SUMMER RESEARCH SYMPOSIUM
2016

Sayles Hall
11:00 am – 1:00 pm

Thursday, August 4
Life Sciences and Humanities

&

Friday, August 5
Physical and Social Sciences and
Student Teams

PRESENTED BY
The Office of the Dean of the College
SUMMER RESEARCH SYMPOSIUM

Sayles Hall
Main Green

Thursday, August 4
*Life Sciences and Humanities Posters*

11:00 – 11:10 am  Welcome
Associate Dean Oludurotimi Adetunji

11:10 – 11:20 am  Brief remarks
Deputy Dean of the College Christopher Dennis

11:00 am – 1:00 pm  Research Poster Presentations

Friday, August 5
*Physical and Social Sciences and Team Posters*

11:00 – 11:10 am  Welcome
Associate Dean Oludurotimi Adetunji

11:00 am – 1:00 pm  Research Poster Presentations

~ A light lunch will be provided both days ~
Descriptions of each poster session include a poster number indicating the poster’s placement in Sayles. To locate a poster, refer to the layout maps at the end of this pamphlet.
SUMMER RESEARCH SYMPOSIUM POSTERS
Thursday, August 4
Humanities & Life Sciences

Humanities

Paula Gaither  Poster #A1
Home Institution: Columbia University
Summar Research Program: Leadership
Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentor: Jeri DeBrohun, Department of Classics
Poster Title: Phillis Wheatley and America: Forging Identity and Fighting Tyrants

Oscar Gutierrez  Poster #A2
Home Institution: San Francisco State University
Summer Research Program: Leadership
Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentor: Keisha-Khan Perry, Department of Africana Studies
Poster Title: Settlements of Renewal: Urban Agriculture and the Promise of Belonging

Adetobi Moses  Poster #A3
Home Institution: Princeton University
Summer Research Program: Leadership
Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentor: Olakunle George, Department of English
Poster Title: Feminism & African Literature: A look at Chimamanda Ngozi Adichie

Emerald Rutledge  Poster #A4
Home Institution: The College of Wooster
Summer Research Program: Leadership
Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentor: Francoise Hamlin, Department of Africana Studies
Poster Title: Nina Simone and Beyonce Knowles: Musical Icons Providing Liberation for the Black Woman

Molly Sandstrom  Poster #A5
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Joan Richards, Department of History
Poster Title: Defying Norms, Fulfilling Expectations-The Public Opinion and Private Obligations of England's Early Unitarians

Life Sciences

Nischal Acharya  Poster #A6
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Alexander Jaworski, Department of Neuroscience
Poster Title: Understanding the Nell2 - Robo3 Interaction in Axon Guidance

Joshua Amaya  Poster #A7
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Nicolas Fawzi, Department of Molecular Pharmacology, Physiology and Biotechnology
Poster Title: Structural effects of mutations on the ALS-causing region in inclusion-forming protein hnRNP A2
Kelsey Anderson Poster #A8
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Dawn Abbott,
Interventional Cardiology, Rhode Island Hospital
Poster Title: Accuracy and Prognostic Ability of Stress Testing in Pre-Renal Transplant Patients

Tsikata Apenyo Poster #A9
Home Institution: University of Portland
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentors: Wen-Chih Wu,
Department of Medicine & Tracey Taveira,
Department of Medicine
Poster Title: Negative emotional states and incident diabetes among African American adults: The Jackson Heart Study

Naveen Balakrishnan Poster #A10
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Peter Belenky,
Department of Molecular Microbiology and Immunology
Poster Title: Differential Impacts of NAD Metabolism on Anti-fungal Toxicity in Mammalian and Fungal Cells

Douglas Barber Poster #A11
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Christopher Born,
Department of Orthopedics & Dioscaris Garcia, Department of Orthopedics
Poster Title: Developing a Model for the Qualification and Quantization of Bacterial Biofilm

Adriel Barrios-Anderson Poster #A12
Home Institution: Brown University
Summer Research Program: Summer Research Assistantship in Biomedical Sciences
Faculty Mentor: Barbara Stonestreet,
Department of Pediatrics
Poster Title: The effects of Inter-Alpha Inhibitor Proteins on neutrophil infiltration and matrix-metalloproteinase 9 levels in Hypoxic-Ischemia
*Presenting beside Sakura Nakada

Nikolas Baya Poster #A14
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Stephanie Jones,
Department of Neuroscience
Poster Title: Computational Neuroscience

Julia Bleier Poster #A15
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Carlos Aizenman,
Department of Neuroscience
Poster Title: Multisensory Behavior in Developing Xenopus Laevis Tadpoles

Hayley Bounds Poster #A16
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Rebecca Burwell,
Department of Cognitive, Linguistic and Psychological Sciences
Poster Title: Gait Abnormalities in the Kaolin Model of Normal Pressure Hydrocephalus

Haley Carter Poster #A17
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Erika Edwards,
Department of Ecology and Evolutionary Biology
Poster Title: Leafing Through the Chemicals of Viburnum Species
Haejun Cho    Poster #B1  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentors:** Wolfgang Peti, Department of Molecular Pharmacology, Physiology, & Biotechnology & Senthil Ganesan, Department of Molecular Pharmacology, Physiology, & Biotechnology  
**Poster Title:** Biophysical Studies of ribosomal RNA Processing 1 Homolog B and Protein Phosphatase 1

Victoria Cole    Poster #B2  
**Home Institution:** University of Arizona  
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Jun Feng, Cardiothoracic Surgery Research Center  
**Poster Title:** Expression and Localization of Calcium-Activated Potassium Channels in Diabetic Endothelial Cells in Mice and Humans

Bethany Cucka    Poster #B3  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Loren Fast, Department of Hematology/Oncology  
**Poster Title:** The Impact of Encountering Dying Cells on the Immune System

Adrija Darsha    Poster #B4  
**Home Institution:** Brown University  
Summer Research Program: N/A; Research done at Stanford University  
**Faculty Mentor:** Joy Wu, Department of Endocrinology  
**Poster Title:** Loss of Parathyroid Hormone in the Osteoblast Lineage Hinders Osteogenic Differentiation of Mesenchymal Progenitors

Kelvin De Leon    Poster #B5  
**Home Institution:** Hunter College  
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Tara White, Department of Behavioral and Social Sciences  
**Poster Title:** Emotional, Physiological and Neurocognitive Response to Adderall in Healthy Volunteers

Jaclyn Dell    Poster #B6  
**Home Institution:** University of South Florida St. Petersburg  
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentors:** Karla Kaun, Department of Neuroscience & Emily Petruccelli, Department of Neuroscience  
**Poster Title:** Localization of Notch pathway proteins in the adult Drosophila brain

Drevon Dobson    Poster #B7  
**Home Institution:** North Carolina Agricultural and Technical State University  
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentors:** Qing Lu, Department of Medicine, Alpert Medical School of Brown University & Eboni Chambers, Pathobiology Ph.D, Public Affairs M.P.A Candidate  
**Poster Title:** The Effect of Sustained Elevated Adenosine Exposure on Lung Microvascular Endothelial Cells

Jonathan Dow    Poster #B8  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Mark Johnson, Department of Molecular Biology, Cell Biology and Biochemistry  
**Poster Title:** Evolution of Reproduction in Plants: molecular mechanisms of double fertilization

Lisset Duran    Poster #B9  
**Home Institution:** John Jay College
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
**Faculty Mentor:** Elizabeth Harrington, Department of Biology and Medicine
**Poster Title:** Overexpression of Natriuretic Peptide Receptor A (NPR-A) by Lentivirus Transduction does not Enhance the Protective Effects of Atrial Natriuretic Peptide (ANP) on Endothelium Barrier Disruption

**Celia Ford** Poster #B10
**Home Institution:** Brown University
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)
**Faculty Mentor:** David Badre, Department of Cognitive, Linguistic, and Psychological Sciences
**Poster Title:** The Effects of Dual-Task Experience on the Development of Cognitive Control Policies

**Ellen Fu** Poster #B11
**Home Institution:** Brown University
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)
**Faculty Mentor:** Richard Bennett, Department of Molecular Microbiology and Immunology
**Poster Title:** Investigating Candida albicans’ Clinical Persistence

**Mursal Gardezi** Poster #B12
**Home Institution:** Brown University
**Summer Research Program:** Weiss-Sipprelle Summer Undergraduate Fellowship
**Faculty Mentors:** Christopher Born, Department of Orthopedics & Dioscaris Garcia, Department of Orthopedics
**Poster Title:** Rapid In-Situ Detection and Quantification of Bacterial Colonization on Orthopedic Infection Sites

**Nimesha Gerlus** Poster #B13
**Home Institution:** Brown University
**Summer Research Program:** Royce Fellows
**Faculty Mentors:** Richard Liu, Department of Psychiatry and Human Behavior & Anthony Spirito, Department of Psychiatry and Human Behavior
**Poster Title:** The Role of Behavioral Impulsivity in Adolescent Suicidality: A Computational Approach

**Howard Gonzalez Navarrete** Poster #B14
**Home Institution:** Brown University
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)
**Faculty Mentor:** Suzanne De La Monte, Department of Pathology
**Poster Title:** Histological and Biochemical Effects of Alcohol-Induced Frontal Lobe Degeneration

**Kelly Goo** Poster #B15
**Home Institution:** Brown University
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)
**Faculty Mentor:** Stephanie Parade, Department of Psychiatry and Human Behavior
**Poster Title:** Biological Stress Response and Behavioral Fear Regulation in At-Risk Infants

**Chyna Gray** Poster #B16
**Home Institution:** University of San Diego
**Summer Research Program:** Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
**Faculty Mentors:** Alfred Ayala, Department of Surgical Research & Eleanor Fallon, Department of Surgical Research
**Poster Title:** The Role of invariant Natural Killer (iNK) T- cells in Neonatal Sepsis

**Evan Gross** Poster #B17
**Home Institution:** Brown University
**Summer Research Program:** Dean’s Award
**Faculty Mentor:** Kristi Wharton, Department of Molecular Biology, Cell Biology, and Biochemistry
**Poster Title:** Phenotypic characterization in Mus musculus of a hBMP4 mutation associated with cleft lip and cleft palate
Rachel Gutman  Poster #C1
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Uriel Cohen Priva, Department of Linguistics
Poster Title: Deriving consonant cost from cross-linguistic distributions

Hala Haddad  Poster #C2
Home Institution: Hunter College
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentors: Kristi Wharton, Department of Molecular and Cellular Biology & Diane Lipscombe, Department of Neuroscience
Poster Title: Morphological and functional studies of synaptic transmission in Drosophila models of familial human amyotrophic lateral sclerosis

Heba Haleem  Poster #C3
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Catherine Kerr, Department of Contemplative Studies/Embodied Neuroscience & Chloe Zimmerman, Department of Embodied Neuroscience
Poster Title: Effect of Mindfulness and Meditation on Working Memory Capacity and Heart Rate Variability of Medical School Students

Vivian Hawn  Poster #C18
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Devasis Chatterjee, Department of Hematology-Oncology
Poster Title: Characterization of molecular targets of the novel platinum agent PT-112 in human colon cancer cells

Trung Ho  Poster #C4
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: David Rand, Department of Ecology and Evolutionary Biology
Poster Title: Mitochondrial Function and Organismal Performance in Drosophila with Engineered Mutations in mtDNA

Micah Holness  Poster #C5
Home Institution: Xavier University of Louisiana
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentors: Joo-Hyun Song, Department of Cognitive, Linguistic, and Psychological Sciences & Dan McCarthy, Department of Cognitive, Linguistic, and Psychological Sciences
Poster Title: The Impact of Distractor Saliency on Changes-of-Mind

Samantha Huynh  Poster #C6
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Karla Kaun, Department of Neuroscience & Kristin Scaplen, Department of Neuroscience
Poster Title: Mapping Neural Circuits that Underlie Alcohol Reward Memory

Brianna Irons  Poster #C7
Home Institution: Brown University
Summer Research Program: Diane N. Weiss Center for Orthopaedic Trauma Research
Faculty Mentors: Christopher Born, Department of Orthopedics & Dioscaris Garcia, Department of Molecular Pharmacology, Physiology and Biotechnology
Poster Title: Elucidation and Purification of Secondary Bioactive Metabolites with Antimicrobial Activity from Natural Sources

Jacob Jaffe  Poster #C8
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentor:** Daniel Weinreich, Department of Ecology and Evolutionary Biology  
**Poster Title:** The effects of seasonality on multi-locus strain structure  

**Tammy Jiang** Poster #C9  
**Home Institution:** Brown University  
**Summer Research Program:** Solsbery Fellowship  
**Faculty Mentor:** Stephen Buka, School of Public Health  
**Poster Title:** Childhood Predictors of Adult Suicide Attempts

**Ambar Jimenez** Poster #C10  
**Home Institution:** SUNY Plattsburgh  
**Summer Research Program:** Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentors:** Agnes Kane, Department of Pathobiology and Molecular Medicine & Robert Hurt, Department of School of Engineering  
**Poster Title:** Cytotoxicity Assessment of Bulk Manganese and 2D MnO2 Nanomaterials In Vitro using Fish Liver Cells (PLHC-1)

**Joseph Johnson** Poster #C11  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Louis Lapierre, Department of Molecular Biology, Cell Biology, and Biochemistry  
**Poster Title:** Identification of novel regulators of autophagy

**Megan Kelly** Poster #C12  
**Home Institution:** Brown University  
**Summer Research Program:** Dean’s Award  
**Faculty Mentors:** Chun Geun Lee, Department of Molecular Microbiology and Immunology & Chang-Min Lee, Department of Molecular Microbiology and Immunology  
**Poster Title:** Identification of novel regulators of autophagy

**Poster Title:** Role of Chi3l1 in sexual dimorphism in the pathogenesis of pulmonary hypertension  

**Aisha Keown-Lang** Poster #C13  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Susan Gerbi, Department of Molecular and Cellular Biology  
**Poster Title:** Fine Tuning Fluorescent in Situ Hybridization for DNA Combing and the Identification of Genomic Sites of DNA Amplification in Sciara

**Eleanor Kim** Poster #C14  
**Home Institution:** Brown University  
**Summer Research Program:** Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Richard Bennett, Department of Molecular Microbiology and Immunology  
**Poster Title:** Purification and biochemical characterization of Destructin-3

**Kenneth Kim** Poster #C15  
**Home Institution:** Brown University  
**Summer Research Program:** Royce Fellows  
**Faculty Mentor:** Wayne Bowen, Department of Molecular Pharmacology, Physiology and Biotechnology  
**Poster Title:** Fighting Cancer: Characterizing Sigma-2 Agonists in Hepatocellular Carcinoma Tumor Cells

**Risako Kimura** Poster #C16  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Edward Hawrot, Department of Molecular Pharmacology, Physiology, and Biotechnology  
**Poster Title:** The novel role of alpha-3 nicotinic acetylcholine receptor in early mammalian development

**Olena Kuksenko** Poster #C17  
**Home Institution:** Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentor:** Diane Lipscombe, Department of Neuroscience

**Poster Title:** Characterizing the Gating of Voltage-dependent Calcium (CaV1.2) Channels

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**Jonathan Lee**  Poster #D1
**Home Institution:** Universidad de Puerto Rico - Aguadilla

Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)

**Faculty Mentor:** Alison DeLong, Department of Molecular Biology, Cell Biology and Biochemistry

**Poster Title:** Analyzing PP2A mediated regulation of ethylene synthesis: a CRISPR approach

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**Nari Lee**  Poster #D2
**Home Institution:** Brown University

Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentor:** Amanda Jamieson, Department of Microbiology and Molecular Immunology

**Poster Title:** Lung responses to e-cigarette vapor exposure

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**Alexis Lerner**  Poster #D3
**Home Institution:** Brown University

Summer Research Program: University of Georgia REU: Population Biology of Infectious Diseases

**Faculty Mentor:** John Drake, Department of Ecology

**Poster Title:** When ideas go viral: Early warning signals in theoretical and real-world social contagion systems

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**Michelle Lin**  Poster #D4
**Home Institution:** Brown University

Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentor:** Joo-Hyun Song, Department of Cognitive, Linguistic, and Psychological Sciences

**Poster Title:** Effect of Unconscious Face Processing on Attentional Allocation

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**Karine Liu** Poster #D5
**Home Institution:** Brown University

Summer Research Program: American Physiological Society

**Faculty Mentor:** Carlos Aizenman, Department of Neuroscience

**Poster Title:** Multisensory Plasticity in the Optic Tectum of the Xenopus Laevis Tadpole

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**Desiree Lloyd**  Poster #D6
**Home Institution:** DePaul University

Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)

**Faculty Mentors:** Michael White, Department of Sociology & Tyler Myroniuk, Population Training and Studies Center

**Poster Title:** Health Care in South Africa: Understanding Access in the Context of Race and Migration

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**Jacinta Lomba**  Poster #D7
**Home Institution:** Brown University

Summer Research Program: Summer Training in Academic Research and Scholarship (STARS) program, Brigham and Women's Hospital

**Faculty Mentor:** Kathleen Haley, Pulmonary and Critical Care Medicine, Brigham and Women's Hospital and Harvard Medical School

**Poster Title:** Chronic Critical Illness: Predictors and outcomes

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**Nicolas Lopez**  Poster #D8
**Home Institution:** University of Central Florida

Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)

**Faculty Mentor:** Andrew Foster, Department of Economics

**Poster Title:** India’s Largest Public Works Program: Income, Health, and Labor Under MGNREGS
Sarah Master    Poster #D9
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: David Badre, Department of Cognitive, Linguistic, and Psychological Sciences & Theresa Desrochers, Department of Neuroscience
Poster Title: The Influence of Affect on Sequential Processing

Kevin Mertz    Poster #D10
Home Institution: Brown University
Summer Research Program: Weiss-Sipprelle Summer Undergraduate Fellow
Faculty Mentors: Christopher Born, Department of Orthopedics & Dioscaris Garcia, Department of Orthopedics
Poster Title: Dose Response and Adherence patterns for Candida albicans to silver-based, titanium oxide/polymer-hybrid antimicrobial coating

Anthony Minnah    Poster #D11
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Christopher Born, Brown Alpert Medical School, Dept. of Orthopedics & Dioscaris Garcia, Brown Alpert Medical School, Dept. of Orthopedics
Poster Title: Characterization of the Antimicrobial Effects of an Ag-Doped TiO2-PDMS Hybrid Coating on the Adherence and Proliferation of Vancomycin Resistant E. faecalis on Spinal Implant Rods of Varying Composition

Josiah Moore    Poster #D12
Home Institution: Tougaloo College
Summer Research Program: Brown-Tougaloo Partnership
Faculty Mentor: Alison DeLong, Department of Molecular Biology, Cell Biology and Biochemistry
Poster Title: Identifying Protein Phosphatase 2A Subunits That Positively Regulate Ethylene Synthesis

Megumi Mori    Poster #D13
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Elisabeth Mcgowan, Department of Biology/Medicine
Poster Title: Maternal involvement in the neonatal intensive care unit and preterm infant vocalizations

Shivam Nadimpalli    Poster #D14
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Nicolas Fawzi, Department of Department of Molecular Pharmacology, Physiology and Biotechnology
Poster Title: Atomic details of Male Specific Lethal (MSL) complex protein-protein interactions associated with X-chromosome transcript-level regulation

Sakura Nakada    Poster #A13
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Barbara Stonestreet, Department of Pediatrics
Poster Title: Treatment with IAIPs after Exposure to Hypoxic-Ischemic Brain Injury Decreases Apoptosis
*Presenting beside Adriel Barrios-Anderson

Morcos Nakhla    Poster #D15
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Jacquelyn Schell, Department of Biomedical Engineering & Jeffrey Morgan, Department of Biomedical Engineering
Poster Title: Quantifying the Effects of Media Composition on Microtissue Self-Assembly and Stability

Rachael Nilson    Poster #D16
**Home Institution:** Roger Williams University
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)

**Faculty Mentor:** Alan Morrison, Department of Internal Medicine

**Poster Title:** Statins Increase Rac1-dependent IL-1B Expression through Inhibition of Rac1 Isoprenylation

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**Aisha Obeidallah Postet #D17**
**Home Institution:** Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentor:** Christian Nixon, Center for International Health Research

**Poster Title:** P. falciparum Gametocytes

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**Grace Oggunbile Postet #D18**
**Home Institution:** Rider University
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)

**Faculty Mentor:** Ruhul Abid, Department of Cardiothoracic Surgery

**Poster Title:** The Effects of Mitochondrial ROS on Endothelial Cells

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**Katelynn Pan Home Institution:** Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentors:** Elissa Jelalian, Alpert Medical School & Whitney Evans, Alpert Medical School

**Poster Title:** Promoting Health and Activity in the Summer Trial (PHAST)

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**Jaehyun Park Poster #E2**
**Home Institution:** Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentor:** Carlos Aizenman, Department of Neuroscience

**Poster Title:** Effects of Over-Expression of RecA on Transformation in Bacillus subtilis

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**Zemplen Pataki Poster #E3**
**Home Institution:** Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentor:** Christopher de Graffenried, Department of Molecular Microbiology and Immunology

**Poster Title:** Importance of p197 Phosphorylation in Trypanosoma brucei

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**Alejandra Patino Poster #E4**
**Home Institution:** New York University
Summer Research Program: BP-Endure

**Faculty Mentor:** Rebecca Burwell, Department of Cognitive, Linguistic, and Psychological Sciences

**Poster Title:** Optogenetic Modulation of Recognition Memory via the Prefrontal Cortex

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**Swathi Penumutchu Poster #E5**
**Home Institution:** University of Maryland, Baltimore County
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)

**Faculty Mentors:** Peter Belenky, Department of Molecular Microbiology and Immunology & Benjamin Korry, Department of Molecular Microbiology and Immunology

**Poster Title:** Effects of Over-Expression of RecA on Transformation in Bacillus subtilis

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**Andrew Pisaturo Poster #E6**
**Home Institution:** Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentor:** Erika Edwards, Department of Biology

**Poster Title:** Climate Space of CAM and C4 Plants

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**Aziz Rangwala Poster #E7**
**Home Institution:** Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
**Faculty Mentors:** Gerwald Jogl, Department of Molecular Biology, Cell Biology, and Biochemistry  
**Poster Title:** Investigation of the Streptomycin-Induced Misreading of the Bacterial Genetic Code  

**David Reich**  
**Poster #E8**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Jeffrey Morgan, Department of Molecular Pharmacology, Physiology and Biotechnology  
**Poster Title:** High-Throughput Spheroids  

**Gerardo Reyes**  
**Poster #E9**  
**Home Institution:** College of Mount Saint Vincent  
**Summer Research Program:** Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Kim Boekelheide, Department of Pathology & Laboratory Medicine  
**Poster Title:** The adverse effects of retinoic acid and mono-(2-ethylhexyl) phthalate and their interaction in fetal rat testes seminiferous cord development  

**Mithun Saha**  
**Poster #E10**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentors:** Gideon Koren, Department of Medicine/Cardiovascular Research Center & Karni Moshal, Cardiovascular Research Center  
**Poster Title:** Effects of Lipopolysaccharide Induced TNF Factor and E3 ubiquitin-protein ligase NEDD4 on Cardiac L-type Calcium Channel Stability  

**Natalie Schudrowitz**  
**Poster #E11**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  

**Faculty Mentors:** Mamiko Yajima, Department of Molecular Biology, Cell Biology, and Biochemistry & Gary Wessel, Department of Molecular Biology, Cell Biology, and Biochemistry  
**Poster Title:** The Functional Contribution of Germline Factors in Cancer Cell Regulation  

**Anna Schwartz**  
**Poster #E12**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentors:** William Heindel, Department of Cognitive, Linguistic and Psychological Sciences & Elena Festa, Department of Cognitive, Linguistic and Psychological Sciences  
**Poster Title:** The Differential Effect of Vocal versus Instrumental Music on Cognitive Function and Arousal  

**Da Hee Seo**  
**Poster #E13**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Nicolas Fawzi, Department of Molecular Physiology, Pharmacology and Biotechnology  
**Poster Title:** Elucidating the structure and interactions of the RGG domains of ALS-associated FUS protein  

**Maddali Shivaali**  
**Poster #E14**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Ian Wong, Department of Biomedical Engineering  
**Poster Title:** Silk Hydrogel Microfluidics Using 3D Printed Pluronic Sacrificial Elements  

**Ellen Sukharevsky**  
**Poster #E15**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Wayne Bowen, Department of Molecular Pharmacology and Physiology
Poster Title: Investigating the Role of Ceramide in the Sigma-2 Receptor Apoptosis Pathway
Shantā Sykes Poster #E16
Home Institution: Tougaloo College
Summer Research Program: Brown-Tougaloo Partnership
Faculty Mentor: Mark Johnson, Department of Molecular Biology, Cell Biology, and Biochemistry
Poster Title: Ectopic Expression of DUO1 in Roots
Morgan Talbot Poster #E17
Home Institution: Brown University
Summer Research Program: Dean’s Award
Faculty Mentors: Michael Paradiso, Department of Neuroscience & Michael Migliori, Division of Ophthalmology
Poster Title: Development of a Visual Prosthetic for the Blind
Neille-Ann Tan Poster #E18
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Michael Frank, Department of Cognitive, Linguistic, and Psychological Sciences & Matthew Nassar, Department of Cognitive, Linguistic, and Psychological Sciences
Poster Title: Neurocognitive Computations in Parkinson’s Disease
Caleb Thomas Poster #F17
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Michael Frank, Department of Neuroscience
Poster Title: Prefrontal Dopamine in Visual Working Memory
Jason Thomas Poster #F2
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Kareen Coulombe, School of Engineering
Poster Title: Biophysical characterization of contraction and material properties of human-induced pluripotent stem cell-derived cardiac tissue
Emma Thygesen Poster #F3
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Erica Larschan, Department of Molecular Biology, Cell Biology and Biochemistry
Poster Title: Mapping the promoter region of the essential gene clamp in D. melanogaster
Henry Vargas Poster #F4
Home Institution: LaGuardia Community College
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentor: Gary Wessel, Department of Molecular Biology, Cell Biology, and Biochemistry
Poster Title: Determining the function and regulation of the Germ line Factors in the Sea Star
Gina Vimbela Poster #F5
Home Institution: California State University Long Beach
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentor: Suzanne de la Monte, Department of Pathology, Neurology, and Neurosurgery
Poster Title: Bioinformatics Approaches to White Matter Molecular and Biochemical Pathology in Neurodegeneration
Jenna Washington Poster #F6
Home Institution: Claflin University
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)

**Faculty Mentor:** Karen Fischer, Department of Earth, Environmental and Planetary Sciences

**Poster Title:** Uppermost Mantle Velocity in Southern Appalachian Orogen from Pn Phases: Implications for Support of Mountain Topography

**River Williams Poster #F7**
**Home Institution:** University of Maryland, College Park

Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)

**Faculty Mentor:** Yang Zhou, Department of Molecular Microbiology and Immunology

**Poster Title:** Defining the CHI3L1-CRTH2 pathway in PBMCs from patients with Idiopathic Pulmonary Fibrosis

**Michele Winter Poster #F8**
**Home Institution:** Brown University

Summer Research Program: LINK Award for Computational Perception and Cognition Lab, MIT internship

**Faculty Mentor:** Aude Oliva, MIT Computer Vision and Graphics Group

**Poster Title:** Using Neuroimaging Techniques and Computational Modeling to Further Understand the Spatio-Temporal Dynamics of Scene Perception

**Christina Woo Poster #F9**
**Home Institution:** Brown University

Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentors:** Amanda Jamieson, Department of Molecular Microbiology and Immunology & Kayla Lee, Molecular Microbiology and Immunology

**Poster Title:** Drug discovery for host resilience pathways to IAV/bacterial coinfection

**Kevin Yan Poster #F10**
**Home Institution:** Brown University

Summer Research Program: Dean’s Award

**Faculty Mentors:** Wentian Yang, Department of Orthopaedics & John M. Sedivy, Department of Molecular Biology, Cell Biology and Biochemistry

**Poster Title:** Cytokine Antibody Array in SHP2-deficient Macrophages and Preosteoclasts

**Chaewon Yoon Poster #F11**
**Home Institution:** The University of Texas at Austin

Summer Research Program: N/A

**Faculty Mentor:** Phyllis Dennery, Department of Molecular Biology, Cell Biology and Biochemistry

**Poster Title:** Inverse relationship between CHI3L1 and HO-1

**Michelle Zabat Poster #F12**
**Home Institution:** Brown University

Summer Research Program: Dean’s Award

**Faculty Mentors:** Surendra Sharma, Department of Pediatrics & Shibin Cheng, Department of Pediatrics

**Poster Title:** Protein Aggregation in Preeclampsia

**Yinge Zhao Poster #F13**
**Home Institution:** Brown University

Summer Research Program: Dean’s Award

**Faculty Mentors:** Peter Belenky, Department of Molecular Microbiology and Immunology

**Poster Title:** Interrogation of the Oral Microbiome
SUMMER RESEARCH SYMPOSIUM POSTERS
Friday, August 5
Physical and Social Sciences & Student Teams

Social Sciences

Elizabeth Cosby  Poster #A1
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Willoughby Britton, Department of Psychiatry and Human Behavior
Poster Title: Early Trauma Predicts Mindfulness-Based Cognitive Therapy Outcome

Madeline DiGiovanni  Poster #A2
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Bertram Malle, Department of Cognitive, Linguistic, and Psychological Sciences
Poster Title: Adding a means to an end in the mind: How people connect mental states in behavior explanation

Tatyana Donaldson  Poster #F14
Home Institution: Claflin University
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentor: Hillary Friedman, Department of American Studies
Poster Title: A Pictorial Analysis of Hegemonic Femininity in Print Sources
*Presenting on Thursday, August 4

Lehidy Frias  Poster #A3
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

Faculty Mentor: Jessaca Leinaweaver, Department of Anthropology
Poster Title: Health, Race and Ethnicity: Media Perceptions of the aging population in Peru

Jamila Gilmore  Poster #A4
Home Institution: Brown University
Summer Research Program: Institute at Brown for Environment and Society
Faculty Mentor: Leah Bamberger, Office of Sustainability & Dino Larson, Office of Sustainability
Poster Title: Recycling & Community Engagement

Juliette Hernandez Carrasco  Poster #F15
Home Institution: University of Puerto Rico at Ponce
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentors: Lynn Hernandez, Department of Behavioral and Social Sciences & Judelysse Gomez, Department of Psychiatry and Human Behavior
Poster Title: Ethnic Differences in Parents’ Interactions with their Alcohol Using Adolescents
*Presenting on Thursday, August 4

Evan Lehmann  Poster #A5
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Robert Blair, Departments of International Affairs and Political Science
**Poster Title:** Peacekeeping, Statebuilding and the Rule of Law After Civil War

**Jessica O’Dell**  
**Poster #A6**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentors:** Caroline Karp, Department of Environmental Studies & Ross Cheit, Department of Public Policy  
**Poster Title:** The Influence of Civil Society Actors on Fishery Management in the United States

**Caitlin Richard**  
**Poster #A7**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** John Papay, Department of Education  
**Poster Title:** Evaluation for Teacher Development: Exploring the Relationship between Features of Teacher Evaluation Systems and Teacher Improvement

**Physical Sciences**

**Gabriel Buchsbaum**  
**Poster #A8**  
**Home Institution:** Brown University  
**Summer Research Program:** Experimental Program to Stimulate Competitive Research (EPSCoR-NSF)  
**Faculty Mentor:** Angus Kingon, Department of Engineering  
**Poster Title:** Investigation of Transport in Hybrid Perovskite MSM Devices

**Arseniy Butrin**  
**Poster #A9**  
**Home Institution:** Tougaloo College  
**Summer Research Program:** Experimental Program to Stimulate Competitive Research (EPSCoR-NSF)  
**Faculty Mentor:** Angus Kingon, Department of Engineering

**Sarah Cowles**  
**Poster #B1**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Anita Shukla, Department of Biomedical Engineering  
**Poster Title:** A Novel Liposomal Formulation Targeting Opportunistic Fungi

**Anthony Daoud**  
**Poster #B2**  
**Home Institution:** Brown University  
**Summer Research Program:** National Science Foundation (NSF) Research Experience for Undergraduates (REU)  
**Faculty Mentor:** Benjamin Kimia, Department of Engineering  
**Poster Title:** GPU Implementation of a Curve Extraction Algorithm to Accelerate Object Recognition

**Jonathan Davies**  
**Poster #B3**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Jason Sello, Department of Chemistry  
**Poster Title:** Development of Ugi Reaction Using Kemp’s Triacid

**Kiran Dhatt Gauthier**  
**Poster #B4**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentors:** Anita Shukla, Department of Engineering & Shashank Shukla, Department of Engineering  
**Poster Title:** Gellan-CENTA as a β-Lactamase Responsive Antimicrobial Hydrogel

**Renee Edelman**  
**Poster #B5**  
**Home Institution:** Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

Faculty Mentor: Elena Oancea, Department of Molecular Pharmacology, Physiology, and Biotechnology & Iliana Escobar, Department of Molecular Pharmacology, Physiology, and Biotechnology
Poster Title: pH Regulation in Melanin Producing Organelles
Joseph Fichera Poster #B10
Home Institution: Brown University
Summer Research Program: Research Assistant in the Department of Earth, Environmental, and Planetary Sciences
Faculty Mentor: Marc Parmentier, Department of Earth, Environmental, and Planetary Sciences
Poster Title: Flow of the Earth's Crust and Mantle in Strike-Slip Faults
Samir Gadre Poster #B6
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Benjamin Kimia, Department of Engineering
Poster Title: Design and Implementation of a Stereoscopic Visual Odometry Module
Wendy Gonzalez Poster #B7
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Sherief Reda, Department of Computer Engineering & Reza Azimi, Department of Computer Engineering
Poster Title: Energy-Efficient Computing Clusters for Cloud Applications
Joshua Greene Poster #B8
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Alexander Zaslavsky, Department of Engineering & Kyung-Suk Kim, Department of Engineering
Poster Title: Electrical Characterization of Crinkled Graphene
Bana Hadid Poster #B9
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Loren Fast, Department of Immuno-oncology
Poster Title: Modeling Immunotherapy to Treat Leukemia
Megan Hauptman Poster #C1
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Jason Sello, Department of Chemistry & Anubhav Tripathi, Department of Engineering
Poster Title: Development of a Miniaturized HIV Oil Chip that Enables Adherence Monitoring of Antiretroviral Agents for HIV treatment and Prevention
Patrick Heng Poster #C2
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Yongsong Huang, Department of Earth, Environmental, and Planetary Studies
Poster Title: Identification of a Novel C36 Alkenone from Algae Haptophytes
Alex Hirsch Poster #C3
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Rashid Zia, Departments of Engineering and Physics
Poster Title: Extracting Two-dimensional Radiation Patterns from Wide-Angle Spectroscopic Images
Oliver Isik Poster #C4
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Derek Stein, Department of Physics
Poster Title: Spherical Virus Detection Using Nanoscale Capillaries

William Klimpert Poster #C5
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Jay Tang, Department of Biophysics
Poster Title: Bacterial Motility in Viscoelastic Media

Sayaka Kochiyama Poster #C6
Home Institution: Brown University
Summer Research Program: IBES Internal Grant
Faculty Mentors: Robert Hurt, Department of Engineering & Zachary Saleeba, Department of Engineering
Poster Title: A New Laboratory-Scale Device for Investigating the Human Health Impacts of Biomass-Fired Domestic Cookstoves

Monnawat Krasaesian Poster #C7
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: James Russell, Department of Earth, Environmental and Planetary Science
Poster Title: Reconstruction of Indo-Pacific Paleoclimate Using Elemental Chemistry

Amy Lin Poster #C8
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Sarah Delaney, Department of Chemistry
Poster Title: Determining Processivity of Uracil DNA Glycosylase in Nucleosome Core Particles

Nicolas Lozada-Smith Poster #C9
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Daniel Mittleman, Department of Engineering
Poster Title: Terahertz The Last Frontier

Lilibeth Martinez Poster #E5
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Anubhav Tripathi, Department of Biomedical Engineering
Poster Title: Optimizing Bead Transfer Efficiency for an Immiscible Phase Filtration Separation Device

Andrea Mastorakis Poster #E8
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Meredith Hastings, Department of Earth, Environmental and Planetary Sciences
Poster Title: Investigation of nitrate sources and chemistry in the Arctic Ocean

Rachel Meyen Poster #D2
Home Institution: Rhode Island College
Summer Research Program: Experimental Program to Stimulate Competitive Research (EPSCoR-NSF)
Faculty Mentor: Nitin Padture, Department of Engineering
Poster Title: Low-Cost Solution-Processed Perovskite Solar Cells Using Carbon Electrodes

Lan Nguyen Poster #D3
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Franklin Goldsmith, Department of Chemical and Biochemical Engineering
Poster Title: Developing a Molecular Model to Predict Equations of States from Computational Quantum Chemistry and Machine Learning
Richard Oliver       Poster #D4
Home Institution: Brown University
Summer Research Program: Space
Grant/NASA, Undergraduate Teaching and
Research Awards (UTRA)
Faculty Mentor: David Lowe, Department of Physics
Poster Title: Force-Free Electrodynamics
Near the Event Horizon Of An Extremal Kerr Black Hole

Maria Paredes       Poster #F16
Home Institution: Brown University
Summer Research Program: Summer Research Assistantship in Biomedical Sciences
Faculty Mentor: Kareen Coulombe, Department of Engineering
Poster Title: Microcontact printing of cell shapes for quantitative analysis of hiPSCs cardiomyocytes maturation in aid of regenerative medicine
*Presenting on Thursday, August 4

Shivam Raikundalia     Poster #D5
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Jacob Rosenstein, Department of Engineering
Poster Title: Single Molecule Communications Channels

Eliott Rosenberg     Poster #D6
Home Institution: Brown University
Summer Research Program: Space
Grant/NASA, Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: JiJi Fan, Department of Physics
Poster Title: Double Disk Dark Matter

Giorgio Savini Zangrandi     Poster #D7
Home Institution: Brown University
Summer Research Program: Experimental Program to Stimulate Competitive Research (EPSCoR-NSF)

Elliott Rosenberg     Poster #D6
Home Institution: Brown University
Summer Research Program: Space
Grant/NASA, Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: JiJi Fan, Department of Physics
Poster Title: Double Disk Dark Matter

Giorgio Savini Zangrandi     Poster #D7
Home Institution: Brown University
Summer Research Program: Experimental Program to Stimulate Competitive Research (EPSCoR-NSF)

Faculty Mentor: Domenico Pacifici, Department of Engineering
Poster Title: Optical characterization of thin-film perovskites

Julia Schoenewald     Poster #D8
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Alexander Jaworski, Department of Neuroscience
Poster Title: Genetic Fate Mapping of Spinal Commissural Neurons

Matthew Shorter     Poster #D9
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Jennifer Franck, Department of Engineering & Franklin Goldsmith, Department of Engineering
Poster Title: Computational Fluid Dynamics of Novel Shock Tube Design

Placid Unegbu     Poster #E7
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: David Borton, Department of Engineering
Poster Title: Computational Model of Thalamic Neural Circuitry

Constantin Wedekind    Poster #E3
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Xingsheng Ling, Department of Physics
Poster Title: Balancing Change and Conservation: Investigating Mechanisms of Genetic Mutation due to Pfu Polymerase through a Physical Lens

Robert (Jake) Wyatt     Poster #E2
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Eric Suuberg, Department of Engineering
Poster Title: Vapor Intrusion of Soil and Groundwater Sources: An Evolving Environmental Concern

Student Teams: Humanities

Lena Bohman Poster #F18
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Susan Smulyan, Department of American Studies & Ron Potvin, Department of Public Humanities
Poster Title: What is Old is New Again: The Digital Tour of the Nightingale-Brown House
Team Members: Minah Seo & Emily Taylor
*Presenting on Thursday, August 4

Minah Seo Poster #F18
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Susan Smulyan, Department of American Studies & Ron Potvin, Department of Public Humanities
Poster Title: What is Old is New Again: The Digital Tour of the Nightingale-Brown House
Team Members: Lena Bohman & Emily Taylor
*Presenting on Thursday, August 4

Emily Taylor Poster #F18
Home Institution: Southern Oregon University
Summer Research Program: Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
Faculty Mentors: Susan Smulyan, Department of American Studies & Ron Potvin, Department of Public Humanities
Poster Title: What is Old is New Again: The Digital Tour of the Nightingale-Brown House
Team Members: Lena Bohman & Minah Seo
*Presenting on Thursday, August 4

Student Teams: Life Sciences

Maryam Ahmad Poster #E1
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Jeffrey Morgan, Department of Molecular Pharmacology, Physiology, and Biotechnology & Kali Manning, Department of Biomedical Engineering
Poster Title: The Bio-Pick, Place, and Perfuse (Bio-P3): A New Instrument for Building Organs
Team Members: Andrew Thomson, Joy Jiang

Marjo Beltoja Poster #E10
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: David Berson, Department of Neuroscience & Shai Sabbah, Department of Neuroscience
Poster Title: Synaptic Inputs to ipRGCs in the Mouse Retina
Team Members: Carin Papendorp, Elizabeth Koplas, Cameron Etebari

Cameron Etebari Poster #E10
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: David Berson, Department of Neuroscience & Shai Sabbah, Department of Neuroscience
Poster Title: Synaptic Inputs to ipRGCs in the Mouse Retina
Team Members: Carin Papendorp, Elizabeth Koplas, Marjo Beltoja

Joy Jiang Poster #E1
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
**Faculty Mentor:** Jeffrey Morgan, Department of Molecular Pharmacology, Physiology, and Biotechnology & Kali Manning, Department of Biomedical Engineering  
**Poster Title:** The Bio-Pick, Place, and Perfuse (Bio-P3): A New Instrument for Building Organs  
Team Members: Maryam Ahmad, Andrew Thomson

**Elizabeth Koplas** Poster #E10  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentors:** David Berson, Department of Neuroscience & Shai Sabbah, Department of Neuroscience  
**Poster Title:** Synaptic Inputs to ipRGCs in the Mouse Retina  
Team Members: Carin Papendorp, Marjo Beltoja, Cameron Etebari

**Carin Papendorp** Poster #E10  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentors:** David Berson, Department of Neuroscience & Shai Sabbah, Department of Neuroscience  
**Poster Title:** Synaptic Inputs to ipRGCs in the Mouse Retina  
Team Members: Elizabeth Koplas, Marjo Beltoja, Cameron Etebari

**Andrew Thomson** Poster #E1  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentors:** Jeffrey Morgan, Department of Molecular Pharmacology, Physiology, and Biotechnology & Kali Manning, Department of Biomedical Engineering  
**Poster Title:** The Bio-Pick, Place, and Perfuse (Bio-P3): A New Instrument for Building Organs  
Team Members: Maryam Ahmad, Joy Jiang

**Maaike Tiersma** Poster #E4  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Jeanne Loewenstein, Institute at Brown for Environment and Society  
**Poster Title:** Oyster Restoration in Southern Rhode Island  
Team Members: Ellen Vitek

**Ellen Vitek** Poster #E4  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Jeanne Loewenstein, Institute at Brown for Environment and Society  
**Poster Title:** Oyster Restoration in Southern Rhode Island  
Team Members: Maaike Tiersma

**Jonathan Yakubov** Poster #F6  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Edith Mathiowitz, Department of Molecular Pharmacology, Physiology, and Biotechnology  
**Poster Title:** Investigation of Endothelial and Progenitor Cell Migration in Response to Cytokine Stimulation  
Team Members: George Zhou

**George Zhou** Poster #F7  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Edith Mathiowitz, Department of Molecular Pharmacology, Physiology, and Biotechnology  
**Poster Title:** Encapsulation of Citronella Oil in Polycaprolactone as a Controlled Release Mosquito Repellent  
Team Members: Jonathan Yakubov
**Student Teams:**

**Social Sciences**

**Caroline Carper**  **Poster #D10**

*Home Institution:* Brown University
Summer Research Program: Independent Research

*Faculty Mentors:* Jin Li, Department of Education & Yoko Yamamoto, Department of Education

*Poster Title:* Children’s Learning Beliefs and Family Socialization Processes in Diverse Cultural Contexts

*Team Members:* Cadence Lee, Yanqing Shen, Amanda Siegel

**Cadence Lee**  **Poster #D10**

*Home Institution:* Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

*Faculty Mentors:* Jin Li, Department of Education & Yoko Yamamoto, Department of Education

*Poster Title:* Children’s Learning Beliefs and Family Socialization Processes in Diverse Cultural Contexts

*Team Members:* Amanda Siegel, Yanqing Shen, Caroline Carper

**Yanqing Shen**  **Poster #D10**

*Home Institution:* Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

*Faculty Mentors:* Jin Li, Department of Education & Yoko Yamamoto, Department of Education

*Poster Title:* Children’s Learning Beliefs and Family Socialization Processes in Diverse Cultural Contexts

*Team Members:* Amanda Siegel, Yanqing Shen, Caroline Carper

**Amanda Siegel**  **Poster #D10**

*Home Institution:* Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

*Faculty Mentors:* Jin Li, Department of Education & Yoko Yamamoto, Department of Education

*Poster Title:* Children’s Learning Beliefs and Family Socialization Processes in Diverse Cultural Contexts

*Team Members:* Cadence Lee, Amanda Siegel, Yanqing Shen, Caroline Carper

**Madeline Abbott**  **Poster #D1**

*Home Institution:* Brown University
Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM), Undergraduate Teaching and Research Awards (UTRA)

*Faculty Mentor:* Bjorn Stanstede, Department of Applied Mathematics

*Poster Title:* Zebrafish: Modelling Fin Patterns

*Team Members:* Francesca Lim, Dorothy Catey, Bethany Dubois, Neil Chandra

**Kevin Anderson**  **Poster #E9**

*Home Institution:* Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

*Faculty Mentors:* Iris Bahar, Department of Engineering & Kenneth Breuer, Department of Engineering

*Poster Title:* ENGN 1931I: Designing Robotic Systems

*Team Members:* Rohan Rastogi

**Colette Bare**  **Poster #F2, F3, F4**

*Home Institution:* Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

*Faculty Mentors:* Domenico Pacifici, Department of Engineering & Nitin Padture, Department of Engineering, & Angus Kingon, Department of Engineering & Rashid Zia, Department of Engineering
**Poster Title:** The Next-Generation Solar Cells for the Clean Energy Revolution: Part I, II, & III  
**Team Members:** Sophia Gluskin-Braun, Anjelica Claxton, Mollie Koval, Isabelle Bauman, Connor Watts

**Isabelle Bauman** **Poster #F2, F3, F4**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentors:** Domenico Pacifici, Department of Engineering & Nitin Padture, Department of Engineering, & Angus Kingon, Department of Engineering & Rashid Zia, Department of Engineering

**Julia Bujalski** **Poster #C10**  
**Home Institution:** University of Virginia  
**Summer Research Program:** Institute for Computational and Experimental Research in Mathematics (ICERM)  
**Faculty Mentors:** Todd Kapitula, Institute for Computational and Experimental Research in Mathematics & Bjorn Sandstede, Department of Applied Mathematics  
**Poster Title:** True Believer Models and The Spread of Ideas  
**Team Members:** Harjasleen Malvai, Grace Dwyer, Jordan Rosenthal-Kay

**Dorothy Catey** **Poster #D1**  
**Home Institution:** Brown University  
**Summer Research Program:** Institute for Computational and Experimental Research in Mathematics (ICERM), Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Bjorn Sanstede, Department of Applied Mathematics  
**Poster Title:** Zebrafish: Modelling Fin Patterns

**Carter Chain** **Poster #F5**  
**Home Institution:** Purdue University  
**Summer Research Program:** Institute for Computational and Experimental Research in Mathematics (ICERM)  
**Faculty Mentors:** Bjorn Sandstede, Department of Applied Mathematics  
**Poster Title:** Spectral Theory of Koopman Operators  
**Team Members:** Ryan Utke, Micah Pedrick

**Neil Chandra** **Poster #D1**  
**Home Institution:** Brown University  
**Summer Research Program:** Institute for Computational and Experimental Research in Mathematics (ICERM), Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Bjorn Sanstede, Department of Applied Mathematics  
**Poster Title:** Zebrafish: Modelling Fin Patterns  
**Team Members:** Francesca Lim, Dorothy Catey, Madeline Abbott, Bethany Dubois

**Tracy Chin** **Poster #F10**  
**Home Institution:** Brown University  
**Summer Research Program:** Institute for Computational and Experimental Research in Mathematics (ICERM)  
**Faculty Mentor:** Bjorn Sanstede, Department of Applied Mathematics  
**Poster Title:** Diffusion Maps in Equation Free Modeling  
**Team Members:** Jacob Ruth, Rebecca Santorella

**Anjelica Claxton** **Poster #F2, F3, F4**  
**Home Institution:** Brown University  
**Summer Research Program:** Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentors:** Domenico Pacifici, Department of Engineering & Nitin Padture, Department of Engineering, & Angus Kingon, Department of Engineering & Rashid Zia, Department of Engineering
**Poster Title:** The Next-Generation Solar Cells for the Clean Energy Revolution: Part I, II, & III  
Team Members: Sophia Gluskin-Braun, Mollie Koval, Colette Bare, Isabelle Bauman, Connor Watts

**Cassandra Cole**  
**Poster #F1**  
**Home Institution:** Brown University  
Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)  
**Faculty Mentor:** Bjorn Sandstede, Department of Applied Mathematics  
**Poster Title:** Stability in Agent-Based Models  
Team Members: Philip Doldo, Qing Fan

**Jordan Collignon**  
**Poster #F8**  
**Home Institution:** California State University, Monterey Bay  
Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)  
**Faculty Mentors:** Todd Kapitula, Departments of Mathematics and Statistics & Bjorn Sanstede, Department of Applied Mathematics  
**Poster Title:** Propagation of Lead in Mammals  
Team Members: Melissa Morrissey

**Neville Dadina**  
**Poster #E6**  
**Home Institution:** Brown University  
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Kathleen Hess, Department of Chemistry  
**Poster Title:** Green chemistry: Good practices for Undergraduate Organic Laboratories and a Freshmen Seminar  
Team Members: Bowie Lee

**Surabhi Desai**  
**Poster #F9**  
**Home Institution:** University of St Andrews  
Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)

**Faculty Mentors:** Bjorn Sandstede, Department of Applied Mathematics & Margaret Beck, Department of Mathematics at Boston University  
**Poster Title:** Snaking for Non Orientable Floquet Bundles  
Team Members: Melissa Stadt, Aric Wheeler

**Philip Doldo**  
**Poster #F1**  
**Home Institution:** Rensselaer Polytechnic Institute  
Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)  
**Faculty Mentor:** Bjorn Sandstede, Department of Applied Mathematics  
**Poster Title:** Stability in Agent-Based Models  
Team Members: Qing Fan, Cassandra Cole

**Bethany Dubois**  
**Poster #D1**  
**Home Institution:** Brown University  
Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM), Undergraduate Teaching and Research Awards (UTRA)  
**Faculty Mentor:** Bjorn Sanstede, Department of Applied Mathematics  
**Poster Title:** Zebrafish: Modelling Fin Patterns  
Team Members: Francesca Lim, Dorothy Catey, Madeline Abbott, Neil Chandra

**Grace Dwyer**  
**Poster #C10**  
**Home Institution:** University of Virginia  
Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)  
**Faculty Mentors:** Todd Kapitula, Institute for Computational and Experimental Research in Mathematics & Bjorn Sandstede, Department of Applied Mathematics  
**Poster Title:** True Believer Models and The Spread of Ideas  
Team Members: Harjasleen Malvai, Julia Bujalski, Jordan Rosenthal-Kay

**Qing Fan**  
**Poster #F1**  
**Home Institution:** Pomona College
Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)
**Faculty Mentor:** Bjorn Sandstede, Department of Applied Mathematics
**Poster Title:** Stability in Agent-Based Models
Team Members: Philip Doldo, Cassandra Cole

**Sophia Gluskin-Braun** Poster #F2, F3, F4
**Home Institution:** Brown University Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
**Faculty Mentors:** Domenico Pacifici, Department of Engineering & Nitin Padture, Department of Engineering, & Angus Kingon, Department of Engineering & Rashid Zia, Department of Engineering
**Poster Title:** The Next-Generation Solar Cells for the Clean Energy Revolution: Part I, II, & III
Team Members: Sophia Gluskin-Braun, Anjelica Claxton, Colette Bare, Isabelle Bauman, Connor Watts

**Bowie Lee** Poster #E6
**Home Institution:** Brown University Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
**Faculty Mentor:** Kathleen Hess, Department of Chemistry
**Poster Title:** Green chemistry: Good practices for Undergraduate Organic Laboratories and a Freshmen Seminar
Team Members: Neville Dadina

**Francesca Lim** Poster #D1
**Home Institution:** Brown University Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM), Undergraduate Teaching and Research Awards (UTRA)
**Faculty Mentor:** Todd Kapitula, Institute for Computational and Experimental Research in Mathematics & Bjorn Sandstede, Department of Applied Mathematics
**Poster Title:** Zebrafish: Modelling Fin Patterns
Team Members: Dorothy Catey, Madeline Abbott, Bethany Dubois, Neil Chandra

**Harjasleen Malvai** Poster #C10
**Home Institution:** Brown University Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)
**Faculty Mentors:** Todd Kapitula, Institute for Computational and Experimental Research in Mathematics & Bjorn Sandstede, Department of Applied Mathematics
**Poster Title:** True Believer Models and The Spread of Ideas
Team Members: Jordan Rosenthal-Kay, Julia Bujalski, Grace Dwyer

**Mollie Koval** Poster #F2, F3, F4
**Home Institution:** Brown University Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
**Faculty Mentors:** Domenico Pacifici, Department of Engineering & Nitin Padture, Department of Engineering, & Angus Kingon, Department of Engineering & Rashid Zia, Department of Engineering
**Poster Title:** Inducing Collapse of Custom Designed Valveless Vessels to Promote Directional Flow
Team Members: Jackie Vu

*Presenting on Thursday, August 4

**Melissa Morrissey** Poster #F8
**Home Institution:** Brown University
Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)

**Faculty Mentors:** Todd Kapitula, Departments of Mathematics and Statistics & Bjorn Sanstede, Department of Applied Mathematics

**Poster Title:** Propagation of Lead in Mammals

Team Members: Jordan Collignon

---

**Micah Pedrick** **Poster #F5**

**Home Institution:** Harvey Mudd College

Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)

**Faculty Mentors:** Bjorn Sandstede, Department of Applied Mathematics

**Poster Title:** Spectral Theory of Koopman Operators

Team Members: Ryan Utke, Carter Chain

---

**Rohan Rastogi** **Poster #E9**

**Home Institution:** Brown University

Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)

**Faculty Mentors:** Iris Bahar, Department of Engineering & Kenneth Breuer, Department of Engineering

**Poster Title:** ENGN 1931I: Designing Robotic Systems

Team Members: Kevin Anderson

---

**Jordan Rosenthal-Kay** **Poster #C10**

**Home Institution:** Tufts University

Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)

**Faculty Mentors:** Todd Kapitula, Institute for Computational and Experimental Research in Mathematics & Bjorn Sandstede, Department of Applied Mathematics

**Poster Title:** True Believer Models and The Spread of Ideas

Team Members: Harjasleen Malvai, Julia Bujalski, Grace Dwyer

---

**Jacob Ruth** **Poster #F10**

**Home Institution:** University of Washington-Seattle

Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)

**Faculty Mentor:** Margaret Beck, Department of Mathematics at Boston University

**Poster Title:** Snaking for Non Orientable Floquet Bundles

Team Members: Surabhi Desai, Aric Wheeler

---

**Rebecca Santorella** **Poster #F10**

**Home Institution:** The College of New Jersey

Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)

**Faculty Mentor:** Bjorn Sandstede, Department of Applied Mathematics

**Poster Title:** Diffusion Maps in Equation Free Modeling

Team Members: Jacob Ruth, Tracy Chin

---

**Melissa Stadt** **Poster #F9**

**Home Institution:** University of Washington-Seattle

Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)

**Faculty Mentor:** Bjorn Sandstede, Department of Applied Mathematics & Margaret Beck, Department of Mathematics at Boston University

**Poster Title:** Snaking for Non Orientable Floquet Bundles

Team Members: Surabhi Desai, Aric Wheeler

---

**Ryan Utke** **Poster #F5**

**Home Institution:** Grinnell College

Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)

**Faculty Mentors:** Bjorn Sandstede, Department of Applied Mathematics

**Poster Title:** Spectral Theory of Koopman Operators

Team Members: Micah Pedrick, Carter Chain
Jackie Vu  Poster #F1
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentor: Kareen Coulombe, Department of Engineering
Poster Title: Inducing Collapse of Custom Designed Valveless Vessels to Promote Directional Flow
Team Members: Chinedu Irofuala
*Presenting on Thursday, August 4

Connor Watts  Poster #F2, F3, F4
Home Institution: Brown University
Summer Research Program: Undergraduate Teaching and Research Awards (UTRA)
Faculty Mentors: Domenico Pacifici, Department of Engineering & Nitin Padture, Department of Engineering, & Angus Kingon, Department of Engineering & Rashid Zia, Department of Engineering
Poster Title: The Next-Generation Solar Cells for the Clean Energy Revolution: Part I, II, & III
Team Members: Sophia Gluskin-Braun, Anjelica Claxton, Mollie Koval, Colette Bare, Isabelle Bauman

Aric Wheeler  Poster #F9
Home Institution: UNC Chapel Hill
Summer Research Program: Institute for Computational and Experimental Research in Mathematics (ICERM)
Faculty Mentors: Bjorn Sandstede, Department of Applied Mathematics & Margaret Beck, Department of Mathematics at Boston University
Poster Title: Snaking for Non Orientable Floquet Bundles
Team Members: Melissa Stadt, Surabhi Desai
SUMMER RESEARCH PROGRAMS AT BROWN

Generous support for the undergraduate summer research presented in this symposium has been provided by:

- American Physiological Society
- BP-Endure
- Brown-Tougaloo Partnership
- Dean's Award Program
- Experimental Program to Stimulate Competitive Research (EPSCoR-NSF)
- IBES Internal Grant
- Institute at Brown for Environment and Society
- Institute for Computational and Experimental Research in Mathematics (ICERM)
- Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
- LINK Awards
- National Science Foundation (NSF) Research Experience for Undergraduates (REU)
- Royce Fellows
- Solsbery Fellowship
- Space Grant/NASA
- Summer Research Assistantship in Biomedical Sciences
- Summer Training in Academic Research and Scholarship (STARS) program, Brigham and Women's Hospital
- Undergraduate Teaching and Research Awards (UTRA)
- University of Georgia REU: Population Biology of Infectious Diseases
- Weiss-Sipprelle Summer Undergraduate Fellows
## POSTER LAYOUT

**Thursday, August 4**

**Humanities and Life Sciences**

### [STAGE]

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### [ENTRANCE]

### [LOBBY]
POSTER LAYOUT
Friday, August 5
Physical and Social Sciences & Student Teams

[STAGE]

[ENTRANCE]

[LOBBY]
REPRESENTED INSTITUTIONS

• Brown University
• California State University, Long Beach
• Claflin University
• College of Mount Saint Vincent
• Columbia University
• DePaul University
• Emmanuel College
• Grinnell College
• Harvey Mudd College
• Hunter College
• John Jay College
• LaGuardia Community College
• Macalester College
• North Carolina Agricultural and Technical State University
• NYU
• Pomona College
• Princeton University
• Purdue University
• Rensselaer Polytechnic Institute
• Rhode Island College
• Rider University
• Roger Williams University
• San Francisco State University
• Southern Oregon University
• Stanford University
• SUNY Plattsburgh
• The College of New Jersey
• The College of Wooster
• The University of Texas at Austin
• Tougaloo College
• Tufts
• UNC Chapel Hill
• Universidad de Puerto Rico - Aguadilla
• University of Arizona
• University of Central Florida
• University of Idaho
• University of Maryland, Baltimore County
• University of Maryland, College Park
• University of Portland
• University of Puerto Rico at Ponce
• University of San Diego
• University of South Florida St. Petersburg
• University of St Andrews
• University of Virginia
• University of Washington-Seattle
• Xavier University of Louisiana
SYMPOSIUM ORGANIZERS

Oludurotimi O. Adetunji,
Associate Dean of the College
Director, UTRA Program

Janice Rego, Program Coordinator

Harmony Schorr, Symposium Intern

ACKNOWLEDGEMENTS

Christina Paxson, President

Richard Locke, Provost

Maud Mandel, Dean of the College

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