Illinois
Undergraduate Research Week

2017 Events
April 23-29
University of Illinois at Urbana-Champaign
Welcome to Undergraduate Research Week (URW), a celebration of student innovation and excellence in research across campus. The signature event is the tenth annual campus-wide Undergraduate Research Symposium (URS), held on Thursday, April 27. The breadth and scope of the oral and poster presentations, as well the performances, reflect not only the wide range of academic disciplines at the University of Illinois, but also speak to the caliber of our undergraduate students. Our students are enterprising and thoughtful, eager to learn from their advisors and mentors. Their projects also demonstrate the ongoing commitment of our faculty to supporting and expanding undergraduate research opportunities on campus and beyond.

The presentations, posters, and performances listed below address some of society’s most pressing issues. As is true of the mentors who support them, these students and their projects hold the potential to change the world for the better. The featured lunch time session demonstrates the range of research that occurs at the University of Illinois, from the scarcity of African-Americans in STEM fields to the future of renewable energy.

Every year, we see the numbers of students participating in the URS grow, and URS 2017 is no exception. Once more, this year’s URS (and URW more largely) includes a record number of participants from an expansive range of departments, colleges, and other units on campus. In addition, there will be awards in various categories for the best posters and presentations. Judges include university administrators, distinguished faculty members, and representatives from our corporate sponsors.

Special thanks go to: Christopher Holmes and Shelby Gordon, the Office of Undergraduate Research (OUR) graduate research assistant and undergraduate intern, respectively; David Aristizábal, graduate research assistant for the Ethnography of the University Initiative program; and OUR’s Advisory Board Members.

We invite you to come be inspired!

Dr. Karen Rodriguez’G
Interim Director, Office of Undergraduate Research
UNDERGRADUATE RESEARCH WEEK EVENTS

Department of English Symposium

Thursday, April 20, 4:30 PM — 6:30 PM
English Building, Mary Kay Peer Lounge

Re:Search: The Undergraduate Literary Criticism Journal at the University of Illinois

Ana Fleming, Senior, English, LAS
Marilyn MacNamara, Senior, English, LAS

A Paradise Not So Lost: Cassandra Clare’s Modern Interpretation of John Milton’s Paradise Lost and a Feminist Eve

Samantha Awad, Senior, English, LAS

The Reflection in the Daguerreotype: Hawthorne’s Investment in Antebellum Science

Ana Fleming, Senior, English, LAS

Performance-as-Research: Staging John Webster’s The White Devil

Emaline Johnson, Senior, Molecular & Cellular Biology, LAS

The Value of Undergraduate Research Workshop

Friday, April 21, 2:00 PM — 3:30 PM
Lincoln Hall, Room 1065

In this workshop, The Career Center will discuss the importance of conducting research as an undergraduate student at the University of Illinois. This will include a discussion of how engaging in research can impact your career development, and how to communicate this value effectively. We encourage students to take this workshop before attending the “Getting Started in Research Workshop, provided by the Office of Undergraduate Research on April 26 (see below).

Political Science Student Research Symposium & Awards Ceremony

Saturday, April 22, 11:45 AM — 1:30 PM
ACES Library, Heritage Room
Living-Learning Communities Researchers Initiative Poster Symposium

Sunday, April 23, 4:00 PM – 6:00 PM
Florida Avenue Residence Halls, Oglesby Pagoda

The Slavery Trade: A Comparative Study of Slavery in the United States and Jamaica
Ashli Drummond, Freshman, Undeclared, DGS

Integrating versus Discriminating in Relational Memory: the Role of Exploratory Behavior
Vaughn Hage, Sophomore, Integrative Biology and Psychology, LAS

Eye-tracking in Reading and Scene Perception
Xinyue Wang, Freshman, Undeclared, DGS
Jacob Nguyen, Freshman, Interdisciplinary Health Sciences, AHS
Sylvia Peng, Freshman, Graphic Design, FAA

How Cortisol Concentrations Vary with Mood
Velimira Asenova, Freshman, Biology, LAS

Changes in Age at Menarche of Rural Polish Women over Time
Hayley Ban, Freshman, Biology, LAS

Effects of Community Support on Ethnic Identity in Adolescents
Fatima Godfrey, Freshman, Sociology, LAS

Inflammation and Bone Modeling in Healthy Adults
Ohm Shukla, Freshman, Biology, LAS

Examining the Effects of Developmental Methamphetamine Exposure on Attention and Impulsive Behavior in Long-Evans Rats
Fiona Kuo, Sophomore, Animal Sciences, ACES

Effects of Tree Mortality on Non-target Tree Species Growth and Aboveground Carbon Storage
Melissa Swire, Freshman, Animal Sciences and Natural Resources & Environmental Sciences, ACES

The Role of Ubiquitin Specific Protease 18 (USP18) in Defining Interferon Signaling Magnitude and Duration
Malikah Black, Freshman, Undeclared, DGS

Defining the Role of G0S2 in Lactation
Alexandra Nebelle, Freshman, Animal Sciences, ACES

Away from Home: The Hopi Experience at Off-Reservation Indian Boarding Schools
Deonte Harris, Sophomore, Media & Cinema Studies, COM
Logan Mullins, Freshman, History, LAS

Writing the Destiny for All Those Kids: How Low-Income African American and Latino Mothers Promote Their Children’s School Readiness
Christopher Ackerman Avila, Freshman, Urban Planning, FAA
Kaitlyn Pugh, Freshman, Mathematics, LAS

How Might Contact with Nature Affect Learning? Proposed Mechanisms
RuthAnn Haefli, Freshman, Industrial Engineering, ENG

Empathic Understanding
Kathleen Ferreira, Freshman, Mechanical Engineering, ENG
Matthew Young, Freshman, Engineering Physics, ENG

Conservation in Human-dominated Grasslands of the Midwest: Ponds, Cattle Pastures, and Shrub Encroachment
Jena Johnson, Sophomore, Natural Resources & Environmental Sciences, ACES

Impact of Age-related Hearing Loss on Brain and Cognition
Julia Rajan, Freshman, Psychology, LAS

The Effects of Body Size on Horse Locomotion
Galila Dandridge, Freshman, Undeclared, DGS
Kevin Zhagui, Freshman, Undeclared, DGS

Using Subchondral and Trabecular Bone Properties to Infer Postural Differences among Humans, Chimpanzees, and Gorillas
Emma Herzog, Freshman, Biology and Mathematics, LAS
Agha Shuja Hussain, Freshman, Chemical Engineering, LAS
Min Kyoung Kim, Freshman, Molecular & Cellular Biology, LAS

Does Variation in EphA4 Explain the Evolution of Hopping in Mammals?
Shaochong (Max) Wei, Freshman, Molecular & Cellular Biology, LAS

Modeling the Behavioral Interactions of Fish in an Educational and Informative Game
Megan Coleman, Sophomore, Computer Engineering, ENG

Modeling Crystal Growth Using Cellular Automata
Dana Drinkall, Sophomore, Geology, LAS

Analysis of Fall-related Injuries among Power Wheelchair Users
Kevin Qin, Freshman, Interdisciplinary Health Sciences, AHS

Racial Discrimination, Social Support, and Psychological Distress among African American Parent-Adolescent Dyads
Nathalia Davila, Freshman, Human Development & Family Studies, ACES
Gabrielle Maloney, Freshman, Human Development & Family Studies, ACES

Social Equity of Urban Water Rates in the Midwest
Allisa Hastie, Freshman, Civil Engineering, ENG
The Effect of Water Stress on Electricity Pricing in Illinois
Grace Wackerman, Freshman, Electrical Engineering, ENG

Chemical Imaging of Brain Tissues and Single Cells using MALDI MS with Subsequent Immunocytochemistry
Tiffany Chu, Freshman, Biochemistry, LAS
Laura Tanase, Freshman, Biology and English, LAS
Amelia Triplett, Freshman, Computer Science, ENG

Analytical Methods for Studying Sensory Systems: From Eye Tissues to Dorsal Root Ganglia (DRG) Neurons
Yujin Lee, Sophomore, Bioengineering, ENG
Kenya Tyiska, Freshman, Molecular & Cellular Biology, LAS

Using Computer Technology to Compose Music as an Evolving Entity
Eric Auster, Sophomore, Music and Statistics & Computer Science, FAA/LAS
Zehao Chen, Freshman, Computer Science and Astronomy, ENG/LAS
Devarsh Ruparelia, Freshman, Computer Engineering, ENG

College of Fine and Applied Arts (FAA) Symposium
On Display, April 23-29
Art + Design Building, A+D Block Gallery (Room 114 A+DB)

The School of Art + Design's Undergraduate Research Week Exhibition will feature outstanding creative research by eleven students, who were selected to represent each of our degree granting programs. (Art Education, Art History, Crafts-Metals, Graphic Design, Industrial Design, New Media, Painting, Photography and Sculpture).

On Display, April 24-29
Temple Buell Hall, Upper West Entry Plaza

Work from undergraduates in the School of Architecture, Department of Landscape Architecture and Department of Urban and Regional Planning will be displayed. Award-winning work from architecture undergraduate majors who have participated in design competitions sponsored within and beyond the School of Architecture will be featured. In addition, outstanding work from undergraduate majors in architecture, landscape architecture, and urban and regional planning will be displayed. This work highlights community-based projects completed by undergraduate students as part of both research and coursework.

Economics Spring Research Symposium
Monday, April 24, 5:30 PM
David Kinley Hall, Room 317

Ethnography of the University Initiative (EUI) Biannual Student Conference And The Odyssey Project Poster Symposium
Monday, April 24, 3:30 PM — 8:00 PM
School of Information Sciences, Room 126

Since 2003, EUI has provided an innovative approach to teaching and learning focused on promoting student research on universities and colleges. In EUI-affiliated courses, students use a variety of ethnographic, archival, and related methods to examine the university in its broader social, political, and historical contexts. At the end of each semester, students have the opportunity to present their research at our biannual conference as well as contribute their work to the EUI collection in the University of Illinois’ digital repository, Illinois Digital Environment for Access to Learning and Scholarship (IDEALS). The EUI program is supported through a partnership between the Office of Undergraduate Research and the Department of Anthropology.

Since 2006, the Odyssey Project has been a linking point between the University of Illinois and the broader Champaign-Urbana community. Eligible community members take four free Humanities courses taught by faculty from the campus. Odyssey Project students will host poster sessions highlighting findings from their explorations of both Art History and Philosophy.

Anthropology Senior Capstone Conference
Tuesday, April 25, 5:00 PM — 8:00 PM
Davenport Hall, Room 230

Anthropology majors present their independent research projects to faculty, fellow students, and guests. Join us to celebrate their hard work and learn more about the kinds of undergraduate research going on in contemporary anthropology. Enjoy good food and conversation!

School of Literatures, Cultures, and Linguistics Symposium
Thursday, April 27, 9:30 AM — 10:45 AM
Foreign Language Building, Atrium

Programming a Multi-lingual Interactive Interface for the School of Literatures, Cultures & Linguistics
Nathan Bartlett, Freshman, Physics, LAS
Eric Bulak, Senior, Human Nutrition, ACES
Mengyu Chen, Junior, Accountancy, BUS
Xiaoyang Chen, Freshman, General Studies, DGS
David Friedman, Junior, Engineering and Physics, ENG/LAS
Kyle Gwon, Sophomore, Agricultural & Consumer Economics, ACES
Khai Hoon, Junior, Accountancy, BUS
Helena Igbo, Senior, Molecular & Cellular Biology, LAS
Yash Jhavar, Senior, Civil Engineering, ENG
Tian Jin, Junior, Accountancy, BUS
Kevin Lee, Junior, Computer Engineering, ENG
Ryan Lenhart, Senior, Financial Planning, ACES
Longhang Li, Junior, Accountancy, BUS
Sarah Lord, Senior, Computer Science and Linguistics, ENG/LAS
Mona Meng, Junior, Accountancy/Finance, BUS
Adrianna Pilch, Freshman, Food Science, ACES
Fran Sagerian, Freshman, Global Studies, LAS
Garren Schneider, Sophomore, Animal Sciences, ACES
Quentin Shaw, Freshman, Aerospace Engineering, ENG
Andrew Smith, Junior, Linguistics, LAS
Thursday, April 27, 11:00 AM — 1:00 PM  
Foreign Language Building, Atrium

Second Language Acquisition of Nominal Expressions  
Jessie Golden, Senior, Linguistics, LAS

Interpretation and Processing of English Pronouns  
Emily Heerde, Sophomore, Developmental Psychology and Spanish, LAS  
Anqi Hu, Junior, Linguistics, LAS

Indian Cultural Outreach at UIUC  
Kamakshi Katwala, Sophomore, Chemical & Biomolecular Engineering, ENG

Students’ Use of the South Asian Film Collection of the International and Area Studies Library at UIUC  
Yash Miriyala, Freshman, Computer Science, ENG

Indian Students’ Influence on Non-Indian Students’ Interest in Indian Cinema at UIUC  
Junning Liang, Psychology, LAS

Perception Challenged by Cinema: Cultural Diversity in UIUC  
Kripa-Mariam Poozhikunnel, Freshman, Biochemistry, LAS  
Hammad Ahmed, Freshman, Undeclared, DGS

Possible Links between Cultural Immersion through Cinema and Desire to Travel  
Vanessa Aceves, Sophomore, Political Science, LAS

Creativity in Context: Indian Cinema + STEM?  
Girija Vaidya, Freshman, Molecular & Cellular Biology, LAS

Center for Translation Studies - Undergraduate Certificate Capstone Projects  
Friday, May 5, 10:00 AM — 3:00 PM  
Foreign Language Building, Lucy Ellis Lounge (Room 1080)

Marketing Estratégico y Operativo de Mercadona  
Bridget Chaput, Senior, Spanish, LAS

Paris Conference on the Climate  
Ann Pond, Senior, French and Global Studies, LAS

Stepfather Step  
Elizabeth Nowicki, Senior, Linguistics and East Asian Languages & Cultures, LAS

Socio-territorial Effects of Mega-Mining and Social Response: The Case of Minera Alumbrera in the Catamarca Province, Argentina  
Candice Steidinger, Senior, Spanish, LAS

Getting Started in Research Workshop  
Wednesday, April 26, 3:00 PM — 4:30 PM  
Gregory Hall, Room 319

With this Workshop, the Office of Undergraduate Research will provide an overview of the various forms of undergraduate research taking place on our campus, provide guidance in developing a plan of action, and discuss ways to contact faculty research mentors. Students will leave the workshop with (1) a better understanding of undergraduate research and how it takes place on our campus, (2) increased confidence to contact faculty research mentors, and (3) a list of faculty mentors to contact.

IPRH-Mellon Bio-Humanities Undergraduate Research Collaborative Symposium  
Friday, April 28, 12:00 PM — 4:00 PM  
Levis Faculty Center, 4th floor, IPRH Lecture Hall

The IPRH-Mellon Bio-Humanities Undergraduate Research Collaborative Symposium integrates the work of multiple undergraduate researchers at the intersection of biology and the humanities. The goal of the symposium is to think about what it means to be human across different disciplinary contexts. The symposium will begin with a presentation of the research collaborative’s project and will be followed by a round-table discussion consisting of conversations with undergraduate researchers from various fields in the life sciences and humanities who will discuss how their work can help us understand the idea of what it means to be human. Join us for good food and conversation!

Principles for Considering the Social Environment in Biomedical Research  
Sneha Adusumilli, Junior, Molecular & Cellular Biology and Classics, LAS  
Miranda Dawson, Junior, Bioengineering, ENG  
Sana Khadri, Senior, English and Integrative Biology, LAS  
Jake Stone, Junior, Global Studies, LAS

This event is hosted by the Illinois Program for Research in the Humanities and supported by the Andrew W. Mellon Foundation.
ORAL PRESENTATIONS AND PERFORMANCES

Access to Healthcare
9:15 AM — 10:15 AM, Room 209

Prognosis Communication: The Role of Meaning Changes in Discrepancies in Understanding Between Patients and Physicians
Kelsey Choi, Senior, Health Planning & Administration, AHS

The Financial Health of Critical Access Hospitals
Justice Hammer, Senior, Community Health, AHS
Jacob Bowers, Senior, Health Planning & Administration, AHS
Julia Ghering, Junior, Interdisciplinary Health Sciences, AHS
Samia Qureshi, Senior, Community Health, AHS

Free Clinic Disparities
Geovanna Estrada, Senior, Health Planning & Administration, AHS
Lauren Bline, Junior, Health Planning & Administration, AHS
Yara Alagha, Sophomore, Health Planning & Administration, AHS
Claudia Morawa, Sophomore, Health Planning & Administration, AHS

Violence, Fear, and the 'State'
9:15 AM — 10:15 AM, Room 210

Title IX
Malissa Jarosz, Senior, Social Work, SSW

Predicting Conflict Through Illicit Arms Transfers
Sharadyn Ciota, Senior, East European & Eurasian Studies, LAS

Fear and Control in Society Case Studies of the Developing and Developed World: Sierra Leone and the United States
Elena Wilson, Freshman, Molecular & Cellular Biology, LAS

Energy Questions
9:15 AM — 10:15 AM, Room 404

Deposition and Characterization of Mixed-halide Perovskites for Photovoltaic Applications
Yanting Teng, Sophomore, Engineering Physics, ENG

Renewable Transportation Fuel Production from Algal Biocrude Oil Converted via Hydrothermal Liquefaction
Zhenwei Wu, Sophomore, Agricultural & Biological Engineering, ENG

Gold Nanoparticles Supported on Polybenzimidazole-wrapped Carbon Nanotubes as a Catalyst for the Electrochemical Reduction of CO₂ to CO
Xun Lu, Junior, Chemical & Biomolecular Engineering, LAS

IMAGE OF RESEARCH COMPETITION

On Display 9:00 AM—4:30 PM Illini Room B

The Image of Research is a multidisciplinary competition celebrating the diversity and breadth of undergraduate student research at the University of Illinois at Urbana-Champaign. All undergraduate students were invited to submit entries consisting of an image and brief text that articulates how the image relates to the research.

Awards
First prize: $300
Second prize: $200
Two honorable mentions

The judges for 2017:
terri weissman, associate professor, art + design
rebekah rousell, visiting scholar, astronomy
karen roderiguez-g, phd, interim director & associate director, office of undergraduate research
ayla stein, assistant professor, university library

To view past entries, please visit:
http://imageofresearch.omeka.net/

The Image of Research is organized by the Scholarly Commons of the University Library and the Office of Undergraduate Research and is supported by a generous gift to the Scholarly Commons from the Division of Intercollegiate Athletics.
**Human Diet**

9:15 AM — 10:15 AM, Room 405

"Food is Loving": Family Influences on Eating Habits of Underserved Chilean Women

Michelle Fairbairn, Senior, Interdisciplinary Health Sciences, AHS

Nataly Quito, Sophomore, Actuarial Science, LAS

Dietary Fat Intake: A Key Component of Obesity Explored in Puerto Rican and Mexican American Diet

Rebecca Jung, Junior, Human Nutrition, ACES

**Biological Processes and Communities**

10:45 AM — 11:45 AM, Room 210

The Genome and Evolution of Candidatus Carsonella ruddii BC

Alex Riley, Junior, Integrative Biology, LAS

An Investigation of Mosquito Larval Habitat and the Influence of Proximal Plant Species

Madison Moore, Senior, Integrative Biology, LAS

Quantifying Microbial Interactions from Time Series Data

Zachary Cohen, Senior, Integrative Biology, LAS

**Modes of Performance and Expression**

9:15 AM — 10:15 AM, Room 406

The Search for Feminism while Living within the Patriarchy: An Analysis of Emilia Pardo Bazán’s Poetry

Brittany Barajas, Sophomore, Spanish, LAS

A Comparative Analysis of Character Representations in Webster’s The White Devil

Emaline Johnson, Senior, English and Molecular & Cellular Biology, LAS

Active Breathing & Optimal Performance

Mary Vo, Senior, Dance, FAA

**Food and Health**

10:45 AM — 11:45 AM, Room 404

Outcomes of the Illinois Junior Chefs Culinary Education Program

Ruyu Liu, Senior, Food Science & Human Nutrition, ACES

Emilie Emberton, Junior, Human Development & Family Studies, ACES

Gender Differences in Dietary Attitudes and Behaviors of Participants in the Illinois Junior Chefs Program

Emilie Emberton, Junior, Human Development & Family Studies, ACES

Ruyu Liu, Senior, Food Science & Human Nutrition, ACES

After More Than 30 Years: What People Do and Do Not Find Acceptable About GMOs

Kelsey Litchfield, Senior, Agricultural Communication, COM

**Conservation and Sustainability**

10:45 AM — 11:45 AM, Room 209

The Political Economy of Sustainable Living: Notions and Practices of the Housing Market in Champaign-Urbana Illinois

Elizabeth Wright, Senior, Anthropology, LAS

How Much does the Public Care about Conservation Policy in China? Empirical Evidence from Weibo (Chinese Twitter) Microblogs

Shiyuan Dong, Senior, Natural Resources & Environmental Sciences, ACES

Optimizing Future Town: Pixelate Responsive Environment and Concave&Convex: Redefine the Future Public Open Space

Xiaoxin Ma, Junior, Landscape Architecture, FAA

Yingzhe Du, Junior, Landscape Architecture, FAA

**Mapping Identity**

10:45 AM — 11:45 AM, Room 405

The Patriots Far Away: A Concise History of Overseas Chinese Students in the United States During the Early Twentieth Century

Mindi Zhang, Senior, History, LAS

Learning to be Black

Erin Threlkeld, Junior, Creative Writing, LAS

**Bodies in Movement**

10:45 AM — 11:45 AM, Room 314A

Dance is Business II

Alex Hutton, Senior, Dance, FAA
Contemporary Education
1:45 PM — 2:45 PM, Room 209
Teaching Intersectionality in Social Work Education
Kahlia Halpern, Senior, Social Work, SSW

Meanings of Abroad Volunteer Tourism: From the Perspective of College Students
Kalina Gajda, Senior, Global Studies, LAS

Rethinking Retention: Inclusive Efforts and Black Students at Predominantly White Institutions
Aaminah Long, Senior, Psychology, LAS

Modern Approaches to Medicine
1:45 PM — 2:45 PM, Room 210
A Contemporary Approach to Alternative Remedies for Treatment of Infantile Hemangioma
Nathan Cornwell, Sophomore, Bioengineering, ENG

Exploring Image Segmentation Methods to Segment Tumors by Training Over a Dataset Marked by Skilled Professionals
Varun Somani, Senior, Computer Engineering, ENG

Injectable LEDs for Optogenetics Application
Do Hoon Kim, Junior, Chemical & Biomolecular Engineering, LAS

Breaking Boundaries
1:45 PM — 2:45 PM, Room 314A
Making Music with Arduino Connected Flex Sensor Gloves
Casey Skorski, Senior, Music, FAA

Retaining Native Identity at Off Reservation Indian Boarding Schools: Theatrical and Paratheatrical Events
Michael Byrd, Senior, Theatre Studies, FAA

Environment and Natural Resources
1:45 PM — 2:45 PM, Room 405
Filling a Gap in Knowledge about What Recreationally Important Steelhead Trout Eat in Lake Michigan
Ruth Londono, Senior, Integrative Biology, LAS

Accessing Patterns of Arthropod Abundance in Illinois Grasslands
Luxia Yao, Junior, Integrative Biology, LAS
Catherine Jimenez, Senior, Integrative Biology, LAS
Jacqueline Orozco, Senior, Integrative Biology, LAS

Illinois’ Public Water Supply Network: How Accessible Data Provokes Sustainable Reform
Joanna Krueger, Senior, Earth, Society & Environmental Sustainability, LAS

Computation Models and Patterns
3:15 PM — 4:15 PM, Room 209
Implementation of Regular Path Query in SQLite
Qiwen Wang, Junior, Mathematics and Computer Science, LAS

Traffic Patterns in Manhattan
Yicheng Pu, Senior, Mathematics, LAS
Gabriel Shindnes, Junior, Mathematics and Computer Science, LAS
Yu Wu, Senior, Physics and Mathematics, LAS
Zilying Wang, Junior, Mathematics, LAS

Deep Readings: Questions of Identity
3:15 PM — 4:15 PM, Room 210
Into the Deep: A Story of Exploration, Investigation and Inspiration
Sarah Foster, Senior, Journalism, COM

Becoming Aztec in Aztlan: Critical Analysis of Chicanismo through a Native American Studies Perspective
Gabriela Garay, Senior, Latina/Latino Studies, LAS

Mapping Places, Telling Stories: Hidden Histories of Campus and Community
Maria Valenzuela, Junior, Latina/Latino Studies, LAS
Hannah Gutierrez, Junior, History, LAS
Arianna Adkins, Senior, Latina/Latino Studies, LAS
Gabriel Perez, Junior, History, LAS

Human Disease and Treatment
3:15 PM — 4:15 PM, Room 404
Paving Vascular Highways: An In Vivo Image-based Analysis of Stem Cell Angiogenic Potential to Reverse Vascular Complications
Than Huynh, Sophomore, Bioengineering, ENG

TDP-43 Knockout Mice and Male Infertility
Abby Ralph, Senior, Animal Sciences, ACES

Analyzing the Genomes of HFMD (hand, foot and mouth disease) Viruses using Machine Learning Algorithms
Chaeyun Jung, Freshman, Statistics and Computer Science, LAS
Literary Canons
3:15 PM — 4:15 PM, Room 405

Bond Girls
Erin Blaber, Senior, Media & Cinema Studies, COM

Shakespeare and Femininity
Margaret Wolfe, Senior, Advertising, COM

Re:Search: The Undergraduate Literary Criticism Journal at the University of Illinois
Ana Fleming, Senior, English, LAS
Marilyn MacNamara, Senior, English, LAS

Youth Education and Health
3:15 PM — 4:15 PM, Room 406

Child Abuse Prevention & Treatment Act Policy Analysis
Daisha Hill, Senior, Psychology, LAS

Acculturation and its Influence on Hispanic Children’s Diet
Ryan Walton, Junior, Human Development & Family Studies, ACES

POSTER SESSIONS

PA SESSION — SCIENCE AND MATHEMATICS
9:00 AM — 10:15 AM, Illini Room A

Geomorphology and Sedimentology of Amazon Channel Bars
Vanessa Gabel, Senior, Geology, LAS

Deep Learning Applications on Stock Market Data
Sushma Adari, Junior, Computer Science and Astronomy, LAS

Intrinsic Mirror Birefringence Measurements for the Any Light Particle Search (ALPS)
Claire Baum, Senior, Engineering Physics, ENG

Traffic Waves, Autonomous Dampening and Fuel Consumption
Miles Churchill, Senior, Civil Engineering, ENG

Dance-Movement Communication Therapy
Stephanie Smolen, Junior, Speech & Hearing Science, AHS

Processing Functional MRI Scans Utilizing Infant Brain Extraction and Analysis Toolbox (iBEAT) Technology
Monica Muthaiya, Sophomore, Bioengineering, ENG

Discovery and Characterization of a Lanthipeptide from Moorea producens
Sarah Ackenhusen, Junior, Chemistry, LAS

The Variability of Center of Pressure Measures from an Instrumented Treadmill
Abby Pakeltis, Sophomore, Mechanical Engineering, ENG

Real-Time Detection of Neurotransmitter Release from Aplysia Neuronal Somata with Nanopipet-Supported ITIES Electrode
Theresa Welle, Senior, Molecular & Cellular Biology, LAS

The Petrogenesis of Intermediate Stocks and Dikes of the Wasatch Igneous Belt, Central Wasatch Range of Utah
Isaac Foli, Senior, Geology, LAS

Tagging Endogenous Genes Using a Universal Nuclease Assisted Vector Integration System
Nikhil Shiva, Junior, Bioengineering, ENG

Childhood Health and Relational Memory
Matt Simanoni, Senior, Molecular & Cellular Biology, LAS

Barkhausen Noise Probe of the Ferroelectric Transition in the Relaxor PMN-12%PT
Xinyang Zhang, Senior, Physics, LAS

Using Biosynthesized 13C-Cholesterol and SSNMR to Investigate Lipid Dynamics
Zoe Petros, Senior, Biochemistry, LAS

High Molecular Weight Poly-α-Glutamic Acid Brush Polymer Conjugates as Cancer Therapeutics
Diane Kuai, Senior, Materials Science & Engineering, ENG

Surface-Enhanced infrared Absorption (SEIRA) to Monitor Surface Reactions
Mary Haugen, Senior, Chemistry, LAS

Toxin-Based Delivery Vehicles for Targeting DNA Vectors to Motor Neurons
Ross Skelly, Senior, Molecular & Cellular Biology, LAS

Order and Chaos in Arithmetic Sequences: Quantifying the Degree of Randomness in Mathematical Sequences
Yuchen Li, Sophomore, Computer Engineering, ENG
Yunyi Zhang, Sophomore, Engineering Physics, ENG
Xinwei He, Sophomore, Mathematics and Computer Science, LAS

The Regulation of Ion Transport across the Vacuolar Membrane in Saccharomyces Cerevisiae
Brandon Jones, Senior, Molecular & Cellular Biology, LAS
In Vitro Characterization of Substrate Specificity for Secologanin Synthases Supported by Cytochrome P450 Reductases From Camptotheca acuminata and Catharanthus roseus

Allison Hollatz, Senior, Molecular & Cellular Biology, LAS

Dopaminergic Drugs Influence Impulsivity and Attention on the 5-Choice Serial Reaction Time Task (5-CSRTT) in a Rodent Model

Laura Olander, Sophomore, Animal Sciences, ACES

The Role of tRNA in Translational Regulation of Gene Expression in Mycobacterium

John Oh, Junior, Biochemistry, LAS

Inducing Gene Overexpression in Streptococcus mutans to Identify Essential Genes

Caroline Blassick, Junior, Bioengineering, ENG

The Fake Randomness Project: How to Differentiate Made-up Data Points from Random Data

Victor Sui, Sophomore, Computer Science, ENG

Second Phase Development of a Comprehensive Curricular Module That Integrates Hands-on Physical Tests with Model-Based Design: Gear Design and Test Activity for GE 410

Junwu Zhang, Senior, Mechanical Engineering, ENG

Inside Out: Importance of Lysosomal Exocytosis for the Release of intracellular Bacillus anthracis from Infected Macrophages

Alondra Diaz, Junior, Molecular & Cellular Biology, LAS

Isomorphism in Enumeration with Structured Components

Shangting Li, Junior, Industrial Engineering, ENG

Understanding Kappa Opioid Receptor Dependent Learning Modulation in Behavioral Tasks

Ali Aijaz, Senior, Molecular & Cellular Biology, LAS

Long Lake Axis Parallel (LLAP) Snow Bands Impacting the West Coast of Lake Michigan

Jason Maska, Senior, Atmospheric Sciences, LAS

Correlation Between Body Composition in Preadolescents and Peak Aerobic Performance Levels

Daniel Cavato, Sophomore, Kinesiology, AHS

David Kellner, Sophomore, Kinesiology, AHS

A Study on Graphically Enhanced Representations of Medical Test Results and Their Influence on Accurate Risk Perception

Tanya Malik, Junior, Psychology, LAS

Using Biochar to Mitigate Soil Greenhouse Gas Emissions: Seasonal Dynamics and Possible Mechanisms

Joseph Edwards, Senior, Integrative Biology, LAS

Uncertainty Quantification for the Integrated Probabilistic Risk Assessment Framework

Grant Schumock, Junior, Nuclear Plasma & Radiological Engineering, ENG

Transit Time Measurements for Probing Mechanical Properties and Surface Expression of Proteins of a Cell

Mariam Saadah, Junior, Bioengineering, ENG

Near Infrared Metal Ion Sensing Using DNAzymes

Kang Yong Loh, Senior, Chemistry, LAS

Multiplexed and Tunable Genome-Scale Transcriptional Activation by Promoter Insertion Using Nuclease-Assisted Vector Integration

Nathan Tague, Senior, Bioengineering, ENG

Activity-dependent Changes in Proteins at the Neuronal Axonal Initial Segments During Homeostatic Plasticity of Intrinsic Excitability

Zhuoli Huang, Senior, Biochemistry, LAS

Modeling Glioblastoma using Microfluidics

Elijah Karvelis, Junior, Chemical & Biomolecular Engineering, LAS

Cloning and Expression of Insecticide-metabolizing Anopheles gambiae CYP6P3 and CYP6Z3 in Escherichia coli

Nicole Blum, Senior, Molecular & Cellular Biology, LAS

PB SESSION — EDUCATION, SOCIAL SCIENCES, AND HUMAN BEHAVIOR

9:00 AM — 10:15 AM, Illini Room C

Maternal Parenting Stress and Cardiac Autonomic Regulation in Infants with Down Syndrome

Caylie Kurtenbach, Junior, Speech & Hearing Science, AHS

The Indian Child Welfare Act: A Policy Analysis

Anne Coulomb, Senior, Social Work, SSW

The Impacts of Privacy Hypocrisy, Victim Characterization, Gender, and Context on Bystanders’ Guilt Attribution in a Cyberbullying Suicide

Yixin Zou, Senior, Advertising, COM

I Want to Take my Leadership Skills to the Next Level: Youths’ Goals for Participation in After-School Programs

Katherine Erwin, Junior, Human Development & Family Studies, ACES

Anna Reynish, Junior, Human Development & Family Studies, ACES
Creating and Testing Virtual Reality (VR) for UIUC: Immersive Media & The Consumer
Aparna Sivasankaran, Senior, Advertising, COM
Yixin Zou, Senior, Advertising, COM

Gender and Education
Sammie Streeter, Freshman, Elementary Education (Grades 1-6), EDU
Jamie Rush, Freshman, Elementary Education (Grades 1-6), EDU
Susanna Ogorkowska, Freshman, Elementary Education (Grades 1-6), EDU

University Primary School Students' Perceptions of Spanish Class
Tiffany Nieves, Freshman, Elementary Education (Grades 1-6), EDU

Mechanisms by Which "Brilliance-required" Messages Hinder Female Performance
Madeline Reinecke, Senior, Psychology, LAS

An Investigation of Third Party Voting in US Presidential Elections
Aaron Reinsbach, Senior, Political Science, LAS

UP 478: Reclaiming the City
Hanna Udischas, Senior, Urban Planning, FAA

Analyzing Everyday-talk and Conversational Flow between Clients with Aphasia and Clinicians
Carissa Ernat, Senior, Speech & Hearing Science, AHS
Nicole DelGiudice, Senior, Speech & Hearing Science, AHS
Margaret Boland, Senior, Speech & Hearing Science, AHS

Engineering Students' Perceptions of the Social Responsibilities of Engineers
Athena Lin, Senior, Materials Science & Engineering, ENG

"She Continues to Grow with the Program": Parents' Goals for Their Youth Partaking in After-School Programs
Anna Reynish, Junior, Human Development & Family Studies, ACES
Katherine Erwin, Junior, Human Development & Family Studies, ACES

Is the On-Campus Improv Community Inclusive in Terms of Race and Gender? What Attitudes and Behaviors Perpetuate the Same Demographic of People to Participate?
Bobbi McSwine, Sophomore, Journalism, COM

Pediatric Oral and Mental Health Comorbidity: Introducing a Biopsychosocial Explanation
Felix So, Senior, Psychology, LAS

Mood Effects on Responses to Advertising
Emma Campanella, Freshman, Advertising, COM

Title IX and Higher Education: A Policy Analysis
Emily Bauman, Junior, Social Work, SSW

Identifying Successful Strategies for Mealtimes on the Autism Spectrum
Caroline Stevens, Senior, Human Development & Family Studies, ACES

Understanding Willingness to Intervene in Sexual Violence
Daniel Saxe, Senior, Psychology, LAS

Potential Drivers of Intention-Driven Illusory Behavior: Rumination and Mood in a Goal-Driven Task Setting
Colin Harmony, Senior, Psychology, LAS

Right-Wing Populism in Austria and Germany
Sonam Kotadia, Senior, Global Studies, LAS

Intra-Party Factions and Inter-Party Polarization
Collin Schumock, Senior, Political Science, LAS

Laptop Stickers May Act as a Proxy for Personality Traits
Armando Sanchez-Monsivais, Sophomore, Advertising, COM

Personality Correlates of Sexual Experiences Among an Undergraduate Sample
Mecca Maynard, Senior, Psychology, LAS

Understanding the Importance of the Relationship Between Bilingual Families and Schools
Natalie Hernandez, Freshman, Elementary Education (Grades 1-6), EDU
Payton White, Freshman, Elementary Education (Grades 1-6), EDU

Active Contributions to Spatial Learning in a Virtual Dunhuang Cave
Jefferson Fu, Senior, Psychology, LAS

Asymmetrical Information and College Realty Markets
Rachel Richardson, Senior, Consumer Economics & Finance, ACES
Adam Kurczewski, Senior, Agri-Accounting, ACES

The Correlation Between a Student's Favorite School Subject and Ideal Career
Rachel Hernandez, Freshman, Elementary Education (Grades 1-6), EDU
Silvia Sulentic, Freshman, Elementary Education (Grades 1-6), EDU
Shemia Barnes, Freshman, Elementary Education (Grades 1-6), EDU

Hitting Snooze: The Relationship between Diet and Sleep Quality
Jessica Park, Senior, Dietetics, ACES

PC SESSION — FOOD, PLANTS, AND ANIMALS
9:00 AM — 10:15 AM, South Lounge

Food Deserts, Socioeconomic Disparities, and Engineering Approaches to Development of Modern Communities
Nathan Cornwall, Sophomore, Bioengineering, ENG

"She Continues to Grow with the Program": Parents' Goals for Their Youth Partaking in After-School Programs
Anna Reynish, Junior, Human Development & Family Studies, ACES
Katherine Erwin, Junior, Human Development & Family Studies, ACES

Is the On-Campus Improv Community Inclusive in Terms of Race and Gender? What Attitudes and Behaviors Perpetuate the Same Demographic of People to Participate?
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The Correlation Between a Student's Favorite School Subject and Ideal Career
Rachel Hernandez, Freshman, Elementary Education (Grades 1-6), EDU
Silvia Sulentic, Freshman, Elementary Education (Grades 1-6), EDU
Shemia Barnes, Freshman, Elementary Education (Grades 1-6), EDU
Jump Mechanics in the Ant Gigantiops destructor (Hymenoptera: Formicidae)
Dajia Ye, Senior, Integrative Biology, LAS

Influences of Transportation Cost on Market Price of Maize in Zambia
L. Ashley Yu, Senior, Agricultural & Consumer Economics, ACES

Relationship between Whole Grain Consumption and Selective Attention
Jackson Evensen, Senior, Kinesiology, AHS

Evaluation of EDNRB as a Candidate Gene for the Star Phenotype in Silver Foxes (Vulpes vulpes)
Omar Shennib, Senior, Molecular & Cellular Biology, LAS

Pictures Worth a Thousand Words: Utilizing Photographs to Examine the Food Worlds of Low Socioeconomic Women
Jaclyn Trauscht, Sophomore, Molecular & Cellular Biology, LAS
Jennifer Vargas, Junior, Community Health, AHS

After Arcadia - The Future of Small Farming
Emily Greibe, Junior, Landscape Architecture, FAA

Effects of Anthocyanin Rich Colored Corn Extracts on Janus Kinase Inhibition
Sharon Li, Junior, Food Science, ACES
Kathryn Johnson, Senior, Food Science, ACES

Why Have Primates Evolved a Long Juvenile Period, and How Does This Relate to Social Spacing of Cebus capucinus?
Alia Kirsch, Senior, Anthropology, LAS

The Effect of Climate Variables on Vegetation Productivity on Different Temporal Scales
Anish Bhattacharya, Junior, Electrical Engineering, ENG

Investigating the Function of Pro-phenoloxidase in Daphnia Defense Against Metschnikowia Parasite
Gargi Sundaram, Junior, Integrative Biology, LAS

An Analysis of Splice Variants of the WRKY1 Gene in Arabidopsis thaliana
Laura Janousek, Sophomore, Integrative Biology, LAS

The Total Phenolic, Antioxidant, and Vitamin C Content in Fruit and Vegetable Peels and Flesh
Timothy Jang, Senior, Horticulture, ACES

Human-Elephant Conflict in Chobe, Botswana: Assessing Elephant Pathway Usage in Relation to Human Settlement
Trent Mizui, Senior, Natural Resources & Environmental Sciences, ACES
Taylor Damery, Senior, Animal Sciences, ACES

Interferon-lambda Induction During Influenza Infection in the Canine Epithelial Cell
Zachary Dean, Senior, Molecular & Cellular Biology, LAS

Central DMNT inhibition improves Sickness Behavior
Julisa Zimmerman, Senior, Animal Sciences, ACES

Chemical Properties of Proanthocyanidins from Color Corn after Different Processing Methods
Juliet Lacente, Junior, Food Science, ACES

Mitochondrial and Y-Chromosome Haplotypes Reveal Population History of North American Foxes
Jeremy Stutchman, Junior, Animal Sciences, ACES

Larval Dietary Preference of Amyelois transitella for Media Producing Fungal Volatiles of Aspergillus flavus
Abraham Matlak, Senior, Integrative Biology, LAS

Increasing CRISPR/Cas9 Efficiency by Silencing XRCC4 in N. Benthamiana using Virus-Induced Gene Silencing
Helen Liu, Junior, Plant Biotechnology & Molecular Biology, ACES

Conservation in Tanzania to Mammal Line Transects in the Serengeti Ecosystem
Kat Perkins, Junior, Animal Sciences, ACES

Comparison of the Apoptosis-inducing Potential of Anthocyanin-rich Plant Extracts on Colon Cancer Cells in Vitro
Katie Liang, Senior, Molecular & Cellular Biology, LAS

Repellent-taxis in Bacillus subtilis
Zachary L. Foust, Senior, Molecular & Cellular Biology, LAS

PD SESSION — SCIENCE AND MATHEMATICS
10:45 AM — 12:00 PM, Illini Room A

Elucidating the Mechanism by Which Ball Plasmoids are Stabilized Using Emission Spectroscopy
Amber Rose, Junior, Chemistry, LAS

Neuroplasticity-related Protein Expression in the Piglet Brain
Rebecca Moll, Senior, Animal Sciences, ACES

Exemplar and Prototype Category Learning in Younger and Older Adults
Xiao (Nicole) Han, Senior, Psychology, LAS
An Investigation into the Role of PTB in Preventing Colorectal Cancer  
Wesley Tung, Sophomore, Molecular & Cellular Biology, LAS

The Effect of Zinc on the Differentiation of Adipose-derived Stem Cells (ASC) into Osteoblasts  
Joshua Bertels, Junior, Molecular & Cellular Biology, LAS

Statistical Analysis of Weather Forecasts: Accuracy of Internet Weather Forecasts vs. Statistical Models  
Sijia Huo, Junior, Mathematics and Computer Science, LAS

The Role of PTB in Mouse Spermatogenesis  
Kinan Sawar, Sophomore, Molecular & Cellular Biology, LAS

Dietary Plant miRNA Found in Human Term Placenta Tissue  
Benjamin Lamar, Senior, Molecular & Cellular Biology, LAS

Biochemical and Structural Analysis of the Interaction Between PCNA and Mac PolB 2P1PBox  
Fatima Eldes, Junior, Molecular & Cellular Biology, LAS

Fabrication of Anti-Reflection Coatings and Alumina Lenslet Arrays for SPT-3G Camera  
Anna Kofman, Senior, Physics, LAS

A Novel Combinatorial Therapy for Triple Negative Breast Cancer  
Taylor Kampert, Senior, Bioengineering, ENG

MAT-MIP: A GUI Development for Medical Image Processing  
Pete Conway, Senior, Nuclear Plasma & Radiological Engineering, ENG

Design and Validation a Custom Electromyography (EMG) System for a Portable Position, Velocity, EMG and Resistance Meter (PVREM)  
Rohita Mocharla, Senior, Mechanical Engineering, ENG

The Effect of FOXA2 Inactivation on Mucus Overproduction in Canine Respiratory Infections  
Madeline Steiner, Senior, Molecular & Cellular Biology, LAS

Biomolecular Networks and Persistence Strategies  
Aishwarya Raj, Sophomore, Biochemistry, LAS

Does Scene Structure Affect Change Detection?  
Yi Zhao, Senior, Psychology, LAS

10 Million Poker Hands: Data Mining and Predictive Modeling  
Ruoyu Zhu, Junior, Mathematics, LAS

Characterization of Three Proteins Belonging to the Uracil-DNA Glycosylase (UDG) Family in Methanosarcina acetivorans  
Matthew Heffernan, Senior, Molecular & Cellular Biology, LAS

Determining the API Gravity of Cypress using Fluorescence  
Pingfan Hu, Senior, Chemical & Biomolecular Engineering, LAS

Low-Cost Radio Telescope for Observations of the Galactic Plane at 21 cm  
James Cheshire IV, Senior, Physics, LAS

Detection of D-Amino AcidContaining Neuropeptides through Carboxypeptidase Y Digestion  
Sankara Mandalika, Junior, Molecular & Cellular Biology, LAS

Relationship among Impulsivity, Alcohol Use, and Dopamine Receptor Expression in Prefrontal Cortex  
Qingrou Gu, Senior, Psychology, LAS

Effect of Caloric Restriction on Adipose Tissue Lipid Droplet Biogenesis  
Zachary Goldberg, Sophomore, Molecular & Cellular Biology, LAS

Role of ytfL in the Defense Against Oxidative Stress in Salmonella Typhimurium  
Andy Wu, Senior, Molecular & Cellular Biology, LAS

Coarse-grained Atomistic Simulation of Isolated Beta-amyloids Plaque Found in Alzheimer and to Study the Effect of Varying Environment in its Structure and Stability  
Alana Alfeche, Senior, Materials Science & Engineering, ENG

From Harm to Unfairness: What Inferences Do Toddlers Draw about Wrongdoers’ Moral Characters?  
Chitra Iyer, Senior, Molecular & Cellular Biology, LAS

The Wall: Determining Viability of Low OD Ratios for PCR Amplification Using Genomic DNA  
Jessica Brooks, Sophomore, Animal Sciences, ACES

Understand the Mechanism by which POMC is Down Regulated by E2 in the Pituitary Gland  
Annesha Banerjee, Senior, Chemistry, LAS

Investigating the Function of Catalytic Null Splice Variants of Human Leucyl-tRNA Synthetase  
Connor Forsyth, Junior, Molecular & Cellular Biology, LAS
Analysis of Crack Strain Energies of Rheological Materials Through Cavitation-pressure Experiments
Davin Bahk, Junior, Mechanical Engineering, ENG
Steven Yang, Senior, Agricultural & Biological Engineering, ACES

Contributions to ATLAS Experiment from the Fast TracKer
Daniel Salazar, Junior, Physics, LAS

The Green Housing Market of Champaign-Urbana, Illinois: Determining the Added-Value of Solar Panels on Residential Homes
Elizabeth Wright, Senior, Agricultural & Consumer Economics, ACES

Mechanisms of Drug-drug Interactions in Cytchrome P450
Robert Knier, Junior, Molecular & Cellular Biology, LAS

Low-force Mechanical Impacts Modulate Calcium Dynamics in Neurons
Kimberly Sam, Senior, Molecular & Cellular Biology, LAS

A Truth-Functional Model for the Computation of Monotone Boolean Functions
Aubrey Laskowski, Sophomore, Mathematics and Computer Science, LAS
Alice Chudnovsky, Sophomore, Mathematics, LAS

The Mathematics of Poker: From John von Neumann to the World Series of Poker
Nicholas Brown, Senior, Economics, LAS
JungHyun Hwang, Freshman, Mathematics and Computer Science, LAS
Ruoyu Zhu, Junior, Mathematics, LAS
Simiao Ye, Junior, Computer Engineering, ENG

Monogamy and Limited Female Choice Promote the Evolution of Parthenogenesis
Paul Bogdan, Senior, Molecular & Cellular Biology and Economics, LAS

A New Two-Phase Nozzle Flow Control Mechanism
Kate Malmsbury, Sophomore, Mechanical Engineering, ENG

Exploring Expressive Dimensions In Unscripted Male Voices
Sophie Jin, Sophomore, Electrical Engineering, ENG

Identifying Influential Users Discussing Controversial Topics
Priyanka Balakumar, Freshman, Computer Science and Statistics, LAS

The Analysis of Soil Organic Matters in Intensively Managed Landscapes'
Emilio Cabrera, Junior, Statistics, LAS

Following Fecal Microbiota Transplant (FMT) for Clostridium Difficile Infections
Oluymemisi Joseph, Senior, Molecular & Cellular Biology, LAS

Another Approach Towards Retirement
Tina Park, Senior, Recreation, Sport & Tourism, AHS
Pamela Hernandez, Sophomore, Community Health, AHS
Alondra Rios, Junior, Recreation, Sport & Tourism, AHS
Mitchell Fransen, Junior, Recreation, Sport & Tourism, AHS
Daniel Andress, Sophomore, Molecular & Cellular Biology, LAS

Effects of Dietary Fats on the Gastrointestinal Microbiota and Cardiovascular Disease Risk Factors in Healthy Weight, Overweight, and Obese Adults
Kennedy Davis, Sophomore, Human Nutrition, ACES

Inhibition of Soluble VEGFR1 (sFlt1) to Treat Preeclampsia
Jeffrey Varghese, Sophomore, Bioengineering, ENG
Adam Dama, Sophomore, Bioengineering, ENG
Sung Min Shin, Junior, Bioengineering, ENG
Deepthi Suresh, Sophomore, Bioengineering, ENG

A Meta-analysis of Attachment Security and Substance Use
Dani Kang, Senior, Psychology, LAS

The Design and Fabrication of a Non-Invasive Thermometry Platform for Accurate Dehydration Detection
Eddie Sun, Junior, Mechanical Engineering, ENG

Examining Repeated Engagement During Collaborative Referencing: An Aphasia Treatment Study
Claire Smego, Senior, Speech & Hearing Science, AHS
Regan Kelley, Junior, Speech & Hearing Science, AHS
Andrea Jachino, Junior, Speech & Hearing Science, AHS

A Synthetic Biology Approach to the Study of Gut Microbial Bile Acid 12α-hydroxy Epimerizing Enzymes
Greta Doden, Senior, Animal Sciences, ACES

The Application of Stem Cells in Skin Repair and Regeneration
Abdul-Rahman Abdel-Reheem, Senior, Molecular & Cellular Biology, LAS
Ahmed Radwan, Junior, Actuarial Science, LAS
Pedro Escobedo, Junior, Actuarial Science, LAS
Jeffrey Varghese, Sophomore, Bioengineering, ENG

Assessing Differences in Grey Matter Anatomy After Mindfulness-based Practice in Tinnitus Patients
Emily Kay, Junior, Speech & Hearing Science, AHS
Greater Perseverance and Determination is Associated with Lower Odds of Food Insecurity Among U.S. Parents
Megan Schierer, Senior, Integrative Biology, LAS

Portable Listening Devices: Listening Habits, Hearing Health, and Cognition
Andrew Perpignani, Senior, Speech & Hearing Science, AHS

Rate Your Plate: Dietary Habits of Hispanic Mothers in an Obesity Prevention Program
Alejandro Torres, Junior, Psychology, LAS

Do You See What I See? Weight Perceptions of Parents and the Snacking Practices that Contribute to Rising Overweight and Obesity
Brenda Munguia, Sophomore, Community Health, AHS

Sleep Right, Eat Right?: Examining the Relationship between Adequate Sleep and Fruit and Vegetable Consumption in Twelve-Month-Old Children
Brandon Chou, Sophomore, Health Planning & Administration, AHS
Brianna Velazquez, Senior, Psychology, LAS
John Belz, Senior, Biology, LAS

Physical Activity and Bone Mineral Density in Healthy and Overweight Adults
Alaina Balbinot, Junior, Food Science & Human Nutrition, ACES

Electrophysiological Markers of Cognitive Control in Picture Word Interference Task
Meghan Diamond, Senior, Speech & Hearing Science, AHS
Stephany Burz, Junior, Psychology, LAS

Effects of Circadian Disruption on Female Reproduction
Angel Chu, Senior, Molecular & Cellular Biology, LAS

Prevalence and Correlates of Antenatal Suicidal Ideation among Racially and Ethnically Diverse Women Receiving Care in a Midwestern Public Health Clinic
Nancy Perez, Junior, Social Work, SSW

Creating Culturally Competent Healthcare Professionals for LGBTQ Patients Using Educational interventions: A Modified Integrative Literature Review
David S. Cho, Senior, Nursing, NUR

Has the Presence of Food Advertising Increased Childhood Obesity?
Anastasia Mourikes, Junior, Advertising, COM

Is Obesity the New Norm? Understanding Weight Perceptions and Nurturing Health Intentions
Guadalupe Herrera, Sophomore, Undeclared, DGS

Connected Language in Alzheimer’s Disease
Fanting Kung, Junior, Speech & Hearing Science, AHS

Ni de Aquí Ni de Alla: Preliminary Program Adaptations for Health Interventions Addressing Guatemalan Immigrants’ Diet and Lifestyle Patterns
Evelyn Zepeda, Junior, Community Health, AHS

The Potential of Music Therapy for Positive Effects of Schizophrenia
Mayna Tyrrell, Senior, Musicology, FAA

The Timing of Recess and the Effects in Nutrition and Physical Activity in Elementary-Aged Students
Kathryn Liston, Junior, Kinesiology, AHS
Camryn Schmidt, Junior, Kinesiology, AHS
Bridget Tesher, Senior, Molecular & Cellular Biology, LAS

How the Perceptions of Neighborhood Conditions Impact Physical Activity Behavior in Adults with Multiple Sclerosis: A Qualitative Approach
Nikta Athari, Junior, Interdisciplinary Health Sciences, AHS
Ilham Hussaini, Senior, Molecular & Cellular Biology, LAS
Brittany Albrecht, Junior, Interdisciplinary Health Sciences, AHS

Falls in Older Individuals with and without Multiple Sclerosis
Jamie Rymut, Senior, Kinesiology, AHS

Cure My Life with Black Seed Oil
DaShon Rivers, Junior, Kinesiology, AHS

Hydrogels: The Future of Drug Delivery
Shrey Maheshwari, Sophomore, Bioengineering, ENG

PF SESSION — EDUCATION, SOCIAL SCIENCES, AND HUMAN BEHAVIOR

Examination of Polygenic Risk for Schizophrenia, Schizotypy Traits, and Traumatic Brain Injury
Justin Lien, Senior, Psychology, LAS

The Effect of Cognitive Load on Visual Sensitivity
Sophie Leib, Senior, Psychology, LAS

The Role of the Hippocampus in Conceptual Combination
Mahima Goel, Senior, Molecular & Cellular Biology and Psychology, LAS
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<tr>
<th>Title</th>
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<td>I Think He Wants You to Play the Guitar: Use of Interpretation as a</td>
<td><strong>Carissa Ernat</strong>, Senior, Speech &amp; Hearing</td>
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<td>Strategy for Facilitating Interaction across Autistic and Non-Autistic</td>
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<td>Understanding the Brexit Referendum: Direct Democracy and</td>
<td><strong>Amy Radlinski</strong>, Senior, Political Science</td>
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<td>International Regimes</td>
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<td>Do Children Blame Victims?</td>
<td><strong>Jacqueline Beck</strong>, Senior, Psychology</td>
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<td>Patterns of Mean-Level Change in Personality Traits Across the Life</td>
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<td>Course in College vs. Non-College Samples</td>
<td><strong>Robert Clark</strong>, Senior, Psychology</td>
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<td>Influence of Trust in New Relationships</td>
<td><strong>Marty Schatz</strong>, Senior, Psychology</td>
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<td>Barriers among Low-income Latino Families with Young Children</td>
<td><strong>Xochitl Esparza</strong>, Sophomore, Social</td>
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<td>Transitioning to Kindergarten</td>
<td>Work, SSW</td>
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<td>Using the ABC-X Model to Understand Mealtimes for a Family with a</td>
<td><strong>Rachel Wurtzel</strong>, Senior, Human Development</td>
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<td>Child with Autism: A Case Study</td>
<td>&amp; Family Studies, ACES</td>
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<td>Cultural Influence on the Relation Between Agreeableness and Job</td>
<td><strong>Yueyang Chen</strong>, Senior, Psychology</td>
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<td>Authoritarian to Democratic Transitions: The Impact of Legacies</td>
<td><strong>Mandie Heitz</strong>, Senior, Political Science</td>
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<td>The Effect of Ideology on Protest Behavior of Citizens in Latin</td>
<td><strong>James Holevas</strong>, Senior, Political Science</td>
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<td>American Countries</td>
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<td>Approaches to Education Policy and Refugee Outcomes in European</td>
<td><strong>Derek Hoot</strong>, Senior, Political Science</td>
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<td>Health Outcomes among Garment Workers in Low-Middle Income Countries</td>
<td><strong>Shelby Gordon</strong>, Senior, Interdisciplinary</td>
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<td>A Scoping Review</td>
<td>Health Sciences, AHS</td>
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<td>Processing of English Articles by Second Language Learners</td>
<td><strong>Jessie Golden</strong>, Senior, Linguistics, LAS</td>
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<td>Storytelling and Architecture in South Pacific Cultures</td>
<td><strong>Anthony LoCasio</strong>, Freshman, Architectural</td>
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<td>World Wars: Investigating the Nature of World Wars, Why They Occur,</td>
<td><strong>Moksha Muthukrishnan</strong>, Senior, Political</td>
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<td>and Why They Do Not</td>
<td>Science, LAS</td>
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<td>Reconstructing the Lost Architecture of the University of Illinois</td>
<td><strong>Emma Dannhausen-Brun</strong>, Freshman, Architectural</td>
<td>Studies, FAA</td>
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<td>Effects of Parental Attachment Style and Emotional Responsiveness on</td>
<td><strong>Dylan Young</strong>, Freshman, Architectural</td>
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<td>Children’s Media Use</td>
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<td>Linking Intuition to Embodied Experience: The Case for Regaining</td>
<td><strong>Patrick Kwon</strong>, Sophomore, Physics</td>
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<td>The &quot;Indian Problem&quot; in the Early Twentieth Century</td>
<td><strong>Cindy Martinez</strong>, Freshman, Psychology</td>
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<td>Studying Anglo-Soviet Cultural Exchanges - a Zero-Sum Game between</td>
<td><strong>Nalin Gadihoke</strong>, Sophomore, Nuclear Plasma</td>
<td>ENG</td>
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<td>Human Analysis and Simple Code</td>
<td>&amp; Radiological Engineering</td>
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<td>Bridging the Gap: Millennials and Financial Advice</td>
<td><strong>Christopher J. Valvassori</strong>, Senior,</td>
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<td>Agricultural &amp; Consumer Economics, ACES</td>
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<td>Synthesizing Chemical Libraries for Drug Discovery</td>
<td><strong>Amanda Cowfer</strong>, Junior, Chemistry and</td>
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<td>Molecular &amp; Cellular Biology</td>
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<td>The Future of Renewable Energy: Tandem Silicon-Perovskite Solar Cells</td>
<td><strong>John Simonaitis</strong>, Junior, Electrical</td>
<td>ENG</td>
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<td>Engineering and Engineering Physics</td>
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<td>An Investigation into the Role of hnRNPI in Preventing Colorectal</td>
<td><strong>Wesley Tung</strong>, Sophomore, Molecular &amp;</td>
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<td>Black Science Matters</td>
<td><strong>Zila Renfro</strong>, Senior, Journalism</td>
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<td>Featured Presentations</td>
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<td>Lunch: 12:00 PM — 1:15 PM, Illini Room B</td>
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PG SESSION — SCIENCE AND MATHEMATICS

1:30 PM — 2:45 PM, Illini Room A

An Investigation into the Role of the TBX18 Transcription Factor in Mesenchymal to Epithelial Transition in Mammalian Urogenital Sinus Development

Kurt Reynolds, Senior, Molecular & Cellular Biology, LAS

Functional Characterization of S-layer Deficient Mutants in Sulfolobus islandicus

Rebecca Wipfler, Sophomore, Molecular & Cellular Biology, LAS

Atomistic Modeling of the Ion-Induced Depth-Dependent Compositional Profile in Driving Surface Morphology in III-V Semiconductors

Michael Toriyama, Sophomore, Materials Science & Engineering, ENG

Paleoecology of “Butter” Shale Communities from the Waynesville Formation (Upper Ordovician) in the Cincinnati Arch

John Luchok, Junior, Geology, LAS

Alpha2A Adrenoreceptor Influence on Proliferation of Intestinal Epithelial Stem Cells

Mary Kate Feldner, Senior, Molecular & Cellular Biology, LAS

The Possible Changes on Atmospheric Rivers along the Pacific Coast of the Western U.S. under Climate Change Condition

Shao Wen (Amy) Chen, Senior, Atmospheric Sciences, LAS

Convergence of the DNA Damage Response Impairs Core Homeostatic Autophagic Machinery of Human Cells in vitro

Paul Kaminski, Junior, Biochemistry, LAS

Determining Variability in Peptides within Mice with OIH and Migraine

Jimmy Wang, Junior, Chemical & Biomolecular Engineering, LAS

A Unified Approach for Surface-Initiated Atom-Transfer Radical Polymerization (SI-ATRP)

Nathan Reed, Senior, Chemistry, LAS

Interpolating Surface Pressure Data from Wings with Artificial Ice

William Yoshida, Junior, Aerospace Engineering, ENG

Morphological Awareness Intervention Activities Used With Children

Sarah Vogt, Senior, Speech & Hearing Science, AHS

Gregory Knapp, Senior, Speech & Hearing Science, AHS

Rachel Thain, Junior, Speech & Hearing Science, AHS

Building a Chemical Library of Complex Small Molecules from Natural Products

Amanda Cowfer, Junior, Chemistry and Molecular & Cellular Biology, LAS

A Simple Protocol to Extract DNA from A Small Number of Cells

Nicole Lopez, Senior, Animal Sciences, ACES

Behavior of Porcine Mesenchymal Stem Cells on a Collagen-Glycosaminoglycan Hydrogel Scaffold for Bone and Cartilage Tissue Engineering

Sarah Womack, Junior, Molecular & Cellular Biology, LAS

A County-Wide Information Base for Decision-Support During Weather Emergencies

Rachel Gutierrez, Senior, Atmospheric Sciences, LAS

Benchmarking and Optimization of Long-distance Big Data Transfers, in Application to Large Genomics Projects

Ellen Nie, Junior, Computer Science, ENG

Automatic Classification of Ice Crystals using Techniques in Machine Learning

Javier Villegas, Sophomore, Atmospheric Sciences, LAS

The Happy Number Project: Experimental and Theoretical Investigations on a Classical Problem

Zihe Wang, Sophomore, Mathematics, LAS

Thien Le, Freshman, Mathematics and Computer Science, LAS

Yunxin Zhang, Sophomore, Mathematics, LAS

Utilizing the Gut Microbiota to Predict Weight Loss from a Volumetric Diet and Exercise Program in Obese Adults

Haily Stillabower, Sophomore, Undeclared, DGS

Deconstructing Vadose Zone Oxidation-Reduction Cycles in the Eel River Critical Zone Observatory, Northern California

Jia Wang, Senior, Earth, Society & Environmental Sustainability and Geology, LAS

Specification of T1 Neuron Fate in Drosophila

Vamsikrishna Naidu, Senior, Molecular & Cellular Biology, LAS

ALMA Observations of a Quiescent Molecular Cloud in the Large Magellanic Cloud

Evan Wojciechowski, Junior, Physics, LAS

Btk29a Influences Imaginal Disc Regeneration in Drosophila melanogaster

Benjamin Wang, Senior, Molecular & Cellular Biology, LAS

Benchmarking Parfu to Determine Best User Parameters for Genomic Analyses

Tiffany Li, Junior, Integrative Biology, LAS
Analysis of Photoinduced Processes in Quantum Dot Heterostructures with Nanosecond Transient Absorption Spectroscopy
Alexandra Lamtyugina, Junior, Chemistry, LAS

Leading Digit Distribution, Continued Fractions, and Probabilistic Diophantine Approximation
Yuan Zhang, Junior, Mathematics, LAS
Matthew Faust, Junior, Computer Engineering, ENG

Small Molecule Restores Iron Transport and Promotes Gut Iron Absorption and Hemoglobinization
Christopher Nardone, Senior, Molecular & Cellular Biology, LAS
James Fan, Junior, Chemical & Biomolecular Engineering, LAS

Stochastic Collocation for Uncertainty Propagation in High-Speed Link Simulation using Wavelet Bases
Alan Yang, Sophomore, Electrical Engineering, ENG

Understanding Heme-Copper Oxidases Through Site-Directed and Metal Mutagenesis of Myoglobin-Based Enzyme Models
Madeline Sponholtz, Junior, Biochemistry, LAS

Investigating the Chemical Response of Pseudomonas aeruginosa Microbial Communities to Antibiotic Treatment
Stephanie Lozano, Junior, Molecular & Cellular Biology, LAS

Dielectric Relaxation Study of Barium Titanate in the Rhombohedral Phase
Shubhang Goswami, Senior, Physics, LAS

Establishment of ex vivo Organs Slice Culture of Mouse Stomach
Jeongmin Lee, Senior, Biochemistry, LAS

Design of a Planar Focusing Collector for Concentrated Solar Power
Aakash Choubal, Junior, Mechanical Engineering, ENG

Impulsive Behavior is Influenced by Interactions Between Cholinergic and Dopaminergic Neurotransmitter Systems
Chi Tran, Junior, Psychology, LAS

PH SESSION — FOOD, PLANTS, AND ANIMALS
1:30 PM — 2:45 PM, Illini Room C

Dining Dickcissels: A Study of a Grassland Bird’s Provisioning Behaviors
Iris Daiber, Junior, Fish & Wildlife Conservation, ACES

LEED: Where is it Leading Us and Should We Follow?
Harjot Sidhu, Freshman, Architectural Studies, FAA

Effects of Including DBY70 in Diets Fed to Weanling Pigs
Molly McGhee, Senior, Animal Sciences, ACES

Analysis of Dietary Intervention Compliancy within the Persea Americana for Total Health (PATH) Study
Jessica Dietrich, Senior, Human Nutrition, ACES

Microbial Production of Human Milk Oligosaccharides
Sunyoung Choi, Junior, Molecular & Cellular Biology, LAS

The Relationship between Dietary Carbohydrates and Cognition
Ruyu Liu, Senior, Food Science & Human Nutrition, ACES
Jackson Evensen, Senior, Kinesiology, AHS
Shaun Majeed, Junior, Economics, LAS
Jimmy Park, Junior, Kinesiology, AHS

Herbivore Population Dynamics in the Chobe Enclave
Kaitlyn Campbell, Junior, Animal Sciences, ACES
Benjamin Daniels, Senior, Natural Resources & Environmental Sciences, ACES

Measuring the Deliquescence Point of Isomaltulose
Cara Feng, Junior, Food Science, ACES
Wildlife Conservation in the Enashiva Nature Reserve
Jennifer Naglw, Junior, Global Change & Landscape Dynamics, ACES

Does Daycare put Children at Risk for Obesity?
Rachel Full, Senior, Molecular & Cellular Biology, LAS
Jacqueline Bellefontaine, Senior, Psychology, LAS

The Effects of Non-Digestible Fiber on Exploratory and Stress Behaviors in Piglets
Alexander Patsavas, Senior, Animal Sciences, ACES

Developing a Web-tool to Assist Making a Healthy Choice in Chain Restaurants
Diamond Brown, Senior, Biology, LAS
Mengli Wang, Senior, Food Science & Human Nutrition, ACES
Shengwen You, Senior, Agricultural & Biological Engineering, ENG

Sex Differences in Cytoarchitecture of the Preoptic Area in Amphiprion Ocellaris
Logan Dodd, Senior, Psychology, LAS

Characterization of Typical Potent Odorants in Dried Crataegus pinnatifida (Chinese Hawthorn) Fruit Tea
Yaozheng Liu, Senior, Food Science, ACES

Centriole Presence in Sperm as it Progresses Through the Epididymis of Monodelphis domestica
Jacqueline Piekos, Senior, Integrative Biology, LAS

A Meta-analysis of Fire-induced Filtering of Plant Traits and its Implications for Forest Drought Vulnerability
Nadia Ennab, Sophomore, Integrative Biology, LAS

An Investigation of the Direct and Indirect Effects of Vegetation on Mosquitoes
Sana Khadri, Senior, Integrative Biology, LAS

Correlation of Feed Intake and Efficiency between Beef Heifers and Cows
Caitlin Sanders, Senior, Animal Sciences, ACES

Cultivating Healthier Lifestyles: Gardening Among Latinos
Sonia Cabrera, Sophomore, Community Health, AHS

The Effect of Fire Disturbances on Adult Quercus spp. Growth in Drought Years
Taskeen Khan, Freshman, Integrative Biology, LAS

Ant Nest Architecture Compared to Geographical Position
Andrew Gonsalves, Sophomore, Bioengineering, ENG

Mandible Strike Kinematics of the African Snapping Ant Plectroctena mandibularis (Hymenoptera: Formicidae)
John Eastwood, Sophomore, Nuclear Plasma & Radiological Engineering, ENG
Evaluating Changes in Non-Land Costs for Corn and Soybeans on Illinois Grain Farms
Sarah Sellars, Senior, Agricultural & Consumer Economics, ACES

Evaluation of Certificate of Need Licensure
Nicholas Brown, Senior, Economics, LAS
Calvin Kessler, Senior, Economics, LAS

Differentiated Instructed at the University Primary School
Antonia Schmidt, Freshman, Special Education, EDU
Danielle Golob, Freshman, Early Childhood Education (Birth through Grade 3), EDU

Group Identification and Voter Turnout
Julie Stankiewicz, Senior, Political Science, LAS

The Impact of Federal Judicial Vacancies on Decision Quality
Peter Miles, Senior, Political Science, LAS

The Relationship Between Behavioral Looking and EEG Studies in Infant Facial Recognition
Katherine Nameth, Senior, Psychology, LAS

Meteotsunamis
Gerardo Diaz, Senior, Atmospheric Sciences, LAS

A 3D, Interactive and Virtual Dose Minimization Game for Education and Training
Zahra Hanifah, Sophomore, Chemical & Biomolecular Engineering, LAS
Arnav Das, Sophomore, Electrical Engineering, ENG

The Machine Learning Application on UIUC Course Advising & Prediction
Jiacheng Zhu, Junior, Computer Engineering, ENG
Guanhao Yan, Junior, Computer Engineering, ENG

The New Frontier: Foodie Narratives about Contemporary Cuban Cuisine
Michelle Patiño-Flores, Senior, Linguistics, LAS

The Relationship between Diversity of Student Grouping and Leadership in the University of Illinois at Urbana-Champaign
Un Si Jeong, Junior, Government and Public Administration, University of Macau
Kwok Wai Leung, Junior, Learning and Education Studies, University of Macau

Parental Impact on Children’s Salience of Racial and Sexual Identity
Ariel Watts, Senior, Human Development & Family Studies, ACES
Daniel Salazar, Junior, Physics, LAS

Rural to Rural Migration: Puerto Rican Presence in Rantoul, Illinois
Brenda Gutierrez, Sophomore, Global Studies, LAS

Designing Social Experiences: How Organizations Enhance Belonging
Lauren Castaneda, Freshman, Psychology, LAS

Analysis of Longitudinal Data with Latent Variable Models
Shannon Sledz, Senior, Statistics, LAS
Benjamin Olson, Senior (Graduated Fall 2016), Statistics, LAS
Rahul Kalluri, Senior, Statistics, LAS
Anuj Dahiya, Senior, Statistics, LAS

PJ SESSION — SCIENCE AND MATHEMATICS
3:15 PM — 4:30 PM, Illini Room A

Characterizing D-amino Acid-containing Neuropeptides in Planarians
Yuquan Tong, Sophomore, Chemical & Biomolecular Engineering, LAS

The Density of Dusty Galaxies at High Redshift
Sidney Lower, Junior, Engineering Physics, ENG

Hydrogeomorphological Characterization of Alluvial River Valleys in Glaciated Landscapes: Floodplain Versus Terrace
Angela Magnuson, Junior, Civil Engineering, ENG

Does Soil Drainage History Affect Soil Greenhouse Gas Emissions?
Natcha Suriyavirun, Senior, Integrative Biology, LAS

The Influence of Comprehensive Versus Abstinence Only Sexual Education on Sexually Transmitted Infections in Adolescents
Carolyn Wainer, Senior, Nursing, NUR

Detection of Ionic Species at Nanopipet Electrode via Assisted Ion Transfer by a Novel Ionophore with Multiple Crown Ether Moieties
Philip Oweimrin, Senior, Chemistry, LAS

Sun Buckets: Solar Thermal Heating
Rachel Tham, Freshman, Agriculture & Biological Engineering, ENG
Perry Lim, Freshman, Chemistry, LAS

Interface Tracking Technique in Both 2D and 3D Geometry
Xiaodan Du, Junior, Civil Engineering, ENG

An Anthocyanin-Rich Extract from Purple Corn and Pure Anthocyanins Reduced 3T3-L1 Adipocytes Differentiation and Ameliorated Inflammatory Status
Matthew Weiss, Junior, Molecular & Cellular Biology, LAS

Upgrading Biocrude Oil Converted from Animal Waste via Hydrothermal Liquefaction
Patrick Dziura, Sophomore, Agriculture & Biological Engineering, ENG

Characterizing Neuropeptides Released from the Rodent Dorsal Root Ganglion
Ashley Lenhart, Junior, Chemistry, LAS
Fluorometric Evaluation of Interaction between Anthocyanins Present in Purple Corn Pericarp with Metal Ions and Polysaccharides to Improve their Chemical Stability in a Beverage Model

Paulina Ongkowijoyo, Senior, Chemistry, LAS

Further Analysis and Verification of Storm Prediction Center 1300-UTC Tornado Outlooks

Alexander Erwin, Junior, Atmospheric Sciences, LAS

Web Data Analysis: University Career Guidebook

Nuochen Lyu, Junior, Electrical Engineering, ENG
Minkang Yang, Junior, Computer Engineering, ENG
Zhao Chen, Junior, Computer Engineering, ENG

Development of a Method for Determining Stable Chlorine Isotope Compositions in Low-Cl-abundance Samples

Cristopher Alvarez, Junior, Geology, LAS
Stirling Lemme, Senior, Geology, LAS

Genotoxin Mediated Suppression of Autophagy

Eunji Jeong, Junior, Molecular & Cellular Biology, LAS

Glioblastoma Tumor Model to Analyze the Mechanisms of Resistance to Chemotherapy

Gabrielle Wolter, Junior, Bioengineering, ENG

What Protein Transports Manganese into E. coli Aside from MntH?

Ogeneitsega Joseph, Senior, Molecular & Cellular Biology, LAS

Antibacterial and Imaging Properties of Hafnium Nanoparticles

Valeriya Kravchuk, Junior, Bioengineering, ENG

Residual Topography Signals to Continental Buoyancy and Mantle Dynamics

Stirling Lemme, Senior, Geology, LAS

Bacterial Genotoxin Induced DNA Damage Response Impairs Host-Cell Stress Responses

Jordan Kryza, Senior, Molecular & Cellular Biology, LAS

Understanding How Antibiotics Resistance Genes are Transferred Among E.coli Strains

Alaa Mansour, Senior, Molecular & Cellular Biology, LAS

Synchronization for Wireless Medical Sensor

Mengting Yan, Junior, Mathematics and Computer Science, LAS

Porous Silicon Microlenses: An Examination of Porous Silicon and Its Applications in Gradient Index Optics

Matthew Clawson, Sophomore, Materials Science & Engineering, ENG

A Preliminary Analysis of Fossil Orthoptera (Arthropoda: Insecta) from the Oligocene Renova Formation of Southwest Montana

Steven Zhang, Senior, Geology, LAS

Exceptionally Preserved Orthoptera (Arthropoda: Insecta) from the Late Pennsylvania Kinney Brick Quarry Lagerstätte of New Mexico

Caroline Mierzejewski, Senior, Geology, LAS

Controlled Growth and Characterization of CVD Graphene

Shunya Namiki, Sophomore, Materials Science & Engineering, ENG
Tejas Idate, Freshman, Materials Science & Engineering, ENG

Elastic Moduli of Apophyllite

Zhirong Cai, Senior, Geology, LAS

Games for Mathematical Experimentation

Manting Huang, Sophomore, Statistics, LAS
Sung jib Kim, Junior, Mathematics, LAS
Pranav Bhardwaj, Sophomore, Mathematics, LAS
Tejo Nutalapati, Sophomore, Mathematics, LAS

Stability of Quasicrystal Frameworks

Yijing Chen, Junior, Actuarial Science, LAS
Alexandra Lamtyugina, Junior, Chemistry, LAS
Arturo Guerrero, Junior, Math, LAS
Zac Berrabah, Junior, Math, LAS

Zipf's Law: A Universal Law for Empirical Data from Word Frequencies to Olympic Records

Khoa Tran, Junior, Mathematics, LAS

Stress is Associated with Altered DNA Methylation in Select HPA Axis Genes in the Rodent Adrenal Gland

Myrna Sobhy, Senior, Psychology, LAS

Exploring Possible Novel Functions for a Duplicated Leucyl-tRNA Synthetase within Sulfolobus islandicus

Alexander Gatten, Junior, Molecular & Cellular Biology, LAS

Molecular Perspectives on Agrochemical Control of Drought Resistance

Moeen Meigooni, Senior, Chemical & Biomolecular Engineering, LAS

The Effect of KCNQ2 Encephalopathy Mutation on KCNQ2/Q3 Channel & the Effect of Seizure-like Activity on GIRK

Weilun Pang, Senior, Molecular & Cellular Biology, LAS

Combinatorics Interpretation of Graph Theory

Chengzheng Yu, Senior, Mathematics, LAS
Raman Imaging of Bone During the Remodeling Process due to an Endosseous Implant
Soorya Todatry, Senior, Mechanical Engineering, ENG

Fabrication of Perovskite Solar Cells by Flow-Limited Field Injection Electrostatic Spraying
John Simonaitis, Junior, Engineering Physics, ENG
John Graft, Junior, Electrical Engineering, ENG

Clustering for Semantic
Mazin Bokhari, Senior, Computer Engineering, ENG

Measuring the Impedance Spectrum of Biomass During Compression
Allison Nowak, Senior, Agricultural & Biological Engineering, ENG
Kyle Buchanan, Senior, Agricultural & Biological Engineering, ENG

Curvature in Three-Dimensional Manifolds
Julia Spina, Senior, Engineering Physics, ENG

Innovating Bioactive Interfaces with Atomic-scale Additive Plasma Nano-manufacturing
Tanmay Shah, Sophomore, Computer Science, ENG
Jesse Perez, Junior, Advertising, COM
Ruchika Roy, Senior, Engineering Physics, ENG

Sensitivity of Model Verification Results to Object Identification Parameters Using Method for Object-based Diagnostic Evaluation — Time Domain
Shao Wen (Amy) Chen, Senior, Atmospheric Sciences, LAS

PK SESSION — HEALTH AND WELLNESS

3:15 PM — 4:30 PM, Illini Room C

Use of Geographic Information in Physical Activity Interventions: A Systematic Review
Reynaldo De Leon, Senior, Community Health, AHS

Effects of Sleep on Obesity and Physical Activity
Gabrielle Schweitzer, Sophomore, Kinesiology, AHS
Mia Corazzi, Sophomore, Kinesiology, AHS

The Influence of Biomaterial Environment on the Activation and Behavior of Glioblastoma Stem Cells
Allison LaHood, Junior, Bioengineering, ENG

Fatigue and Its Association with Physiological and Psychological Variables in Persons with Multiple Sclerosis
Jubi Gupta, Senior, Molecular & Cellular Biology, LAS
Matthew Siegel, Senior, Molecular & Cellular Biology, LAS

How to Turn Your Child Into a Veggie Monster: Stuff Them in a Freezer or in a Can!
Chigozirim Asonye, Senior, Community Health, AHS
Daniel Juarez, Sophomore, Interdisciplinary Health Sciences, AHS

Bottle or Breast: What Promotes Difficult Eating Behaviors?
Dana Sharo, Junior, Community Health, AHS
Alexandra Kieffer, Junior, Molecular & Cellular Biology, LAS
Gabrielle Adochio, Junior, Community Health, AHS

The Effect of Physical Activity on Cognition
Sean Zwicky, Junior, Kinesiology, AHS
Jimmy Park, Junior, Kinesiology, AHS
Jackson Evensen, Senior, Kinesiology, AHS
Shaun Majeed, Junior, Economics, LAS

Prevalence of the Hypertriglyceridemic Waist Phenotype in Hispanic Mothers
Octavio Herrera, Senior, Molecular & Cellular Biology, LAS

Maternal and Infant Factors Associated With Human Milk Macronutrient Composition
Emily Mattaliano, Senior, Dietetics, ACES

Participation in Chronic Disease Prevention and Management Programs: The Illinois Pathways to Health Project
Amy Diaz, Senior, Audiology, AHS

One Year Later: Are Dietary Changes Maintained Following Sleeve Gastrectomy?
Leila Diab, Senior, Food Science & Human Nutrition, ACES

Dinner Time or Show Time? Understanding Implications of Mealtime Distractions in Hispanic Families
Constance Martinez, Sophomore, Community Health, AHS

The Effect of Physical Activity on Cognition
Sean Zwicky, Junior, Kinesiology, AHS
Jimmy Park, Junior, Kinesiology, AHS
Jackson Evensen, Senior, Kinesiology, AHS
Shaun Majeed, Junior, Economics, LAS

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Leila Diab, Senior, Food Science & Human Nutrition, ACES

Dinner Time or Show Time? Understanding Implications of Mealtime Distractions in Hispanic Families
Connie Martinez, Sophomore, Community Health, AHS

Dietary Fiber and the Human Gastrointestinal Microbiota as Predictors of Bone Health
Anne Hou, Junior, Human Nutrition, ACES

If You Don't Finish Your Vegetables: The Effect of Parent's Feeding Styles on Children's Food Preferences
Jamie Greenstein, Sophomore, Kinesiology, AHS

Americanized Test? Analyses of the Associations between Acculturation Health Literacy Assessments
Prerana Rao, Junior, Community Health, AHS
Alejandro Vallejo, Junior, Molecular & Cellular Biology, LAS

Eating Too Many Snacks? Stop Watching TV!
Jocelyn Ramirez, Senior, Political Science, LAS

Effects of a Novel α7 Nicotinic Acetylcholine Receptor Agonist on Neuronal Activity Evaluated by Multi-electrode Electrophysiology
Nainika Roy, Senior, Molecular & Cellular Biology, LAS
Peptide Vaccination Strategies for Glioma Tumors
Corinne Cannavale, Senior, Molecular & Cellular Biology, LAS

Self-Rated Health in Brazil
Jeenal Mehta, Junior, Community Health, AHS

Weight Status is Related to Intraindividual Variability in Cognitive Function
Melody Suh, Senior, Kinesiology, AHS
Baldwin Lau, Senior, Community Health, AHS
Hamad Niazi, Junior, Molecular & Cellular Biology, LAS
Lizzie Tran, Senior, Molecular & Cellular Biology, LAS

Hispanic Mothers’ Body Composition Reflected in Physical Activity Patterns
Alejandra Flores, Senior, Molecular & Cellular Biology, LAS

Association between Prenatal Exposure to Bisphenol A, Bisphenol F, and Bisphenol S and Visual Recognition Memory in 7.5-Month-Old Infants
Diana Pacyga, Senior, Molecular & Cellular Biology, LAS

Female and Male Hospital CEOs: Who’s Better?
Kaitlin Krumwiede, Senior, Community Health, AHS
Mariah Mateis, Senior, Community Health, AHS
Victoria Harris, Senior, Community Health, AHS
Alexandra Palacios, Senior, Community Health, AHS

One of These Cancers is Not Like the Other: Investigating the Relationship with Weight Status and Cancer Screenings
Aishat Tepede, Senior, Community Health, AHS

Pre-, Pro-, and Synbiotic Alter Intestinal Goblet Cell Function in Piglets with Short Bowel Syndrome
Ashley Maras, Sophomore, Molecular & Cellular Biology, LAS

Cultural Sensitivity to Increase Insulin Sensitivity: Community Intervention Impact on Dietary Patterns and Diabetes Risk
Andrea Huerta, Senior, Food Science & Human Nutrition, ACES

Characterization of VacA Association with Host Cells
Jiayi Luo, Senior, Biochemistry, LAS

The Relationship Between Sedentary Bout Duration and Attentional Inhibition
Bibiana Schell, Senior, Kinesiology, AHS
Dakota Morales, Senior, Kinesiology, AHS
Aleia Tripp, Junior, Community Health, AHS
Tiffany Li, Junior, Integrative Biology, LAS

Value Base Purchasing & Hospital Consumer Assessment of Healthcare Providers and Systems
Vivian Bui, Senior, Community Health, AHS
Anessa Anand, Junior, Interdisciplinary Health Sciences, AHS

PL SESSION — EDUCATION, SOCIAL SCIENCE, AND HUMAN BEHAVIOR
3:15 PM — 4:30 PM, South Lounge

Environmental Impact on Agriculture, Unemployment and Migration in the Middle East- Case Studies of Syria and Turkey
Emily Smith, Senior, Global Studies & Political Science, LAS

Being Mean Behind the Screen: Parental Advice about Cyberbullying
Emily Wilensky, Senior, Human Development & Family Studies, ACES

Verb Use by Individuals with Down Syndrome
Caitlyn Boni, Senior, Speech & Hearing Science, AHS

An Assessment of the Use of Social Media in Sexually Transmitted Disease Campaigns
Bridgette Lona, Senior, Nursing, NUR

Young Adult Speaks: Patient-centered Weight Screening in Primary Care
Devaki Belwalkar, Junior, Human Nutrition, ACES

Values of Front and Backcountry Users at Denali National Park and Preserve Change Across Space and Scale
Saachi Kuwayama, Senior, Natural Resources & Environmental Sciences, ACES

A Study on Student Communication Development in Elementary Schools
Kelly Wallace, Freshman, Special Education, EDU
Marlinde Taylor, Freshman, Elementary Education (Grades 1-6), EDU

The Influence of Phonological Development on Lexical Acquisition in Children with ASD
Samantha Larocca, Senior, Speech & Hearing Science, AHS
Matthew Ibrahim, Senior, Speech & Hearing Science, AHS

The Effect of Family Socio-Economic Status on Student Organization Involvement and Academic Major Selection
Timothy Callahan, Senior, Agricultural Leadership Education, ACES
Olivia Schifferer, Junior, Communication and Psychology, LAS
Nigel Smucker, Senior, Communication and Statistics, LAS

Lexius Henson
Connor Monson, Senior, History, LAS

Web Data Analysis: University Career Guidebook
Nuochen Lyu, Junior, Electrical Engineering, ENG
Minkang Yang, Junior, Computer Engineering, ENG

Managing Invasive Grasses on Private Land in the Grand River Grasslands: Exploring the Results of a Mail-Back Survey
Cora Wessman, Junior, Earth, Society & Environmental Sustainability, LAS
Sara Dong, Senior, Natural Resources & Environmental Sciences, ACES
How the ACA & Changes in Charitable Care Law Have Affected Illinois Hospitals

Joseph Kenny, Senior, Community Health, AHS
Sarah Lyons, Senior, Community Health, AHS
Anvita Hariharan, Freshman, Community Health, AHS

Sketching and Self-Explanation for Diagram Comprehension in Math and Science

Amanda Gade, Junior, Elementary Education, EDU

Natural Language Processing in the Social Sciences

Jacob Bentley, Senior, Economics, LAS

Generation of Event Data using News Corpora and Natural Language Processing

John Carter, Junior, Physics, LAS

Men of Courage

Justin Peebles, Junior, Economics, LAS
Laquayle Gray, Junior, Economics, LAS
Eric Davis, Junior, Advertising, COM
Ananth Nandakishore, Junior, Psychology, LAS

Electoral Consequences of Roll Call Inconsistency

Ethan Amburgey, Senior, Political Science, LAS

Perceived Impact That Leadership Characteristics and Leadership Skills Have on Asian Women’s Campus Life in UIUC

Sok Man Chong, Junior, Accounting, University of Macau
Qiuming Fu, Junior, Economics, University of Macau

The Case Study of Leadership Characteristics in Multicultural Advocate (MA) in Themed Residential Halls in UIUC - Saunders

I Leng Ao, Junior, Elementary Education (Grades 1 — 6), University of Macau
Man Man Kuok, Junior, Elementary Education (Grades 1 — 6), University of Macau

The Management of Multicultural Members of Registered Student Organization (RSO) by Observing Two Groups: Volunteer Illini Projects (RSO1) and Dance 2XS Caliente (RSO2) at UIUC

Si Tong Lei, Junior, Computer Science, University of Macau
Kit I Ho, Junior, Primary Education, University of Macau

The Topic for this Qualitative Study is About Multicultural Leadership

Weng Lam Wong, Junior, Learning and Education Studies, University of Macau
Wai Keong Hoi, Junior, Elementary Education, University of Macau
Bo Wu, Junior, Elementary Education, University of Macau

My Child, The Bully: How Do Parents React?

Hannah Levitz, Senior, Human Development & Family Studies, ACES

Devarsh Ruparelia, Freshman, Computer Engineering, ENG

Ghetto Genius

Timothy Klein, Junior, Mathematics, LAS
Stacey Rhum, Senior, Communication, LAS
Jordan Kass, Senior, Communication, LAS
Margaret Guetzloff, Sophomore, Media & Cinema Studies, COM

Revamping the Funk Center

Kieshana Beeler, Senior, Advertising, COM

College of Engineering’s Illinois Scholars Undergraduate Research (ISUR) Symposium

Thursday, April 28, 4:00 PM — 6:00 PM
Illini Union, Room 104

Temporal Quantification of Angiogenic Receptor Levels and Heterogeneity in a 2D Endothelial-Fibroblast Co-Culture

Kareem Al-Qadi, Junior, Bioengineering, ENG

Detecting and Preventing Tracking Failure in ORB-SLAM

Christopher Benson, Junior, Computer Science, ENG

Beating the Coffee Ring Effect: Understanding Crystal Growth Mechanisms

Rebecca Boehning, Senior, Chemical & Biomolecular Engineering, LAS

Soft, Conformal Sensor for Thermal Characterization of Human Skin

Daniel Capua, Sophomore, Bioengineering, ENG

Improving Visual-Inertial Odometry Testing

Andrew Douglas, Junior, Computer Engineering, ENG

An Investigation of the Effect of Gear Ratio on Manual Wheelchair Kinetics

Elizabeth Gacek, Senior, Biomedical Engineering, ENG

Optimization of Anisotropic Photonic Density of States for Raman Cooling

Indronil Ghosh, Junior, Engineering Mechanics, ENG

Turbulent Boundary Layer Response to Porous Obstacles

Allison Gibson, Senior, Mechanical Engineering, ENG

Multivariate Classification of an Isogenic Breast Cancer Cell Line Using Raman Spectroscopy

Pierce Hadley, Junior, Bioengineering, ENG

Autonomous Visual-Inertial Navigation for Ground Robot

Paulous Haile, Senior, Computer Engineering, ENG
<table>
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<th>Title</th>
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<tr>
<td>Structure of the Turbulent Boundary Layer over Irregular Terrains</td>
<td>Dylan Harmon</td>
<td>Sophomore</td>
<td>Mechanical Engineering, ENG</td>
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<td>Sensor Calibration of a Visual-Inertial System</td>
<td>Kenneth Hoffman</td>
<td>Senior</td>
<td>Mechanical Engineering, ENG</td>
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<td>Preliminary Analog and Digital Electronic Evaluation for</td>
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<td>Molecular Perspectives on Agrochemical Control of Drought Resistance</td>
<td>Moeen Meigooni</td>
<td>Senior</td>
<td>Chemical &amp; Biomolecular Engineering, LAS</td>
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<tr>
<td>Driving Spatially-Controlled MSC Responses in Multicompartment CG</td>
<td>Jordan Meyer</td>
<td>Sophomore</td>
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<td>Residue-Free Delamination Transfer of Graphene and Reuse of Copper</td>
<td>Widianto Moestopo</td>
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<td>Mechanical Engineering, ENG</td>
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<td>Fabrication and Analysis of Silica Aerogels for Solar Thermal</td>
<td>Naveen Nagarajan</td>
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<td>Wireless Neural Implantable Needles for Optogenetics</td>
<td>Grace Pakeltis</td>
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<td>Materials Science &amp; Engineering, ENG</td>
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<td>Synthesis and Processing of Cyclic Polyphthalaldehyde Fibers</td>
<td>Christopher Plantz</td>
<td>Sophomore</td>
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<td>Two Color Super-Resolution Imaging of AMPA Receptors and Synaptic</td>
<td>Gregory Romancheik</td>
<td>Senior</td>
<td>Engineering Physics and Nuclear Plasma &amp; Radiological Engineering, ENG</td>
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<td>Comparison of Open-Source SLAM Algorithms on Aerial and Ground Robots</td>
<td>Matthew Romano</td>
<td>Senior</td>
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<td>Transition to Turbulence over 2D and 3D Periodic Large-Scale Roughnesses</td>
<td>Matthew Sadowski</td>
<td>Senior</td>
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<td>Imprinting Activity Patterns in in-vitro Neuronal Circuits</td>
<td>Shreya Santhanam</td>
<td>Junior</td>
<td>Bioengineering, ENG</td>
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<td>Fabrication of Perovskite Solar Cells via Flow-Limited Field Injection Electrostatic Spraying</td>
<td>John Simonaitis</td>
<td>Junior</td>
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<td>Developing Application Specific Semiconductor Imaging Modalities: High Resolution Neurological Imaging Using PET (Neuro-PET)</td>
<td>John Smith</td>
<td>Senior</td>
<td>Nuclear Plasma &amp; Radiological Engineering, ENG</td>
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<td>The Design and Fabrication of a Non-Invasive Thermometry Platform for Accurate Dehydration Detection</td>
<td>Eddie Sun</td>
<td>Junior</td>
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<td>Effect of Windbreak Porosity on the Power Generation of Leeward Wind Turbines</td>
<td>Charles Tierney</td>
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<td>Addressing Climate Change: Next Generation Materials for Carbon Dioxide Capture Using Polymers</td>
<td>Regev Trigalo</td>
<td>Senior</td>
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<td>Fabrication of Complex Refractory Oxides (HfO2-Ta2O5-TiO2) and their Melting Points</td>
<td>Whitney Tso</td>
<td>Sophomore</td>
<td>Materials Science &amp; Engineering, ENG</td>
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<td>Development of Liquid Assay Cartridge for Handheld Smartphone Biosensor</td>
<td>Elizabeth Woodburn</td>
<td>Junior</td>
<td>Bioengineering, ENG</td>
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<td>Improving Lithium-Ion Battery Efficiency: Production and Testing of Bi-Tortuous Graphite Anodes</td>
<td>Ivan Zlatanov</td>
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