delaney Kehoe, Ecology and Evolutionary Biology
Advisor: Eric Schultz, Professor, Ecology and Evolutionary Biology

135. Testing the Importance of Nitrogen in Attraction of Green Algae (*Oophila*) to Eggs of the Spotted Salamander (*Ambystoma maculatum*)
Wyatt Million, Biological Sciences
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136. Developmental Timing in Periodical Cicada Life-Cycle Evolution
Diler Haji, Ecology and Evolutionary Biology and Journalism
Advisor: Chris Simon, Professor, Ecology and Evolutionary Biology

137. Computational Transcriptomics to Decode a Christmas Tree’s Resistance to Phytophthora Dieback (Root Rot)
Alexander Trouern-Trend, Molecular and Cell Biology
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138. Developing a Computational Model to Improve the Analysis and Design of Laser Sintering Devices
Justin DeLarm, Mechanical Engineering
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Andrew Clark, Civil Engineering
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140. Optimizing Guidance for an Active Shooter Event
Sean Gunn, Mathematics and Mechanical Engineering
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141. Effects of Caffeine and Hypothermia on Neuropathology in P6 Rats with Experimentally Induced Hypoxic Ischemic Brain Injury
Molly Potter, Physiology and Neuropsychology and Psychological Sciences
Advisor: R. Holly Fitch, Professor, Psychological Sciences

142. Development of Training Paradigms for Sound Discrimination
Shivali Gupta, Physiology and Neuropsychology and Psychological Sciences
Advisor: Heather Read, Associate Professor, Psychological Sciences

143. Effort-Related Decision Making in COMT Variant Mice: Pharmacological Studies and Genetic Susceptibility to Motivational Dysfunction
Suzanne Cayer, Physiology and Neuropsychology
Advisor: John Salamone, Distinguished Professor, Psychological Sciences

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Claudia Paszek, Psychological Sciences
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Cayla Mitzkovitz, Psychological Sciences
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Ambica Mehndiratta, Physiology and Neuropsychology
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Advisor: David Miller, Professor, Psychological Sciences
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Advisor: Daniel Mulkey, Associate Professor, Physiology and Neurobiology

147S. Investigating Service Learning Pedagogy in Undergraduate STEM Coursework  
Colin Cleary, Physiology and Neurobiology and Molecular and Cell Biology  
Advisor: John Redden, Assistant Professor in Residence, Physiology and Neurobiology

148. Turning the Brain Off: Inactivation of the Medial Prefrontal Cortex and Hippocampus in Rats Performing a Sequence Task  
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Mahathi Kumar, Physiology and Neurobiology  
Advisor: Etan Markus, Professor, Psychological Sciences

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150. The GPS in Your Brain! Recording of Individual Neurons in Rats as They Traverse Familiar and Novel Environments  
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Karthik Kanamalla, Physiology and Neurobiology
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Maya Schlesinger, Animal Science
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Alyssa Jones, Biological Sciences
Advisor: Linda Pescatello, Distinguished Professor, Kinesiology

154. Neural Stem Cell Differentiation and Ependymogenesis Throughout Fetal and Early Postnatal Development
Emily Norton, Physiology and Neurobiology
Advisor: Joanne Conover, Associate Professor, Physiology and Neurobiology

155. Ventriculomegaly and Accompanying Gliosis Associated with Impaired Fluid Dynamics in the Aging Brain
Tessa Brighton, Molecular and Cellular Biology
Advisor: Joanne Conover, Associate Professor, Physiology and Neurobiology

156. Expression Pattern of GFAP and GFAPδ in Rodent Rostral Migratory Stream Development and Glial Scar Formation
Shaharyar Zuberi, Physiology and Neurobiology
Advisor: Joanne Conover, Associate Professor, Physiology and Neurobiology

157. Investigating Molecular Targets of Dietary Therapies for Seizure-Like Event in Drosophila Metabolic Mutants
Tomasz Sopel, Physiology and Neurobiology and Molecular Cell Biology
Neil Sharma, Physiology and Neurobiology
Advisor: Geoffrey Tanner, Assistant Professor in Residence, Physiology and Neurobiology

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Shane Baldwin, Biological Sciences
Advisor: Geoffrey Tanner, Assistant Professor in Residence, Physiology and Neurobiology
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Jacqueline Barth, Physiology and Neurobiology
Elizabeth Pouya, Physiology and Neurobiology
Advisor: Geoffrey Tanner, Assistant Professor in Residence, Physiology and Neurobiology

160. The Role of Ras Signaling in Ovulation in *Drosophila*
Radhika Malhotra, Physiology and Neurobiology and Economics
Advisor: Jianjun Sun, Assistant Professor, Physiology and Neurobiology

161. Oxoammonium Salts: Powerful Yet Practical Reagents for Oxidation and Oxidative Functionalization
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Advisor: Nicholas Leadbeater, Associate Professor, Chemistry

162. Tuning the Conformational Equilibria in Saturated Heterocycles Through the Manipulation of a Non-Classical CH---O Hydrogen Bond: The Importance of Electrostatic Interactions within Small Molecules
Zachary Stempel, Chemistry
Advisor: William Bailey, Professor, Chemistry

163. Assembly of 3-D Gold Plasmonic Flower Structures for SERS Detection
Lacie Dube, Chemistry
Advisor: Jing Zhao, Assistant Professor, Chemistry

164. Mutagenicity of 1-Nitropyrene-Induced N2-2'-Deoxyguanosine Adducts: Translesion DNA Synthesis in Human Cells
Hamsa Ganapathi, Chemistry
Advisor: Ashis Basu, Professor, Chemistry

165. Mn2CO10 Catalysed Synthesis of Poly(vinylidene fluoride) Block Copolymers
Mark Johnson, Chemistry and Physics
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166F. Replication of Damaged DNA
Richa Gupta, Biochemistry
Advisor: Ashis Basu, Professor, Chemistry

166S. Synthesis of Sulfatides for Type II NKT Cell Activation
Emese Kanyo, Chemistry
Advisor: Amy Howell, Professor, Chemistry

167. On the Impact of Uncertain Gene Tree Rooting on Duplication-Transfer-Loss Reconciliation
Soumya Kundu, Computer Science and Engineering
Advisor: Mukul Bansal, Assistant Professor, Computer Science and Engineering

168F. Lab-On-A-Chip Device for an Early Diagnosis of Cardiac Diseases
Elena Carrington, Molecular and Cell Biology
Karim Jalil, Physiology and Neurobiology
Advisor: Charles Giardina, Professor, Molecular and Cell Biology
Advisor: James Rusling, Professor, Chemistry

168S. Tripal Plant PopGen Submit: A Simplified Pipeline and Database Solution for Landscape Genomics Studies in Plants
Michael Wynne, Computer Science and Engineering
Advisor: Jill Wegrzyn, Assistant Professor, Ecology and Evolutionary Biology

169. Bioinformatic Evaluation of Transcriptomic Frame Selection Methods in Non-Model Species
Sumaira Zaman, Biomedical Engineering
Advisor: Jill Wegrzyn, Assistant Professor, Ecology and Evolutionary Biology

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170. Study on 3D Cancer Spheroids - Nanoparticle Drug Delivery and Diffusion
Amanda Lor, Biomedical Engineering
Advisor: Kazunori Hoshino, Assistant Professor, Biomedical Engineering
171. Preventing Neo-Natal Mortality Using Technology Assisted Kangaroo Mother Care
Celine Agnes, Biomedical Engineering
Rosalie Bordett, Biomedical Engineering
Cailah Carroll, Biomedical Engineering
Katelyn Houlihan, Biomedical Engineering
Sarah McGee, Biomedical Engineering
Courtney Mulry, Biomedical Engineering
Advisor: Bin Feng, Assistant Professor, Biomedical Engineering

172. The Neurochemical Phenotype of Lateral Hypothalamic Hcrt/Ox and MCH Neurons Identified Through Single Cell Gene Expression Profiling
Brock Chimileski, Physiology and Neurobiology and Molecular and Cell Biology
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Special Thanks

The Office of Undergraduate Research wishes to thank the deans of the represented schools and colleges, the Provost’s office, the Office of the Vice President for Research, and the generous donors to the Honors Program for their support of undergraduate research through contributions to the Summer Undergraduate Research Fund and OUR grant programs. In addition, we thank the following individuals for their support:

Susan Herbst, President, University of Connecticut

Jeremy Teitelbaum, Interim Provost and Executive Vice President for Academic Affairs

Sally Reis, Vice Provost for Academic Affairs

Jennifer Lease Butts, Assistant Vice Provost for Enrichment Programs and Director of the Honors Program

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