



# Summer Research Symposium ~2013~

Sayles Hall

**11:00 a.m. to 1 p.m.**

Thursday, August 1  
Life Sciences and Humanities

&

Friday, August 2  
Physical and Social Sciences

PRESENTED BY  
The Office of the Dean of the College

# **Summer Research Symposium**

## **Sayles Hall Main Green**

### **Thursday, August 1**

#### *Life Sciences and Humanities Posters*

11:00-11:10 a.m. Welcome

Dean Oludurotimi Adetunji

11:10-11:20 a.m. Brief remarks

Provost Mark Schlissel

Dean of the College Katherine Bergeron

11 a.m.-1 p.m. Research Poster Presentations

### **Friday, August 2**

#### *Physical and Social Sciences Posters*

11:00–11:10 a.m.: Welcome

Dean Oludurotimi Adetunji

Dean Besenia Rodriguez

11:00 a.m.-1 p.m. 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 1  
Humanities & Life Sciences

## Humanities

**Mary-Evelyn Fariior      Poster # A13**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor John Bodel,  
Department of Classics  
**Poster Title:** Funera Romana

**Madeline High      Poster #A14**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Lisa Mignone,  
Department of Classics  
**Poster Title:** Preserving Rome's Cultural  
Heritage in the Digital Age

**Tori Lee      Poster #A15**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor John Bodel,  
Department of Classics and Elli Mylonas,  
University Librarian  
**Poster Title:** Epigraphy at Brown and Across  
the U.S.

**Rebecca Wolinsky      Poster #B1**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Lundy Braun,  
Department of Africana Studies  
**Poster Title:** Healthcare Access for Refugee  
Families in Providence

## Life Sciences

**Krishan Aghi Poster #B2**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Rebecca Burwell,  
Department of Cognitive Linguistic &  
Psychological Sciences  
**Poster Title:** The Effect of Cross-Hemispheric  
Lesions of the Perirhinal and Postrhinal  
Cortices on Contextual Memory

**Uday Agrawal      Poster #B3**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Catherine Kerr,  
Department of Bio Med Family Medicine  
**Poster Title:** Enhanced Beta Rhythm  
Synchrony Amongst Tai Chi Practitioners

**Mio Akasako Poster #B4**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor David Berson,  
Department of Neuroscience  
**Poster Title:** Specialized retinal inputs  
provide light information to lateral habenula  
circuitry

**Seth Akers-Campbell Poster #B5**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Michael Paradiso,  
Department of Neuroscience  
**Poster Title:** Neural Activity in Macaque V1  
Predicts Timing and Direction of Eye  
Movements

**Luc Amdahl Poster #B6**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor David Sheinberg,  
Department of Neuroscience  
**Poster Title:** Object Processing in the Dorsal  
Visual Stream

**David Barrera Poster #B7-8**

**Home Institution:** Brown University  
Summer Research Program: Howard Hughes  
Medical Institute (HHMI)  
**Faculty Mentor:** Professor Mark Johnson,  
Department of Molecular and Cellular Biology  
and Professor Alison DeLong, Department of  
Molecular and Cellular Biology  
**Poster Title:** The Impact of Heat Stress on  
Pollen Tube Growth in Tomato

**Justin Batcheller Poster #B9**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Stephen  
McGarvey, Department of Epidemiology  
**Poster Title:** The Role of Snail Colonies in the  
Prevalence of Schistosomiasis in 50  
Philippine Villages

**Catherine Bautista Poster #B10**

**Home Institution:** Brown University  
Summer Research Program: Undergraduate  
Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Bahar Bilgen,  
Department of Orthopaedics  
**Poster Title:** Dynamic Mechanical  
Stimulation of Tissue-Engineered Cartilage

**Matthew Bevil Poster #B11-12**

**Home Institution:** Brown University  
Summer Research Program:  
Voss Environmental Fellows  
**Faculty Mentor:** Professor Mark Bertness,  
Department of Bio Med Ecology &  
Evolutionary Biology  
**Poster Title:** The Spread of Sesarma-Driven  
Salt Marsh Die-off into Narragansett Bay

**Emma Blake Poster #B13-14**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)  
**Faculty Mentor:** Professor David Rand,  
Department of Ecology and Evolutionary  
Biology  
**Poster Title:** Fertility Assay: Egg Production  
and Egg-to-Adult Viability in *Drosophila*

**Alexander Blum Poster #B15**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)  
**Faculty Mentor:** Professor Mark Johnson,  
Department of Molecular Biology and  
Professor Alison DeLong, Department of  
Molecular Biology  
**Poster Title:** Toward Thermotolerant Plant  
Reproduction: Expression of Heat Shock  
Factors and Heat Shock Proteins in Tomato  
Pollen Tubes

**James Blum Poster #C1**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor James Sello,  
Department of Chemistry  
**Poster Title:** Characterization of indolmycin  
biosynthesis and resistance in streptomyces  
griseus

**Sonia Boor Poster #C2**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Erica Larschan,  
Department of Molecular Biology, Cell  
Biology, and Biochemistry  
**Poster Title:** Establishing Domains of  
Coordinate Gene Regulation

**Briana Borgolini Poster #C3**

**Home Institution:** Brown University  
Summer Research Program:  
Internship at the International Health  
Institute  
**Faculty Mentor:** Professor Stephen  
McGarvey, Department of Public Health  
Epidemiology  
**Poster Title:** The impact of annual case  
finding and treatment for Schistosomiasis  
japonica on individual and community levels  
of childhood nutritional status in Leyte,  
Philippines

**Chelsea Boyd Poster #C4**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Tara White,  
Department of Bio Med Alcohol & Addiction  
and Edward Walsh, Department of  
Neuroscience  
**Poster Title:** A Pilot Study of Metabolic  
Chemistry in the Anterior Cingulate: Magnetic

Resonance Spectroscopy in Healthy  
Volunteers

**Samantha Brady Poster #C5**

**Home Institution:** Brown University  
Summer Research Program:  
Bard Fellowship  
**Faculty Mentor:** Professor Diane Hoffman-  
Kim, Department of Molecular Pharmacology,  
Physiology & Biotechnology  
**Poster Title:** Schwann Cell Dynamics on  
Polydimethylsiloxane Substrates with  
Varying Stiffness

**Julia Bu Poster #C6**

**Home Institution:** Brown University  
Summer Research Program:  
Summer Research Assistant in Pathology  
**Faculty Mentor:** Professor Thomas  
Bartnikas, Department of Bio Med Pathology  
& Laboratory Medicine  
**Poster Title:** Iron Distribution and  
Regulation in the Central Nervous System of  
the Hypotransferrinemic Mouse

**Erin Capra Poster #C7**

**Home Institution:** Brown University  
Summer Research Program: Voss  
Environmental Fellows  
**Faculty Mentor:** Professor Dov Sax,  
Department of Bio Med Ecology &  
Evolutionary Biology  
**Poster Title:** Assessing Extinction Risk from  
Climate Change for Endangered Plant Species

**Jennifer Cardona Poster #C8**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Erika Edwards,  
Department of Ecology and Evolutionary  
Biology  
**Poster Title:** A Comparison of Developing  
Leaves in Viburnum

**Deepa Chellappa Poster #C9**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor David Berson,  
Department of Neuroscience  
**Poster Title:** Dendrites of melanopsin  
ganglion cells transiently extend into the  
outer retina in early postnatal development

**Eric Chen Poster #C10**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)  
**Faculty Mentor:** Professor Alison DeLong,  
Department of Molecular Biology, Cell Biology  
and Biochemistry and Professor Mark  
Johnson, Department of Molecular Biology,  
Cell Biology and Biochemistry  
**Poster Title:** Tomato Heat Tree Viewer:  
Integrating Phylogenetic and Expression Data  
into a Visual Tool

**Rudy Chen Poster #C11**

**Home Institution:** Brown University  
Summer Research Program:  
Summer Research Assistantship in  
Biomedical Sciences  
**Faculty Mentor:** Professor Julie Kauer,  
Department of Bio Med Molecular  
Pharmacology, Physiology & Biotechnology  
**Poster Title:** Optogenetic Stimulation of  
GABAergic Projections to the Ventral  
Tegmental Area

**Witney Chen Poster #C12**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Kevin Bath,  
Department of Neuroscience  
**Poster Title:** Effects of Early-Life Exposure to  
Fluoxetine on Neural and Behavioral  
Development

**Gerianne Connell Poster #C13-14**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)  
**Faculty Mentor:** Professor Jeffrey Morgan,  
Department of Bio Med Molecular  
Pharmacology, Physiology & Biotechnology  
**Poster Title:** A Novel Assay for Screening  
Compounds for both Gap Junction and P-gp  
Inhibition in 3D Microtissues

**Emma Corcoran Poster #B7-8**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)  
**Faculty Mentor:** Professor Alison DeLong,  
Department of Bio Med Molecular, Cellular  
Biology Biochemistry and Professor Mark  
Johnson, Department of Bio Med Molecular,  
Cellular Biology  
**Poster Title:** The Impact of Heat Stress on  
Pollen Tube Growth in Tomato

**Karen Cortes Poster #C15**

**Home Institution:** Brown University  
Summer Research Program:  
Voss Environmental  
**Faculty Mentor:** Professor Heather Leslie,  
Department of Ecology and Evolutionary  
Biology  
**Poster Title:** How Healthy Is The Bay? A  
Regional Scale Application Of The Ocean  
Health Index, Focusing On Clean Water

**Denise Croote Poster #D1**

**Home Institution:** Brown University  
Summer Research Program: Howard Hughes  
Medical Institute (HHMI)  
**Faculty Mentor:** Professor David Rand,  
Department of Ecology and Evolutionary  
Biology  
**Poster Title:** Effect of Rapamycin, Diet, and  
Mitotype Interactions on Aconitase Activity in  
Drosophila

**Sinead Crotty      Poster #B11-12**

**Home Institution:** Brown University  
Summer Research Program: Voss  
Environmental Fellows

**Faculty Mentor:** Professor Mark Bertness,  
Department of Ecology and Evolutionary  
Biology

**Poster Title:** The Spread of Sesarma-Driven  
Salt Marsh Die-off into Narragansett Bay

**Colby Davis      Poster #D2**

**Home Institution:** Brown University  
Summer Research Program: Funded by  
Science Without Borders and Dean  
Discretionary Grant

**Faculty Mentor:** Professor Rachel Altura,  
Department of Bio Med Pediatrics

**Poster Title:** Analysis of Vinca Alkaloid  
Induced Peripheral Neuropathy in a Zebrafish  
Model

**Michael DeBerardine      Poster #D3**

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

**Faculty Mentor:** Professor Kristi Wharton,  
Department of Molecular Biology, Cell  
Biology, and Biochemistry

**Poster Title:** Role of regional expression &  
BMP ligand type on activation of signaling  
during Drosophila wing development

**Austin DeChalus      Poster #D4**

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

**Faculty Mentor:** Professor Devasis  
Chatterjee, Department of Bio Med Medicine

**Poster Title:** The characterization of  
extracellular vesicles mediating phenotype  
shifting in prostate cancer

**Julie Diamond      Poster #D5**

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

**Faculty Mentor:** Professor Mark Johnson,  
Department of Molecular and Cell Biology

**Poster Title:** BGAL11 and BGAL13 are  
essential for extension of the pollen tube cell  
wall

**Julia Donner      Poster #D6**

**Home Institution:** Brown University  
Summer Research Program: Howard Hughes  
Medical Institute (HHMI)

**Faculty Mentor:** Professor David Rand,  
Department of Bio Med Ecology &  
Evolutionary Biology

**Poster Title:** Effect of Rapamycin, Diet, and  
Mitotype interactions on Aconitase activity in  
Drosophila

**Margaret Dushko      Poster #C13-14**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)

**Faculty Mentor:** Professor Jeffrey Morgan,  
Department of Molecular Pharmacology,  
Physiology & Biotechnology

**Poster Title:** A Novel Assay for Screening  
Compounds for both Gap Junction and P-gp  
Inhibition in 3D Microtissues

**Michael Fernandopulle      Poster #D7**

**Home Institution:** Brown University  
Summer Research Program: Royce Fellows  
**Faculty Mentor:** Professor Jason Sello,  
Department of Chemistry

**Poster Title:** Toward a Biochemical  
Characterization of Bacterial Proteasome  
Physiology



**Nina Fleischer      Poster # D8**

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

**Faculty Mentor:** Professor Daniel Dickstein,  
Department of Bio Med Psychiatry & Human  
Behavior

**Poster Title:** Obesity, Psychopathology, and  
Cognition

**Jamie Fried      Poster #D9**

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

**Faculty Mentor:** Professor Nicolas Fawzi,  
Department of Bio Med Molecular  
Pharmacology, Physiology & Biotechnology

**Poster Title:** Magnetic resonance assignment  
of the Glycine-rich region of the FUS protein

**William Furuyama      Poster #D10**

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

**Faculty Mentor:** Professor David Cane,  
Department of Chemistry

**Poster Title:** Synthetic Preparative Methods  
for the Study of the Enzymology of Polyketide  
Antibiotic Biosynthesis

**Hannah Graham      Poster #D11**

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

**Faculty Mentor:** Professor Anne Hart,  
Department of Neuroscience

**Poster Title:** Notch Signaling in the C. elegans  
Neuromuscular Junction

**Kathryn Hawrot      Poster #D12-13**

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

**Faculty Mentor:** Professor Josiah Rich,  
Division of Biology and Medicine

**Poster Title:** The War on Drugs and the  
epidemic of incarceration in the U.S.: policy  
and infectious diseases

**Stephanie Hojsak      Poster #C13-14**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)

**Faculty Mentor:** Professor Jeffrey Morgan,  
Department of Molecular Biology and  
Pharmacology

**Poster Title:** A Novel Assay for Screening  
Compounds for both Gap Junction and P-gp  
Inhibition in 3D Microtissues

**Gillian Horwitz      Poster #D14**

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

**Faculty Mentor:** Professor Stephen Helfand,  
Department of Molecular Biology and  
Pharmacology

**Poster Title:** Mechanisms and Effects of  
Transposable Element Silencing on Lifespan  
in Aging Drosophila melanogaster

**Anthony Jang      Poster #D15**

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

**Faculty Mentor:** Professor Michael Frank,  
Department of Cognitive Linguistic &  
Psychological Sciences and James Cavanagh,  
Department of Cognitive Linguistic &  
Psychological Sciences

**Poster Title:** Manipulation of emotion  
influences learning in cognitive systems:  
electrophysiological correlates

**Ronak Jani      Poster #E1-2**

**Home Institution:** Brown University  
Summer Research Program: Howard Hughes  
Medical Institute (HHMI)

**Faculty Mentor:** Professor Michael  
McKeown, Department of Molecular Biology,  
Cell Biology and Biochemistry and Professor  
Robert Reenan, Department of Bio Med  
Molecular, Cellular Biology Biochemistry

**Poster Title:** Characterization of SOD1  
Mediated ALS Mutations in Drosophila  
Melanogaster

**Jonathan Juliano      Poster # C13-14**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)

**Faculty Mentor:** Professor Jeffrey Morgan,  
Department of Biomedical Engineering  
Molecular Pharmacology, Physiology &  
Biotechnology

**Poster Title:** A Novel Assay for Screening  
Compounds for both Gap Junction and P-gp  
Inhibition in 3D Microtissues

**Michael Kader      Poster #E3**

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

**Faculty Mentor:** Professor Diane Hoffman-  
Kim, Department of Molecular Pharmacology  
Physiology and Biotechnology

**Poster Title:** Understanding Neuronal  
Differentiation: a microtissue imaging  
technique and novel biomimetic substrate

**Raghava Kamalesh      Poster #E4**

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

**Faculty Mentor:** Professor Wentian Yang,  
Department of Bio Med Orthopaedics

**Poster Title:** The Role of Protein Tyrosine  
Phosphatase Shp2 in Regulation of  
Chondrogenesis and Cartilage Homeostasis

**Ifeoma Kamalu      Poster #E5**

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

**Faculty Mentor:** Professor Stephanie Parade,  
Department of Bio Med Psychiatry & Human  
Behavior

**Poster Title:** Maternal smoking during  
pregnancy and its effect on infant biological  
and behavioral stress response

**Rachel Kaplan      Poster #E6-7**

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

**Faculty Mentor:** Professor Casey Dunn,  
Department of Ecology and Evolutionary  
Biology

**Poster Title:** Searching for Siphonophores in  
Rhode Island

**Rachel A. Kaplan      Poster #E8**

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

**Faculty Mentor:** Professor Nicole  
McLaughlin, Department of Bio Med  
Psychiatry & Human Behavior

**Poster Title:** Development of Functional  
Connectivity of Inhibitory Control in Early  
Adulthood

**Perri Katzman      Poster #E9**

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

**Faculty Mentor:** Professor David Badre,  
Department of Cognitive, Linguistic &  
Psychological Sciences

**Poster Title:** Effects of Task Success on  
Subsequent Memory

**Aimie Kawai Poster #D12-13**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Josiah Rich,  
Department of Bio Med Medicine  
**Poster Title:** The War On Drugs and the  
Epidemic of Incarceration in the U.S.: Policy  
and Infectious Diseases

**Hannah Kerman Poster #E6-7**

**Home Institution:** Brown University  
Summer Research Program:  
Experimental Program to Stimulate  
Competitive Research (EPSCoR-NSF)  
**Faculty Mentor:** Professor Casey Dunn,  
Department of Ecology Evolutionary Biology  
**Poster Title:** Searching for Siphonophores

**Inkyu Kim Poster #E10**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor David Berson,  
Department of Neuroscience  
**Poster Title:** Characterizing a Novel Cell  
Type in the Mouse Retina

**Michelle Koh Poster # E11**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)  
**Faculty Mentor:** Professor David Rand,  
Department of Bio Med Ecology &  
Evolutionary Biology  
**Poster Title:** Effects of Rapamycin on  
Climbing and Flight Performance in  
Drosophila

**Ayano Kondo Poster #E12**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Deborah Ciombor,  
Department of Bio Med Orthopaedics  
**Poster Title:** Characterization of Bioactive  
Components in Human Blood Clot

**Edward Lee Poster #E13**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Michael  
McKeown, Department of Bio Med Molecular,  
Cellular Biology Biochemistry  
**Poster Title:** Controlling dissatisfaction  
expression in *D. melanogaster* via RNAi

**Rebecca Lichtin Poster #E14**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Christopher  
Moore, Department of Neuroscience  
**Poster Title:** State dependent neuronal  
dynamics in reciprocally connected cortical  
networks

**Russyan Mark Mabeza Poster #B13-14**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)  
**Faculty Mentor:** Professor David Rand,  
Department of Ecology and Evolutionary  
Biology  
**Poster Title:** Fertility Assay: Egg Production  
and Egg-Adult Viability in *Drosophila*

**Emily Matteson      Poster #E15**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor John Simeral,  
School of Engineering  
**Poster Title:** Improving the performance of  
an intracortical brain-computer interface

**Neha Mehta      Poster #F1**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)  
**Faculty Mentor:** Professor David Rand,  
Department of Bio Med Ecology and  
Evolutionary Biology  
**Poster Title:** Measuring Egg Production and  
Egg to Adult Viability in *Drosophila*

**Matthew Min      Poster #F2**

**Home Institution:** Brown University  
Summer Research Program: Howard Hughes  
Medical Institute (HHMI)  
**Faculty Mentor:** Professor David Rand,  
Department of Bio Med Ecology and  
Evolutionary Biology  
**Poster Title:** Effect of Rapamycin on  
Climbing and Flight Performance in  
*Drosophila*

**Jonathan Moore      Poster #F3**

**Home Institution:** Tougaloo College  
Summer Research Program: Howard Hughes  
Medical Institute (HHMI)  
**Faculty Mentor:** Professor Kristi Wharton,  
Department of Bio Med Molecular, Cellular  
Biology Biochemistry and Professor Mark  
Johnson, Department of Bio Med Molecular,  
Cellular Biology Biochemistry  
**Poster Title:** How Apoptosis Effect Stalk Cell  
Number

**Rachel Occhiogrosso      Poster #F4**

**Home Institution:** Brown University  
Summer Research Program:  
Summer Research Assistantship in  
Biomedical Sciences  
**Faculty Mentor:** Professor James Padbury,  
Department of Bio Med Pediatrics  
**Poster Title:** Gene Set Enrichment Analysis  
(GSEA) and bi-clustering identify novel gene  
sets and variants for pre-eclampsia

**Ndubisi Onah      Poster #E1-2**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)  
**Faculty Mentor:** Professor Michael  
McKeown, Department of Bio Med Molecular,  
Cellular Biology Biochemistry and Professor  
Robert Reenan, Department of Bio Med  
Molecular, Cellular Biology Biochemistry  
**Poster Title:** Characterization of SOD1  
Mediated ALS Mutations in *Drosophila*  
*Melanogaster*

**Hannah O'Neill      Poster #F5**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Steve Gatesy,  
Department of Bio Med Ecology and  
Evolutionary Biology  
**Poster Title:** Form and Function of the Avian  
Foot

**Megan Palmer      Poster #F6**

**Home Institution:** Brown University  
Summer Research Program:  
Department Research  
**Faculty Mentor:** Professor Heather Leslie,  
Department of Bio Med Ecology and  
Evolutionary Biology  
**Poster Title:** The Effects of Innovative Tidal  
Energy Devices on Ocean Health

**Valentina Parisi      Poster #F7**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Jonathan  
Reichner, Department of Bio Med Surgery  
**Poster Title:** Expression and Activation of  
Integrins in response to the human immune  
response to fungal pathogens.

**Hee Jun Park      Poster #F8**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Bahar Bilgen,  
Department of Bio Med Orthopedics  
**Poster Title:** Decellularized Matrix as a  
Scaffold for Development of Cartilage Tissue  
Engineering

**Seon Yeong Park      Poster #F9**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Barbara  
Stonestreet, Department of Bio Med  
Pediatrics  
**Poster Title:** Treatment with Inter-alpha-  
inhibitor protein ( $I\alpha Ip$ ) reduces the  
production of pro-inflammatory cytokines  
and prevents hypoxic-ischemic injury in the  
ovine fetal brain.

**Alejandro Perez      Poster #C13-14**

**Home Institution:** Brown University  
Summer Research Program:  
Howard Hughes Medical Institute (HHMI)  
**Faculty Mentor:** Professor Jeffery Morgan,  
Department of Molecular Pharmacology,  
Physiology & Biotechnology  
**Poster Title:** A Novel Assay for Screening  
Compounds for both Gap Junction and P-gp  
Inhibition in 3D Microtissues

**Maya Ramchandran      Poster #F10**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Sohini  
Ramchandran, Department of Bio Med  
Ecology and Evolutionary Biology  
**Poster Title:** The cumulative effect of genetic  
markers on classification of individuals

**Claire Rhee      Poster #C13-14**

**Home Institution:** Brown University  
Summer Research Program: Howard Hughes  
Medical Institute (HHMI)  
**Faculty Mentor:** Professor Jeffrey Morgan,  
Department of Bio Med Molecular  
Pharmacology, Physiology & Biotechnology  
and Professor Elizabeth Leary, Department of  
Department of Bio Med Molecular  
Pharmacology, Physiology & Biotechnology  
**Poster Title:** A Novel Assay for Screening  
Compounds for both Gap Junction and P-gp  
Inhibition in 3D Microtissues

**James Roose      Poster #F11**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Stephen  
McGarvey, Department of Public Health-  
Epidemiology  
**Poster Title:** Genetic Epidemiology of  
Obesity in Samoa

**Juan Santoyo      Poster #F12**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Catherine Kerr,  
Department of Bio Med Family Medicine  
**Poster Title:** A Case Study and  
Methodological Review on Correlating Brain  
Activity with First Person Data

**Maxwell Sherman Poster #F13**

**Home Institution:** Brown University  
Summer Research Program:  
Summer Research Assistantship in  
Biomedical Sciences

**Faculty Mentor:** Professor Stephanie Jones,  
Department of Neuroscience

**Poster Title:** Disrupted Cortical Beta (15-  
29Hz) Rhythms in Psychiatric and  
Neurodegenerative Disorders: A Novel  
Computational Hypothesis

**Katarzyna Sierzputowska Poster #F14**

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

**Faculty Mentor:** Professor Robert Reenan,  
Department of Bio Med Molecular, Cellular  
Biology Biochemistry

**Poster Title:** Using novel TALEN technology  
to engineer precise mutations in the genome  
of *D.melanogaster*

**Andrew Silverman Poster #F15**

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

**Faculty Mentor:** Professor Carl Saab,  
Department of Bio Med Neurosurgery  
**Poster Title:** In Search of a Pain Biomarker:  
Altered Thalamocortical Oscillations in Acute  
and Chronic Pain

**Max Song Poster #G1**

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

**Faculty Mentor:** Professor Ben Raphael,  
Department of Computer Science  
**Poster Title:** Graph Algorithms on Cancer  
Mutations

**Mark St. Louis Poster #G2**

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

**Faculty Mentor:** Professor Leigh Hochberg,  
School of Engineering,

**Poster Title:** Quantitative Comparison of  
Motion-Related Microelectrode Recordings  
between Human and Monkey Subjects

**Elena Suglia Poster #G3**

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

**Faculty Mentor:** Professor Mark Bertness,  
Department of Bio Med Ecology and  
Evolutionary Biology

**Poster Title:** A Direct Experimental Test of  
Cape Cod Consumer-Driven Salt Marsh Die-off

**Conor Sullivan Poster #G4**

**Home Institution:** Brown University  
Summer Research Program:  
Voss Environmental Fellows

**Faculty Mentor:** Professor Stephen Porder,  
Department of Bio Med Ecology &  
Evolutionary Biology

**Poster Title:** A landscape-scale assessment  
of nutrient limitation in the tropical forests of  
Luquillo, Puerto Rico.

**Margaret Thorsen Poster #G5**

**Home Institution:** Brown University  
Summer Research Program: Summer  
Research Assistantship in Emergency  
Medicine

**Faculty Mentor:** Professor Megan Ranney,  
Department of Bio-Med Emergency Medicine

**Poster Title:** DOVE4G: Qualitative  
Development of a Text-Message-Based  
Intervention to Reduce Depression and Peer  
Violence among High-risk Adolescent Female  
Emergency Department Patients

**Kaitlyn Tracy                      Poster #G6**

**Home Institution:** Brown University  
Summer Research Program: Royce Fellows  
**Faculty Mentor:** Professor Qian Chen,  
Department of Bio Med Orthopaedics and  
Professor Yupeng Chen, Department of Bio  
Med Orthopaedics  
**Poster Title:** Nanopieces as Delivery Method  
for siRNA Gene Knockdown

**Laura van Dyck                      Poster #G7**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAS)  
**Faculty Mentor:** Professor Julie Kauer,  
Department of Molecular Pharmacology,  
Physiology & Biotechnology  
**Poster Title:** Clarifying the Spinal Cord

**Natalie Van Houten                      Poster # G8**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAS)  
**Faculty Mentor:** Professor Sohini  
Ramachandran, Department of Bio Med  
Ecology and Evolutionary Biology  
**Poster Title:** The cumulative effect of genetic  
markers on classification of individuals

**Tina Voelcker                      Poster #G9**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAS)  
**Faculty Mentor:** Professor Mark Zervas,  
Department of Molecular Biology, Cellular  
Biology and Biochemistry  
**Poster Title:** The Role of TSC1 in the  
Developing Thalamus and in Tuberos  
Sclerosis

**Angelia Wang                      Poster #G10**

**Home Institution:** Brown University  
Summer Research Program: Independent  
**Faculty Mentor:** Professor Carlos Aizenman,  
Department of Neuroscience and Professor  
Christopher Ciarleglio, Department of  
Neuroscience  
**Poster Title:** Characterizing gene expression  
within the developing *Xenopus laevis* brain

**Nelly Marianne Weledji                      Poster #G11**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAS)  
**Faculty Mentor:** Professor Wayne Bowen,  
Department of Molecular Pharmacology,  
Physiology and Biotechnology  
**Poster Title:** Identifying the Source of the  
Progesterone Induced Calcium Signal in  
SKNSH Neuroblastoma Cells

**Benjamin Wilks                      Poster #G12**

**Home Institution:** Brown University  
Summer Research Program:  
MCB Department  
**Faculty Mentor:** Professor Jacquelyn Schell  
Department of Bio Med Molecular  
Pharmacology, Physiology & Biotechnology  
and Professor Jeffrey Morgan, Department of  
Bio Med Molecular Pharmacology, Physiology  
& Biotechnology  
**Poster Title:** Quantifying cellular forces in  
dogbone microtissues

**Katherine Xiong                      Poster #G13**

**Home Institution:** Brown University  
Summer Research Program:  
MCB Department  
**Faculty Mentor:** Professor Mark Zervas,  
Department of Bio Med Molecular, Cellular  
Biology Biochemistry  
**Poster Title:** The Role of Shh and FGF8 in the  
Differentiation of Embryonic Stem Cells to  
Dopamine Neurons

## Leadership Alliance

### **Cynthia Barajas      Poster # A1**

**Home Institution:** California Polytechnic State University, San Luis Obispo  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Jacob Rosenstein, School of Engineering  
**Poster Title:** Real-Time Hardware Identification of Single Ion Channel Gating

### **Rajshekhar Basak      Poster#H13**

**Home Institution:** Macaulay Honors College, The City College of New York, CUNY  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program(SR-EIP)  
**Faculty Mentor:** Professor Quig Lu, and Professor Sharon Rounds, Department of Bio Med Medicine  
Poster Title: The Mechanism of Acrolein-Induced Vascular Endothelial Cell Permeability.

### **Melissa Carr-Reynolds      Poster #A2**

**Home Institution:** Spelman College  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Kevin Bath, Department of Neuroscience  
**Poster Title:** Potential Mechanisms Underlying Stress Effects on Neurogenesis

### **Bao Ying Chen      Poster #A3**

**Home Institution:** Grinnell College  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Alison DeLong, Department of Molecular Biology, Cell Biology, and Biochemistry

**Poster Title:** Defining Protein Phosphatase 2A Complexes and Substrates that Regulate Ethylene Biosynthesis in Arabidopsis

### **Laura Craciun      Poster #A4**

**Home Institution:** New York University  
Summer Research Program: BP-Endure---Leadership Alliance-Summer Research Early Identification Program(SR-EIP)  
**Faculty Mentor:** Professor Barry Connors, Department of Bio Med Neuroscience  
**Poster Title:** Classification of Neurons in the Thalamic Reticular Nucleus

### **Fartun Dirie      Poster # A5**

**Home Institution:** University of St. Thomas  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Michael White, Department of Sociology  
**Poster Title:** Antenatal Care and Healthcare Access in Mozambique: An Issue of Spatial Inequality?

### **Jennifer Garraway      Poster #A6**

**Home Institution:** Hunter College- City University of New York  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Tara White, Department of Neuroscience  
**Poster Title:** Stimulant Effects on Emotion in Healthy Volunteers

### **Sherry Gee      Poster #A7**

**Home Institution:** University of Michigan-Ann Arbor  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Gaurav Choudhary, Department of Biomedical Engineering Molecular Pharmacology, Physiology & Biotechnology  
**Poster Title:** Role of Ano-1 in endothelial cell proliferation and migration



**Jean Guillaume      Poster #A8**

**Home Institution:** Brooklyn College- City University of New York  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Johnny Guzman, Department of Applied Mathematics  
**Poster Title:** Blending Finite Element with Penalty Immersed Boundary to Investigate Hemodynamics in Aorta

**Robert Gutierrez      Poster #A9**

**Home Institution:** Santa Barbara City College  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Qian Chen, Department of Bio Med Orthopaedics  
**Poster Title:** Nanopiece: a stabilizing and protecting vehicle for molecular beacon delivery

**Marilyn Lee      Poster #A10**

**Home Institution:** University of Rhode Island  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor John Sedivy, Department of Molecular Biology, Cell Biology, and Biochemistry  
**Poster Title:** The effects of reverse transcriptase inhibitors on LINE-1 retrotransposon expression in human fibroblasts

**Noe Lopez      Poster #A11**

**Home Institution:** University of California-Santa Barbara  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Evelyn Hu-DeHart, Department of History  
**Poster Title:** Living in Between Nations: Mixtec Transnationalism in Mexico and the United States

**Katryna Mahoney      Poster #A12**

**Home Institution:** Spelman College  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Keisha-Khan Perry, Department of Africana Studies  
**Poster Title:** Black Activists in 'White Africa': Exploring sub-Saharan Migrant-Activism in Morocco

**Peter Mercado-Reyes      Poster #H1**

**Home Institution:** Purdue University  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Christopher Moore, Department of Neuroscience and Postdoctoral Research Associate Nathan Vierling-Claassen, Department of Neuroscience  
**Poster Title:** Study on the long-term effects of antipsychotics: the impact of sustained D2 neuron activity on motor learning and motor performance

**Javier Morales-Gonzalez      Poster #H2**

**Home Institution:** University of Puerto Rico  
Summer Research Program:  
Leadership Alliance-Summer Research Early Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Cesario Bianchi, Department of Bio Med Surgery  
**Poster Title:** Is mTOR steady-state PI3K dependent?

**Isbael Morgan                      Poster #H3**

**Home Institution:** Mt. Holyoke College  
Summer Research Program:  
Leadership Alliance-Summer Research Early  
Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Stephen Buka,  
Department of Public Health-Epidemiology  
**Poster Title:** Socioeconomic Status and Child  
Cognitive Outcomes at Age 7; Maternal  
Cortisol as a Possible Mediator

**Onyemaechi Nwanaji-Enwerem**

**Poster #H4**

**Home Institution:** University of North  
Carolina at Chapel Hill  
Summer Research Program:  
Leadership Alliance-Summer Research Early  
Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Alfred Ayala,  
Department of Bio Med Surgery  
**Poster Title:** Soluble Co-Inhibitory  
Receptors, B-/T-Lymphocyte Attenuator  
(BTLA), and its Ligand, Hepatitis Virus Entry  
Protein (HVEM) and their Biological  
Significance in Septic Mice.

**Daniel Powell                      Poster #H5**

**Home Institution:** The University of Utah  
Summer Research Program:  
Leadership Alliance-Summer Research Early  
Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Richard Freiman,  
Department of Molecular Biology, Cell  
Biology, & Biochemistry and Jennifer Wardell,  
Department of Bio Med  
**Poster Title:** Molecular and Cellular  
Mechanisms of TAF4B Upregulation by  
Estrogens

**Michael Rabadi                      Poster #H6**

**Home Institution:** New York University  
Summer Research Program: BP-Endure---  
Leadership Alliance-Summer Research Early  
Identification Program(SR-EIP)  
**Faculty Mentor:** Professor David Sheinberg,  
Department of Neuroscience  
**Poster Title:** Exploring the Temporal Limits  
of Visual Processing of Familiar and  
Unfamiliar Objects at the Subordinate-  
Category Level

**Vani Ravichandran                      Poster #H7**

**Home Institution:** University of Maryland,  
Baltimore County  
Summer Research Program:  
Leadership Alliance-Summer Research Early  
Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Ruhul Abid,  
Department of Bio Med Surgery  
**Poster Title:** Overexpress Yourself: It's Good  
For The Heart!

**Stephon Richardson                      Poster #H8**

**Home Institution:** Clark University  
Summer Program: Leadership Alliance-  
Summer Research Early Identification  
Program (SR-EIP)  
**Faculty Mentor:** Professor Keisha-Khan  
Perry, Department of African Studies  
**Poster Title:** The Black New Left: African-  
American Radical Groups of the Late 1950s to  
the Early '60s

**Mayra Rios                      Poster #H9**

**Home Institution:** Canada College  
Summer Research Program:  
Leadership Alliance-Summer Research Early  
Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Juan Sanchez-  
Esteban, Department of Bio Med Pediatrics  
**Poster Title:** Expression Level of Transient  
Receptor Potential Vanilloid-4 (TRPV4) in  
Mice During Lung Development

**Amber Shaffer      Poster #H10**

**Home Institution:** Tougaloo College  
Summer Research Program:  
Leadership Alliance-Summer Research Early  
Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Wen-Chih (Hank)  
Wu, Department of Bio Med Medicine and  
Tracey Traveria, Pharmacy Practice  
**Poster Title:** Does Depression Lead to  
Diabetes in African Americans

**Darius Stanton      Poster # H11**

**Home Institution:** Claflin University  
Summer Research Program:  
Leadership Alliance-Summer Research Early  
Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Jeremy Rich,  
Department of Ecology and Evolutionary  
Biology and Professor Heather Leslie,  
Department of Ecology and Evolutionary  
Biology  
**Poster Title:** Microbial community structure  
along an estuarine gradient along the  
Narragansett Bay

**Tayler Ulmer Poster #H12**

**Home Institution:** Spelman College  
Summer Research Program:  
Leadership Alliance-Summer Research Early  
Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Matthew Guterl ,  
Department of Africana Studies  
**Poster Title:** A House Divided: Ethno-Racial  
Understanding in the Black American and  
Black African Community

**Amy Zhang      Poster #H13**

**Home Institution:** Carnegie Mellon  
University  
Summer Research Program:  
Leadership Alliance-Summer Research Early  
Identification Program (SR-EIP)  
**Faculty Mentor:** Professor Barry Connors,  
Department of Bio Med Neuroscience  
**Poster Title:** A Quirky Inhibitory Circuit in  
the Cerebral Cortex

Summer Research Symposium Posters  
**Friday, August 2**  
**Physical and Social Sciences**

**Physical Sciences**

**Heather Aruffo      Poster #C1-2**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Amit Basu,  
Department of Chemistry  
**Poster Title:** Developing Glycolipid  
Functionalized Liposomes to Colorimetrically  
Detect E. Coli

**Rebecca Barron      Poster #G14-15\***

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Karen  
Haberstroh, School of Engineering  
**Poster Title:** Spira Engineering Camp: An  
Exploration of Engineering for the Young  
Women of Providence (*\*Scheduled to present  
on Thursday*)

**Vira Behnam Roudsari      Poster #C3**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Wayne Bowen,  
Department of Molecular Pharmacology,  
Physiology and Biotechnology  
**Poster Title:** Effects of Sigma-2 Receptor  
Ligands in a 3D Tumor Model of Human

**Kallan M.L. Berglund      Poster #C4**

**Home Institution:** Brown University  
Summer Research Program: RI NASA Space  
**Faculty Mentor:** Professor Ian Dell'Antonio,  
Department of Physics  
**Poster Title:** Uncovering the Distribution of  
Star Formation in  $z=0.25$  Galaxy Clusters

**Nicholas Bower      Poster #C5**

**Home Institution:** Brown University  
Summer Research Program:  
Institute for Molecular and Nanoscale  
Innovation (IMNI)  
**Faculty Mentor:** Professor Derek Stein,  
Department of Physics  
**Poster Title:** Experimental Studies of Micro-  
and Nanoscale Capillarity

**Eliza Brine      Poster #C6-7**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Christopher Bull,  
School of Engineering and Professor Derek  
Stein, Department of Physics  
**Poster Title:** Solar Decathlon

**Ryan Brown      Poster #C6-7**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Derek Stein,  
Department of Physics and Professor  
Christopher Bull, School of Engineering  
**Poster Title:** Solar Decathlon

**Julia Carr      Poster #C8**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Greg Hirth  
Department of Geology  
**Poster Title:** Microstructural Analysis of  
Harbor Island, Maine Pseudotachylites

**Elizabeth Castner      Poster #C9**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Meredith  
Hastings, Department of Geological Sciences  
and Postdoctoral Research Associate Rebecca  
Ryals, Department of Geology  
**Poster Title:** Soil Nitrogen Fluxes on Farms  
in the Chesapeake Bay Watershed

**Francois Cevallos      Poster #C10**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Eunsuk Kim,  
Department of Chemistry  
**Poster Title:** Mechanistic studies on phenolic  
nitration by dinitrosyl iron complexes  
(DNICs)

**Veronica Chiou      Poster #C11**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Eric Darling  
Department of Molecular Pharmacology,  
Physiology and Biotechnology  
**Poster Title:** Examining live-cell traction  
forces in stem cells during osteogenic  
differentiation

**Eunice Cho      Poster #C12**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Eric Darling  
Department of Molecular Pharmacology,  
Physiology and Biotechnology  
**Poster Title:** MR imaging of gene expression  
in live cells via F19 molecular beacons

**Ah Choe      Poster #C13**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Allan Bower,  
School of Engineering  
**Poster Title:** From Engineering Mechanics to  
the Hunger Games: the Engineering, History  
and Mythology of the Bow and Arrow

**Kate DeSimone      Poster #C14**

**Home Institution:** Brown University  
Summer Research Program:  
C.R. Bard Summer Fellowship  
**Faculty Mentor:** Professor Anubhav Tripathi,  
School of Engineering  
**Poster Title:** Isolation of RNA using magnetic  
beads in a microfluidic oil channel

**Montana Feiger      Poster #C6-7**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Derek Stein,  
Department of Physics and Christopher Bull,  
School of Engineering  
**Poster Title:** Solar Decathlon

**Sarah Frank      Poster #C15**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Jennifer Franck,  
School of Engineering  
**Poster Title:** Optimal Hydrofoil Kinematics  
for Tidal Energy Extraction

**Layne Frechette      Poster #D1-2**

**Home Institution:** Brown University  
Summer Research Program: NIH  
**Faculty Mentor:** Professor Derek Stein  
Department of Physics  
**Poster Title:** Nanoscale Electrospray for  
Single-Molecule Mass Spectrometry

**Ellen Goldberg      Poster #D1-2**

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

**Faculty Mentor:** Professor Derek Stein,  
Department of Physics

**Poster Title:** Nanoscale Electrospray for  
Single-Molecule Mass Spectrometry

**Pat Holland-Strergar      Poster #D3**

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

**Faculty Mentor:** Professor James Russell,  
Department of Geological Sciences

**Poster Title:** Reconstructing the  
paleoclimate of Papua, Indonesia using  
hydrogen/deuterium ratios in leaf waxes  
preserved in marine sediments

**Conan Huang      Poster #C1-2**

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

**Faculty Mentor:** Professor Amit Basu,  
Department of Chemistry

**Poster Title:** Developing polydiacetylene-  
based liposomes as colorimetric biosensors to  
detect the presence of bacterial endotoxins  
and to identify different bacteria strains

**Vidur Joshie      Poster #D4**

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

**Faculty Mentor:** Professor Eliezer Upfal  
Department of Computer Science and  
Professor Fabio Vandin, Department of  
Computer Science

**Poster Title:** Clustering Large Graphs

**Sukhyun (Kevin) Jung      Poster #D5**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research

Awards (UTRAs)

**Faculty Mentor:** Professor Jacob Rosenstein,  
School of Engineering

**Poster Title:** Biomimetic Lipid Membranes  
on Electronic Circuit Boards

**Audrey Lew      Poster #D6**

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

**Faculty Mentor:** Professor Meredith  
Hastings, Department of Geological Sciences

**Poster Title:** Analyzing the Isotopic  
Signature of NO<sub>x</sub> in the Field

**Jesus Leyva      Poster #D7**

**Home Institution:** Brown University  
Summer Research Program:  
Research Assistant for the Center for  
Computational Molecular Biology

**Faculty Mentor:** Professor Charles Lawrence,  
Department of Applied Mathematics and  
Professor William Thompson, Department of  
Applied Mathematics

**Poster Title:** Monte Carlo Methods for  
Phylogenetic Analysis.

**Rory Macfarlane      Poster #D8**

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

**Faculty Mentor:** Professor James Russell,  
Department of Geological Sciences

**Poster Title:** Organic Geochemical  
Paleothermometry of Lake Mahoma, Uganda

**Chezev Matthew      Poster #D9**

**Home Institution:** Brown University  
Summer Research Program:  
Institute for Molecular and Nanoscale  
Innovation (IMNI)

**Faculty Mentor:** Professor G. Tayhas  
Palmore, School of Engineering

**Poster Title:** Detect, Splice and Glow:  
Engineering a DNA biocircuit for biochemical  
sensing

**Amrita Mazumdar Poster #D10**  
**Home Institution:** Columbia University  
Summer Research Program:  
Distributed Research Program for  
Undergraduates (DREU)  
**Faculty Mentor:** Professor Iris Bahar,  
School of Engineering  
**Poster Title:** An Automated Synthesis Tool  
for Generating Noise-Immune Sub-Threshold  
Circuits

**Christopher Miller Poster #D11**  
**Home Institution:** University of Colorado-  
Boulder  
Summer Research Program:  
Institute for Molecular and Nanoscale  
Innovation (IMNI)  
**Faculty Mentor:** Professor Eric Chason,  
School of Engineering  
**Poster Title:** Modeling Stress Development  
in Thin Film Growth

**Samuel Moore Poster #C6-7**  
**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Derek Stein,  
Department of Physics and Professor  
Christopher Bull, School of Engineering  
**Poster Title:** Solar Decathlon

**Adrian Nadeau Poster #D12**  
**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Eric Chason,  
School of Engineering  
**Poster Title:** Understanding Tin Whiskers

**Gaurav Nakhare Poster #D13**  
**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Harvey Silverman,  
School of Engineering  
**Poster Title:** Talker locationing and speaker  
enhancement with the octoMIC

**Khoi Nguyen Poster #D14**  
**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Shreyas Mandre,  
School of Engineering  
**Poster Title:** Fluid Surface Deformation by  
Objects in the Cheerios Effect

**Daniel Parker Poster #D15**  
**Home Institution:** Brown University  
Summer Research Program: Other  
**Faculty Mentor:** Professor Ian Dell'Antonio,  
Department of Physics  
**Poster Title:** Measuring Galaxy Cluster  
Masses with Gravitational Lensing

**Anthony Pellegrino Poster #E1-2**  
**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Johnny Guzman,  
Department of Applied Mathematics  
**Poster Title:** Blending the Finite Element  
Method with the Penalty Immersed Boundary  
Method to Investigate Hemodynamics in the  
Aorta

**John Ribbans      Poster #E3**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Brad Marston,  
Department of Physics  
**Poster Title:** A Global Climate Model For  
Your iPhone

**Eugene Robinson      Poster #E4**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Baylor Fox-  
Kemper, Department of Geological Sciences  
**Poster Title:** Modeling Climate Variability  
through EOF Analysis of Ocean Heat Content

**Danielle Rothermel      Poster #E5**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Nabil Lawandy,  
School of Engineering  
**Poster Title:** Laser Oscillation in Nano-  
particle Plasmonic Systems

**Viktor Rozsa      Poster #E6**

**Home Institution:** Hillsdale College  
Summer Research Program: Institute for  
Molecular and Nanoscale Innovation (IMNI)  
**Faculty Mentor:** Professor Nitin Padture,  
School of Engineering and Professor Stephan  
Parman, Department of Geological Sciences  
**Poster Title:** Experimental and Analytic  
Methods towards Synthesis of Ultrahard  
Nanotwinned Cubic Boron Nitride

**Subhradip Sarker      Poster #E7**

**Home Institution:** Brown University  
Summer Research Program: Royce Fellows  
**Faculty Mentor:** Professor Lawrence Larson,  
School of Engineering  
**Poster Title:** Wireless transceiver in the  
brain

**Peter Simpson      Poster #E8**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Jason Sello,  
Department of Chemistry  
**Poster Title:** Rational Design and Syntheses  
of Selective Inhibitors of the Human and  
Bacterial Proteasomes

**Julia Stevens      Poster #E9**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Jason Sello,  
Department of Chemistry  
**Poster Title:** Redesign of Antibacterial Small  
Molecule ClpP Activators Based on the ADEP  
Pharmacophore

**Mary Tarantino      Poster #E10**

**Home Institution:** Brown University  
Summer Research Program:  
Summer Research Assistantship in  
Biomedical Sciences  
**Faculty Mentor:** Professor Sarah Delaney,  
Department of Chemistry  
**Poster Title:** The Effect of DNA Secondary  
Hairpin Structure on Flap Endonuclease-1  
Activity



**Jennifer Thomas      Poster #G14-15\***

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Karen  
Haberstroh, School of Engineering  
**Poster Title:** Spira Engineering Camp: An  
Exploration of Engineering for the Young  
Women of Providence (*\*Scheduled to present  
on Thursday*)

**Tegan Tingley      Poster #E11**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Joseph Calo,  
School of Engineering  
**Poster Title:** Removal of Mercury, Arsenic,  
and Lead from Water with Iron Compounds

**Edwin Willig      Poster #E12**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Timothy Herbert,  
Department of Geological Sciences  
**Poster Title:** 5 Ma Paleotemperature Study  
of the Northwest Pacific Ocean

**Lukas Winkler Prins      Poster #E13**

**Home Institution:** Brown University  
Summer Research Program: REU  
**Faculty Mentor:** Professor Martin Maxey,  
Department of Applied Mathematics  
**Poster Title:** Statistical Analysis on Viscous  
Particulate Fluid Flows

**Jie Ying Wu      Poster #E14**

**Home Institution:** Brown University  
Summer Research Program: NSF  
**Faculty Mentor:** Professor Sherief Reda,  
School of Engineering  
**Poster Title:** Measuring the Energy  
Consumption of Servers

**Samy Wu      Poster #E1-2**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Johnny Guzman,  
Department of Applied Mathematics  
**Poster Title:** Blending the Finite Element  
Method with the Penalty Immersed Boundary  
Method to Investigate Hemodynamics in the  
Aorta

**Sam Zeif      Poster #C6-7**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Derek Stein,  
Department of Physics and Professor  
Christopher Bull, School of Engineering  
**Poster Title:** Solar Decathlon

**Yifan Zhang      Poster #E15**

**Home Institution:** Brown University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)  
**Faculty Mentor:** Professor Yongsong Huang,  
Department of Geological Sciences  
**Poster Title:** Isolation and Characterization  
of Novel Long Chain Alkenones from  
Greenland Lake Sediments

**Abigail Zimmermann-Niefield Poster #F1**

**Home Institution:** Williams College  
Summer Research Program: Distributed  
Research Experience for Undergraduates  
(DREU)  
**Faculty Mentor:** Professor Iris Bahar,  
School of Engineering  
**Poster Title:** Energy and Performance  
Efficient Parallel Computing for Embedded  
Systems

## Social Sciences

### **Sarah Durney Poster #F2**

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

**Faculty Mentor:** Professor Kate Carey,  
Department of Public Health-Health-  
Behavioral & Social Sciences

**Poster Title:** Understanding the Role of  
Alcohol in College Sexual Assaults

### **Jane Furey Poster #F3**

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

**Faculty Mentor:** Professor Michael White,  
Department of Sociology

**Poster Title:** Water, Sanitation and Spatial  
Inequality in West Africa

### **Christopher Lam Poster #F4-5**

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

**Faculty Mentor:** Professor Jin Li,  
Department of Education Studies

**Poster Title:** Children's Learning and  
Socialization: Cross-Cultural Differences  
Between European-American and Chinese  
Immigrant Families

### **Emma Lamothe Poster #F6**

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

**Faculty Mentor:** Professor Patricia Risica,  
Department of Bio-Med Institute of  
Community Health Promotion

**Poster Title:** Improving Nutrition and  
Physical Activity Environments in Home-  
Based Childcare

### **Julia Lynford Poster #F7**

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

**Faculty Mentor:** Professor John Boekamp,  
Department of Bio Med Psychiatry & Human  
Behavior

**Poster Title:** Parent expectancy and  
treatment response in psychiatrically  
disordered preschoolers

### **Jennifer Nedow Poster #F4-5**

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

**Faculty Mentor:** Professor Jin Li,  
Department of Education Studies

**Poster Title:** Children's Learning and  
Socialization: Cross-Cultural Differences  
Between European-American and Chinese  
Immigrant Families

### **Jonatan Perez Poster #F8**

**Home Institution:** Clark University  
Summer Research Program:  
Undergraduate Teaching and Research  
Awards (UTRAs)

**Faculty Mentor:** Professor Evelyn Hu-  
DeHart, Department of History

**Poster Title:** Researching and Designing an  
Immigration Course for Brown  
Undergraduates

### **Robin Sifre Poster #F9**

**Home Institution:** Brown University  
Summer Research Program:  
RA in Fiery Cushman's Lab (MPRL)

**Faculty Mentor:** Professor Fiery Cushman,  
Department of Cognitive Linguistic &  
Psychological Sciences

**Poster Title:** Rationalization & Religion

**Julia Stoller Poster #F10**

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

**Faculty Mentor:** Professor Kenneth Wong,  
Department of Education Studies

**Poster Title:** Innovative School Reform in  
Providence and its Effects on Diverse  
Learners

**Derik Wagner Poster #F11**

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

**Faculty Mentor:** Professor Fiery Cushman,  
Department of Cognitive Linguistic &  
Psychological Sciences

**Poster Title:** Mechanisms of Social  
Reciprocation

**Kiana Ward Poster #F12**

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

**Faculty Mentor:** Professor Caroline Karp,  
Center for Environmental Studies

**Poster Title:** Green/Blue Alliance: Social  
Unionism in the Construction Trades

**Luyu Zhang Poster #F4-5**

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

**Faculty Mentor:** Professor Jin Li,  
Department of Education Studies

**Poster Title:** Children's Learning and  
Socialization: Cross-Cultural Differences  
Between European-American and Chinese  
Immigrant Families

**Klara Zimmerman Poster #F13**

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

**Faculty Mentor:** Professor Leah VanWey,  
Department of Sociology

**Poster Title:** Agricultural Technology and  
Land Use Change in Mato Grosso, Brazil

## **Summer Research Programs at Brown**

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

- Beckman Scholars Program
- Experimental Program to Stimulate Competitive Research (EPSCoR-NSF)
- Howard Hughes Medical Institute (HHMI)
- Institute for Computational and Experimental Research in Mathematics (ICERM)
- Institute for Molecular and Nanoscale Innovation (IMNI)
- Leadership Alliance-Summer Research Early Identification Program (SR-EIP)
- Royce Fellows (Swearer Center for Public Service)
- Space Grant/NASA
- Summer Research Assistantship in Biomedical Sciences
- Mellon Mays Undergraduate Fellowship
- Undergraduate Teaching and Research Awards (UTRA)
- Voss Environmental Fellows

## Poster Layout—Thursday, August 1

### Humanities & Life Sciences

**[Stage]**

<b>A1</b>	<b>B1 C1</b>	<b>D1</b>	<b>E1</b>	<b>F1</b>	<b>G1</b>	<b>H1</b>
<b>A2</b>	<b>B2 C2</b>	<b>D2</b>	<b>E2</b>	<b>F2</b>	<b>G2</b>	<b>H2</b>
<b>A3</b>	<b>B3 C3</b>	<b>D3</b>	<b>E3</b>	<b>F3</b>	<b>G3</b>	<b>H3</b>
<b>A4</b>	<b>B4 C4</b>	<b>D4</b>	<b>E4</b>	<b>F4</b>	<b>G4</b>	<b>H4</b>
<b>A5</b>	<b>B5 C5</b>	<b>D5</b>	<b>E5</b>	<b>F5</b>	<b>G5</b>	<b>H5</b>
<b>A6</b>	<b>B6 C6</b>	<b>D6</b>	<b>E6</b>	<b>F6</b>	<b>G6</b>	<b>H6</b>
<b>A7</b>	<b>B7 C7</b>	<b>D7</b>	<b>E7</b>	<b>F7</b>	<b>G7</b>	<b>H7</b>
<b>A8</b>	<b>B8 C8</b>	<b>D8</b>	<b>E8</b>	<b>F8</b>	<b>G8</b>	<b>H8</b>
<b>A9</b>	<b>B9 C9</b>	<b>D9</b>	<b>E9</b>	<b>F9</b>	<b>G9</b>	<b>H9</b>
<b>A10</b>	<b>B10 C10</b>	<b>D10</b>	<b>E10</b>	<b>F10</b>	<b>G10</b>	<b>H10</b>
<b>A11</b>	<b>B11 C11</b>	<b>D11</b>	<b>E11</b>	<b>E11</b>	<b>G11</b>	<b>H11</b>
<b>A12</b>	<b>B12 C12</b>	<b>D12</b>	<b>E12</b>	<b>E12</b>	<b>G12</b>	<b>H12</b>
<b>A13</b>	<b>B13 C13</b>	<b>D13</b>	<b>E13</b>	<b>F13</b>	<b>G13</b>	<b>H13</b>
<b>A14</b>	<b>B14 C14</b>	<b>D14</b>	<b>E14</b>	<b>F14</b>	<b>G14</b>	<b>H14</b>
<b>A15</b>	<b>B15 C15</b>	<b>D15</b>	<b>E15</b>	<b>F15</b>	<b>G15</b>	<b>H15</b>

**[Entrance]**

**[Lobby]**

## Poster Layout—Friday, August 2

Physical & Social Sciences

**[Stage]**

C1	D1	E1	F1
C2	D2	E2	F2
C3	D3	E3	F3
C4	D4	E4	F4
C5	D5	E5	F5
C6	D6	E6	F6
C7	D7	E7	F7
C8	D8	E8	F8
C9	D9	E9	F9
C10	D10	E10	F10
C11	D11	E11	F11
C12	D12	E12	F12
C13	D13	E13	F13
C14	D14	E14	F14
C15	D15	E15	F15

**[Entrance]**

**[Lobby]**

## **Symposium Organizers**

Oludurotimi O. Adetunji,  
Assistant Dean of the College  
Director, UTRA program

Janice Rego, Program Coordinator  
Kendra Cornejo, Symposium Intern

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