Welcome
2023 Undergraduate Research Week

Welcome to Undergraduate Research Week 2023 (URW) and its signature event, the 16th annual Undergraduate Research Symposium. I hope you look forward to this moment as I do, when we can engage with our undergraduate researchers across a diverse array of campus events, witness the enthusiasm and innovation of our students, and celebrate their hard work. The URW program is larger than ever, with more events than we have seen previously, and with a twenty percent rise in the numbers of Symposium presenters. To accommodate the latter’s growth, for the first time ever we have added a noon hour poster session—a happy challenge to have!

I continue to be grateful for the continuing support of our undergraduate researchers by our faculty, staff, students, and community partners. The presentations found herein reflect the caliber of our students, the range and diversity of academic disciplines across our campus, and the institutional support and commitment to undergraduate research as an important component of the Illinois experience. As is true of the mentors who support them, our students and their research hold the potential to change the world for the better.

A particular thanks is due the Office of Undergraduate Research team, without whom the planning of such a large-scale event would be impossible: Dr. Chris Holmes, our Associate Director; Kari Darby, our new Coordinator of Research Programs; our Social Media & Communications undergraduate interns – Liv Borawski, a History major, and Melany Romero, a Clinical Psychology Major; and Ellie Lee, our Graphic Design undergraduate intern, a Graphic Design major. We have an incredible team and their hard work is reflected in this URW program.

Finally, many thanks to the Office of the Provost and our Advisory Board for their ongoing support and counsel, and to our Undergraduate Research Ambassadors who continue to make their mark in supporting both their undergraduate colleagues and OUR programming and events.

Karen Rodriguez’G, PhD
Director, Office of Undergraduate Research

The Office of Undergraduate Research

Christopher Holmes, PhD
Associate Director

Kari Darby
Coordinator of Research Programs

Liv Borawski
Social Media & Communications Intern

Melany Romero
Social Media & Communications Intern

Ellie Lee
Graphic Design Intern

Sign up for the Office of Undergraduate Research e-newsletter to receive occasional emails about research programs, events, and opportunities.

Sign up at:
go.illinois.edu/subscribeOUR
## Contents

<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Undergraduate Research Week Events</td>
</tr>
</tbody>
</table>
| 1    | Research Workshops  
Undergraduate Research Week Edition |
| 1    | Communication Undergraduate Research Event |
| 2    | Illinois Scholars Undergraduate Research (ISUR) Program  
Research Expo |
| 4    | Cancer Center at Illinois Undergraduate Research Symposium |
| 5    | AHS Undergraduate Research Expo |
| 5    | Illinois Distributed Museum Tours |
| 5    | McNair Scholars Program Undergraduate Research Panel |
| 6    | Parkland Honors Program |
| 6    | Department of Economics Research Symposium |
| 6    | Humanities Research Lab Showcase |
| 7    | School of Art & Design Undergraduate Research Exhibition |
| 7    | Department of Political Science Honors and Awards Ceremony |
| 8    | 2023 Undergraduate Research Symposium |
| 8    | Event Map |
| 9    | Oral Presentations |
| 9    | On Exhibit |
| 13   | Posters |
| 40   | Image of Research Competition |
| 42   | Grant Recipients |
| 42   | Research Support Grant (RSG) |
| 44   | Conference Travel Grant (CTG) |
| 46   | Undergraduate Research Certificate Awardees |
| 47   | Undergraduate Research Apprenticeship Program 2023 Cohort |
| 50   | Celebrating Our Research Mentors |
| 53   | Partner Offices |
| 53   | National and International Scholarships |
| 55   | University Library |
| 55   | Writers Workshop |
| 56   | Supporting Undergraduate Research at Illinois |
| 56   | Invest in Scholars Today |
| 57   | Index |
| 64   | Thanks to Our Sponsors |
Undergraduate Research Week Events

Research Workshops - Undergraduate Research Week Edition
All week

The Office of Undergraduate Research (OUR) regularly hosts workshops to support students in their undergraduate research journeys at the University of Illinois. As part of our celebration of Undergraduate Research Week, OUR will be conducting sections of our Getting Started in Undergraduate Research Workshop and Research to Resume Workshops. In collaboration with the National and International Scholarships Program, we are also offering a workshop titled “Where Research Can Take You”. We invite you to register and attend these workshops, and as a token of our appreciation, you will receive an OUR laptop sticker and an Illinois-themed Lanyard. For those attending the virtual workshops, you can pick up your items at the Symposium on April 27.

Getting Started in Undergraduate Research Workshop

During this workshop, we will discuss the various forms of undergraduate research that take place on campus, guide students to develop a plan of action to locate research opportunities on campus and discuss ways to contact faculty research mentors.

This workshop will take place on Tuesday, April 25 at 11:00 AM.

For workshop location and registration, please visit: go.illinois.edu/OURWorkshops

Research to Resume Workshop

During this workshop, we will discuss strategies to successfully communicate research skills and experiences through job, graduate school, and internship application documents.

This workshop will take place on Tuesday, April 25 at 12:00 PM.

For workshop location and registration, please visit: go.illinois.edu/OURWorkshops

Where Can Research Take You?

Congratulations on conducting research and sharing it with the campus community! Now, what’s your next adventure? You are invited to hear from the National and International Scholarships Program (NIS) about opportunities to continue your work (and earn funding) or to utilize your research experience as a launching pad to other (funded) opportunities. NIS assists high-achieving students in figuring out their pathways to doing great things; many students find that a nationally competitive scholarship allows them to reach for their loftiest goals. This online, 30-minute power session is designed to help you explore scholarship options that will further support your work.

The session is open to undergraduates of all majors and will take place on Thursday, May 4, at 11:00 am.

Register at: go.illinois.edu/WhereCanResearchTakeYouWorkshop

Communication Undergraduate Research Event

Department of Communication
Wednesday, April 19, 5:00 PM – 6:00 PM;
Posters will remain on display until 3:00 PM April 21.
Lincoln Hall, Room 3001
702 S Wright St, Urbana, Illinois

Undergraduate Communication students will present their experiences conducting research and their final research projects in the third annual research spotlight event. This event is sponsored by the Department of Communication and the Joe Wenzel Fund.

Classifying Politics in Online Communities
Maxine Ma, Senior, Communication, LAS
(Research Mentor: Stewart Coles, Communication)

Comparing and Contrasting Nominal Group Technique
Ruiqi Pan, Sophomore, Communication, LAS
(Research Mentor: Chandler MacSwain, Communication)

Career Centers & Personal Branding
Joy Wang, Junior, Communication, LAS
Brendan Buckley, Junior, Communication, LAS
(Research Mentors: Katherine Bunsold, Communication & Chandler MacSwain, Communication)
Abortion: Stigma and Disclosure  
**Sydney Turner**, Sophomore, Communication & Psychology, LAS  
(Research Mentor: Megan Jacobs Farnworth, Communication)

Social and Ethical Information Sources of Student Stakeholders about Emerging Technologies in Agriculture  
**Mag Shou**, Junior, Communication, LAS  
(Research Mentors: Sarah Benevento, Communication & Cabral Bigman-Galimore, Communication)

The Role of Traumatic Brain Injuries in Romantic Relationships  
**Hadayn Fischer**, Sophomore, Psychology, LAS  
(Research Mentors: Kirsten Pool, Communication & Leanne Knobloch, Communication)

---

**Illinois Scholars Undergraduate Research (ISUR) Program Research Expo**

Grainger College of Engineering  
Tuesday, April 25, 4:00 PM – 6:00 PM  
Illini Union Rooms A, B, and C  
1401 W Green St, Urbana, Illinois

The Grainger College of Engineering Illinois Scholars Undergraduate Research (ISUR) Program Research Expo showcases the various science and engineering projects our scholars and their mentors have been working on this year. ISUR is a two-semester, structured, mentored research experience for undergraduate students in science and engineering. Through the learning-by-apprenticeship model, students learn about the research process, develop their research and technical communication skills, and gain experience needed for graduate school acceptance or research in industry.

Under the ISUR umbrella are the following programs: Clare Boothe Luce Research Program, DaRin Butz Foundation Research Program, Semiconductor Research Corporation Undergraduate Research Program (SRC URP), Accelerated Learning and Engineering Research Training (ALERT) Program in Electronic and Cyber Security, and the IBM-Illinois Discovery Accelerator Institute Undergraduate Research Experience (IIDAI URE).

This year, we also have presentations from students in other undergraduate research programs in Grainger Engineering: Promoting Undergraduate Research in Engineering (PURE) and CS Student Ambassadors/Research Scholars (CS STARS).

---

**Accelerated Learning and Engineering Research Training (ALERT) Program in Electronic and Cyber Security**

**Square Patch Antenna**  
**Maximilian Damewood**, Junior, Engineering Physics, ENG

**Next Generation Power Semiconductor: Diamond**  
**Victoria Garcia**, Senior, Agricultural & Biological Engineering, ENG

---

Use of (Ultra)Wide-bandgap Materials in Power Devices  
**Aleksai Herrera**, Junior, Electrical Engineering, ENG

Ultrasensitive Temperature-sensing Intelligent Surfaces for Smart Homes  
**Teague Mitchell**, Senior, Computer Engineering, ENG

Anomaly Detection for Road Traffic Patterns  
**Vivek Thatte**, Junior, Computer Science, ENG

---

**Clare Boothe Luce Research Scholars**

Advanced Water Purification Methods: Plasma-Based Treatment Against PFAS  
**Jasmine Dinari**, Senior, Nuclear, Plasma & Radiological Engineering, ENG

Rethinking Household Tasks for Elders with Soft Robotics  
**Maya Grant**, Junior, Mechanical Engineering, ENG

Multiplexed Detection of Protein Sepsis Biomarkers and nCD64 from Whole Blood Samples Utilizing Microfluidic Capture of Hydrogel Beads  
**Victoria Kindratenko**, Senior, Bioengineering, ENG

Enhancing Bacterial Secretion of Biotherapeutics  
**Alexa Mitka**, Senior, Bioengineering, ENG

Digital Histopathology to Diagnose Breast Cancer  
**Varshini Murugesh**, Sophomore, Bioengineering, ENG

Design of Polyurethane Actuators for Aortic and Cardiac Sleeve Applications  
**Charmaine Nieves**, Senior, Mechanical Engineering, ENG

---

**DaRin Butz Foundation Research Scholars**

Cache Reconfiguration via Dynamic Mapping Function  
**Julie Lee**, Senior, Computer Engineering, ENG

Construction and Test of a Reaction Plane Detector to Characterize Heavy Ion Collisions at the ATLAS Experiment at CERN  
**Farah Mohammed Rafic**, Senior, Engineering Physics, ENG

A Hybrid Plasma - Electrocatalyst Activated Process for the Synthesis of Ammonia from Air and Water  
**Nitika Purohit**, Sophomore, Nuclear, Plasma, and Radiological Engineering, ENG

Determining the Effects of Estrogen in an Osteoporotic Model Using a Sex-based Approach on Mineralized Collagen Scaffolds  
**Sofia Vargas**, Senior, Materials Science & Engineering, ENG

---

Machine Learning-Based Anomaly Detection in UUV Swarms  
**Emily Grob**, Senior, Electrical Engineering, ENG  
**Nandika Vuyyuri**, Sophomore, Electrical Engineering, ENG
Semiconductor Research Corporation
Undergraduate Research Program

Effects of Pneumonia Along Animal Specimen using Electron Microscopy and X-ray Scattering
Nathan Anderson, Senior, Materials Science & Engineering, ENG

Use of (Ultra)Wide-bandgap Materials in Power Devices
Aleksai Herrera, Junior, Electrical Engineering, ENG

Patterning of Structure, Properties, and Function in Polymeric Materials
Anisha Sharma, Senior, Materials Science & Engineering, ENG

Large-Signal Modeling of GaN HEMTs Using Fermi Kinetics and Commercial Hydrodynamics Transport
Ethan White, Sophomore, Electrical Engineering, ENG

ISUR Scholars

Measuring the Hydraulic Permeability of Polyacrylamide Hydrogels
AJ Aguero, Senior, Materials Science & Engineering, ENG

Optimization of Data Analysis Methods for Optical Transmission Relaxation Testing
Katrina Arsky, Junior, Materials Science & Engineering, ENG

Boundary Layer over an Accelerating Wall
Coggan Banerian, Sophomore, Mechanical Engineering, ENG

Macrophage Phenotype Modulation in RAW 264.7 Cells Using Anti-Inflammatory Drug Combinations
Milica Barac, Junior, Bioengineering, ENG

The Development of R Based Code for the Analysis of Nanostring and Luminex Assays
Jared Buabeng, Junior, Chemical & Biomolecular Engineering, LAS

Using Python to Expedite SEM Data Analysis
Patrick Carmichael, Junior, Materials Science & Engineering, ENG

Surgical Masks: A Direct Source for Inhalation of Microplastics
Avram Distler, Senior, Mechanical Engineering, ENG

Tumor Microenvironment-mediated Patterns of Therapeutic Resistance in 3D Sex-specific Glioblastoma Models
Ela Eames, Senior, Chemical & Biomolecular Engineering, LAS

DR-BERT: A Protein Language Model to Annotate Disordered Regions
John Forsyth, Junior, Computer Science, ENG

Developing a 3D-Printed GelMA Model for the Study of Endometriosis Invasion
Sarah Hashim, Senior, Chemical & Biomolecular Engineering, LAS

Large-Scale Graph Analytics with In-Storage Computing
Kevin Higgs, Sophomore, Computer Science, ENG

The Development and Evaluation of an Accessible Soft Aquatic Robot
Jaylynn Kim, Sophomore, Mechanical Engineering, ENG

Neutral 171Yb Tweezer Array in a Concentric Cavity
Healey Kogan, Junior, Engineering Physics, ENG

Intrinsic Signal Imaging
Beulah Lee, Senior, Computer Engineering, ENG

Early Detection and Prediction of Facial Expression for Parkinsonism Powered by Few-Shot Learning
Samuel Li, Senior, Mathematics & Computer Science, LAS

Imparting Extensibility to Colloidal Inks for Direct-Ink-Writing Printability
Eliza Lovrich, Senior, Bioengineering, ENG

Direct-Write 3D Printing of Thermosets with Frontal Polymerization
Andrew Lum, Sophomore, Material Science & Engineering, ENG

Characterization of Li2CuO2 as an Energy Dense Cathode Material in All-solid-state Li-ion Batteries
Dylan Mendez, Junior, Materials Science & Engineering, ENG

The Role of the Prefrontal Cortex and Hippocampus on Working Memory
Eric Modesitt, Sophomore, Computer Science, ENG

Measuring the Hydraulic Permeability of Physically Crosslinked Hydrogels
Maritza Murillo, Senior, Materials Science & Engineering, ENG

Modeling of Radical-Scavenger Reaction and Diffusion within the Plasma-Liquid Interface
Sean Peyres, Senior, Nuclear, Plasma & Radiological Engineering, ENG

Investigating the Influence of Initial MSC Inflammatory State and Macrophage Polarization in a 3D Co-culture Platform
Maxwell Polanek, Senior, Chemical & Biomolecular Engineering, LAS

Impact of Task Diversity on the Performance of Meta-Learning and Supervised Learning
Patrick Yu, Junior, Computer Science, ENG

IBM-Illinois Discovery Accelerator Institute URE Scholars
Optimization Methods in Quantum Information Systems
Hani Al Majed, Senior, Electrical Engineering, ENG

Palak Kotwani, Sophomore, Computer Science, ENG

Expository Text Generation: Imitate, Retrieve, Paraphrase
Nishant Balepur, Senior, Computer Science, ENG
Multilevel Coherence and Manipulation of Transmon Qutrits
César Díaz Blanco, Senior, Computer Engineering, ENG
Sean Ramírez, Junior, Computer Engineering, ENG

An AI-based Framework for Accelerated Discovery of Climate Impacts on Different Societal Sectors
Brandon Dinh, Junior, Computer Science, ENG
Jiaxin Meng, Junior, Computer Science, ENG

Serverless Application Paradigm Classification
Jieshu Huang, Senior, Computer Science, ENG

Using Distributed Learning to Scale Deep Neural Networks with Ray
Arnav Mehta, Sophomore, Computer Engineering, ENG

CodeFlare Enabling Scientific Multicloud Workflows
Minh Phan, Junior, Computer Science, ENG

Quantum Simulation of the Time-Evolution of the XXX Heisenberg Hamiltonian Using NISQ Devices
Pedro Prado, Junior, Engineering Physics, ENG

Using Distributed Learning to Scale Deep Neural Networks with Ray
William Tegge, Junior, Computer Engineering, ENG

CS Student Ambassadors/Research Scholars (CS STARS)
Advising People on Future Career Options Based on a Soft Skills Survey
Anushka Kansal, Sophomore, Computer Science, ENG

Security & Privacy in Teen Dramas
Efthalia Karas, Junior, Mathematics & Computer Science, LAS

Dynamic NeRF (Neural Radiance Field)
Rachael Wei, Junior, Computer Science, ENG

Promoting Undergraduate Research in Engineering (PURE)
Titration and Data Collection
Mahima Agrawal, Freshman, Computer Science, ENG

Plastic-consuming Bacteria
Taige Chen, Freshman, Physics, ENG
Fay Lin, Sophomore, Computer Science and Chemistry, LAS
Neha Musunuri, Freshman, Bioengineering, ENG
Keenan Peris, Freshman, Physics, ENG

Healthy Indulgence: The Presence of Antioxidants, Polyphenols, and Acidity in Chocolate
Ahmar Khan, Sophomore, Molecular & Cellular Biology, LAS

Designing Aircraft Wing Sections
Meera Patel, Freshman, Mechanical Engineering, ENG

Cacao Beans Data Analysis
Wei Qi Zhang, Junior, Mathematics and Computer Science, LAS
Runlin Zheng, Junior, Statistics, LAS

Cancer Center at Illinois Undergraduate Research Symposium
Cancer Center at Illinois
Tuesday, April 25, 3:00 PM - 5:00 PM
Beckman Institute, Room 5602
405 N Matthews Ave, Urbana, Illinois

Students within the Cancer Scholars Program and other undergraduates working in Cancer Center members’ labs will participate in a poster symposium to highlight their research accomplishments.

Derivatization of ErSO-TFPy, a Selective Killer of Estrogen Receptor Positive Breast Cancer
Hunter Carrell, Senior, Biochemistry, LAS

Can 6-Weeks of Physical Activity Group Discussions Impact Cancer Survivors’ Step Counts?
Jessica Cox, Senior, Speech & Hearing Science, LAS

The Effects of Acetyl-CoA Synthetase on Estrogen Receptor Positive Metastatic Breast Cancer Cell Lines with Endocrine Therapy
David Dutton, Junior, Molecular & Cellular Biology, LAS

Oxygen-Nanoparticle Cascade Reaction Hydrogel to Alleviate Hypoxia and Combat ROS in Chronic Wounds
Leah Ju, Senior, Bioengineering, ENG

Examining the Therapeutic Potential of Combining Eltanexor with Tamoxifen to Treat Primary and Metastatic ER+ Tumors
Myra Kamdar, Senior, Molecular & Cellular Biology, LAS

Efficacy of Combinatorial Hormone Therapies on ER+ Metastatic Breast Cancer Cell Lines
Alanna Kaminsky, Senior, Food Science & Human Nutrition, ACES

Elucidating the Mechanism of Cyclopamine Binding
Kihong Kim, Senior, Chemical Engineering, ENG

Investigating Relationships between Colorectal Cancer and Agricultural Practices: County data Analyses
Jacob Minin, Senior, Bioengineering, ENG

Levels of Fos Expression in D1- and D2-SPNs May Indicate Motor Learning During a Striatum-dependent Reinforcement Learning Task
Cynthia Mu, Junior, Molecular & Cellular Biology, LAS

Environment-mediated Tumor Progression in a Bioengineered Model of Glioblastoma
Joseph Mueller, Sophomore, Chemical Engineering, ENG
Synthesis of Complex Electrophilic Warhead-Functionalized Derivatives of a Triterpenoid
Quinton Perry, Senior, Chemistry, LAS

Exploring Self-Efficacy for Physical Activity Among Cancer Survivors Participating in a Virtual 12 Week Program
Rahil Sadruddin, Junior, Kinesiology, AHS

Long-Term Oral Exposure to Diisononyl Phthalate May Accelerate Ovarian Aging Through Increased Fibrosis and Expression of Telomeric Repeat Binding Factors
Adira Safar, Sophomore, Molecular & Cellular Biology, LAS

Optimizing Near-infrared Photoacoustic Contrast Agents for Cancer Localization and Imaging
Qasim Sikander, Senior, Chemistry, LAS

CRaB-Pys: Method for Improved Photoacoustic Imaging
Brennen Thomas, Senior, Chemical Engineering, LAS

Controlling Death in Breast and Ovarian Cancer Cells with Novel Pathway Regulating Anticancer Drug
Elaine Wei, Sophomore, Biochemistry, LAS

Hydrolysis-resistant Ester-based Linkers for Development of Activity-based NIR Bioluminescence Probes
Yourong Weng, Junior, Chemical Engineering, LAS

Probing Cancer Stem Cell Differentiation via Manipulation of Tumor Oxygenation
Lily Wenger, Junior, Biochemistry, LAS

AHS Undergraduate Research Expo
College of Applied Health Sciences
Wednesday, April 26, 2:00 PM – 3:30 PM
Huff Hall, 1st Floor
1206 S 4th St, Champaign, Illinois

Applied Health Science undergraduates will be sharing their research posters which will be presented at the Undergraduate Research Symposium in the first-floor hallway in Huff Hall. Come by to discover the exciting research our students are involved in. Feel free to ask questions of the students to learn more about their work.

Illinois Distributed Museum Tours
Illinois Distributed Museum interns (enrolled in the history department) will be leading tours around campus that talk about important innovations and innovators. This will be their final project for their semester-long internship after completing archival research about these innovations.

Education Innovations Walking Tour
Wednesday, April 26, 3:00 PM – 4:30 PM
University Archives, Room 146 Main Library
1408 W Gregory Dr, Urbana, Illinois

Join Grace Kraft, one of the Illinois Distributed Museum’s Spring interns, on a walking tour of campus to highlight education-related innovations from the University of Illinois. Hear about the development of various campus departments, impactful figures in university history, key technological developments, and more. This tour will start at the University Archives, located in the Main Library Room 146. We will spend approximately an hour and a half walking to 8 different locations on campus. It is helpful if you register but is not required. Accommodation requests can also be made through registration. Register at https://go.illinois.edu/EducationInnovations

Grace Kraft, Junior, History, Secondary Education, LAS

Cultural Innovations Walking Tour
Friday, April 28, 4:00 PM – 5:00 PM
University Archives, Room 146 Main Library
1408 W Gregory Dr, Urbana, Illinois

Join Devin Manley, one of the Illinois Distributed Museum’s Spring interns, on a walking tour of campus to highlight cultural and community building innovations from the University of Illinois. Hear about the history of this campus’s multi-ethnic and multi-cultural past as we think critically about the University of Illinois’ role in defining immigration policies, the Civil Rights Movement, and the progression of inclusive academia at both the local and global scale. Follow along as we visit some of the University’s most powerful and life-changing sites that you may walk past every day without even knowing! This tour will start at the University Archives, located in the Main Library Room 146. We will spend approximately an hour and a half walking to 7 different locations on campus. It is helpful if you register but is not required. Accommodation requests can also be made through registration. You can register at https://go.illinois.edu/CulturalInnovations

Devin Manley, Junior, History, LAS

McNair Scholars Program
Undergraduate Research Panel
Office of Minority Student Affairs
Wednesday, April 26, 5:00 PM – 7:00 PM
Bruce D. Nesbitt African American Cultural Center, Multipurpose Room
1212 W Nevada St, Urbana, Illinois

Five to seven McNair Scholars Program participants will participate in a panel discussion designed to 1) provide attendees with a “day in the life” of an undergraduate researcher 2) share their experiences in the McNair Program Summer Research Institute 3) answer any questions interested students may have about conducting research or participating in the McNair Program.
Parkland Honors Program
Parkland College
Thursday, April 27, 11:00 AM – 1:00 PM
Parkland College, Room U-140
2400 W Bradley Ave, Champaign, Illinois

Parkland College students have participated in the Undergraduate Research Symposium at the University of Illinois at Urbana-Champaign (UIUC) since 2013 under the Ethnography of the University Initiative. This initiative, supported by the Office of Undergraduate Research at UIUC, has students use a variety of ethnographic, archival, and related methods to examine their home institutions in its broader social, political, and historical contexts. Starting in 2022, Parkland students doing course-embedded research continued this collaboration and participated in the symposium at their home institution hosted by Parkland’s Honors Program. In 2023, the Parkland Honors Symposium welcomed the participation of Psi Beta students, the Community College National Honors Society in Psychology.

Anthropology Ethnography of the University Initiative

An Ethnographic Study of Snack Eating Habits of Parkland Students
Jordan Goodhart, Parkland College
Prechethan Kessiradi, Parkland College
Logan Haake, Parkland College
Tyler Thomas, Parkland College
Aaron Triplett, Parkland College

An Ethnography of Factors Leading Students to Choose Parkland as Their College
Dwayne Hubbard, Parkland College
Jaimee Hudson, Parkland College
David Schroeder, Parkland College
Jazmine Smith, Parkland College

An Ethnography of Parkland Pathway Students
Chase Belt, Parkland College
Taylor Blackwell, Parkland College
Margaret Daniels, Parkland College
Blessing Omoniyi, Parkland College

Psi Beta Psychology Club

Development of a Pronoun Usage Learning Module to Enhance Faculty Education
Evelyn Ashley, Parkland College

Developmentally Appropriate and Evidence-Based Approaches for Improving Attention in Kindergarteners
Alana Brown, Parkland College

The Importance of Being in Nature
Peyton Daniel, Parkland College

How Autism Representation in the Media Influences People’s Attitudes: A Literature Review
Eleanor Klein, Parkland College

A Literature Review of Intrapersonal Interventions to Reduce Partisan Affective Polarization
Katrina Powers, Parkland College

Food Bank Survey
Jesse Bradford Swanson, Parkland College

Department of Economics Research Symposium

Department of Economics
Thursday, April 27, 2023, 6:00 PM – 7:30 PM
Zoom: go.illinois.edu/URWEcon (Passcode: 906028)

The Department of Economics conducts an Economics Research Symposium every spring. They are a valuable experience for Economics students who want to present research they have been working on during the academic year. Research projects are from independent studies, research courses, or any class where the student worked on a project, paper, or research. Some of the research is in the proposal form or will be ongoing, while others are completed projects.

Humanities Research Lab Showcase

Humanities Research Institute (HRI)
Friday, April 28, 12:00 – 2:00 PM
Levis Faculty Center, 2nd Floor (Room 210)
919 W Illinois St, Urbana, Illinois

Students from the Humanities Research Lab Courses, SPAN 232, “Spanish in the Community,” led by Professor Ann Abbott, and HIST 312, “Immigrant America,” led by Professor Yuriidia Ramirez, will present and reflect on the community-engaged research they undertook as part of their course. Humanities Research Labs are a collaboration between the Humanities Research Institute (HRI) and the Office of Undergraduate Research (OUR), and offer students an opportunity to participate in community-based Research.

Psi Beta Psychology Club

Development of a Pronoun Usage Learning Module to Enhance Faculty Education
Evelyn Ashley, Parkland College

Working Alongside the Immigration Project
Frank Cabrera, Senior, History & English, LAS

Immigrant Unaccompanied Minors
Madeleine Meehan, Senior, Molecular & Cellular Biology & Spanish, LAS

Courage Connection Community Engaged Project
Kaylee Moore, Junior, History and Gender & Women’s Studies, LAS
Food Banks and Migrant Communities: Community Service Center of Northern Champaign County
Kevin Murphy, Sophomore, History & Political Science, LAS

Access to Healthcare Within the Hispanic Community
Krupa Shah, Junior, Molecular & Cellular Biology & Spanish, LAS

La tensión entre español y inglés en el comportamiento lingüístico de los inmigrantes hispanohablantes / The Tension Between Spanish and English in Spanish-speaking Immigrants’ Linguistic Behavior
Sylvia Techmanski, Freshman, Spanish and Speech & Hearing Science, LAS

School of Art & Design Undergraduate Research Exhibition
College of Fine & Applied Arts
Saturday, May 6 – Friday, May 14, On Display
Krannert Art Museum
500 E Peabody Drive, Champaign, Illinois

The School of Art & Design’s Undergraduate Research Week Exhibition will feature outstanding creative research by students participating in the annual Art & Design BFA (Bachelor of Fine Arts) exhibition. This celebrates the breadth of research done in Art & Design programs, encompassing the Studio Arts, Graphic Design, Industrial Design, Art History, and Art Education. Student work will also be available via an exhibition website beginning May 14. Please visit the School’s website at https://art.illinois.edu/ for more information.

Department of Political Science Honors and Awards Ceremony
Department of Political Science
Saturday, May 6, 11:00 AM – 2:00 PM
Hilton Garden Inn
1501 S Neil St, Champaign, Illinois

Political science honors students will present poster sessions summarizing their thesis project. This is the culmination of a year-long process in which students learn to design their research, and work with a faculty advisor to complete a significant research project. We will also be honoring inductees to Pi Sigma Alpha, the political science honors society, and political science scholarship recipients.
2023 Undergraduate Research Symposium

April 27, 2023
9 AM – 5 PM, Illini Union
Posters in Illini Rooms, A, B, C & South Lounge
Oral Presentations on 2nd Floor
**Oral Presentations**

**On Exhibit**

Illini Room B  
10:30 AM–12:15 PM

*The Mixmaster 9000 - An Electronic Dance Instrument (EDI)*  
Jason Brickman, Senior, Dance, FAA  
(Research Mentor(s): John Toenjes, Dance)

**Viruses and Pathogens: Next Generation Therapeutics**  
9:15 AM – 10:15 AM, Room 209

Antimicrobial Random Peptide Mixtures Eradicate Acinetobacter baumannii Biofilms and Inhibit Mouse Models of Infection  
Hannah Caraway, Senior, Integrative Biology, LAS  
(Research Mentor(s): Gee Lau, Pathobiology)

Mechanisms of HIV Latency Reactivation During Monocyte-to-Macrophage Differentiation  
Neha Arun, Senior, Molecular & Cellular Biology, LAS  
(Research Mentor(s): Collin Kieffer, Microbiology)

Psychological Stress-Induced Modifications to Intestinal Epithelial Physiology Parallel Shifts in the Gut Microbiome  
Ivan Valishev, Junior, Integrative Biology, LAS  
(Research Mentor(s): Maria Elisa Caetano-Silva, Kinesiology & Community Health & Jacob Allen, Kinesiology & Community Health)

**Design Thinking: Developing Innovative Tools and Techniques in Health Literacy; Compliant Mechanisms; and Robotic Motion Planning**  
9:15 AM – 10:15 AM, Room 210

Health Literacy Measurement Tools for Individuals With Autoimmune Diseases  
Isha Satani, Junior, Molecular & Cellular Biology, LAS  
(Research Mentor(s): Chung-Yi Chiu, Kinesiology & Community Health & Mojtaba Khaliji, Kinesiology & Community Health)

High Precision Compliant Mechanism for Scanning Electrochemical Microscopy  
Nikita Lukhanin, Senior, Mechanical Engineering, ENG  
(Research Mentor(s): Charles Schroeder, Chemical & Biomolecular Engineering & Joaquin Rodriguez-Lopez, Chemistry)

Studying Accessibility with Skeleton-Guided Motion Planning  
Keerthana Nallamotu, Sophomore, Computer Science, ENG  
(Research Mentor(s): Nancy Amato, Computer Science)

**Engineering Technologies: Object Manipulations; Pattern Analyses**  
9:15 AM – 10:15 AM, Room 211

3Drp: OpenSfM for Representing and Manipulating Deformable Objects  
Fuad Samhouri, Senior, Aerospace Engineering, ENG  
(Research Mentor(s): Holly Dinkel, Aerospace Engineering & Timothy Bretl, Aerospace Engineering)

Data Extraction and Pattern Analysis of Electric Scooters and Bikes  
Mingyi Yu, Junior, Civil & Environmental Engineering, ENG  
(Research Mentor(s): Yanfeng Ouyang, Civil & Environmental Engineering & Jesus Javier Osorio Fuenmayor, Civil & Environmental Engineering)

**Fostering Inclusive Education Systems**  
9:15 AM – 10:15 AM, Room 213

African Americans Parents’ Aspirations for Their Middle-School Children  
Rithika Baskar, Senior, Psychology, LAS  
(Research Mentor(s): Carla Hunter, Psychology)

Design and Preliminary Results of a Digital Coach for Teaching  
Timor Averbuch, Sophomore, Computer Science, ENG  
Nalin Tiwary, Sophomore, Computer Science, ENG  
(Research Mentor(s): Lawrence Angrave, Computer Science & Allison Moody, Theatre)

Improving Access to Engineering Education: Unlocking Text and Table Data in Images and Videos  
Uchechukwu Uche-Ike, Junior, Computer Science, ENG  
(Research Mentor(s): Lawrence Angrave, Computer Science)

**Identity and Memory**  
9:15 AM – 10:15 AM, Room 215

Fractal Borderlands and Ideal Citizens: A Closer Look at Community Boundaries  
Michael Jacobson, Junior, Gender & Women’s Studies, LAS  
(Research Mentor(s): Ghassan Moussawi, Gender & Women Studies & Daniel McCarthy, Gender & Women Studies)

Jewish American Reactions to the Bosnian Genocide  
Edward Ryan, Senior, History, LAS  
(Research Mentor(s): Peter Fritzche, History & Ralph Mathisen, History)

Remembering the Pontic Greek Genocide  
Justin Wytmar, Sophomore, History, LAS  
(Research Mentor(s): Stefan Djordjevic, History)
Science and Computation: Models and Processes
9:15 AM – 10:15 AM, Room 217
Modeling of Radical-Scavenger Reaction and Diffusion within the Plasma-Liquid Interface
Sean Peyres, Senior, Nuclear, Plasma & Radiological Engineering, ENG
(Research Mentor(s): R. Mohan Sankaran, Nuclear, Plasma & Radiological Engineering)

The Blandford-Znajek Process in Quadratic Gravity
Nicolas Patino, Senior, Physics, LAS
(Research Mentor(s): Nicolas Yunes, Physics)

Quantum Channels and Error Correction
Chieh Hsu, Junior, Engineering Physics, ENG
Yushan Chen, Junior, Mathematics, LAS
Abraham Holtermann, Junior, Engineering Physics, ENG
Tushar Mohan, Freshman, Engineering Physics, ENG
Jihong Cai, Junior, Mathematics, LAS
Zeyuan Yu, Junior, Mathematics, LAS
(Research Mentor(s): Roy Araiza, Mathematics & Peixue Wu, Mathematics)

Challenging the Status Quo: Athletics and Policy Development
11:00 AM – 12:00 PM, Room 209
Collective Bargaining Agreements for Professional Athletes: An Analysis of Agreements
Jayla Young, Junior, Psychology, LAS
(Research Mentor(s): Caitlin Clarke, Kinesiology & Community Health & Eva Rubin, Kinesiology & Community Health)

Fighting to Be Illini: Title IX, Women’s Basketball, and the Struggle for Gender Equity at the University of Illinois
Connor Barnes, Senior, History, LAS
(Research Mentor(s): Adrian Burgos Jr., History)

More Tactical Experience - Greater Resilience?
Madelyn Szamocki, Senior, Kinesiology, AHS
(Research Mentor(s): Steven Petruzzello, Kinesiology & Community Health & Jonathan North, Kinesiology & Community Health)

Telling Stories
11:00 AM – 12:00 PM, Room 210
An Exploration of the Gothic and Modern Spaces in Melville’s Bartleby
Aaron Mukhopadhyay, Junior, English, LAS
(Research Mentor(s): Tim Newcomb, English)

Zumbi: The Name of a Hero and What It Meant to Colonial Forces
Caroline Da Rocha Birnfeld, Sophomore, History, LAS
(Research Mentor(s): Marc Hertzman, History)

Innovations in Agriculture Technology
11:00 AM – 12:00 PM, Room 211
Adaptive Individual Recognition for Swine
Noel Dunning, Sophomore, Computer Science & Animal Sciences, ACES
(Research Mentor(s): Isabella Condotta, Animal Sciences)

Deep Learning Model for Cattle Facial Identification
Wei-Chen Chang, Senior, Actuarial Science, LAS
(Research Mentor(s): Isabella Condotta, Animal Sciences & Luana Benicio, Animal Sciences)

Inclusion Effects of Malt Rootlets on pH, Short-Chain Fatty Acids and Lactic Acid Fecal Concentrations in a Horse Diet
Ana Carolina Almeida Silva, Exchange Student, University of São Paulo
(Research Mentor(s): Alexandre A. de Oliveira Gobesso, University of São Paulo & Matthew B. Wheeler, Animal Sciences)

Health and Wellness
11:00 AM – 12:00 PM, Room 213
Food Convos: Do We Need Them?
Brynn Maxwell, Senior, Food Science & Human Nutrition, ACES
(Research Mentor(s): Kemal Nance, Dance & Justine Karduck, Food Science & Human Nutrition)

The Relationship between Physical Activity and Cognitive and Motor Skills in School-Aged Children
Ananya Singh, Junior, Chemistry, LAS
Lauren Couri, Junior, Community Health, AHS
(Research Mentor(s): Naiman Khan, Kinesiology & Community Health)

Trauma-Informed Care Against Gun Violence
Pierre Moore, Senior, Community Health, AHS
(Research Mentor(s): Anthony Sullers Jr., African American Studies)

Science and Computation: Novel Systems
11:00 AM – 12:00 PM, Room 215
Efficiently Executing Discontinuous Galerkin Finite Element Method (DG-FEM) Workloads on GPUs via Data Flow Graphs
Mit Kotak, Senior, Engineering Physics, ENG
(Research Mentor(s): Kaushik Kulkarni, Computer Science & Andreas Kloeckner, Computer Science)

The Effects of Embodiment Experience on Text Foraging
Yimei Jiang, Senior, Psychology, LAS
(Research Mentor(s): Jessie Chin, School of Information Sciences)
Marginalizations
11:00 AM – 12:00 PM, Room 217
Crippling the Bechdel Test: Standards for Evaluation of Disability Representation in Film
Ruby Elbert, Senior, Disability Studies & Spanish, LAS
(Research Mentor(s): Catherine Prendergast, English)

The Asian Adoptee Experience at Post-secondary Institutions; Specifically in Student Organizations
Will Yepsen, Junior, Political Science, LAS
(Research Mentor(s): Sharon Lee, Education Policy, Organization & Leadership)

Yellow Hollywood
Alex Gallegos, Sophomore, Media & Cinema Studies, COM
(Research Mentor(s): Rachel Kuo, Media & Cinema Studies)

Science & Technology:
Developments in Biocompatibility
2:15 PM – 3:15 PM, Room 209
Emulsification of Hydrothermal Liquefaction Biocrude Oil Derived from Food Waste
Siyu Yang, Junior, Chemistry, LAS
(Research Mentor(s): Sabrina Summers, Agricultural & Biological Engineering & Yuanhui Zhang, Agricultural & Biological Engineering)

Exploration and Validation of Gelatin-Based Polymers as Alternatives for Silicone in Soft Implantable Devices
Aasiyah Adnan, Sophomore, Bioengineering, ENG
David Wilcoski, Junior, Bioengineering, ENG
(Research Mentor(s): Sandra Edward, Mechanical Science & Engineering & Holly Golecki, Bioengineering)

Partitioning of Small Hydrocarbon Molecules Between the Vapor and the Polyethylene Melt in Polymer Upcycling Processes
Chinmay Sahasrabudhe, Sophomore, Chemical Engineering, LAS
(Research Mentor(s): Baron Peters, Chemical & Biomolecular Engineering)

Storytelling:
Novel Approaches
2:15 – 3:15 PM, Room 210
Save or Discard?: The Preservation of Memory in Angie Cruz’s novels
Leticia Flores Martinez, Senior, English, LAS
(Research Mentor(s): José A. de la Garza Valenzuela, Latina/Latino Studies)

SUUCHO Meme Wall: Memes in Wartime
Mason Acquaviva, Freshman, History, LAS
Daniel Shepherd, Junior, History, LAS
(Research Mentor(s): John Randolph, History)

We Tell Stories: The Influence of Traditional Yoruba Performance in Contemporary Theatre
Jaylon Muchison, Junior, Theatre, FAA
(Research Mentor(s): Kristen Pullen, Theatre)

Robotic Advancements in Support of Aging Populations
2:15 – 3:15 PM, Room 211
Domestic Robot Research to Support Older Adults
Jade Marks, Senior, Community Health, AHS
(Research Mentor(s): Wendy Rogers, Kinesiology & Community Health & Samuel Olatunji, Human Factors & Aging Laboratory)

Exploring Older Adults’ Willingness to Trust Telehealth Robots
Saatveek Govrishankar, Freshman, Computer Engineering, ENG
(Research Mentor(s): Wendy Rogers, Kinesiology & Community Health & Samuel Olatunji, Human Factors & Aging Laboratory)

What is Aging Independently and What’s a Robot Got to do with it?
Megan Bily, Senior, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): Wendy Rogers, Kinesiology & Community Health & Megan Bayles, Human Factors & Aging Laboratory)

Nature, Life & Environment
2:15 – 3:15 PM, Room 213
Behavior in Threespine Stickleback and its Contingency on Received Care
Tara Pavithran, Senior, Integrative Biology, LAS
(Research Mentor(s): Alison Bell, Evolution, Ecology & Behavior & Meghan Maciejewski, Evolution, Ecology & Behavior)

Prevalence of Heartland Virus (HRTV) & Bourbon Virus (BBRV) in Ambrealum Americanum
Shreyas Rajagopalan, Senior, Integrative Biology, LAS
(Research Mentor(s): Brian Allan, Entomology & Derek McFarland, Entomology)

Recent Insect Sampling in Thailand Reveals High Diversity in Potential Leafhopper Vectors of Plant Disease (Cicadellidae)
Sydney Littlejohn, Junior, English, LAS
(Research Mentor(s): Christopher Dietrich, Illinois Natural History Survey)

Cellular Dynamics
2:15 – 3:15 PM, Room 215
Devising Methods to Quantify Viral Rebound Rate within HIV-infected Brain
Mina Kang, Senior, Integrative Biology, LAS
(Research Mentor(s): Collin Kieffer, Microbiology)

From Hardship to Relief: Breaking Up with your Toxic Ex
Faisal Zaidi, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Steven Blanke, Microbiology & Ami Seeger, Microbiology)

Genome-Targeting Pathogen Promotes Loss of Intestinal Barrier Function Through DNA Damage Response
Olivia Rodriguez, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Molly Crowder, Microbiology & Steven Blanke, Microbiology)
**Virtual Realities**

**2:15 PM – 3:15 PM, Room 217**

**Storytelling in Virtual Reality: Teaching Physics Through Games**  
**Alex Shaffer**, Sophomore, Engineering Physics, ENG  
(Research Mentor(s): Raluca Ilie, Electrical & Computer Engineering)

**A Participatory Design Approach to Develop a VR-Based Electrocardiogram Training Simulator**  
**Arnav Shah**, Junior, Computer Science, ENG  
(Research Mentor(s): Harris Nisar, Industrial & Enterprise Systems Engineering & Lawrence Angraves, Computer Science)

**Virtual Reality Lab to Teach the Physics of Transmission Lines**  
**Alexander Romanov**, Senior, Engineering Physics, ENG  
(Research Mentor(s): Raluca Ilie, Electrical & Computer Engineering)

**Questions of Belonging**

**4:00 PM – 5:00 PM, Room 209**

**Centering Youth Voices about Their Experiences with COVID-19**  
**Sloane Ward**, Junior, Molecular & Cellular Biology, LAS  
(Research Mentor(s): Jacinda Dariotis, Human Development & Family Studies)

**The Historically Underrepresented Genders (HUG) Initiative: Motivations for Pursuing Graduate School Among ECE Undergraduates**  
**Mayura Kulkarni**, Junior, Electrical Engineering, ENG  
**Alyssa Huang**, Sophomore, Electrical Engineering, ENG  
(Research Mentor(s): Holly Golecki, Bioengineering & Mei-Yun Lin, Electrical and Computer Engineering)

**The Influence of Inclusivity on Belongingness through Physiology among College Students**  
**Maha Syed**, Senior, Integrative Biology, LAS  
(Research Mentor(s): Nidia Ruedas-Gracia, Educational Psychology & Jessica Brinkworth, Anthropology)

**Learning Experiences and Human Development**

**4:00 PM – 5:00 PM, Room 210**

**Effects of Parental Expectations and Socio-Economic Status on Adolescents Academic Achievement: An International Study**  
**Wenqian Long**, Senior, Psychology, LAS  
(Research Mentor(s): D. A. Briley, Psychology)

**Updating Educational Video Content for the EMPOWER Weight Loss Program to Enhance the Learning Experience and Application of Knowledge to Dietary Habits**  
**Adam Syed**, Freshman, Food Science & Human Nutrition, ACES  
(Research Mentor(s): Ashleigh Oliveira, Animal Sciences & Manabu Nakamura, Food Science & Human Nutrition)

**Writing Across the Curriculum Across Green Street: Observing Specialist and Generalist Tutoring for STEM Coursework**  
**Nic Quero**, Junior, English, LAS  
(Research Mentor(s): Carolyn Wisniewski, Center for Writing Studies)

**Mental Health**

**4:00 PM – 5:00 PM, Room 211**

**“Nobody Asked was I OK”: The Mental and Psychological Stress on Urban African American Children**  
**Kameryn Alexander**, Senior, Political Science, LAS  
(Research Mentor(s): Anthony Sullers Jr., African American Studies)

**The Relationship Between Early Life Adversity and Emotion Regulation with Sleep Quality As A Mediator**  
**Yuxuan Yang**, Freshman, Psychology, LAS  
(Research Mentor(s): Nanthia Suthana, University of California at Los Angeles)

**The Role of Need for Approval in Predicting Future Perceptions of the Self and Peers Following Victimization**  
**Jasmine Bigelow**, Senior, Psychology, LAS  
(Research Mentor(s): Karen Rudolph, Psychology & Haina Modi, Psychology)

**Numbers and Computation**

**4:00 PM – 5:00 PM, Room 213**

**Formal Verification of SciTokens**  
**Bach Hoang**, Freshman, Mathematics, LAS  
(Research Mentor(s): Jim Basney, National Center for Supercomputing Applications & Phuong Cao, National Center for Supercomputing Applications)

**Inflation and Growth Forecasting Using Machine Learning Methods**  
**Kelvin Jiang**, Senior, Economics, LAS  
(Research Mentor(s): EunYi Chung, Economics)

**Quantum Sensing using N-V Centers**  
**Rishi Sivakumar**, Sophomore, Engineering Physics, ENG  
(Research Mentor(s): Mikael Backlund, Chemistry)

**Plants and Animals**

**4:00 PM – 5:00 PM, Room 215**

**Diversity and Chitinolytic Activity of Microbiome in Brood Cells and Emergent Adults of Colletes inequalis**  
**Vi Aldunate**, Senior, Integrative Biology, LAS  
(Research Mentor(s): Alexandra Harmon-Threatt, Entomology & Anthony Yannarell, Natural Resources & Environmental Sciences)

**Seasonality and Recovery in Disease Dynamics**  
**Gabriel Kossmacher**, Senior, Mathematics & Computer Science, LAS  
**Dillon Max**, Senior, Mathematics, LAS  
(Research Mentor(s): Zoi Rapti, Mathematics)

**Neonicotinoid and Fungicide Impacts on Painted Lady Butterfly Development**  
**Kristine Schoenecker**, Senior, Natural Resources & Environmental Sciences, ACES  
(Research Mentor(s): Alexandra Harmon-Threatt, Entomology & Anthony Yannarell, Natural Resources & Environmental Sciences)
Social Issues and the Human Experience
4:00 PM – 5:00 PM, Room 217

A Narrated Review on the Prevalence of Police Violence in the Disability Community
Riley Murphy, Junior, Social Work, SSW
(Research Mentor(s): Rachel Garthe, School of Social Work & Carol Wilson-Smith, School of Social Work)

Orange and Blue and Green: Anti-War and Environmental Activism at the University of Illinois in the Early 1970s
Matthew Troher, Senior, English, LAS
(Research Mentor(s): Jamie Jones, English)

Wrap Around Support with Victims of Gun Violence
Nicholas King, Senior, Community Health, AHS
(Research Mentor(s): Anthony Sullers Jr., African American Studies)

7. Exploring Novel Ene-Reductase Function for Enzymatic Synthesis of Privileged Scaffolds
Megan Zhou, Junior, Bioengineering, ENG
(Research Mentor(s): Huimin Zhao, Chemical & Biomolecular Engineering & Guangde Jiang, Institute for Sustainability, Energy & Environment)

8. Examining Fetal Brain Cortical Architecture in Response to Maternal Influenza Virus Infection
Virginia Florianowicz, Junior, Animal Sciences, ACES
Ashley Matan, Senior, Animal Sciences, ACES
(Research Mentor(s): Adrienne Antonson, Animal Sciences & Izan Chalen Paredes, Animal Sciences)

9. Fascin and β-Catenin Interactions in Regard to Actin Filaments
Amber Nagaraja, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): William Brieher, Cell & Developmental Biology)

10. Identifying the Predominant Water-borne Glucocorticoid in Glassfrogs (H. fleischmanni)
Abigail Stevenson, Sophomore, Psychology, LAS
(Research Mentor(s): Emily Terrill, Evolution, Ecology & Behavior & Eva Fischer, Evolution, Ecology & Behavior)

11. Investigating the Alternative Start Codon of ParB
Yahaira Chavez, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Paola Mera, Microbiology & Daniel Lee Joo, Microbiology)

12. Investigation of the Role of the Coenzyme F420H2-Dependent Oxidoreductase Cao12 in the Generation of D-Amino Acids in Cacaoidin
Isaiah Lopez, Senior, Biochemistry, LAS
(Research Mentor(s): Wilfred van der Donk, Chemistry & Lainey Liang, Biochemistry)

13. Layer-by-Layer Nanoencapsulation of Probiotic Bacteria
JP Colarelli, Sophomore, Biochemistry, ENG
(Research Mentor(s): Yanlin Lei, Food Science & Human Nutrition & Youngsoo Lee, Food Science & Human Nutrition)

14. Long-Term Oral Exposure to Diisononyl Phthalate May Accelerate Ovarian Aging Through Increased Fibrosis and Expression of Telomeric Repeat Binding Factors
Adira Safar, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Jodi Flaws, Comparative Biosciences & Ramses Santacruz-Marquez, Comparative Biosciences)

15. Metabolism of K9TCC Bladder Cancer Cells and Their Extracellular Vesicles
Katerina Baxter, Sophomore, Bioengineering, ENG
(Research Mentor(s): Stephen Boppart, Electrical & Computer Engineering & Jaena Park, Bioengineering)

Posters

PA Session - Cells & Molecules
9:00 AM – 10:15 AM, Illini Room A

1. A Cybercrime Detective (Digital Chromosome Banding) Distinguishes Real and Pseudo Sex Body
Royal Shrestha, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Joe (Huanyu) Qiao, Comparative Biosciences & Yiheng (Scott) Peng, Comparative Biosciences)

2. An Expanded Role of the DNA-binding Protein ParA in Chromosome Anchoring and Segregation
John Norcross, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Stephanie Puentes, Microbiology)

3. Impact of mir-129-5p delivered by 27HC-PMNs-sEVs on Breast Cancer Promotion
Ki Lim, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Erik Nelson, Molecular & Integrative Physiology & Natalia Krawczynska, Beckman Institute)

4. Diffusion Coefficient Measurements of Quantum Dot Nanoparticles in Live Cells
Sonja Gurbani, Senior, Bioengineering, ENG
(Research Mentor(s): Andrew Smith, Bioengineering & Opeyemi Arogundade, Bioengineering)

5. Effects of E592T E-Cadherin on Cellular Mechanotransduction
Nicholas Allen, Junior, Biochemistry, LAS
(Research Mentor(s): Arthur Zou, Biochemistry)

6. Effects of Incremental Doses of FRUIT-UP Supplementation on Glycemic Response of Adult Overweight and Obese Dogs
Savannah Limberg, Senior, Animal Sciences, ACES
(Research Mentor(s): Maria Regina Cattai de Godoy, Animal Sciences & Emanuela Kayser, Animal Sciences)
16. Oocyte Chromosome-Spindle Transfer Through Micromanipulation
Bushra Azhar, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Joe (Huanyu) Qiao, Comparative Biosciences & Reza Rajabi-Toustani, Comparative Biosciences)

17. Probing Cancer Stem Cell Differentiation via Manipulation of Tumor Oxygenation
Lily Wenger, Junior, Biochemistry, LAS
(Research Mentor(s): Jefferson Chan, Chemistry & Chelsea Swartchick, Chemistry)

18. Psychological Stress and Stress Transfer through Fecal Transplant Reshape Enterohepatic Axis Metabolites
Sari Gluck, Junior, Integrative Biology, LAS
(Research Mentor(s): Diego Hernandez Saavedra, Kinesiology & Community Health)

Kate Murphy, Junior, Animal Sciences, ACES
(Research Mentor(s): Daniel McKim, Animal Sciences & Steven Krauklis, Division of Nutritional Sciences)

20. Stochastic Modeling of Cell Fate During Phage Lambda Infection
Kevin McDonald, Junior, Physics, LAS
(Research Mentor(s): Ido Golding, Physics)

21. To Die or Not to Die: Controlling Death in Breast and Ovarian Cancer Cells with Novel Pathway Regulating Anticancer Drug
Elaine Wei, Sophomore, Biochemistry, LAS
(Research Mentor(s): Junyao Zhu, Biochemistry & David Shapiro, Biochemistry)

22. Developing an Injury Model for Bone Regeneration
Megan Shamsi, Senior, Chemical Engineering, LAS
(Research Mentor(s): Aliki Kolliopoulos, Chemical & Biomolecular Engineering & Grace Rubino, Chemical & Biomolecular Engineering)

23. PB Session - Science & Technology
9:00 AM - 10:15 AM, Illini Room A

25. Amazon Alexa Simbot Challenge - CS STARS
Devika Prasad, Senior, Computer Science, ENG
(Research Mentor(s): Julia Hockenmaier, Computer Science)

26. Applying Contextual Engineering and Indigenous Science to Dynamic Climate Adaptation Strategies and Designs
Kyle Thompson, Junior, Mechanical Engineering, ENG
(Research Mentor(s): Alina Lusebrink, Agricultural & Biological Engineering & Ann Witmer, Agricultural & Biological Engineering)

27. Assessing Marine Influence in Carboniferous Coal Ball Formation with Strontium Isotopes
Hannah Beddow, Senior, Animal Sciences, ACES
(Research Mentor(s): Max Christie, Geology)

28. Automated Forgery Detection for Western Blot Images
Athena Zheng, Junior, Computer Science, ENG
(Research Mentor(s): Eric Shaffer, Computer Science)

29. Characterizing Battery Interface Resistance using Direct Current Electrochemical Impedance Spectrometry (DCEIS)
Jaehong Park, Senior, Chemical Engineering, LAS
(Research Mentor(s): Paul Braun, Materials Science & Engineering & Peilin Lu, Materials Science & Engineering)

30. Data-driven Assessment of Equitable Access to Electric Vehicle Charging Stations: A Case Study in Chicago
Ria Bhargava, Freshman, Systems Engineering & Design, ENG
(Research Mentor(s): Ruolin Zhang, Civil & Environmental Engineering)

31. Electrolyte Effects on Electrochemical Alkene Epoxidation
Drew Hollyfield, Freshman, Chemical & Biomolecular Engineering, ENG
(Research Mentor(s): David Flaherty, Chemical & Biomolecular Engineering & Richa Ghosh, Chemical & Biomolecular Engineering)

32. Enhancing Optical Character Recognition (OCR) Capabilities for Historical Documents
Rushdan Jimoh, Senior, Information Sciences, SIS
(Research Mentor(s): Jill Naiman, School of Information Sciences)

33. Experimental Observation for a Confined Bubble Moving in Viscoelastic Fluids
Yantong Lin, Senior, Mechanical Engineering, ENG
(Research Mentor(s): Jie Feng, Mechanical Science & Engineering & Sung Gyu Chun, Mechanical Science & Engineering)

34. NIR Analysis and Chemometrics of Cocoa Beans
Danielle Chao, Sophomore, Chemistry, LAS
(Research Mentor(s): AJ Taylor, Food Science & Human Nutrition & Nicki Engeseth, Food Science & Human Nutrition)

35. Optical Character Recognition Post-Correction with Machine Learning
Morgan Cosillo, Senior, Information Sciences, SIS
(Research Mentor(s): Jill Naiman, School of Information Sciences)

36. Pay to Play
Mutmaina Adebayo, Sophomore, Computer Science & Philosophy, LAS
(Research Mentor(s): Gang Wang, Computer Science & Kirill Levchenko, Electrical & Computer Engineering)

37. Quantifying Copper Resistance of Xanthomonas Isolates Collected from IL Tomato Fields
Elizabeth De LaTorre, Sophomore, Plant Biotechnology, ACES
(Research Mentor(s): Sarah Hind, Crop Sciences)

38. The Combined Effect on the Transcriptome of Fasting and Maternal Immune Activation in Pigs
Nicole Southey, Junior, Bioengineering, ENG
(Research Mentor(s): Sandra Rodriguez-Zas, Animal Sciences)
39. The Effects of Phthalate Exposure on Neuron Number in the Hippocampus of Prenatal and Breastfeeding Long Evans Rats
Savannah Theurer, Senior, Psychology, LAS
(Research Mentor(s): Janice Juraska, Psychology & Elli Sellingier, Psychology)

40. The Role of Exosomes in Exercise-Induced Neurogenesis
Leah Malan, Senior, Psychology, LAS
Prithika Ravi, Sophomore, Molecular & Cellular Biology, LAS
Dan Rosu, University High School
(Research Mentor(s): Justin Rhodes, Psychology & Meghan Connolly, Neuroscience Program)

41. The Terahertz Intensity Mapper
Hrushikesha Athreya, Junior, Mechanical Engineering, ENG
(Research Mentor(s): Joaquin Vieira, Astronomy)

42. Theoretical Investigations into Photoluminescent Au25@Ag Bimetallic Nanoclusters
Aidan Lindsay, Sophomore, Chemistry, LAS
(Research Mentor(s): Christine Aikens, Kansas State University)

43. Thermochronologic Constraints on the History of the West African Craton and Subsequent Impacts on Implied Craton Stability
Addison Curtis, Senior, Geology, LAS
(Research Mentor(s): Willy Guenthner, Geology)

PC Session - Health & Wellness
9:00 AM – 10:15 AM, Illini Room C

50. A Mini-Literature Review on Mental Health and Physical Activity Among Latina Youth to Design a Culturally Tailored Yoga Intervention
Maritza Concepcion, Sophomore, Community Health, AHS
(Research Mentor(s): Hannah Molitor, Civil & Environmental Engineering)

51. A New Animal Model for Evaluating Mood Dysfunction in Multiple Sclerosis: Intracerebroventricular EAE
Katelyn Boetel, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Makoto Inoue, Comparative Biosciences)

52. A Review of Sex-Based Differences in Individuals with Misophonia
Emilie Schramer, Senior, Speech & Hearing Science, AHS
(Research Mentor(s): Fatima Husain, Speech & Hearing Science)

53. A Systematic Review and Meta-Analysis of the Relationship Between Microbial Diversity and Human Health Outcomes
Natalie Sinjaradze, Junior, Molecular & Cellular Biology, LAS
Femi Orekoya, Senior, Integrative Biology, LAS
Salifu Habib, Senior, Molecular & Cellular Biology, LAS
Hanif Salam, Junior, Integrative Biology, LAS
Dishan Gunya, Freshman, Undeclared, DGS
(Research Mentor(s): Brian Allan, Entomology & Fahren Zackery, Program in Ecology, Evolution & Conservation Biology)

54. Advice from Aging with a Disability: A Qualitative Study on Wisdom
Maya Dye, Junior, Speech & Hearing Science, AHS
(Research Mentor(s): Hye Soo Lee, Kinesiology & Community Health & Wendy Rogers, Kinesiology & Community Health)

55. An Analysis of Cognition and Carotenoid Status Among Individuals with Multiple Sclerosis
Bahda Hoang, Senior, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): Shelby Martell, Kinesiology & Community Health & Naiman Khan, Kinesiology & Community Health)

56. An Investigation on How to Generate Funds for the Everybody Eats Program
Katie O’Hara, Senior, Food Science & Human Nutrition, ACES
(Research Mentor(s): Jill Craft, Food Science & Human Nutrition & Carter Phillips, Food Science & Human Nutrition)

57. Analysis of Study Using MyVoice to Collect Data on Youth Caregiving Experiences and Perspectives
Eve Rubovits, Junior, Community Health, AHS
Anna Vanisko, Sophomore, Community Health, AHS
(Research Mentor(s): Minakshi Raj, Kinesiology & Community Health)

58. Development of Content for a Video-Technology Social Engagement Intervention
Melissa Suarez, Senior, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): Wendy Rogers, Kinesiology & Community Health)

59. Discovering Usability Problems for Older Adults in the Medicare Plan Finder
Olivia Rojas, Junior, Community Health, AHS
(Research Mentor(s): Wendy Rogers, Kinesiology & Community Health & Hye Soo Lee, Kinesiology & Community Health)

60. Evaluation of 2’fucosyllactose and Bifidobacterium longum subsp. infantis Supplementation to Formula on Piglets’ Intestinal Immune Cells and Tight Junctions
Lauren Berry, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Marcia Siegel, Food Science & Human Nutrition & Sharon Donovan, Food Science & Human Nutrition)

61. Evaluation of Teat Health and Milking Time Data of Dairy Cattle
Elle Couch, Junior, Animal Sciences, ACES
(Research Mentor(s): Derek Nolan, Animal Sciences)
62. Exploring Amaranth’s Color Pallete: Links Between Phenotype, Plant Adaptation, and Human Health
Sarah Redman, Parkland College
(Research Mentor(s): Chance Riggins, Crop Sciences)

63. Factors Associated with Fear of Falling and Fall-Related Injuries among Wheelchair and Scooter Users
Alyssa Denise Martin, Junior, Kinesiology, AHS
(Research Mentor(s): Laura Rice, Kinesiology & Community Health & Sahel Moein, Kinesiology & Community Health)

64. How to Combat Overbuying
Sana Naffakh, Freshman, Computer Science, ENG
(Research Mentor(s): Hari Sundaram, Computer Science)

65. Impact of a Personalized Physical Activity Program on Physical Activity Levels for Patients Receiving Maintenance Hemodialysis
Ilani Morales, Junior, Integrative Biology, LAS
(Research Mentor(s): Ashley Morgan, Kinesiology & Community Health)

66. Impact of Insurance Type on Use of Telehealth Based Dietetics Care During COVID-19: A Secondary Analysis
Emily Grayburn, Senior, Community Health, AHS
(Research Mentor(s): Kristen DiFilippo, Kinesiology & Community Health)

67. Investigating Older Adults’ Perspectives on Privacy with Digital Home Assistants
Husna Hussaini, Junior, Sociology, LAS
(Research Mentor(s): Wendy Rogers, Kinesiology and Community Health)

68. Investigating Relationships between Colorectal Cancer and Agricultural Practices
Jacob Minin, Senior, Bioengineering, ENG
(Research Mentor(s): Warren Lavey, College of Law)

69. Microbial Protease Supplementation Potentiated the Early Net Exposure to Postprandial Amino Acids in Healthy Adults
Aneesa Goyal, Junior, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): Max Duetx, Division of Nutritional Sciences & Nicholas Burd, Kinesiology & Community Health)

70. Muscle Sodium Reduction by 2-Month Low-Sodium Diet in Hemodialysis (HD) Patients
Bailey Damore, Senior, Kinesiology, AHS
(Research Mentor(s): Kaitlyn Pawelczyk, Division of Nutritional Sciences)

71. Navigating the Graduate Experience: The Connection Between Well-Being and Retention in Engineering Ph.D. Programs
Christopher George, Junior, Bioengineering, ENG
(Research Mentor(s): Jennifer Cromley, Educational Psychology & Joseph Mirabelli, Educational Psychology)

72. Prenatal Triclosan Exposure and Behavior Problems in 2- and 3-Year-old Children
Karishma Patel, Senior, Psychology, LAS
(Research Mentor(s): Susan Schantz, Comparative Biosciences & Patricia Cintora, Neuroscience Program)

73. Social Support and Psychological Measures of Latina Caregivers of People with Alzheimer’s Disease and Related Dementias
Paulina Renteria, Senior, Speech & Hearing Science, AHS
(Research Mentor(s): Susan Aguínaga, Kinesiology & Community Health & Jacqueline Guzman, Kinesiology & Community Health)

74. Systematic Review of Nutrition mHealth Hypertension Intervention for Resource Limited Populations
Cecilia Lee, Senior, Interdisciplinary Health Sciences, AHS
Zuzanna Jasek, Senior, Interdisciplinary Health Sciences, AHS
Cacia Kaupp, Junior, Interdisciplinary Health Sciences, AHS
Samuel Adeoye, Freshman, Kinesiology, AHS
(Research Mentor(s): Kristen DiFilippo, Kinesiology & Community Health)

75. The Assessment of Compliance in a Randomized Complete Feeding Study
Arushi Bharel, Senior, Food Science & Human Nutrition, ACES
(Research Mentor(s): Hannah Holscher, Food Science & Human Nutrition & Maggie Oleksiak, Food Science & Human Nutrition)

76. The Impact of Alcohol Consumption and Impulsivity on Cognitive Performance
Yoobeen Choi, Senior, Psychology, LAS
(Research Mentor(s): Catharine Fairbairn, Psychology & Anna Garrison, Psychology)

77. The Impact of Resident-Led Greening on Subjective Well-Being
Jeffrey Hudson Jr., Junior, Earth, Society & Environmental Sustainability, LAS
(Research Mentor(s): William Stewart, Recreation, Sport & Tourism)

78. Understanding the Needs and Preferences of Clinicians and Patients with Multiple Sclerosis for Building an mHealth Application, SavvyHealth
Pooja Patel, Junior, Molecular & Cellular Biology, LAS
Parth Trivedi, Senior, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): Chung-Yi Chiu, Kinesiology & Community Health & Vaishnavi Sridharan, Kinesiology & Community Health)

79. Understanding the Role of a Socially Assistive Robot to Successfully Age in Place
Afnaan Afsar Ali, Sophomore, Community Health, AHS
(Research Mentor(s): Wendy Rogers, Kinesiology & Community Health & George Mois, Kinesiology & Community Health)

80. Z-mRNA for Therapeutic Applications
Mary Ehmann, Senior, Chemical Engineering, LAS
(Research Mentor(s): Huimin Zhao, Chemical & Biomolecular Engineering & Meng Zhang, Chemical & Biomolecular Engineering)
81. Perspectives of Childcare Providers on Family Engagement in Feeding Practices
Mary Chung, Senior, Human Development & Family Studies, ACES
(Research Mentor(s): Meghan Fisher, Human Development & Family Studies)

PD Session - Social Science & Behavior
9:00 AM – 10:15 AM, South Lounge

85. Ideologies of Standard Language in Chicago: How Spanish Heritage Speakers Feel Toward Their Languages
Giselle Torres, Senior, Psychology, LAS
(Research Mentor(s): Sara Castro Cantu, Spanish & Portuguese)

86. "I'm mad confident in my Spanish:" Social Media Representation of Latino Bilingualism
Jennifer Pena, Sophomore, Anthropology, LAS
(Research Mentor(s): Jonathan Pye, Spanish & Portuguese)

87. A Socially Conscious Analysis of Wraparound Services Provided to Underrepresented African American Families and Youth
Sindra Lynn Gerdes, Junior, African American Studies, LAS
(Research Mentor(s): Anthony Sullers Jr., African American Studies)

88. An Exploration of Transgender Black, Indigenous, and/or People of Color's Health Communication in United States Healthcare Contexts
Jay Zhang, Freshman, Integrative Biology, LAS
(Research Mentor(s): MJ Salas, Communication)

89. Bilingual Computational Analysis of the #nosabokid Hashtag Community on TikTok
Joshua Brown, Sophomore, Computer Science & Advertising, COM
(Research Mentor(s): Salvatore Callesano, Spanish & Portuguese)

90. Career Centers & Personal Branding
Brendan Buckley, Junior, Communication, LAS
Joy Wang, Sophomore, Communication, LAS
(Research Mentor(s): Katherine Bunsold, Communication & Chandler MacSwain, Communication)

91. Discursive Constructions of Health Discourse: A Case of Reddit Users' Conversations about Women’s Negative Healthcare Experiences
Sarah Blyskal, Freshman, Community Health, AHS
(Research Mentor(s): Charee Thompson, Communication & Sara Babu, Communication)

92. Euphoria: An Investigation of Modern Racism in Popular Media
Makayla Carson, Junior, Communication, LAS
(Research Mentor(s): Daniel DeVinney, Communication)

93. Examining the Impact of Authoritative Endorsements on Shaping Behavior in YouTube Comment Sections
Sowmya Pratipati, Junior, Computer Science, ENG
(Research Mentor(s): Fred Choi, Computer Science & Eshwar Chandrasekharan, Computer Science)

94. High-Stakes Finance: How Battlefield Outcomes Affect Rebel Group Financing
Sonja Shirkevich, Senior, Political Science, LAS
(Research Mentor(s): Alyssa Prorok, Political Science)

95. Implications of Conversational Agents on Loneliness of Older Adults: A Mini-review
Nia Adeogun, Freshman, Kinesiology, AHS
Aditi Patel, Junior, Community Health, AHS
(Research Mentor(s): Sungjae Hong, Kinesiology & Community Health & Shannon Mejia, Kinesiology & Community Health)

96. Intersectionality and Teen Dating Victimization: A MAIHD A Analysis
Rachel Sun, Sophomore, Psychology, LAS
(Research Mentor(s): Morgan Stutts, Psychology & Joseph Cohen, Psychology)

97. Leadership Growth Trajectories Over Time
Boqin Yuan, Junior, Computer Science & Math, LAS
(Research Mentor(s): Viveckkanand S. Chunoo, College of Agricultural, Consumer & Environmental Sciences & Nick Bonanno, Illinois Leadership Center)

98. Motivations Behind Voter Mobilization Post-Dobbs Decision
Claire Accardo, Senior, Political Science, LAS
(Research Mentor(s): Cara Wong, Political Science)

Nicholas Larson, Senior, Political Science, LAS
(Research Mentor(s): Nicholas Grossman, Political Science)

100. Network Analysis of Journalist “bubbles” on Social Media
Srijan Shukla, Sophomore, Computer Science & Economics, LAS
(Research Mentor(s): Sakshi Bhalla, Institute of Communications Research)

101. Problem-Solving Courts: A Qualitative and Quantitative Examination of Theory and Practice
Mallory Klostermann, Senior, Statistics, LAS
(Research Mentor(s): Allison Carrington, School of Social Work)

102. Racial/Ethnic Identity and Self-Reported Openness to Experience Among Online and In-Person Learners
Aparajita Vemuri, Junior, Psychology, LAS
(Research Mentor(s): Amos Jeng, Educational Psychology & Michelle Perry, Educational Psychology)

103. Share Tables: An Exploration of Food Waste Reduction in Schools
Krissi Poelsterl, Senior, Food Science & Human Nutrition, ACES
(Research Mentor(s): Melissa Prescott, Food Science & Human Nutrition)

104. The Pandemic of Protests
Soo Ah Kim, Freshman, Chemistry, LAS
(Research Mentor(s): Seyoung Jung, Political Science)
105. Why Does it Matter?: The Value of Spanish-English Bilingualism in the Labor Market
Daniela Hernandez, Senior, Community Health, AHS
(Research Mentor(s): Rebeca Agosto-Rosa, Political Science)

106. The Effect of Crowdedness and Familiarity on Alcohol Consumption: A Longitudinal Look at Everyday Drinking Contexts
Gloria Sunderland, Senior, Psychology, LAS
(Research Mentor(s): Catharine Fairbairn, Psychology)

107. The Implications of User Intent, Audience, and Privacy Settings on the Relationship between Social Media Use and Online Social Support
Jaime Shields, Senior, Psychology, LAS
(Research Mentor(s): Madison Sewell, Educational Psychology & Erin Budesheim, Educational Psychology)

Sotis Gouriotis, Senior, Political Science, LAS
(Research Mentor(s): Robert Carroll, Political Science)

109. The Psychological Ramifications on Youth Populations Residing in Conflict Areas in the Middle East
Zainab Nizamuddin, Senior, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): Valerie Bonatti, Global Studies)

110. Time is Value: Exploring the Barriers of Scalability for Timebanks
Luke Emano, Senior, Information Sciences, SIS
(Research Mentor(s): Yang Wang, Information Sciences)

111. The Power of Sadness: Understanding the Influence of Emotions on Political Behavior in the United States
William Neff, Freshman, Political Science, LAS
(Research Mentor(s): James Steur, Political Science)

PE Session - Science & Technology
10:45 AM - 12:00 PM, Illini Room A

1. 3D Printing of Multi-Materials for Bend-Twist Coupling
Didun Oladeji, Junior, Mechanical Engineering, ENG
(Research Mentor(s): Daniel Krogstad, Materials Science & Engineering)

2. 3D Visualizations of Rapidly Spinning, Tilted Black Holes with Self-Gravitating Accretion Disks
Eric Yu, Junior, Engineering Physics, ENG
Nawaf Aldrees, Junior, Engineering Physics, ENG
Jonah Doppelt, Junior, Engineering Physics, ENG
(Research Mentor(s): Stuart Shapiro, Physics & Antonios Tsokaros, Physics)

3. Additive Manufacturing of Energetic Filament
Rachel Hays, Senior, Aerospace Engineering, ENG
(Research Mentor(s): Chelsey Hargather, New Mexico Tech)

4. Expanding the Chemistry for Automated Shape-Controlled Synthesis of Bottlebrush Polymers
Crista Mathers, Freshman, Undeclared, DGS
(Research Mentor(s): Yash Kamble, Chemical & Biomolecular Engineering)

5. An Investigation of Branch Balancing on CTSpec
Ananya Gahalaut, Sophomore, Computer Engineering, ENG
(Research Mentor(s): Sushant Dinesh, Computer Science)

6. An Investigation of Collaborative Editing Implementations
Christian Classen, Junior, Computer Science, ENG
(Research Mentor(s): Lawrence Angrave, Computer Science)

7. An Investigation of the Effect of Metal Identity and Solvent Environment on Zeolite-Catalyzed Epoxide Ring-Opening
Jessica Komar, Junior, Chemical Engineering, LAS
(Research Mentor(s): Dave Flaherty, Chemical & Biomolecular Engineering & David Potts, Chemical & Biomolecular Engineering)

8. Applications of Physics-Informed Neural Operators
Hani Al Majed, Senior, Electrical Engineering, ENG
(Research Mentor(s): Eliu Huerta, National Center for Supercomputing Applications)

9. Atom-by-Atom Tracking of Lattice Reconstruction in Twisted Moiré Superlattices
Alice Gao, Sophomore, Materials Science & Engineering, ENG
(Research Mentor(s): Yichao Zhang, Materials Science & Engineering & Pinshane Huang, Materials Science & Engineering)

10. Cataloging Volcanic Structures on the Surface of Venus Using Machine Learning
Dominik Rzeszutek, Junior, Geology, LAS
(Research Mentor(s): Patricia Gregg, Geology & Matthew Head, Geology)

11. CATS: Context Aware Teleconferencing System
Shiv Trivedi, Sophomore, Computer Science & Linguistics, LAS
(Research Mentor(s): Klara Nahrstedt, Computer Science & Mingyuan Wu, Computer Science)

12. Conversion of Waste Plastics to Fuels
Shivam Patro, Sophomore, Chemical Engineering, LAS
(Research Mentor(s): Ravindra Prajapati, Prairie Research Institute)

Matthew Tan, Freshman, Computer Science, ENG
(Research Mentor(s): Daniel Kiv, Computer Science)

Deeya Bodas, Sophomore, Computer Science, ENG
Jingtong Wang, Freshman, Computer Science, ENG
(Research Mentor(s): Adam Stewart, Computer Science & Arindam Banerjee, Computer Science)
Ryan Wu, Sophomore, Nuclear, Plasma & Radiological Engineering, ENG
Drew Gura, Freshman, Nuclear, Plasma & Radiological Engineering, ENG
(Research Mentor(s): Elena Zannoni, Nuclear, Plasma & Radiological Engineering)

16. Development of Ultra-High Performance Concrete
Geovany Arias, Junior, Engineering Mechanics, ENG
(Research Mentor(s): Bayezid Baten, Civil & Environmental Engineering)

17. Direct-Write 3D Printing of Thermosets with Frontal Polymerization
Andrew Lum, Sophomore, Materials Science & Engineering, ENG
(Research Mentor(s): Edgar Mejia, Material Science & Engineering)

18. Distribution Pole Quality Assessment for Improved Infrastructure Quality Characterization
Julianna Longo, Freshman, Undeclared, DGS
(Research Mentor(s): Abigail Beck, Civil & Environmental Engineering)

Michelle Giovacchini, Sophomore, Astronomy, LAS
(Research Mentor(s): Brandon Kamiyama, Nuclear, Plasma & Radiological Engineering)

20. Elucidating the Elastic Properties of Two-component Membranes
Michelle Ru, Sophomore, Computer Science & Chemistry, LAS
(Research Mentor(s): Nurila Kambar, Materials Science & Engineering & Cecilia Leal, Materials Science & Engineering)

Ayush Garg, Sophomore, Electrical Engineering, ENG
(Research Mentor(s): Raluca Ilie, Electrical & Computer Engineering)

22. Geological Mapping in the Deep Ocean Using Structure from Motion Photogrammetry
Lilian Lucas, Senior, Geology, LAS

23. Glutamate Detection with Enzymatic Microelectrodes using in vivo and in vitro Techniques
Roy Zhou, Junior, Bioengineering, ENG
(Research Mentor(s): Mei Shen, Chemistry)

24. Hg UMEs: A Tool for Developing Next-Generation Batteries
Curtis Althaus, Sophomore, Chemistry, LAS
(Research Mentor(s): Rodriguez-Lopez, Chemistry)

25. Hormone Fluctuation and Microstructural Brain Changes in the Hippocampus
Zoe Levitan, Junior, Psychology, LAS
(Research Mentor(s): Hillary Schwarb, Beckman Institute & Aaron Anderson, Beckman Institute)

26. Impact of Omega-3 Supplementation on Behavior and Inflammation in Pigs
Nicole Southey, Junior, Bioengineering, ENG
(Research Mentor(s): Sandra Rodriguez-Zas, Animal Sciences)

27. Investigating the Morphology of Cell Subtypes in the Cerebral Cortex
Mia Rode, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Daniel Miller, Evolution, Ecology & Behavior & Simran Singh, Evolution, Ecology & Behavior)

Lily Kettler, Sophomore, Astronomy, LAS
(Research Mentor(s): Joaquin Vieira, Astronomy & Kedar Phadke, Astronomy)

29. Magnetic Resonance Elastography Explains More Variance when Characterizing the Relationship between Relational Memory and Hippocampal Structure
Joy Akindulureni, Sophomore, Psychology, LAS
(Research Mentor(s): Hillary Schwarb, Beckman Institute)

30. Muscle Activation During Handcycling High Intensity and Moderate Intensity Exercise
Ayush Banerjee, Sophomore, Mechanical Engineering, ENG
(Research Mentor(s): Kellie Halloran, Mechanical Science & Engineering & Mariana Kersh, Mechanical Science and Engineering)
32. New Monomers for Frontal Ring-Opening Metathesis Polymerization
Parmeet Kaur, Junior, Chemistry, LAS
(Research Mentor(s): Jacob Lessard, Chemistry & Jeffrey Moore, Chemistry)

33. Patterning of Structure, Properties, and Function in Polymeric Materials
Anisha Sharma, Senior, Materials Science & Engineering, ENG
(Research Mentor(s): Justine Paul, Materials Science & Engineering)

34. Predicting Tropical Cyclone Tracks with Temporal Machine Learning Models
Grace Go, Senior, Statistics & Computer Science, LAS
(Research Mentor(s): Arindam Banerjee, Computer Science & Daniel Kiv, Computer Science)

35. The Effects of Spontaneous Brain Activity on Evoked Brain Activity
Grace Homa, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Martin Irani Cereceda, Psychology & Sepideh Sadaghiian, Psychology)

36. The Use of AI Applications to Assess Acute Feline Pain
Willa Mankin, Junior, Animal Sciences, ACES
(Research Mentor(s): Isabella Condotta, Animal Sciences)

37. Three-Dimensional Anatomical Reconstruction of Mice Brain
Dziyana Balakir, Junior, Biochemistry, LAS
(Research Mentor(s): Catherine Best-Popescu, Bioengineering & Jorge Maldonado De-Jesus, Bioengineering)

38. Use of Magnetic Resonance Elastography in Early Detection of Mesial Temporal Lobe Epilepsy (MTLE)
Manan Sanghavi, Junior, Brain & Cognitive Sciences, LAS
(Research Mentor(s): Aaron Anderson, Beckman Institute)

39. Visualizing Kernels of Spherical Projections of Planar Graphs
Eli Kujawa, Sophomore, Computer Science & Math, LAS
(Research Mentor(s): Jeff Erickson, Computer Science)

40. Visualizing the Structures of Twitter Conversations
Esther Lee, Sophomore, Statistics & Computer Science, LAS
(Research Mentor(s): Hari Sundaram, Computer Science)

41. Homotopy, Modular Forms, and the Spectrum $Q(l)$
Garrett Credi, Junior, Mathematics, LAS
Casey Appleton, Sophomore, Mathematics, LAS
(Research Mentor(s): Vesna Stojanoska, Mathematics & Venkata Sai Bavisetty, Mathematics)

PF Session - Social Science & Human Behavior
10:45 AM - 12:00 PM, Illini Room C

50. A Meta-analytic Study of the Relationship between Vocational Interests and Values
Yifan Zhang, Senior, Psychology, LAS
(Research Mentor(s): James Rounds, Educational Psychology)

51. Abortion: Stigma and Disclosure
Sydney Turner, Sophomore, Psychology and Communication, LAS
(Research Mentor(s): Megan Jacobs Farnworth, Communication)

52. Aging Effects on ERSPs During Strategic Attention
Sharbel Yako, Senior, Molecular & Cellular Biology, LAS
Holly Panfil, Junior, Speech & Hearing Science, AHS
Natalia Kzepe, Junior, Speech & Hearing Science, AHS
(Research Mentor(s): Raksha Mudar, Speech & Hearing Science)

53. An Investigation of Personality traits and Career Aspiration and Expectation
Isabelle Li, Sophomore, Psychology, LAS
(Research Mentor(s): Madison Sewell, Educational Psychology)

54. Associations Between Discourse Production and Cognitive Performance in Persons with Mild Cognitive Impairment
Alexandra Trekas, Senior, Speech & Hearing Science, AHS
Leslie Olivares, Freshman, Interdisciplinary Health Sciences, AHS
James Shim, Senior, Integrative Biology, LAS
(Research Mentor(s): Raksha Mudar, Speech & Hearing Science & Eliza Baby, Speech & Hearing Science)

55. Classifying Politics in Online Communities
Maxine Ma, Senior, Communication & Political Science, LAS
(Research Mentor(s): Stewart Coles, Communication)

56. Combating Misinformation
Garima Sharma, Junior, Computer Science & Advertising, COM
(Research Mentor(s): Hari Sundaram, Computer Science & Ewa Maslowska, Advertising)
57. Commitment and Practice of Universal Jurisdiction  
*Michael Gergeni,* Freshman, Sociology, LAS  
(Research Mentor(s): Myung Jung Kim, Political Science)

58. Comparing and Contrasting Different Modified Nominal Group Techniques  
*Ruiqi Pan,* Sophomore, Communication, LAS  
(Research Mentor(s): Chandler Macswain, Communication)

59. Multispecies Relationships in Wildlife Tourism: A Netnographic Study with Insights from Tourists’ Online Reviews  
*Samuel Tinubu,* Freshman, Undeclared, DGS  
(Research Mentor(s): Emma Lundin, Recreation, Sport & Tourism)

60. Here, There, Everywhere: Sense of Presence  
*Nancy Zhang,* Freshman, Computer Science & Advertising, COM  
(Research Mentor(s): Hyunseo (Violet) Yoon, Recreation, Sport & Tourism)

61. Historical Media Representations of the Hmong Diaspora in Minnesota  
*Victoria Siek,* Freshman, History, LAS  
(Research Mentor(s): Christopher Getowicz, Education, Policy, Organization, and Leadership)

62. In A League of Their Own: A Study of Peer Attitudes Toward F-1 Visa Holders  
*Justin Malone,* Senior, Political Science, LAS  
(Research Mentor(s): Yujeong Yang, Political Science)

63. Internal Migrants in China: A Structural Violence Approach to Addressing the COVID-19 Pandemic’s Exacerbation of Social Inequities  
*Callie Goering,* Senior, Global Studies, LAS  
(Research Mentor(s): Valeria Bonatti, Global Studies)

64. Intimate Partner Violence Against Transgender and Gender Expansive Individuals: A Review of Existing Literature  
*Maya Novick,* Sophomore, Social Work, SSW  
(Research Mentor(s): Rachel Garthe, School of Social Work & Allyson Blackburn, Psychology)

*Dahlia Davis,* Senior, Linguistics, LAS  
(Research Mentor(s): Rakesh Mohan Bhatt, Linguistics)

66. Law Enforcement Gun Violence Reduction Strategies  
*Markas Lazdinis,* Senior, Interdisciplinary Health Sciences, AHS  
(Research Mentor(s): Anthony Sullers Jr., African American Studies)

*Mary Burdette,* Senior, Anthropology, LAS  
(Research Mentor(s): Brandon Ritchison, Anthropology & John Randolph, History)

68. Shifts in Framing and Perceptions of Experience and Agency  
*Amba Kapoor,* Freshman, Psychology, LAS  
*Sofia Anderson,* Sophomore, Psychology, LAS  
*Aditi Chadha,* Sophomore, Psychology, LAS  
*Aryssia Kelly,* Sophomore, Psychology, LAS  
*Bella Lopez,* Freshman, Psychology, LAS  
*Mia Nieto,* Sophomore, Psychology, LAS  
*Angie Ramirez,* Sophomore, Psychology, LAS  
*Heaven Velez,* Sophomore, Psychology, LAS  
*Isabela Castilla,* Sophomore, Psychology, LAS  
(Research Mentor(s): Chadly Stern, Psychology & Keely Dugan, Psychology)

69. URAP Project  
*Yunhao Liu,* Junior, Computer Science & Economics, LAS  
(Research Mentor(s): Hyo-Won Shin, Political Science)

70. The Effects of Self-Consciousness on Heavy Drinking  
*Hieu Nguyen,* Senior, Psychology, LAS  
(Research Mentor(s): Catharine Fairbairn, Psychology)

71. The Impact of Criminal History on Child Custody Outcomes in Divorce Cases  
*Paris Souza,* Junior, Human Development & Family Studies, ACES  
*Chavon Bowers-Strong,* Senior, Human Development & Family Studies, ACES  
(Research Mentor(s): Tani Akinbode, Human Development & Family Studies & So Young Park, Human Development & Family Studies)

72. The impact of Incoming Leadership Capacity on Student Learning in Entry Level Leadership Courses  
*Madeline Cook,* Sophomore, Agricultural Leadership, Education, & Communications, ACES  
*Rachel Nieder,* Sophomore, Psychology, LAS  
(Research Mentor(s): David Rosch, Agricultural Leadership, Education & Communications & Robert Klein, Agricultural Leadership, Education & Communications)

73. The Impact of the Russian Food Embargo on International Agri-Food Trade  
*Brendon Carter,* Junior, Agricultural & Consumer Economics, ACES  
(Research Mentor(s): William Ridley, Agricultural & Consumer Economics)

74. The Relationship Between Closed and Open-Ended Survey Questions and Responses  
*Thomas Marousek,* Junior, Molecular & Cellular Biology, LAS  
(Research Mentor(s): Isaiah Raynal, Political Science)

75. There’s No “I” in Erdoğan: Predicting Power Personalization with Pronoun Usage in Turkey  
*Emily Sallenback,* Senior, Political Science, LAS  
(Research Mentor(s): Avital Livny, Political Science)

76. University Ideology Relating to Sexual Misconduct Policies  
*Claire Fleming,* Senior, Political Science, LAS  
(Research Mentor(s): Robert Pahre, Political Science)
77. Cultural Tensions in Midwestern Prairie Restoration
Maisy Lothian, Junior, Earth, Society & Environmental Sustainability, LAS
(Research Mentor(s): Jeongsu Shin, Anthropology)

78. Vicarious Learning in Misdemeanor and Relationship with BESI Domains
Seungah Oh, Senior, Psychology, LAS
(Research Mentor(s): Heejun Yoon, Psychology)

PG Session - Learning & Development
10:45 AM – 12:00 PM, South Lounge

85. An Analysis of Academic Testing Methods and Intrinsic Student Motivation
Kajal Patel, Freshman, Computer Science, ENG
Ruchika Biswas, Junior, Computer Science, ENG
(Research Mentor(s): Geoffrey Herman, Computer Science)

86. An Exploration of Teachers’ Experience Teaching Abroad
Maia Lewis, Freshman, Elementary Education, EDU
(Research Mentor(s): Allison Witt, Center for Global Studies)

87. An Investigation of Air Pollution, Diet Quality, and Antioxidant Intake on Adipose Tissue Inflammation
Anastasia Adjei, Senior, Community Health, AHS
(Research Mentor(s): Sheena Martenies, Kinesiology & Community Health)

88. Aphantasia and Its Influence on Human Visual Memory
Hannah Yan, Senior, Psychology, LAS
(Research Mentor(s): Diane Beck, Psychology)

89. Acquisition of Object Knowledge Through Infant’s Visual Experiences
Morgan Lott, Senior, Psychology, LAS
(Research Mentor(s): Jon Willits, Psychology)

90. Bilingual Reading Development in Students Enrolled in Dual Language Programs
Esther Nam, Freshman, Psychology, LAS
(Research Mentor(s): Laura Valderrama, Educational Psychology)

91. Co-Author or Helping Hand: Students’ Perceptions of Writing Tutor Assistance
Elizabeth Scherschel, Sophomore, Classics, LAS
(Research Mentor(s): Carolyn Wisniewski, Center for Writing Studies)

92. Effects of Background Music Familiarity on Children’s Word Recognition
Leyna Tran, Freshman, Speech & Hearing Science, AHS
Isabella Lau, Sophomore, Speech & Hearing Science, AHS
Atlas Pilchen, Freshman, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): Mary Flaherty, Speech & Hearing Science)

93. Effects of Perinatal Phthalate Exposure on Adult Hippocampal Anatomy in Rats
Rajvi Javeri, Senior, Psychology, LAS
(Research Mentor(s): Janice Juraska, Psychology)

94. Empowering Middle School Students: Exploring the Benefits, Importance, and Challenges of Global Collaboration through the Global Project
Laura Kim, Junior, Elementary Education, EDU
(Research Mentor(s): Allison Witt, Education Policy, Organization & Leadership)

95. Evaluating Student Home Life in Relation to Academic Achievement and Socio-Emotional Well-Being
Guadalupe Nunez Palomares, Freshman, Elementary Education, EDU
(Research Mentor(s): Ali Lewis, University Primary School)

Chia Yang, Freshman, Information Sciences, SIS
(Research Mentor(s): Paul Hur, School of Information Sciences & Michael Twidale, School of Information Sciences)

97. Exploring College Students’ Understanding of Randomness
Zean Li, Junior, Mathematics, LAS
Wenqi Zeng, Junior, Statistics, LAS
(Research Mentor(s): Stephen Portnoy, Statistics & Kelly Findley, Statistics)

98. Exploring the Impact of Reward History on Visual Working Memory with the Drift-diffusion Model
Haeri Choi, Senior, Psychology, LAS
(Research Mentor(s): Aaron Benjamin, Psychology & Jonathan Yuquimpo, Psychology)

99. Exploring the Relationship Between Rate of Change of Skin Carotenoid Levels and Development in Toddlers
Shaina Medjes, Junior, Kinesiology, AHS
Jenya Varaniuk, Sophomore, Chemistry, LAS
(Research Mentor(s): Laura Rosok, Neuroscience Program & Naiman Khan, Kinesiology & Community Health)

100. Gamification of Security Education
Hassam Uddin, Sophomore, Computer Science, ENG
Pete Stenger, Junior, Computer Science, ENG
Anusha Ghosh, Sophomore, Computer Science, ENG
Emma Hartman, Sophomore, Computer Science, ENG
Minh Duong, Sophomore, Computer Science, ENG
(Research Mentor(s): Lawrence Angrave, Computer Science)

101. Shifts in Teachers’ Physical Positioning Related to Student Learning and Agency
Olivia Lim, Freshman, Middle Grades Education, EDU
(Research Mentor(s): Christina Krist, Curriculum & Instruction)

102. International Teacher Shortage: Europe and the US in Comparison
Grace Moran, Sophomore, Elementary Education, EDU
(Research Mentor(s): Allison Witt, Education Policy, Organization & Leadership)

103. It Takes Time and Resources: A Systematic Literature Review of College Students’ Career Goals and Self-Regulatory Strategies
Estella Lee, Junior, Psychology, LAS
(Research Mentor(s): Madison Sewell, Educational Psychology)
<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
<th>Mentors</th>
</tr>
</thead>
<tbody>
<tr>
<td>105.</td>
<td>Mothers’ and Fathers’ Emotional Language Use Pattern Based on Child’s Gender</td>
<td>Seoyoung Kim</td>
<td>Jessica Montag</td>
</tr>
<tr>
<td>106.</td>
<td>Problematic Teaching Curriculums in Naperville Central High Schools World Cultures Course</td>
<td>Bilkisu Tariq</td>
<td>Asif Wilson</td>
</tr>
<tr>
<td>107.</td>
<td>Question Generation to Improve Learning Outcomes</td>
<td>Zubair Yacub</td>
<td>Jessie Chin, Tre Tomazewski</td>
</tr>
<tr>
<td>108.</td>
<td>Relationship between Caregiver Education and Expressive Language in Children with Down Syndrome</td>
<td>Madison Barrera, Alexa Mendoza, Abigail Keasler</td>
<td>Marie Moore Channell</td>
</tr>
<tr>
<td>109.</td>
<td>Sex Differences in Early Numerical Abilities</td>
<td>Ayla Makris</td>
<td>Daniel Hyde</td>
</tr>
<tr>
<td>110.</td>
<td>Shaping Students for the Future</td>
<td>Jordan Smith</td>
<td>Rebeeca Hinze-Pifer, Steven Petruzzello</td>
</tr>
<tr>
<td>111.</td>
<td>Socialization of Coping and How it Mediates Responses to Stress Both Behaviorally and Physiologically</td>
<td>Katherine Hilbing</td>
<td>Karen Rudolph, Steven Petruzzello</td>
</tr>
<tr>
<td>112.</td>
<td>The “Potential” of Virtual Reality for Education</td>
<td>Alyssa Huang</td>
<td>Raluca Ilie</td>
</tr>
<tr>
<td>113.</td>
<td>The Support of Disability Related Peer Groups in Higher Education</td>
<td>Megan Hendry</td>
<td>Emily Tarnish</td>
</tr>
</tbody>
</table>

**PH Session - Health & Wellness**

PH Session - Health & Wellness
12:15 PM – 1:30 PM, Illini Room A

1. **Accelerometer-Measured Physical Activity is Associated with Lutein Intake in Young and Middle-Age Adults with Overweight and Obesity**
   Sanam Desai, Dominika Pindus, Kinesiology & Community Health

2. **Accessing Health Information: Challenges & Solutions Among People Aging with Vision Loss**
   Divya Bhookya, Elena Remillard, Georgia Institute of Technology & Wendy Rogers, Kinesiology & Community Health

3. **An Investigation of Personality, Physical Activity, and Heart Rate Variability**
   Erin Markowitz, Steven Petruzzello, Kinesiology & Community Health, John Adamek, Kinesiology & Community Health

4. **Applying Intersectionality to Promote Perinatal Health Equity**
   Ainslee Wong, Tuyet-Mai Ha Hoang, School of Social Work
6. Determining the Effects of Traumatic Brain Injury on Hippocampal-mediated Relational Memory
Yunji Nam, Senior, Bioengineering, ENG
(Research Mentor(s): Hillary Schwarb, Psychology)

7. Differences In The Development Of Disability Among African Americans And Its Contributing Factors
Favour Ojerinde, Junior, Community Health, AHS
(Research Mentor(s): Shannon Mejia, Kinesiology & Community Health & Tai-Te Su, Kinesiology & Community Health)

8. Efficacy of Combinatorial Hormone Therapies on ER+ Metastatic Breast Cancer Cell Lines
Alanna Kaminsky, Senior, Food Science & Human Nutrition, ACES
(Research Mentor(s): Zeynep Madak-Erdogan, Food Science & Human Nutrition & Ayca Nazli Mogol, Division of Nutritional Sciences)

9. Examining the Relationship Between Coping Mechanisms, Anxiety, and Executive Function
Autumn Franco, Senior, Psychology, LAS
(Research Mentor(s): Wendy Heller, Psychology & Haley West, Psychology)

10. Exploring Self-Efficacy for Physical Activity Among Cancer Survivors Participating in a Virtual 12 Week Program
Rahil Sadruddin, Junior, Kinesiology, AHS
(Research Mentor(s): Veronica Garcia, Kinesiology and Community Health & Neha Gothe, Kinesiology and Community Health)

Kristel Ong, Sophomore, Community Health, AHS
(Research Mentor(s): Soyoung Choi, Kinesiology & Community Health)

12. Murine Influenza A Virus Infection During Pregnancy Disrupts Immune Profiles in the Maternal Intestine in a Dose Dependent Manner
Meenakshi Gupta, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Ashley Otero, Neuroscience Program & Adrienne Antonson, Neuroscience Program)

13. Persistent Exposure to Paraben Mixture Inducing Premature Development of Uterus
Zainab Umardeen, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Indrani Bagchi, Comparative Biosciences & Ritwik Shukla, Comparative Biosciences)

14. Quantifying the Anti-inflammatory Effects of Fluoxetine, Propanolol, and Anticorticosteroid Treatment Using Quantitative Phase Microscopy in a Chronic Social Stress Model
Tanisha Trivedi, Junior, Bioengineering, ENG
(Research Mentor(s): Catherine Alicia Best-Popescu, Bioengineering & Jorge Alexis Maldonado DeJesus, Neuroscience Program)

15. The Development and Implementation of Fire Evacuation in Wheelchair and Scooter Users (FEW) Program
Jesiah Bradshaw, Freshman, Kinesiology, AHS
(Research Mentor(s): Laura Rice, Kinesiology & Community Health & Weiwei Li, Kinesiology & Community Health)

16. The Effects Diet and Air Quality Have on Systemic Inflammation and Childhood Asthma
Kalina Davis, Freshman, Community Health, AHS
(Research Mentor(s): Sheena Martenies, Kinesiology & Community Health & Diana Morales, Kinesiology & Community Health)

17. The Effects of Acetyl-CoA Synthetase on Estrogen Receptor Positive Metastatic Breast Cancer Cell Lines with Endocrine Therapy
David Dutton, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Zeynep Madak-Erdogan, Food Science & Human Nutrition & Ayça Mogol, Food Science & Human Nutrition)

18. The Relationship Between Self-Tracking Health, eHealth Literacy, and Subjective Well-Being in College Students with Disabilities
Alyssa Holguin, Junior, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): Sandra Rodriguez-Zas, Animal Sciences)

19. Understanding the Effect of Viral Challenges on the Gene Pathways of the Hypothalamus
Sreelaya Bhamidi, Junior, Integrative Biology, LAS
(Research Mentor(s): Sandra Rodrigue-Zas, Animal Sciences)

20. Utilization of cSLIM to Detect Early Onset of Alzheimer’s
Dmitry Yurchanka, Sophomore, Bioengineering, ENG
Ammaca Malik, Junior, Psychology, LAS
(Research Mentor(s): Catherine Best-Popescu, Bioengineering & Jorge Maldonado DeJesus, Bioengineering)

21. β-Carotene Distribution and Excretion through Transintestinal Cholesterol Excretion
Allanah Martin, Sophomore, Food Science & Human Nutrition, ACES
(Research Mentor(s): Jaume Amengual, Food Science & Human Nutrition)

22. Accelerometer-measured Physical Activity and Sedentary Time Are Not Associated with General Intelligence in College-Educated Adults with Overweight and Obesity
Anne-Farah Usman, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Dominika Pindus, Kinesiology & Community Health & Bryan Montero, Kinesiology & Community Health)

**PI Session - Cells & Molecules**

12:15 PM – 1:30 PM, Illini Room A

25. A Well-Defined Method for Mouse Sperm Cryopreservation
Jacob May, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Joe (Huanyu) Qiao, Comparative Biosciences & Reza Rajabi, Comparative Biosciences)

Vincent Lam, Senior, Bioengineering, ENG
(Research Mentor(s): Gunnar Thompson, Chemical & Biomolecular Engineering)
27. Auditory Behavioral Differences in Genetically-distinct Rat Models of Autism Spectrum Disorders

Sarika Kumar, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Benjamin Auerbach, Molecular & Integrative Physiology & Noelle James, Molecular & Integrative Physiology)

28. Biological Role of Human Lucyl-tRNA Synthetase in Gastric Cancer

Jeonghyun Kim, Senior, Biochemistry, LAS
(Research Mentor(s): Susan Martinis, Biochemistry & Issac (Giyeoong) Kim, Biochemistry)

29. Discovery of a Novel POLR3G Isoform Encoding a Cancer-associated Pol III Subunit

Anshita Jayanth, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Ruiying Cheng, Cell & Developmental Biology)

30. Engineering VDE to Improve Photosynthetic Efficiency

Hannah Rockwell, Sophomore, Agricultural & Biological Engineering, ENG
(Research Mentor(s): Laurie Leonelli, Agricultural & Biological Engineering)

31. Horizontal Gene Transfer of CRISPR Spacers Plays an Important Role in Bacterial Population Immunity

Amelia Steinlein, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Rachel Whitaker, Microbiology & Alan Collins, Carl R. Woese Institute for Genomic Biology)

32. Investigating Activity-dependent Myelination Following Viral Encephalitis and Seizures in the Theiler’s Murine Encephalomyelitis Virus (TMEV) Mouse Model of Viral-induced Epileptogenesis

Arianna Fritz, Senior, Psychology, LAS
(Research Mentor(s): Karen Wilcox, University of Utah)

33. Investigating the Effect of Intranasal Insulin on Cognitive-Declined Animal Model

Jennifer Huan, Senior, Psychology, LAS
(Research Mentor(s): Uwe Rudolph, Comparative Biosciences)

34. Investigating the Role of the Beta Subunit of the Nascent Polypeptide-associated Complex During Misfolded Protein Stress Response in C. elegans

Celina Bui, Parkland College
(Research Mentor(s): Tim Bloss, James Madison University)

35. Live-partial Sequencing Reveals Temporal Transcriptional Dynamics During Oocyte Maturation

Rujuta Chikodikar, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Joe (Huanyu) Qiao, Comparative Biosciences & Shuangqi Wang, Comparative Biosciences)

36. Paraventricular Thalamus at the Center of Integrating Energy State with Anxiety-Behavior

Kyle O’Berry, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Patrick Sweeney, Molecular & Integrative Physiology)

37. Spatial Distribution of HIV across Microglia and Astrocytes

Iris Mutiu, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Collin Kieffer, Microbiology & Tongyu Anna Zhang, Microbiology)

38. Synthesizing and Characterizing the Role of ΔHA in Modulating the Host Immune Response During Influenza Infection

Neeha Kakuturu, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Christopher Brooke, Microbiology & Joel Rivera Cardona, Microbiology)

39. The Effects of Repeated Exposure to Methamphetamine on Neuroimmune Function in Rats

Anna Tsyrulnikov, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Joshua Gulley, Psychology & Adrienne Antonson, Animal Sciences)

40. The Role of PTBP1 in Regulation Intestinal Mobility

Jie Ji, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Wenyan Mei, Comparative Biosciences)

41. The Search for Waldo’s…Hyperactive Twin?? Defining the Difference in Intracellular Activity during Helicobacter pylori Infection

Ivilyn Tan, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Steven Blanke, Microbiology & Megan Ringling, Microbiology)

42. Investigating a Putative Role of Nedd4-2 in Mfn2 Regulation

Olivia Wong, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Yenny Yook, Molecular & Cellular Biology)

43. Vacuolating Cytotoxin A: A Dr. Jekyll and Mr. Hyde Story

Joe Clark, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Steven Blanke, Microbiology & Megan Ringling, Microbiology)

44. Vitamin A Effects on Hepatic Lipid Metabolism and Development of Liver Steatosis

Olivia Edakkunnathu, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Jaime Amengual, Food Science & Human Nutrition & Walter Catalan Monroy, Food Science & Human Nutrition)

PJ Session - Nature, Life & Environment
12:15 PM – 1:30 PM, Illini Room C

50. “Tap Dancing” in Dendrobates tinctorius: An Investigation into Posterior Toe Tapping and Feeding Behavior

Thomas Parrish, Senior, Integrative Biology, LAS
(Research Mentor(s): Eva Fischer, Evolution, Ecology & Behavior)

51. A Comparison of Evolutionarily Divergent Nematode Nervous Systems

Kanika Leang, Senior, Biochemistry, LAS
(Research Mentor(s): Nathan Schroeder, Crop Sciences)
52. An Ecological Research on Antifreeze in the Dead Wood Dwelling Insects Across Taxonomic Groups
Hamson Shen, Senior, Natural Resources & Environmental Sciences, ACES
(Research Mentor(s): C.-H. Christina Cheng, Evolution, Ecology & Behavior)

53. An Investigation in Viability of Mutant Zebrafish Embryos
Amanda Finn, Senior, Animal Sciences, ACES
(Research Mentor(s): Wenyen Mei, Comparative Biosciences)

54. An Investigation of Morphological Diversity Among Neotropical Catfishes of the Superfamily Pimelodoidea
Cameron Fisher, Junior, Integrative Biology, LAS
(Research Mentor(s): Milton Tan, Illinois Natural History Survey)

55. An Investigation of Northern Saw-whet Owl Roosting Behavior
Erin Wunderlich, Senior, Agricultural Leadership, Education, & Communications, ACES
(Research Mentor(s): Mike Ward, Natural Resources & Environmental Sciences)

Tyler Swanson, Senior, Agricultural & Consumer Economics, ACES
(Research Mentor(s): Renata Endres, Agricultural & Consumer Economics)

57. Centrifugation of Semen to Increase Motility, Concentration, and Lifespan of Sperm for Stallion Collection
Gretel Wurdack, Sophomore, Animal Sciences, ACES
(Research Mentor(s): Kevin Kline, Animal Sciences)

58. Comparison of Waste Management Programs Across Big Ten Universities
Jenna Schaefer, Senior, Agricultural & Consumer Economics, ACES
(Research Mentor(s): Renata Endres, Agricultural & Consumer Economics)

59. Designing a Renewable Energy Model
Matthew Krauss, Sophomore, Civil & Environmental Engineering, ENG
(Research Mentor(s): Roman Makhnenko, Civil & Environmental Engineering)

60. Differences and Similarities in Nursing Behavior Between Tame and Aggressive Foxes
Xiaotang Chen, Senior, Animal Sciences, ACES
(Research Mentor(s): Anna Kupekova, Animal Sciences)

61. Documenting Landcover Changes in the Grand River Grasslands via Mapping Software
Jake Jagiello, Junior, Natural Resources & Environmental Sciences, ACES
(Research Mentor(s): James Robert Miller, Natural Resources & Environmental Sciences & Dalton Renner, Natural Resources & Environmental Sciences)

62. Effects of Genetics and Socialization on Fox Behavior
Abby Smith, Junior, Animal Sciences, ACES
(Research Mentor(s): Anna Kupekova, Animal Sciences)

63. Effects of Saline Stress on Anti-Predator Behaviors in Poison Frog Tadpoles
Halle-Mari Santiago, Junior, Natural Resources & Environmental Sciences, ACES
Haru Hill, Junior, Natural Resources & Environmental Sciences, ACES

64. Effects of Selection on Fox's Early Life Development and Social Behavior
Nicole Bute, Junior, Animal Sciences, ACES
(Research Mentor(s): Anna Kupekova, Animal Sciences)

65. Evaluation of the Toxicity of Per- and Poly-fluoroalkyl Substances in Escherichia Coli MG1655 Strain Confined in a Hydrogel Biofilm-like Niche
Khushali Vyas, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Jeong Yoon, Bioengineering)

66. Exploring Amaranth’s Color Palette: Linking Phenotype, Plant Adaptation, and Human Health
Sarah Kroncke, Parkland College
(Research Mentor(s): Chance Riggins, Crop Sciences)

67. Exploring Survivability and Egg-Laying Behavior of Isolated Queen Honey Bees
Kyle Heimburger, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Adam Hamilton, Carl R. Woese Institute of Genomic Biology & Gene Robinson, Carl R. Woese Institute of Genomic Biology)

68. Mapping Soil Characteristics in the Prairie Restoration Experiments
Chengxu Liu, Senior, Natural Resources & Environmental Sciences, ACES
(Research Mentor(s): Anthony Yannarell, Natural Resources & Environmental Science)

69. Fighting the Deadliest Insect in the World: A Comparative Study of Insecticide Resistance in Culex pipiens
Serwa Adusei-Poku, Sophomore, Biochemistry, LAS
(Research Mentor(s): Kylee Noel, Entomology)

70. Paleo-perspectives on Sangamon River Variability Using Gastropod Stable Isotope Measurements
Gillian Patterson, Senior, Engineering Physics, ENG
(Research Mentor(s): Jessica Conroy, Geology)

71. Prevalence of Vector Mosquito in Rain Barrels in Residential Central Illinois
Maeli Sanchez, Junior, Integrative Biology, LAS
(Research Mentor(s): Becky Cloud, Program in Ecology, Evolution & Conservation Biology & Brian Allan, Entomology)
72. Stomatal Movement Compensates for Reduced Density to Maintain Stomatal Conductance in Sugarcane Expressing an LRR Receptor Protein
Montana Hernandez, Senior, Earth, Society & Environmental Sustainability, LAS
(Research Mentor(s): Andrew Leakey, Plant Biology & Daniel Tejeda-Lunn, Plant Biology)

73. Survey of Phytoplasma-Host Interactions in Hemiptera: Taxonomic and Landscape-Based Analysis
Christine Fink, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Valeria Trivellone, Illinois Natural Resource Survey)

74. The Daily Activity of Mother Foxes
Elysia Goodson, Junior, Animal Sciences, ACES
(Research Mentor(s): Anna Kukekova, Animal Sciences)

75. The Impact of the Covid-19 Pandemic on Urban Populations of Coyotes, Red Foxes, and Gray Foxes across the Contiguous United States
Kayla Baskiewicz, Senior, Animal Sciences, ACES
(Research Mentor(s): Maximilian Allen, Natural Resources & Environmental Sciences)

76. Timecourse of Physiological and Behavioral Sex Change in Anemonefish
Gabriel Graham, Sophomore, Psychology, LAS
Malaika Mathan, Sophomore, Psychology, LAS
(Research Mentor(s): Justin Rhodes, Psychology)

77. Two Years of Bird Collision Species Compositions on the UIUC Campus
Colin Dobson, Senior, Natural Resources & Environmental Sciences, ACES
(Research Mentor(s): Michael Ward, Natural Resources & Environment Sciences)

78. Uncovering the US Amphibian Pet Trade: Identifying Geographical Sources and Assessing Risks
Ellin Wang, Sophomore, Integrative Biology, LAS
(Research Mentor(s): Devin Edmonds, Natural Resources & Environmental Sciences)

79. Water Scarcity and the Future of Water Sustainability in Agriculture
Allison Altschuler, Senior, Agricultural & Consumer Economics, ACES
(Research Mentor(s): Renata Endres, Recreation, Sport & Tourism)

PK Session - Science & Technology
12:15 PM – 1:30 PM, South Lounge

85. A Case for Service Layer Traffic Engineering
Aditya Prerepa, Freshman, Computer Science & Philosophy, LAS
(Research Mentor(s): Philip Bright Godfrey, Computer Science)

86. A Case Study of an Anticyclonic Tornado during August 11th, 2021, in Wisconsin
Jessica Skocinski, Senior, Atmospheric Sciences, LAS
(Research Mentor(s): Jeff Frame, Atmospheric Sciences)

87. Agent-based Simulation Platform for Shared Mobility Services with Detour Restrictions
Yuhui Zhai, Senior, Civil & Environmental Engineering, ENG
(Research Mentor(s): Yanfeng Ouyang, Civil & Environmental Engineering & Yining Liu, Civil & Environmental Engineering)

88. An Analysis of Open-Ended Feedback on ClassTranscribe using Natural Language Processing
Meghana Gopannagari, Freshman, Computer Science, ENG
(Research Mentor(s): Hongye Liu, Computer Science & Lawrence Angrave, Computer Science)

89. Astrophysical Accretion Models of Low-Mass White Dwarf Companions
Rayna Spencer, Senior, Astronomy, LAS
(Research Mentor(s): Paul Ricker, Astronomy)

90. Creating Activity Trace Visualizations to Assist Peer Evaluation and Team Grading
Erin Kirsten, Freshman, Computer Science & Math, LAS
(Research Mentor(s): Brian Bailey, Computer Science)

91. Creating and Deploying a Scalable Platform to Publicly Showcase Professional Skills with MicroCredentials
Mia Paelmo, Sophomore, Statistics, LAS
Dhiraj Kuttichirayil, Sophomore, Statistics & Computer Science, LAS
Soph Beauban, Freshman, Statistics, LAS
Emily Crawford, Senior, Information Sciences, SIS
(Research Mentor(s): Wade Fagen-Ulmschneider, Computer Science & Karle Flanagan, Statistics)

92. Designing a Machine Learning Architecture for Cancer Detection in Histological Images to Address Inter-Hospital Variation
Peter Hsu, Freshman, Bioengineering, ENG
(Research Mentor(s): Kianoush Falahkeirkhah, Chemical & Biomolecular Engineering & Rohit Bhargava, Bioengineering)

93. Developing a Force Controller for the 2FG7 OnRobot Gripper
Achintya Gahalaut, Sophomore, Computer Engineering, ENG
(Research Mentor(s): Holly Dinkel, Aerospace Engineering)

94. Development of a System to Monitor the Stability of the ZDC in a High Radiation Environment
Mandela Phillips, Parkland College
(Research Mentor(s): Riccardo longo, Physics & Matthias Grosse Perdekamp, Physics)

95. Manufacturing and Mechanical Testing of Semi-Crystalline Polymers
Yeonmwook Park, Junior, Mechanical Engineering, ENG
(Research Mentor(s): Luis Rodriguez Koett, Materials Science & Engineering)
96. Github University: A Language-Agnostic Automated Grading Solution
Jackson Kennel, Junior, Computer Science & Linguistics, LAS
William Zheng, Junior, Computer Science, ENG
Garrett Credi, Junior, Mathematics, LAS
(Research Mentor(s): Wade Fagen-Ulmschneider, Computer Science & Daixuan Li, Computer Science)

97. Graphene Manufacturing Within Microwave Atmospheric Plasma Reactors
Jacob Bruehl, Parkland College
(Research Mentor(s): Daniel Jacobson, Nuclear, Plasma & Radiological Engineering & David Ruic, Nuclear, Plasma & Radiological Engineering)

98. Chemistry for Sustainability in Polymeric Materials
Benjamin Fliman, Senior, Biochemistry, LAS
(Research Mentor(s): Jeffrey Moore, Chemistry & Julian Cooper, Chemistry)

99. Illinois Astrophysical Dynamics Demonstrations (iADD)
Sean Lee, Senior, Engineering Physics, ENG
(Research Mentor(s): Paul Ricker, Astronomy)

100. Improving Robot-Aided Care of Individuals with Physical Impairments
Joanna Huang, Junior, Computer Science, ENG
(Research Mentor(s): Lawrence Angrave, Computer Science & Samuel Olatunji, Human Factors & Aging Laboratory)

101. Integration of Domain Constraints in Temporal Generation of Synthetic Patient Profiles
Shrusti Jain, Junior, Computer Science & Math, LAS
(Research Mentor(s): Jimeng Sun, Computer Science)

102. Investigate the Potential of Adding Non-recyclable Plastics into Asphalt Pavements
Jose Arellano, Junior, History, LAS
(Research Mentor(s): Yusra Ibrahim Alhadidi, Civil & Environmental Engineering)

103. Investigation of Tissue Extract Stability During Storage/Effect of Plasticware
George Espinoza, Junior, Chemistry, LAS
(Research Mentor(s): Elena Romanova, Chemistry)

104. Linking Deep-Ocean Iron-60 to Aluminum-26 Gamma-Ray Observations
Phil Coady, Senior, Astronomy, LAS
(Research Mentor(s): Brian Fields, Astronomy)

105. Maize Kernel Grafting: A Simplified Protocol
David Zimmerman, Junior, Crop Sciences, ACES
(Research Mentor(s): Anthony Studer, Crop Sciences)

106. Mesh Fixation: Toward the Design of Surgical Tacks for Pelvic Organ Prolapse
Hana Lee, Sophomore, Mechanical Engineering, ENG
(Research Mentor(s): Amy Wagoner Johnson, Mechanical Science & Engineering & Shelby Hutchens, Mechanical Science & Engineering)

107. Reimagining Sound in Immersive Environments
Ryan Gong, Senior, Music, FAA
(Research Mentor(s): Raluca Ilie, Electrical & Computer Engineering)

108. Simulation for Domino Tiling in Pinecone
Chen-Wei Chou, Senior, Mathematics, LAS
(Research Mentor(s): Hieu Trung Pham Vu, Mathematics)

109. Social and Ethical Information Sources of Student Stakeholders about Emerging Technologies in Agriculture
Fangyi Shou, Junior, Communication, LAS
(Research Mentor(s): Cabral Bigman-Galimore, Communication & Sarah Benevento, Communication)

110. The Development of R Based Code for the Analysis of Nanostring and Luminex Assays
Jared Buabeng, Junior, Chemical Engineering, LAS
(Research Mentor(s): Aliki Kolliopoulos, Chemical & Bioengineering)

111. Understanding the Role of NRT1.1 in Maize
Jenna Donovan, Junior, Integrative Biology, LAS
(Research Mentor(s): Stephen Moose, Crop Sciences)

112. URAP Project
Effie Gong, Junior, Materials Science & Engineering, ENG
Emir Faisal, Junior, Materials Science & Engineering, ENG
(Research Mentor(s): Javier Garcia Mainieri, Illinois Center for Transportation)

PL Session - Food Systems
2:00 – 3:15 PM, Illini Room A

Benjamin Rogers, Senior, Animal Sciences, ACES
(Research Mentor(s): Jason Emmert, Animal Sciences)

2. Ancient vs. Commercial Tomatoes Under Abiotic and Biotic Stress
Lily Coy, Freshman, Undeclared, DGS
(Research Mentor(s): Esther Ngumbi, Entomology)

3. Automated Individual Identification of Cattle
Zoey Witruk, Junior, Animal Sciences, ACES
(Research Mentor(s): Isabella Condotta, Animal Sciences & Luana Benicio, Animal Sciences)
4. **Bees and Nitrogen-Fixing Bacteria: Effects of Rhizobial Inoculation on Flower Selection and Attraction**  
   Kelsey Koch, Parkland College  
   (Research Mentor(s): Annaliese Wargin, Entomology)

5. **Deep-learning-based Model for Sow Posture Classification**  
   Shifra Ferziger, Senior, Animal Sciences, ACES  
   (Research Mentor(s): Isabella Condotta, Animal Sciences)

6. **Effects of Grazing Cover Crops on Soil Stability and Aggregation**  
   Jessica Hendrickson, Senior, Crop Sciences, ACES  
   (Research Mentor(s): Andrew Margenot, Crop Sciences & Martin Bohn, Crop Sciences)

7. **Evaluation of Different Cooling Methods to Inform Food Safety Protocol in Food Preparation Settings**  
   Bridget Hagedorn, Junior, Food Science & Human Nutrition, ACES  
   (Research Mentor(s): Hannah Holscher, Food Science & Human Nutrition & Maggie Oleksiak, Nutrition & Human Microbiome Laboratory)

8. **Evidence of Resistance to Pythium in Maize Inbred Lines**  
   Harrison Hall, Senior, Crop Sciences, ACES  
   (Research Mentor(s): Santiago Mideros-Mora, Crop Sciences & Tiffany Jamann, Crop Sciences)

9. **Extraction and Purification of Glycinin and β-conglycinin from Soybean Flour and Their Effects on Oxidized Low-Density Lipoproteins**  
   Madeline Mertdogan, Senior, Food Science & Human Nutrition, ACES  
   (Research Mentor(s): Elvira de Mejia, Food Science & Human Nutrition)

10. **Genetic Markers Associated with Leaf Angle and Tassel Branch Number in Maize**  
    Mirai Inaoka, Senior, Plant Biotechnology, ACES  
    (Research Mentor(s): Alexander Lipka, Crop Sciences)

11. **How Resilient Are Tomatoes Against Multiple Stressors?**  
    Minxing Zhu, Junior, Integrative Biology, LAS  
    (Research Mentor(s): Esther Ngumbi, Entomology)

12. **Investigation of SPX4 gene in Nutrient Uptake and Phosphorus Signaling in Corn**  
    Lincoln Koehler, Senior, Plant Biotechnology, ACES  
    (Research Mentor(s): Stephen Moose, Crop Sciences)

13. **Limiting Chronic Volume Overload for Patients on Hemodialysis Via Short-term, Home-Delivered Low Sodium Meals and Dietary Education**  
    Meghan Gibbons, Senior, Interdisciplinary Health Sciences, AHS  
    (Research Mentor(s): Kaitlyn Paweleczyk, Division of Nutritional Sciences & Kenneth Wilund, Kinesiology & Community Health)

14. **The Effectiveness of a Negative DCAD Diet on Fresh Cows Through Urine pH Analyses**  
    Emma Prybyski, Junior, Animal Sciences, ACES  
    (Research Mentor(s): Phil Cardoso, Animal Sciences & Emily O’Meara, Animal Sciences)

15. **The Impact of Arbuscular Mycorrhizal Fungi Colonization on Tomato Plant Resistance to Flooding and Insect Herbivory**  
    Rami Jameel, Freshman, Philosophy, LAS  
    (Research Mentor(s): Esther Ngumbi, Entomology)

16. **Transient Expression of E-Cyclase to Characterize the Effects of the Carotenoid Lactucaxanthin on Photosynthesis in Nicotiana Benthamiana**  
    Ella Meyering, Senior, Molecular & Cellular Biology, LAS  
    (Research Mentor(s): Atinder Singh, Agricultural & Biological Engineering & Laurie Leonelli, Agricultural & Biological Engineering)

17. **Turning a Corn Plant Beet Red**  
    Leah Erdmann, Junior, Plant Biotechnology, ACES  
    (Research Mentor(s): Stephen Moose, Crop Sciences)

18. **Using a Machine Learning Method for High Throughput Leaf Pore Identification in C4 grasses**  
    Iksha Handa, Senior, Bioengineering, ENG  
    (Research Mentor(s): James Fischer, Plant Biology)

19. **Weed Surveys of Lima Bean (Phaseolus lunatus) Fields in United States Production Systems**  
    Yudai Takenaka, Sophomore, Crop Sciences, ACES  
    (Research Mentor(s): Martin Williams, Crop Sciences)

20. **What are the Physiological Differences in Soybean Variations Under Free-air Carbon Dioxide Enrichment (FACE)?**  
    Jayce Carlson, Senior, Natural Resources & Environmental Sciences, ACES  
    (Research Mentor(s): Lisa Ainsworth, Plant Biology & Christopher Montes, Plant Biology)
PM Session - Health & Wellness
2:00 – 3:15 PM, Illini Room A

25. A Scoping Review: Associations Between Mindful Eating, Body Image, and Disordered Eating Among Adolescents
Isabel Wojcik, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Jennifer Barton, Family Resiliency Center & Jacinda Dariotis, Human Development & Family Studies)

26. Analyzing Older Adults’ Interactions with Voice Assistants: Implications for Improving Adoption of Novel Technologies
Brandon Snipe, Junior, Community Health, AHS
Otaniel Fernandez, Junior, Community Health, AHS
(Research Mentor(s): Shannon Mejía, Kinesiology & Community Health & Wan Wen, Kinesiology & Community Health)

27. Analyzing the Metabolic Effects of a Culturally Tailored Mediterranean Style Diet on Mexican Immigrants
Madeline Burke, Senior, Integrative Biology, LAS
(Research Mentor(s): Margarita Teran-Garcia, Nutritional Sciences & Maribel Barragan, Nutritional Sciences)

28. Anxiety and Depression Diagnoses and Symptoms Among Midwest Agricultural Producers
Grace Engelmann, Junior, Human Development & Family Studies, ACES
Mary Chung, Senior, Human Development & Family Studies, ACES
(Research Mentor(s): Courtney Cuthbertson, Human Development & Family Studies)

29. Biomarker Aggregation of CSF β-Amyloid, p-Tau, and Blood-Cortisol in Neurodegenerative Atrophy and Memory Decline
Zoe Tsokolas, Senior, Psychology, LAS
(Research Mentor(s): Wendy Heller, Psychology & Haley West, Psychology)

30. Can 6-Weeks of Physical Activity Group Discussions Impact Cancer Survivors’ Step Counts?
Jessica Cox, Senior, Speech & Hearing Science, AHS
(Research Mentor(s): Veronica Garcia, Kinesiology & Community Health & Neha Gothe, Kinesiology & Community Health)

31. Comparison of the Effects of Kinked and Planar Bile Acids on Host-Cell Metabolism
Ioanna Karras, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Rex Gaskins, Animal Sciences & Hanchu Dai, Nutritional Sciences)

32. Daily Sound Level Exposure for Preterm Infants in the Neonatal Intensive Care Unit
Lauren Vicencio, Senior, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): Brian Monson, Speech & Hearing Science)

33. Documenting the Development of mHealth Applications
Trishelle Manila, Freshman, Kinesiology, AHS
(Research Mentor(s): Renato Ferreira Leitao Azevedo, Kinesiology & Community Health & Wendy Rogers, Kinesiology & Community Health)

34. Effect of a Physical Activity Intervention on Perceived Wellness for Patients Receiving Maintenance Hemodialysis
Kassidy Brady, Junior, Chemistry, LAS
(Research Mentor(s): Ken Wilund, Kinesiology & Community Health)

35. Effect of a Physical Activity Intervention on Physical Function in Patients Receiving Maintenance Hemodialysis
Alex Millunchiek, Junior, Kinesiology, AHS
(Research Mentor(s): Ken Wilund, Kinesiology & Community Health)

36. Effects of Perinatal Exposure to a Mixture of Phthalates on the Volume of the Hippocampus in Adult Male and Female Rats
Ruibin Wang, Senior, Psychology, LAS
(Research Mentor(s): Eli Sellinger, Psychology & Janice Juraska, Psychology)

37. Home Sweet Home? An Assessment of Sedentary Behavior and Physical Activity of Various Work Environments
Norberto Nieves, Senior, Psychology, LAS
(Research Mentor(s): Neha Gothe, Kinesiology & Community Health & Emily Erlenbach, Kinesiology & Community Health)

38. Maternal Attachment and Depression Symptoms
Ivana Adedun, Senior, Human Development & Family Studies, ACES
(Research Mentor(s): Kelly Freeman Bost, Human Development & Family Studies)

39. Microstructural Integrity in the Striatum is Related to Learning Abilities in Older Adults
Yutong Pan, Junior, Psychology, LAS
(Research Mentor(s): Hillary Schwarb, Psychology)

40. Mindful Language in Guided Meditation
Anushree Tibrewal, Sophomore, Computer Science, ENG
Eesha Barua, Sophomore, Computer Science & Linguistics, LAS
Sana Madhavan, Junior, Computer Science & Linguistics, LAS
(Research Mentor(s): Roxana Girju, Linguistics)

41. Tending to Our Roots to Increase Our Wellness (TRIOWell): A Community Gardening Intervention Proposal
Vanesu Jakachira, Junior, Psychology, LAS
(Research Mentor(s): Imani Canton, Kinesiology & Community Health)

42. The Association Between Resistance Exercise Training and Generalized Anxiety Disorder among Young Adults: A Scoping Review
Ishaan Patel, Junior, Biochemistry, LAS
(Research Mentor(s): Neha Gothe, Kinesiology & Community Health & Emily Erlenbach, Kinesiology & Community Health)

43. The Effects of a Remote Social Engagement Program in Caregivers of Persons with Dementia: A Case Study Approach
Evan Sebastian, Freshman, Kinesiology, AHS
Nithya Anand, Junior, Psychology, LAS
Melinda Jara, Sophomore, Speech & Hearing Science, AHS
(Research Mentor(s): Raksha Mudar, Speech & Hearing Science)
44. The Effects of Workplace Safety on Healthcare Workers' Mental Health
   Hahnbit Lee, Sophomore, Kinesiology, AHS
   (Research Mentor(s): Rachel Hoopsick, Kinesiology & Community Health)

45. The Mediating Effects of Meaning in Life on the Association Between Emotional Support and Stress
   Di Yao, Junior, Psychology, LAS
   (Research Mentor(s): Sarah Ward, Business Administration)

46. The Need for Diversity in Health Research: Recruiting and Increasing a Diverse Sample for the Blood Pressure Study
   Maliha Islam, Senior, Interdisciplinary Health Sciences, AHS
   (Research Mentor(s): Renato Ferreira Leitao Azevedo, Kinesiology & Community Health & Wendy Rogers, Kinesiology & Community Health)

PN Session - Nature, Life & Environment
2:00 – 3:15 PM, Illini Room C

50. An Analysis of Stakeholder Perceptions Toward Solar Grazing
   Tyler Swanson, Senior, Agricultural & Consumer Economics, ACES
   Quin Karhoff, Senior, Agricultural & Consumer Economics, ACES
   (Research Mentor(s): A. Bryan Endres, Agricultural & Consumer Economics)

51. An Investigation of Amphibian Species Richness in Analamazaotra Forest Station
   Bora Taksir, Senior, Integrative Biology, LAS
   (Research Mentor(s): Devin Edmonds, Natural Resources & Environmental Sciences)

52. Brochosomes: Investigating and Characterizing Naturally Produced Nanoparticles
   Kyle Gray, Senior, Chemical Engineering, LAS
   (Research Mentor(s): Charles Schroeder, Chemical & Biomolecular Engineering & Gabriel Burks, Materials Science & Engineering)

53. Climate Change, Recreation, and America's Grasslands
   Evan Smith, Junior, Philosophy, LAS
   (Research Mentor(s): Kaylee Wells, Agricultural & Consumer Economics)

54. Comparative Analysis of S-metolachlor Metabolism among Palmer amaranth (Amaranthus palmeri) Populations from the U.S.
   Noeleen Brown, Senior, Integrative Biology, LAS
   (Research Mentor(s): Dean Riechers, Crop Sciences & Crystal Concepcion, Crop Sciences)

55. CreAlgae: The Future of Bioplastics through Algae Sourced from Local Waterways
   Sahir Hossainy, Sophomore, Agricultural & Biological Engineering, ENG
   Sahan Yalavarthi, Freshman, Computer Science, ENG
   (Research Mentor(s): Mark Smith, Finance)

56. Crimson and Clover: Methylobacterium and Clover Fitness
   Allison Higgins, Junior, Plant Biotechnology, ACES
   (Research Mentor(s): Katy Heath, Plant Biology & Sierra Bedwell, Microbiology)
63. Factors Influencing Eastern Gray Squirrel (Sciurus carolinensis) and Fox Squirrel (Sciurus niger) Population Abundances in Champaign County
Amber Zilinger, Senior, Animal Sciences, ACES
(Research Mentor(s): Maximilian Allen, Natural Resources & Environmental Sciences)

64. Impact of Precipitation on Vector-Borne Disease in Colombia
Tasdique Khan, Sophomore, Community Health, AHS
(Research Mentor(s): Alicia Kraay, Kinesiology & Community Health)

65. Intra- and Interspecific Variation in Tadpole Lateral Line Cells
Sarah Porth, Parkland College

66. Machine Learning Applications to Paleoclimatology Studies
Kate O’Brien, Senior, Integrative Biology, LAS
(Research Mentor(s): Jessica Conroy, Geology)

67. Patterns and Hormonal Mechanisms of Startle Response in Neotropical Tadpoles
Isabel Parrales, Sophomore, Integrative Biology, LAS

68. Polymorphisms in the Shadow of the Prion Protein in Chronic Wasting Disease Wild White-tailed Deer (Odocoileus virginianus)
Nora Ryan, Senior, Animal Sciences, ACES
(Research Mentor(s): Nohra Mateus-Pinilla, Illinois Natural History Survey & Jan Novakofski, Animal Sciences)

69. Predictability of Derechos between 2015 and 2022
Claudia Workman, Senior, Atmospheric Sciences, LAS
(Research Mentor(s): Jeffrey Frame, Atmospheric Sciences)

70. Statistical Runout Modeling of Avalanche Risk Using GIS in Patagonia, Chile
Sydney Carste, Senior, Earth, Society & Environmental Sustainability, LAS
(Research Mentor(s): Jonathan Tomkin, Geology & Francisco Javier Aguirre, School for the Field Studies)

71. The Adaptive Specialization Hypothesis for Sex Differences in Wayfinding Remains Unsupported by Comparative Data
Connor Hults, Senior, Psychology, LAS
(Research Mentor(s): Justin Rhodes, Psychology)

72. The Comparison of Heat Index to Soil Moisture
Janae Sparks, Parkland College
(Research Mentor(s): Deanna Hence, Atmospheric Sciences & Cristian Proistosescu, Atmospheric Sciences)

73. The Impacts of the Neonicotinoid Imidacloprid on Predator-Prey Interactions in a Freshwater System
Greta Keilman, Junior, Integrative Biology, LAS
(Research Mentor(s): Carla Cáceres, Evolution, Ecology & Behavior)

74. To Eat or Not to Eat? Is Boldness a Repeatable Trait That Correlates with Giving Care Versus Cannibalizing Young in the Common Coqui
Savannah Shelton, Senior, Integrative Biology, LAS
(Research Mentor(s): Faith Hardin, Evolution, Ecology & Behavior & Eva Fischer, Evolution, Ecology & Behavior)

75. Risk Assessment of Phytoplasma Emerging Diseases: Phylogenetic and Environmental Diversity on Potential of Phytoplasma Outbreak
Lisa Kwan, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Valeria Trivellone, Prairie Research Institute)

76. Vector Autofluorescence: A “Glow Up” for Tick Identification Tools
Carly Kallembach, Graduated December 2022, Integrative Biology, LAS
(Research Mentor(s): Holly Tuten, Illinois Natural History Survey)

PO Session - Cells & Molecules
2:00 – 3:15 PM, South Lounge

85. Acquisition of TDP-43 by Mouse Sperm During Epididymal Transit
Ann Steephen, Senior, Biochemistry, LAS
(Research Mentor(s): Prabhakara Reddi, Comparative Biosciences)

86. Brownian Diffusion of Charged Species in Relation to Protein Crowding Effects
Andrew Lutsky, Senior, Biochemistry, LAS
(Research Mentor(s): Emad Tajkhorshid, Biochemistry)

87. Characterization of Somatostatin Neurons in the Mouse Inferior Colliculus
William Dai, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Dan Llano, Molecular & Integrative Physiology)

88. Characterization of Aquaporin-4 and its Modulation by Arginine Vasopressin within the Glymphatic System
Hanifa Mohammed, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Martha Gillette, Cell & Developmental Biology & Jennifer Mitchell, Cell & Developmental Biology)

89. Cytotoxic Effects of the Histone Deacetylases and Bromodomains Inhibition in Canine Mammary Carcinoma
Beatriz Gomes, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Pedro Luiz Porfirio Xavier, University of São Paulo)
92. Defining the Role of Efflux Pumps in the Regulation of the Bacterial Cell Cycle
Katarina Vrilkapa, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Paola Mera, Microbiology & Leslie Delgado-Martinez, Microbiology)

93. Effects of Phosphate Pentose Pathway Overexpression on Insulin Precursor Yield in P. Pastoris
Vishnu Kompella, Sophomore, Engineering Physics, ENG
(Research Mentor(s): Christopher Rao, Chemical & Biomolecular Engineering & Ebin Joseph, Chemical & Biomolecular Engineering)

94. Elucidating the Mechanisms of Cyclopamine Binding to Smoothed Protein Using Molecular Dynamics and Machine Learning
Max Kim, Junior, Chemical Engineering, LAS
(Research Mentor(s): Marni Boppart, Kinesiology & Community Health & Alex Fliflet, Kinesiology & Community Health)

95. Endurance-Trained Extracellular Vesicles (ExerVs) to Improve Muscle Recovery Following Disuse Atrophy
Madeleine Meehan, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Marni Boppart, Kinesiology & Community Health & Alex Fliflet, Kinesiology & Community Health)

96. Environment-mediated Tumor Progression in a Bioengineered Model of Glioblastoma
Joseph Mueller, Sophomore, Chemical Engineering, LAS
Achal Anand, Sophomore, Chemical Engineering, LAS
(Research Mentor(s): Sara Pedron Haba, Chemical & Biomolecular Engineering)

97. Exercise-sensitive Microbial-derived Aromatic Amino Acid Metabolites Alter Monocyte Function
Casey Lim, Senior, Kinesiology, AHS
(Research Mentor(s): Jacob Allen, Kinesiology & Community Health)

98. Farnesoid X Receptor Regulates MicroRNA-155-5p in Macrophages
Tiffany Nguyen, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Erik Nelson, Molecular & Integrative Physiology & Hashni Epa Vidana Gamage, Molecular & Integrative Physiology)

99. Identifying Neuropeptides in the Pain Perception Pathway Using Tandem-Mass Spectrometry and Bioinformatics
Aniket Joglekar, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Elena Romanova, Chemistry & Jonathan Sweedler, Chemistry)

100. Investigating and Improving PE Gene Editing in Mammalian Cells
Andrew Zhang, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Huimin Zhao, Chemical & Biomolecular Engineering & Che Yang, Biochemistry)

101. Investigating the Effect of Vanillin on a Multi-Drug Resistant Strain in Caulobacter crescentus
Tammy Guo, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Paola Mera, Microbiology & Leslie Martinez, Microbiology)

102. Lipid Droplet Accumulation in Sugarcane Guard Cells Limits Stomatal Conductance by Impairing Stomatal Movement
Nathan Carmichael, Senior, Biochemistry, LAS
(Research Mentor(s): Daniel Tejeda Lunn, Plant Biology & Andrew Leakey, Plant Biology)

103. Macrophage Polarization in Response to 11-oxy-androgens Generated by the Urinary Tract Bacterium Propionimicrobium lymphophilum
Elizabeth Tang, Senior, Engineering Physics, ENG
(Research Mentor(s): Rex Gaskins, Animal Sciences & Jason Ridlon, Animal Sciences)

104. MecVax and CFA-toxoid Fusion, Enterotoxigenic E. coli Vaccines Confer Protection in Rabbits
Yiyang Shen, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Weiping Zhang, Pathobiology & Md Shafiquallah Parvej, Pathobiology)

105. Mediation of Rat Social Dominance by Medial Prefrontal Cortex
Benedict Yeoh, Senior, Psychology, LAS
(Research Mentor(s): James Hinman, Psychology)

106. MINFLUX Nanoscopy Reveals an Ultra-fine Two-layer Structure of Axial Elements in Synaptonemal Complex
Sasha Kakkassery, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor(s): Huanyu Qiao, Comparative Biosciences & Reza Rajabi, Comparative Biosciences)

107. Murine Influenza A Virus Disrupts Immune Profiles at the Maternal-fetal Interface in a Dose-dependent Manner During Acute Infection
Moira Roddy, Senior, Animal Sciences, ACES
(Research Mentor(s): Adrienne Antonson, Animal Sciences & Ashley Otero, Neuroscience Program)

108. Neuron Structure of Mononchus pulcher and Mononchus aquaticus Nematodes
Alyson Ficca, Sophomore, Integrative Biology, LAS
Jonathan Boudreaux, Senior, Music Composition, FAA
(Research Mentor(s): Nate Schroeder, Crop Sciences)

109. Quantifying Biophysical Changes in the White Matter of Multiple Sclerosis Mouse Models Using Spatial Light Imaging Microscopy
Yasmine Khan, Sophomore, Bioengineering, ENG
Ziyin Wang, Sophomore, Bioengineering, ENG
Jessica Lozano Guajardo, Freshman, Psychology, LAS
(Research Mentor(s): Jorge Alexis Maldonado DeJesus, Neuroscience Program)

110. Quantitative Label-free Cell Cycle Microscopy
Sanjana Satish, Junior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Catherine Best-Popescu, Bioengineering)

111. Stereoelectronic Effects of Pyridinophane Ligands on the Stabilization of Low Valent Nickel Complexes
Ian Garvey, Senior, Chemistry, LAS
(Research Mentor(s): Liviu Mirica, Chemistry & Bailey Bouley, Chemistry)
112. Structural Characterization of the Heterocyclic Peptide Enterolysin S Derived from Enterococcus cacae  
Varshal Patel, Sophomore, Molecular & Cellular Biology, LAS  
(Research Mentor(s): Chengyou Shi, Chemical & Biomolecular Engineering)

113. Systematic Review on the Affects of Anabolic Steroids on Epigenetics and Reproduction  
Ilya Ahmad, Senior, Kinesiology, AHS  
(Research Mentor(s): Diego Hernandez Saavedra, Kinesiology & Community Health)

114. The Effects of Histamine Receptor 2 Modulation on Breast Cancer Dormancy  
Michael McHenry, Senior, Molecular & Cellular Biology, LAS  
(Research Mentor(s): Erik Nelson, Molecular & Integrative Physiology & Claire Schane, Molecular & Integrative Physiology)

115. The Loss of TDP-43 in Male Germ Cells Leads to Testicular Pathology in Prepubescent Mice  
Natalie Bizon, Senior, Biochemistry, LAS  
(Research Mentor(s): Prabhakara Reddi, Comparative Biosciences)

116. URAP Project  
Anushka Saha, Sophomore, Biochemistry, LAS  
(Research Mentor(s): Urbi Saha, Neuroscience)

PP Session - Language, Culture & Society  
3:45 – 5:00 PM, Illini Room A

1. Purpose vs. Rationale: A Syntactic Analysis of Infinitival Adjunct Clauses in English and Spanish  
Lilyanna Williams, Sophomore, Linguistics, LAS  
(Research Mentor(s): Katie VanDyne, Spanish & Portuguese)

2. A WASH Assessment: Jordanian Refugee Camps  
Maya Moucharrafie, Senior, Global Studies, LAS  
(Research Mentor(s): Timothy Wedig, Center for Global Studies)

3. An Analysis of the Relationship Between Perfectionism, Eating Disorder Symptomatology, and Instructional Experiences among Dancers  
Lukas Jacyniuk Moskalis, Senior, Dance, FAA  
(Research Mentor(s): C. Kemal Nance, Dance)

4. An Investigation into the Complexities of Race in Dating with a Focus on Racial Preferences  
Shyann Mack, Senior, Anthropology, LAS  
(Research Mentor(s): Jessica Greenberg, Anthropology)

5. An Investigation of the Factors that Limit Access of Latino Families to Necessary Services for Students with Disabilities  
Joselyn Velazquez, Freshman, Learning & Behavior Specialist I, EDU  
(Research Mentor(s): Meghan Burke, Special Education)

6. Analyzing Accuracy of Word Error Rates (WER) of Artificial Intelligence (AI) Generated Captions Compared to Professional Human Generated Captions in Engineering Lecture Videos  
Jessica Singh, Sophomore, Computer Science, ENG  
(Research Mentor(s): Lawrence Angrave, Computer Science & David Dalpiaz, Statistics)

7. Assessing the Establishment of Safety Between Attorney and Client in Transnational Partner Violence Cases  
Logan Meneses, Senior, Human Development & Family Studies, ACES  
(Research Mentor(s): Christopher Maniotes, Human Development & Family Studies)

8. Attachment Styles of International, Transracial Adoptees  
Mackenzie Meyer, Junior, Advertising, COM  
(Research Mentor(s): Patrick Vargas, Advertising)

9. Black Femicide vs. Dating Culture  
Andrianna Thomas, Junior, Human Development & Family Studies, ACES  
(Research Mentor(s): Anthony Sullers Jr., African American Studies)

10. Conflict and Dance: The Impact of World War II on Dance in the United States  
Anne Morgan, Senior, Dance, FAA  
(Research Mentor(s): Kemal Nance, Dance)

Genna Peters, Sophomore, Recreation, Sport & Tourism, AHS  
Vanessa Ramos, Sophomore, Recreation, Sport & Tourism, AHS  
(Research Mentor(s): Mariela Frenandez, Recreation, Sport & Tourism & Wonjin Jeong, Recreation, Sport & Tourism)

Anjali Yedavalli, Sophomore, Integrative Biology, LAS  
(Research Mentor(s): Marielle Gross, Johns Hopkins Berman Institute of Bioethics & Amelia Hood, Johns Hopkins Berman Institute of Bioethics)

Anna Blair, Senior, Political Science, LAS  
(Research Mentor(s): Alyssa Prorok, Political Science)

14. Exploring the Relation between Job Satisfaction and Personality: The Mediating Role of Work Stress  
Rishita Dutta, Junior, Psychology, LAS  
(Research Mentor(s): D. A. Briley, Psychology)

15. Gun Violence  
Guillermo Beltran, Graduated December 2022, Community Health, AHS  
(Research Mentor(s): Anthony Sullers Jr., African American Studies)
16. Historically Contextualizing Illinois Black Farming Family Issues
Chloe Graham, Senior, Human Development & Family Studies, ACES
(Research Mentor(s): Anisa Codamon, Human Development & Family Studies & Shardé Smith, Human Development & Family Studies)

17. How do Protection Orders Relate to Post-Separation Parenting Arrangements in Divorce?
Julianne Enas, Sophomore, Human Development & Family Studies, ACES
(Research Mentor(s): So Young Park, Human Development & Family Studies)

18. International Expansion of Netflix: The Case for South Korea
Yun Hyuk Choi, Senior, Media & Cinema Studies, COM
(Research Mentor(s): Rachel Kuo, Media & Cinema Studies)

19. Interpretations of Social Justice Theory and their Impacts on the Criminal Justice System
Ella Corriere, Freshman, Psychology, LAS
Julia Kreczko, Sophomore, Psychology, LAS
(Research Mentor(s): Allison Carrington, School of Social Work)

20. Investigating the Parallel Universes of Personality and SEB Skills Through a Gendered Lens
Natalia Palafox Burbano, Senior, Psychology, LAS
(Research Mentor(s): Madison Sewell, Educational Psychology & Chris Napolitano, Educational Psychology)

21. Latinx Mothers’ Testimonies: Embodying Bridges for Bilingual Futures
Lesli Vargas, Sophomore, Elementary Education, EDU
(Research Mentor(s): Idalia Nuñez Cortez, Curriculum & Instruction)

22. Media Takeover and Coup Success
Chenyu Jiang, Junior, Political Science, LAS
(Research Mentor(s): Shuyuan Shen, Political Science)

23. Mental Health in African American Youth
Trinity Smith, Senior, Psychology, LAS
(Research Mentor(s): Anthony B. Sullers Jr., African American Studies)

24. Opportunities and Barriers to UDL-based Course Designs for Inclusive Learning in Undergraduate Engineering and other STEM courses
Delu Zhao, Sophomore, Computer Science & Economics, LAS
Ananya Agarwal, Junior, Computer Science, ENG
(Research Mentor(s): Hongye Liu, Computer Science & Lawrence Angrave, Computer Science)

25. Cops, Courts, and Confidence: How Police Interactions Affect Public Trust in the Judiciary
Emma Henderson, Senior, Political Science, LAS
(Research Mentor(s): Jeffery Mondak, Political Science)

26. Positive Relationships with Parents or Other Adults: A Protective Factor Against the Transmission of Intergenerational Trauma
Alina Loewenstein, Sophomore, Psychology, LAS
(Research Mentor(s): Rachel Garthe, School of Social Work & Qihao Zhan, School of Social Work)

27. Queer Defined: Analyzing Queer Spaces on Higher Educational Campuses
Matthew Jenkins, Junior, Landscape Architecture, FAA
(Research Mentor(s): Kelley Lemon, Landscape Architecture)

28. Resilience in the Case of Individuals with Long-COVID
Annalisa Ranallo, Freshman, Interdisciplinary Health Sciences, AHS
Isabella Robieson, Freshman, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): Charee Thompson, Communication & Sara Babu, Communication)

29. “Experiências Sobrenaturais”: The Messiness of Queer Pentecostalism in Brazil
Serena Jobi, Sophomore, Mathematics, LAS
(Research Mentor(s): Joseph Coyle, Anthropology)

30. Right-wing Movements, Islamist States, and the Islamic Hijab
Maya Mert, Freshman, Industrial Design, FAA
(Research Mentor(s): Amirhossein Teimouri, Sociology)

31. Studying Diversity and Inclusion and Minority/Majority Dynamics Through Cyberball Studies
Ava Marginean, Freshman, Political Science, LAS
(Research Mentor(s): David Reinhard, Business Administration)

32. Supreme Court Legitimacy and the Impacts of a Politicized Court
Nicole Arnold, Senior, Political Science, LAS
(Research Mentor(s): Alicia Uribe-McGuire, Political Science)

33. The Application of Social Justice Theory to Social Work Education in its Relation to the Eradication of Systemic/Structural Racism
Cache Merriweather, Sophomore, Psychology, LAS
(Research Mentor(s): Allison Carrington, School of Social Work)
34. **The College Athlete Experience and its Academic Influences**  
*Kayla Ratsamy*, Freshman, Early Childhood Education, EDU  
(Research Mentor(s): Wenhao David Huang, Education Policy, Organization & Leadership)

35. **URAP Project**  
*Shiuli Rai*, Junior, Psychology, LAS  
(Research Mentor(s): Shiyu Sun, Educational Psychology)

36. **The Great Depression and The New Deal: A Newsletter from a Camp of Homeless Men**  
*Summer Matthes*, Junior, History, LAS  
*Jordan Wilkerson*, Freshman, History, LAS  
*Rachel Mulick*, Freshman, History, LAS  
(Research Mentor(s): John Randolph, History)

37. **The Impact of the Black Church on African American Queer Gen-Zers**  
*Alison Green*, Senior, Political Science, LAS  
(Research Mentor(s): Anthony Sullers Jr., African American Studies)

38. **An Analysis of Interest Groups and their Effects on the Passing of Ballot Measures**  
*Aparna Lakkaraju*, Sophomore, Chemistry, LAS  
(Research Mentor(s): Søren Warland, Political Science)

39. **The Influence of Name Agreement on Adjective Use in Sentence Production**  
*Zhixin Yao*, Senior, Psychology, LAS  
(Research Mentor(s): Jessica Montag, Psychology)

40. **The Relationship Between Levels of Communication and Features of Autism in Children with Down Syndrome**  
*Sarah Pechtl*, Senior, Speech & Hearing Science, AHS  
*Emma Mueller*, Junior, Speech & Hearing Science, AHS  
*Ashley Yun*, Senior, Community Health, AHS  
(Research Mentor(s): Marie Channell, Speech & Hearing Science & Beka Bosley, Speech & Hearing Science)

41. **The Social Impacts of College Sporting Events on Residents Living Around University of Illinois at Urbana-Champaign**  
*Kei Yamato*, Sophomore, Geography & Geographic Information Science, LAS  
(Research Mentor(s): Jonathan Rocha De Oliveira, Recreation, Sport & Tourism)

42. **The Transition of Native Music from Acts of Tradition to a Form of Resistance**  
*Aidan McMahon*, Junior, History, LAS  
(Research Mentor(s): David Beck, History)

43. **The Work Towards Equity of Principals of Color**  
*Christopher Trujillo*, Senior, Political Science, LAS  
(Research Mentor(s): Osly Flores, Education Policy, Organization & Leadership & Nick Bonanno, Illinois Leadership Center)

44. **Measuring and Understanding Sadness/Stress Elicited from Politics**  
*Alice Li*, Freshman, Computer Science, ENG  
*Shivam Srivastava*, Freshman, Economics, LAS  
(Research Mentor(s): James Steur, Political Science)

### PQ Session - Data, Information & Machine Learning

3:45 – 5:00 PM, Illini Room C

50. **Inter and Intra Reviewer Reliability amongst Neurosurgeons Assessing Sagittal Cervical X-rays and the Impacts on Prognostics and Diagnostic**  
*Katherine Bieber*, Junior, Molecular & Cellular Biology, LAS  
(Research Mentor(s): Jonah Moss, Rush University Medical Center)

51. **An Investigation Keyword Extraction Algorithms to Segment Videos and Summarize Content in Online Lectures**  
*Nikhil Khandekar*, Senior, Statistics & Computer Science, LAS  
(Research Mentor(s): Lawrence Angrave, Computer Science)

52. **An Investigation of Substance Abuse Treatment Discharge Status Using Machine Learning**  
*Junjie Gao*, Junior, Computer Engineering, ENG  
*Patrick Xu*, Junior, Computer Science, ENG  
(Research Mentor(s): Hongye Liu, Computer Science)

53. **An Investigation of the Current Teacher Shortage in Illinois School Districts**  
*Kate Kuehl*, Sophomore, Elementary Education, EDU  
(Research Mentor(s): Nancy Latham, Curriculum & Instruction)

54. **Collaborative Construction and Communication in Minecraft**  
*Vasudha Das*, Freshman, Computer Science & Linguistics, LAS  
(Research Mentor(s): Julia Hockenmaier, Computer Science & Prashant Jayannavar, Computer Science)

55. **Computable Bibliography: Using Data Analysis and Data Visualization to Characterize a Bibliography**  
*Zhiheng Ye*, Junior, Statistics, LAS  
(Research Mentor(s): Jodi Schneider, School of Information Sciences)

56. **Disentangling the Data: How Does Elevation and Density Effect E. coqui Behavior?**  
*Destiny Coleman*, Senior, Integrative Biology, LAS  
(Research Mentor(s): Katharina Soto, Program in Ecology, Evolution & Conservation Biology & Eva Fischer, Evolution, Ecology & Behavior)

57. **Evaluating the Performance of Neighborhood Finders in Motion Planning**  
*Shreya Vinjamuri*, Sophomore, Computer Science, ENG  
*Nikhila Puppala*, Sophomore, Computer Science, ENG  
(Research Mentor(s): Nancy Amato, Computer Science)

58. **Fairness in Graph Neural Networks**  
*Anjali Kumar*, Junior, Computer Science, ENG  
(Research Mentor(s): Hanghang Tong, Computer Science)
59. Interconnect Routing Through Priority-Based Search Algorithm
Melissa Aninagyei-Bonsu, Freshman, Computer Science, ENG
Mia Erdenebileg, Junior, Computer Science, ENG
(Research Mentor(s): Nancy Amato, Computer Science)

60. Investigating Crossref as a Tool to Retrieve Funding Information for Research Works
Shashank Kambhatla, Senior, Information Sciences, SIS
(Research Mentor(s): Jodi Schneider, School of Information Sciences & Yuanxi Fu, School of Information Sciences)

61. Investigating Sample Bias Towards Languages in Audio Super-resolution
Austin Lu, Senior, Systems Engineering & Design, ENG
Arya Nallanthighall, Senior, Computer Engineering, ENG
(Research Mentor(s): Kanad Sarkar, Electrical and Computer Engineering & Manan Mittal, Electrical and Computer Engineering)

62. Nowcasting Lightning Strikes Through Convolutional Neural Networks
Austin Shwatal, Junior, Statistics, LAS
Georges Durand, Junior, Computer Science & Statistics, LAS
Sarah Yang, Senior, Statistics, LAS
Spencer Bauer, Junior, Statistics, LAS
Mallory Klostermann, Senior, Statistics, LAS
(Research Mentor(s): Daniel Ries, Sandia National Laboratories)

63. Nowcasting Lightning Strikes Through Generalized Linear Mixed Model and Binary Hurdle Model
Sarah Yang, Senior, Statistics, LAS
Mallory Klostermann, Senior, Statistics, LAS
Spencer Bauer, Junior, Statistics, LAS
Georges Durand, Junior, Computer Science & Statistics, LAS
Austin Shwatal, Junior, Statistics, LAS
(Research Mentor(s): Daniel Ries, Sandia National Laboratories)

64. Numerical Simulation of the Equipartition of Energy in a Helical Wave
Jordan Westphal, Freshman, Mechanical Engineering, ENG
(Research Mentor(s): Yaswanth Sai Jetti, Mechanical Science & Engineering)

65. On Device Interaction Mining
Ethar Hussein, Junior, Computer Science, ENG
(Research Mentor(s): Ranjitha Kumar, Computer Science & Deniz Arsan, Computer Science)

66. On-Device Interaction Mining (ODIM)
Zora Zhang, Sophomore, Computer Science, ENG
(Research Mentor(s): Ranjitha Kumar, Computer Science & Carl Guo, Computer Science)

67. Privacy Concerns Among University Students Towards Learning Management System Data Collection
Donlapun Wongkarnta, Junior, Information Sciences, SIS
(Research Mentor(s): Madelyn Rose Sanfilippo, School of Information Sciences)

68. Qualitative Coding: Assessment and Implementation for Contextual Technical Decision Making
Cathy Li, Senior, Chemical Engineering, LAS
Annabelle Epplin, Senior, Electrical Engineering, ENG
Samuel Gerstein, Freshman, Computer Science, ENG
(Research Mentor(s): Emily Lawson-Bulten, Agricultural & Biological Engineering & Abhiroop Chattopadhyay, Electrical & Computer Engineering)

69. Reservoir Computing in the Mind in Vitro Project
Shalini Yagnik, Junior, Computer Science, ENG
(Research Mentor(s): Nancy Amato, Computer Science & Ananya Yammanuru, Computer Science)

70. Smart-Home Environment for Detecting Life Using Signal Processing
Arshiya Gupta, Freshman, Computer Science, ENG
(Research Mentor(s): Elahe Soltanaghai, Computer Science)

71. Social Media Sentiment on Esports Performance
Ethan Jude Miranda, Senior, Molecular & Cellular Biology, LAS
(Research Mentor(s): Madelyn Sanfilippo, School of Information Sciences)

72. Surveying the Genetic Diversity of Nitrogen-responsive Genes in Maize
Grace Nystrom, Senior, Crop Sciences, ACES
(Research Mentor(s): Stephen Moose, Crop Sciences)

73. Using Deep Learning to Predict Input Parameters for ReaxFF Interatomic Potential
Shengan Wu, Senior, Computer Science & Statistics, LAS
(Research Mentor(s): Benjamin Jasperson, Mechanical Science & Engineering)

74. Using Machine Learning to Analyze the Influence of Combinatorial Stressors on Soil and Plant Properties
Anagha Tiwari, Freshman, Statistics & Computer Science, LAS
(Research Mentor(s): Esther Ngumbi, Entomology)

75. Verifying Scientific Integrity and Transparency: Using Machine Learning to Detect Inconsistencies in Scientific Data
Akshata Tiwari, Freshman, Computer Science & Economics, LAS
(Research Mentor(s): Esther Ngumbi, Entomology)

76. Visualizations and Machine Learning Models for Emotion Recognition
Jinghan Zeng, Freshman, Computer Science, ENG
(Research Mentor(s): Karrie Karahalios, Computer Science & Sayantani Basu, Computer Science)
77. Win/loss Sequences in Sports: Quantifying Streakiness, Momentum, and Exceptional Performances of MLB, NBA, and NHL Teams  
Mohit Singh, Freshman, Statistics & Computer Science, LAS  
Alex Stratton, Senior, Economics, LAS  
Anh Phung, Sophomore, Statistics & Computer Science, LAS  
Charles Martell, Senior, Economics, LAS  
(Research Mentor(s): AJ Hildebrand, Mathematics & Manisha Garg, Mathematics)

PR Session - Science & Technology  
3:45 – 5:00 PM, South Lounge

85. A Design of Hydrolysis Ester-based Linkers for Development of Activity-based NIR Bioluminescence Probes  
Yourong Weng, Junior, Chemical Engineering, LAS  
(Research Mentor(s): Jefferson Chan, Chemistry)

86. An Investigation of Antennas that can Intercept Weather Satellite Signals  
Jonathan Hu, Freshman, Electrical Engineering, ENG  
(Research Mentor(s): David Mitchell, Electrical & Computer Engineering)

87. An Investigation on CUDA Kernel Tuning for Accelerating Training RGNNs  
Zexuan Yan, Freshman, Computer Engineering, ENG  
(Research Mentor(s): Kun Wu, Electrical & Computer Engineering)

88. Analysis of Embodiment with Survey Measures in South Asian Immigrants to the USA  
Hannah Kapur, Freshman, Bioengineering, ENG  
(Research Mentor(s): Sana Saboowala, Program for Ecology, Evolution & Conservation Biology)

89. Analyzing Auditory Circuit and Perceptual Disruptions in Genetically-Distinct Rat Models of Autism  
Haichao Wang, Senior, Biochemistry, LAS  
(Research Mentor(s): Benjamin Auerbach, Molecular & Integrative Physiology)

90. Building the Blocks of Virtual Reality Learning  
Nan Kang, Junior, Computer Engineering, ENG  
(Research Mentor(s): Raluca Ilie, Electrical & Computer Engineering)

91. Constructing a Template Baryonic Tully-Fisher Relation Using Type Ia Supernovae as Distance Measures  
Arya Desai, Junior, Astronomy, LAS  
(Research Mentor(s): Joseph Ribaudo, Providence College & Luke Leisman, Mathematics)

Marshall Horton, Parkland College  
(Research Mentor(s): Jeff Filippini, Physics)

93. Crazylife Quadroter Investigation  
Eisha Peyeti, Sophomore, Computer Science, ENG  
(Research Mentor(s): Elahé Soltanaghai, Computer Science)

94. Developing an Accessible Soft Robotic Prosthetic Hand Toolkit for Emerging Engineers  
Arshveer Sachdeva, Sophomore, Bioengineering, ENG  
Jorge Jimenez, Junior, Mechanical Engineering, ENG  
Tyler Smart, Junior, Electrical Engineering, ENG  
Jackie Arroyo, Junior, Aerospace Engineering, ENG  
(Research Mentor(s): Holly Golecki, Bioengineering)

95. Dialogue Schema Induction  
Stuti Agrawal, Sophomore, Computer Science, ENG  
Nishi Uppuluri, Freshman, Computer Science & Linguistics, LAS  
(Research Mentor(s): Heng Ji, Computer Science)

96. Electrifying Chemistry: Characterizing TEMPO-based Electrocatalysts for Isopropanol to Acetone Conversion in Novel Heat Pumps  
Michelle Zorigt, Sophomore, Chemistry, LAS  
(Research Mentor(s): Abhiroop Mishra, Materials Science & Engineering & Joaquin Rodriguez Lopez, Chemistry)

97. Engineering the First Transgenic Anemonefish Amphiprion Ocellaris for Studying Socially Influenced Sex Change  
Emma Ibanez, Graduated December 2022, Molecular & Cellular Biology, LAS  
(Research Mentor(s): Justin Rhodes, Psychology)

98. Exercised-Induced Changes in Strain Distribution of Growing Cortical Bone  
Anjali Goel, Junior, Mechanical Engineering, ENG  
(Research Mentor(s): Mariana Kersh, Mechanical Science & Engineering & Joshua Craggette, Mechanical Science & Engineering)

99. Fabrication of Mineralized Collagen Scaffold-Based 3D High Throughput Screening (HTS) Array  
Melisande Wong Yan Ling, Senior, Chemical Engineering, LAS  
(Research Mentor(s): Aliki Kolliopoulos, Chemical & Biomolecular Engineering)

100. How Do We Get Protein into Human Cells?  
Driss El Andlosy, Parkland College  
(Research Mentor(s): Yuhan Wang, Center for Biophysics & Quantitative Biology)

101. Implementation of DIGIT Vision-Based Tactile Sensor for Robotics Gripper  
Zikun Liu, Freshman, Computer Engineering, ENG  
(Research Mentor(s): Holly Dinkel, Aerospace Engineering & Timothy Bretl, Aerospace Engineering)

102. Influence of the Gut-Microbiome and Diisononyl Phthalate (DINP) Exposure on Uterine Development in Mice  
Vanessa Salgado, Senior, Animal Sciences, ACES  
Jacqui Nguyen, Junior, Molecular & Cellular Biology, LAS  
(Research Mentor(s): Romana Nowak, Animal Sciences)
103. Instructional Tools for Beginner Conversational Programmers
Yoshee Jain, Freshman, Computer Science, ENG
(Research Mentor(s): Katie Cunningham, Computer Science)

104. Investigation of Pumped Hydro Storage in Abandoned Mines
Tiana Bojic, Freshman, Civil & Environmental Engineering, ENG
(Research Mentor(s): Youssef Hashash, Civil & Environmental Engineering)

105. Measuring the Quality of Machine Translation Systems on the Mandarin Reduplication Phenomenon
Emma Shu, Freshman, Computer Science & Linguistics, LAS
(Research Mentor(s): Brennan Dell, Linguistics)

106. Optimization of Air Light Guides for New ATLAS and CMS Zero Degree Calorimeters for LHC High Luminosity Operations
Samantha Lund, Junior, Engineering Physics, ENG
(Research Mentor(s): Matthias Grosse Perdekamp, Physics & Riccardo Longo, Physics)

107. Photometric Classification of Kilonova Using Multi Messenger Astrophysics
Ved Shah, Junior, Computer Science & Astronomy, LAS
(Research Mentor(s): Gautham Narayan, Astronomy)

108. Surface Tension Driven Convection During Frontal Polymerization for Tunable Surface Patterns
Aarav Seth, Sophomore, Materials Science & Engineering, ENG
(Research Mentor(s): Justine Paul, Materials Science & Engineering)

109. Technology Support for Online Interventions that Prioritize Social Engagement
Noah Olivero, Sophomore, Interdisciplinary Health Sciences, AHS
(Research Mentor(s): George Mois, Human Factors & Aging Lab)

110. Technology, Security & Privacy Portrayals in Teen Dramas
Sailaja Nallacheruvu, Sophomore, Computer Science, ENG
Efthalia Karas, Senior, Computer Science & Math, LAS
(Research Mentor(s): Camille Cobb, Computer Science)

111. The Impact of Solvent Structures and Transition State Size on Alkene Epoxidation Turnover Rates Over Ti-MFI Zeolite
Anna Schellin, Senior, Chemical Engineering, LAS
(Research Mentor(s): Chris Torres, Chemical & Biomolecular Engineering & David Flaherty, Chemical & Biomolecular Engineering)

112. TrackDLO: Tracking Deformable Linear Objects Under Occlusion with Motion Coherence
Jingyi Xiang, Junior, Electrical Engineering, ENG
(Research Mentor(s): Holly Dinkel, Aerospace Engineering)

113. Training Image Segmentation Models for Deformable Linear Objects, on HAL
Yash Rathod, Sophomore, Computer Science, ENG
(Research Mentor(s): Holly Dinkel, Aerospace Engineering)

114. Data Layout and Computation Schedule Co-Design for Node/Edge Traversal in Graph Neural Networks
Frank Li Fan, Freshman, Undeclared, DGS
(Research Mentor(s): Kun Wu, Electrical & Computer Engineering)
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.

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.

2023 Competition Judges

- Sarah Blanco, Library Specialist, Teaching, Learning, and Academic Support
- Libby Cave, Graduate Student, iSchool
- Lonnie Clark Jr., Library Specialist, Teaching, Learning, and Academic Support
- Merinda Kaye Hensley, Research Programs Liaison and Instruction Librarian
- Eric Kurt, Media Commons Coordinator
- Elizabeth Rockman, Associate Director, Campus Honors Program
- Karen Rodriguez’G, Director, Office of Undergraduate Research

Each image you see in this section has an accompanying narrative. You can read the narratives that go along with each submission at: https://publish.illinois.edu/imageofresearch/2023-undergraduate-entries/

### Ideas from Flag and Bubble Tea
**Chen-Wei Chou**, Senior, Mathematics, LAS

### Not So Smooth After All: Uncovering the Hidden Properties of Deconstructible DCPD Thermoset Plastics
**Andrew Lum**, Sophomore, Material Science & Engineering, ENG

### Baa-baa Black Sheep, How Important Is Your Rumen Digestibility?
**Emma Prybylski**, Junior, Animal Sciences, ACES
The Chosen Neuron
Prithika Ravi, Sophomore, Psychology, LAS

Composing Whitman: Mapping Typography
Keely Kuester, Sophomore, English, LAS

Yellow Hollywood
Alex Gallegos, Sophomore, Media & Cinema Studies, COM

Magnifying a Molecule: MINFLUX Nanoscopy of an HIV-Infected Cell
Neha Arun, Senior, Molecular & Cellular Biology, LAS
Grant Recipients

The Office of Undergraduate Research (OUR) is committed to supporting Illinois undergraduates in all aspects of their research endeavors. Through Conference Travel Grants and Research Support Grants, OUR offers financial support to fund students’ research and creative activities across all disciplines on campus. For more information on these grants and how they may support you during your research journey, please contact OUR.

Research Support Grant (RSG)

The Research Support Grant (RSG) provides students from all disciplines with the funds necessary to conduct research or creative projects during the academic year both on and off campus (including summer terms). Awards will be up to $2,000 and are meant to cover research travel costs, living expenses incurred during academic breaks, and materials or other ancillary costs.

For more information, please visit:
http://go.illinois.edu/OUR_RSG

RECENT WINNERS:

- **Development of a Remotely Controlled Robotic Arm for Cable Connections in the HL-LHC Tunnel**
  - Chinmay Ambasht, Freshman, Astronomy, LAS
  - (Research Mentor: Matthias Grosse Perdekamp, Physics)

- **The Role of Brain Derived Neurotropic Factor in Withdrawal-induced Amotivation Following Repeated Exposure to Methamphetamine**
  - Joseph Caruana, Senior, Brain & Cognitive Science, LAS
  - (Research Mentor: Joshua Gulley, Psychology)

- **Portable Aisle Chair Design**
  - Phillip Croft, Sophomore, Industrial Design, FAA
  - (Research Mentor: Adam Bleakney, School of Art + Design)

- **Efficacy of Combinatorial Hormone Therapies on ER+ Metastatic Breast Cancer Cell Lines**
  - Alanna Kaminsky, Senior, Food Science & Human Nutrition, ACES
  - (Research Mentor: Zeynep Madak-Erdogan, Food Science & Human Nutrition)

- **Developing and Testing Plant-Based Scaffolds for Fish Cell-Lines**
  - Dylan Hendrixson, Junior, Chemical & Biomolecular Engineering, LAS
  - (Research Mentor: Gregory Underhill, Bioengineering)

- **The Impact of Resident-Led Greening on Subjective Well-Being**
  - Jeffrey Hudson, Junior, Earth, Society & Environmental Sustainability, LAS
  - (Research Mentor: Bill Stewart, Department of Recreation, Sport & Tourism)

- **Genetic Analysis of Mixed-Species Biofilms**
  - Ishan Joshi, Junior, Biochemistry, LAS
  - (Research Mentor: Pratik Banerjee, Food Science & Human Nutrition)

- **Portable Aisle Chair Design**
  - Annika Sornson, Senior, Industrial Design, FAA
  - (Research Mentor: Adam Bleakney, School of Art + Design)
RECENT WINNERS:

3D Visualizations of Massive Black Hole Disks on Supercomputers
Mit Kotak, Senior, Engineering Physics, ENG
(Research Mentor: Stuart Shapiro, Physics)

Developing and Testing Plant-Based Scaffolds for Fish Cell-Lines
Lauren Krause, Senior, Bioengineering, ENG
(Research Mentor: Gregory Underhill, Bioengineering)

Developing and Testing Plant-Based Scaffolds for Fish Cell-Lines
Megan Lu, Freshman, Brain & Cognitive Science, LAS
(Research Mentor: Gregory Underhill, Bioengineering)

Developing and Testing Plant-Based Scaffolds for Fish Cell-Lines
Xueyi Lu, Freshman, Anthropology, LAS
(Research Mentor: Gregory Underhill, Bioengineering)

Light Guide Optimization for ATLAS and CMS Zero Degree Calorimeters
Samantha Lund, Junior, Physics, LAS
(Research Mentor: Matthias Perdekamp, Physics)

Portable Aisle Chair Design
Isaiah Rigo, Junior, Industrial Design, FAA
(Research Mentor: Adam Bleakney, School of Art + Design)

Mechanisms Underlying Parental Care in Glassfrogs (Hyalinobatrachium fleischmanni)
Abigail Stevenson, Sophomore, Psychology, LAS
(Research Mentor: Eva Fischer, Evolution, Ecology & Behavior)

Measuring the Impact of Renewable Energy Potential, Policy, and Output on Statewide Energy Sector Employment
Tyler Swanson, Senior, Agricultural & Consumer Economics, ACES
(Research Mentor: Renata Endres, Agricultural & Consumer Economics)

Nanopillar-Array Electrodes for Enhancing Biological Neural Network Signal to Noise
Chun-Chia Tsai, Sophomore, Materials Science & Engineering, ENG
(Research Mentor: Qing Cao, Materials Science & Engineering)

The Effects of Repeated Methamphetamine Exposure on Neuroimmune Function in Rats
Anna Tsyrulnikov, Senior, Molecular and Cellular Biology, Psychology, LAS
(Research Mentor: Joshua Gulley, Psychology)

Political Participation in Belmont Cragin: Identifying Strategies and Issues when Building Political Power in a Latinx Neighborhood of Chicago
Fatima Valerio, Senior, Latino/a Studies, LAS
(Research Mentor: Natalie Lira, Latino/a Studies)

Gravitational Waves from Tilted Black Holes with Self-Gravitating Accretion Disks
Eric Yu, Junior, Physics, ENG
(Research Mentor: Stuart Shapiro, Physics)

Moringa Protein Functionalized Cotton Filters for Enteric Viruses in Groundwater
Gang Zheng, Senior, Civil & Environmental Engineering, ENG
(Research Mentor: Thanh Huong Nguyen, Civil & Environmental Engineering)
Conference Travel Grant (CTG)

The Conference Travel Grant (CTG) provides undergraduate students with awards of up to $400 to subsidize costs associated with presenting their research posters, papers, or creative works at in-person and virtual professional conferences. This year, we proudly supported 26 students in presentations of their scholarly and creative endeavors at a wide range of in-person and virtual conferences.

For more information, please visit:  
http://go.illinois.edu/OUR_CTG

RECENT WINNERS:

- **Evaluating the Association of Self-efficacy on Changes in PTSD Symptoms**  
  **Chiara Awatramani**, Senior, Psychology, LAS  
  (Research Mentor: Sarah Pridgen, Rush University Medical Center)

- **Understanding Migration Characteristics of the Northern Saw-Whet Owl in Central Illinois**  
  **David Edlund**, Senior, Natural Resources & Environmental Sciences, ACES  
  (Research Mentor: Michael Ward, Natural Resources and Environmental Science)

- **Native American Narratives in Museum Interpretation: Case Studies in Illinois**  
  **Mary Burdette**, Senior, Anthropology, LAS  
  (Research Mentor: Brandon Ritchison, Anthropology)

- **Programmable Exon Skipping by Simultaneous Base Editing of Splice Donors and Acceptors**  
  **Gianna Elias**, Senior, Bioengineering, ENG  
  (Research Mentor: Pablo Perez-Pinera, Bioengineering)

- **Novel Surgical Tool (SLICE) for Laparoscopic Myomectomy**  
  **Neel Chhaochharia**, Senior, Mechanical Engineering, ENG  
  (Research Mentor: Huseyin Sehitoglu, Mechanical Science & Engineering)

- **Efficiently Executing Discontinuous Galerkin Finite Element Method (DG-FEM) Workloads on GPUs via Data Flow Graphs**  
  **Mit Kotak**, Senior, Engineering Physics, ENG  
  (Research Mentor: Andreas Kloeckner, Computer Science)

- **Understanding Migration Characteristics of the Northern Saw-Whet Owl in Central Illinois**  
  **Izabelle Jaquet**, Senior, Natural Resources & Environmental Sciences, ACES  
  (Research Mentor: Michael Ward, Natural Resources & Environmental Sciences)

- **Instructional Assessing the Potential of Voice-Activated Digital Home Assistants for Older Adults with Mobility Disabilities**  
  **Husna Hussaini**, Junior, Sociology, LAS  
  (Research Mentor: Wendy Rogers, Kinesiology & Community Health)

- **Window Collision Species Composition on a College Campus in the Midwest**  
  **Colin Dobson**, Senior, Natural Resources and Environmental Sciences, ACES  
  (Research Mentor: Michael Ward, Natural Resources & Environmental Sciences)

- **Connecting Motivations for Graduate School with Learning Experiences of Engineering Undergraduates: A Gender Perspective**  
  **Mayura Kulkarni**, Junior, Electrical Engineering, ENG  
  (Research Mentor: Holly Golecki, Bioengineering)
Adverse Childhood Experiences, Intimate Partner Violence, Anger, and Mental Health Symptoms Among Incarcerated Women
Christine Kwon, Junior, Social Work, SSW
(Research Mentor: Rachel Garthe, School of Social Work)

It’s Just That Sudden Feeling of Being Transported: Music as A Digital Possession After a Romantic Relationship Ends
Katha Patel, Sophomore, Political Science, LAS
(Research Mentor: Anthony Pinter, University of Colorado-Boulder)

Illinois’ Coordinated Care Approach to Reducing Childhood Asthma Disparities in Metro and South Suburban Chicago
Madison Lamphear, Junior, Interdisciplinary Health Sciences, AHS
(Research Mentor: Sarah Geiger, Kinesiology & Community Health)

Novel Surgical Tool (SLICE) for Laparoscopic Myomectomy
Rahul Ramkumar, Senior, Mechanical Engineering, ENG
(Research Mentor: Huseyin Sehitoglu, Mechanical Science & Engineering)

In A League of Their Own: Preliminary Findings on Peer Attitudes Toward F-1 Visa Holders from a Limited Conjoint Experiment Among Students at a Large Public University
Sidney Malone, Senior, Political Science, LAS
(Research Mentor: Yujeong Yang, Political Science)

Soft Robotic Wearable Technologies for Use in Pressure Measurement and Relief for Wheelchair Users
Jason Robinson, Sophomore, Bioengineering, ENG
(Research Mentor: Holly Golecki, Bioengineering)

The Mars Ice Thermal Harvesting Rig and ISRU Laboratory (MITHRIL)
Sara McCarthy, Sophomore, Aerospace Engineering, ENG
(Research Mentor: Michael Lembeck, Aerospace Engineering)

Temperatures And Residence Times of The Amalia Tuff: Results of Titanium-In-Quartz Thermometry and Diffusion Modeling
Valerie Smykalov, Senior, Geology, LAS
(Research Mentor: Craig Lundstrom, Geology)

Organotypic Models Reveal the Role of the Tumor Microenvironment in Glioblastoma Progression and Therapeutic Response
Joseph Mueller, Sophomore, Chemical Engineering, LAS
(Research Mentor: Sara Pedron Haba, Chemical & Biomolecular Engineering)

Promoting a Culture of Wellness in Engineering: Perceptions and Ideas from Faculty and Staff
Sara Vohra, Senior, Bioengineering, ENG
(Research Mentor: Karin Jensen, Bioengineering)

Design of Fabric-Reinforced Polyurethane Composites for Aortic and Other Cardiac Constructs
Charmaine Nieves, Senior, Mechanical Engineering, ENG
(Research Mentor: Holly Golecki, Bioengineering)

Sponsored Advertising Bid Management Tools in Online Marketplace
Wenxiao Yang, Senior, Mathematics, LAS
(Research Mentor: Yunchuan (Frank) Liu, Business Administration)

The Mars Ice Thermal Harvesting Rig and ISRU Laboratory (MITHRIL)
Komol Patel, Senior, Aerospace Engineering, ENG
(Research Mentor: Michael Lembeck, Aerospace Engineering)

Provable Defense Against Geometric Transformations
Rem Yang, Senior, Computer Science, ENG
(Research Mentor: Sasa Misailovic, Computer Science)
Undergraduate Research Certificate Awardees

The Undergraduate Research Certificate celebrates the hard work and dedication of those undergraduate researchers who go above and beyond to engage with research on campus. This certificate program equips students with essential skills such as critical thinking, problem-solving, and communication, preparing them for their future careers and graduate studies. We extend our congratulations to all our AY2021/2022 Undergraduate Research Certificate recipients for their outstanding achievement!

<table>
<thead>
<tr>
<th>Jacob Reed, Sociology, LAS</th>
<th>Farah Mohammed Rafee, Engineering Physics, ENG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alastair Merrett, Urban Planning, FAA</td>
<td>Bhavya Pardasani, Astronomy, LAS</td>
</tr>
<tr>
<td>Elisabeth Martin, Bioengineering, ENG</td>
<td>Edward Neves, Chemical &amp; Biomolecular Engineering, LAS</td>
</tr>
<tr>
<td>Carolyn Oh, Molecular &amp; Cellular Biology, LAS</td>
<td>Alexandra Simon, Political Science, LAS</td>
</tr>
<tr>
<td>Ellie Cho, Molecular &amp; Cellular Biology, LAS</td>
<td>Eleanor Humphreys, Psychology, LAS</td>
</tr>
<tr>
<td>Kayla Marie Vittore, Crop Sciences, ACES</td>
<td>Alexander Romanov, Engineering Physics, ENG</td>
</tr>
<tr>
<td>Madisyn Welsh, Social Work, SSW</td>
<td>Nimisha Goenka, Psychology, LAS</td>
</tr>
<tr>
<td>Srishti Tiwari, Molecular &amp; Cellular Biology, LAS</td>
<td>Emily Albert-Stauning, Psychology, LAS</td>
</tr>
<tr>
<td>Amanda Yeazel, Social Work, SSW</td>
<td>Royal Shrestha, Molecular &amp; Cellular Biology, LAS</td>
</tr>
<tr>
<td>Katherine Lim, Community Health, AHS</td>
<td>Connor Barnes, History, LAS</td>
</tr>
<tr>
<td>Dale Robbenolt, Civil Engineering, ENG</td>
<td>Jared Angel Canty, Brain &amp; Cognitive Science, LAS</td>
</tr>
<tr>
<td>Maddie Lamphear, Interdisciplinary Health Sciences, AHS</td>
<td>Tyler Roberson, Community Health, AHS</td>
</tr>
<tr>
<td>Semira Adera, Psychology, LAS</td>
<td>Xiaoye Zhang, Media &amp; Cinema Studies, COM</td>
</tr>
<tr>
<td>Tathagata Banerjee, Engineering Physics, ENG</td>
<td>Ayman Roslend, Chemistry, LAS</td>
</tr>
<tr>
<td>Saumya Agrawal, Statistics &amp; Computer Science, LAS</td>
<td>Edward Kim, Political Science, LAS</td>
</tr>
<tr>
<td>Ian Flueck, Materials Science &amp; Engineering, ENG</td>
<td>Clay Ward, Political Science, LAS</td>
</tr>
<tr>
<td>Grace Westphal, Integrative Biology, LAS</td>
<td>Stephanie Petrov, Political Science, LAS</td>
</tr>
<tr>
<td>Ananya Yammanuru, Computer Science, ENG</td>
<td></td>
</tr>
</tbody>
</table>
The Undergraduate Research Apprenticeship Program (URAP) offers undergraduate students with little or no research experience the opportunity to work with graduate students and post-doctoral scholars on their research projects, explore the culture and process of research, and build on their existing abilities within a community of scholars. Running each Spring semester, URAP consists of two equally important parts: a one-on-one research experience with their research mentor, and the Introduction to Research course. The course is designed to complement the research mentoring experience, orienting undergraduate mentees to broader topics in the research process.

Below we showcase and celebrate the undergraduate scholars as well as their mentors and thank them for an outstanding semester.

**More information about URAP can be found at:**
[https://undergradresearch.illinois.edu/programs/urap.html](https://undergradresearch.illinois.edu/programs/urap.html)

<table>
<thead>
<tr>
<th>Scholar Name</th>
<th>Year</th>
<th>Major</th>
<th>Research Mentor</th>
<th>Mentor Department</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Serwa Adusei-Poku</strong></td>
<td>Sophomore</td>
<td>Biochemistry, LAS</td>
<td>Kylee Noel, Entomology</td>
<td>LAS</td>
</tr>
<tr>
<td><strong>Jose Arellano</strong></td>
<td>Junior</td>
<td>History, LAS</td>
<td>Yusra Alhadidi, Civil &amp; Environmental Engineering</td>
<td></td>
</tr>
<tr>
<td><strong>Geovany Arias</strong></td>
<td>Junior</td>
<td>Engineering Mechanics, ENG</td>
<td>Civil &amp; Environmental Engineering</td>
<td></td>
</tr>
<tr>
<td><strong>Ria Bhargava</strong></td>
<td>Freshman</td>
<td>Systems Engineering, ENG</td>
<td>Ruolin Zhang, Civil &amp; Environmental Engineering</td>
<td></td>
</tr>
<tr>
<td><strong>Jolene Blodgett</strong></td>
<td>Sophomore</td>
<td>Natural Resources &amp; Environmental Sciences, ACES</td>
<td>Ratna Karatgi, Program in Ecology, Evolution &amp; Conservation Biology</td>
<td></td>
</tr>
<tr>
<td><strong>Chen-Wei Chou</strong></td>
<td>Senior</td>
<td>Mathematics, LAS</td>
<td>Trung Vu, Mathematics</td>
<td>LAS</td>
</tr>
<tr>
<td><strong>JP Colarelli</strong></td>
<td>Sophomore</td>
<td>Biochemistry, LAS</td>
<td>Yanlin Lei, Food Science &amp; Human Nutrition</td>
<td></td>
</tr>
<tr>
<td><strong>Maritza Concepción</strong></td>
<td>Sophomore</td>
<td>Community Health, AHS</td>
<td>Yuliana Soto, Kinesiology &amp; Community Health</td>
<td></td>
</tr>
<tr>
<td><strong>Jorge Corral</strong></td>
<td>Senior</td>
<td>Earth, Society &amp; Environmental Sustainability, LAS</td>
<td>Hannah Molitor, Civil &amp; Environmental Engineering</td>
<td></td>
</tr>
<tr>
<td><strong>Ella Corriere</strong></td>
<td>Freshman</td>
<td>Psychology, LAS</td>
<td>Allison Carrington, School of Social Work</td>
<td></td>
</tr>
<tr>
<td><strong>Emir Faisal</strong></td>
<td>Junior</td>
<td>Materials Science and Engineering, ENG</td>
<td>Javier Garcia Mainieri, Illinois Center for Transportation</td>
<td></td>
</tr>
<tr>
<td><strong>Frank Li Fan</strong></td>
<td>Junior</td>
<td>Undeclared, DGS</td>
<td>Kun Wu, Electrical &amp; Computer Engineering</td>
<td></td>
</tr>
<tr>
<td><strong>Christine Fink</strong></td>
<td>Sophomore</td>
<td>Molecular and Cellular Biology, LAS</td>
<td>Valeria Trivellone, Prairie Research Institute</td>
<td></td>
</tr>
<tr>
<td><strong>Achintya Gahalaut</strong></td>
<td>Sophomore</td>
<td>Computer Engineering, ENG</td>
<td>Holly Dinkel, Aerospace Engineering</td>
<td></td>
</tr>
<tr>
<td><strong>Ananya Gahalaut</strong></td>
<td>Sophomore</td>
<td>Computer Engineering, ENG</td>
<td>Sushant Dinesh, Computer Science</td>
<td></td>
</tr>
<tr>
<td><strong>Michael Gergeni</strong></td>
<td>Freshman</td>
<td>Sociology, LAS</td>
<td>Myung Jung Kim, Political Science</td>
<td></td>
</tr>
</tbody>
</table>
Michelle Giovacchini, Sophomore, Astronomy, LAS  
(Research Mentor: Brandon Kamiyama, Nuclear, Plasma & Radiological Engineering)

Effie Gong, Junior, Materials Science and Engineering, ENG  
(Research Mentor: Javier Garcia Mainieri, Illinois Center for Transportation)

Daniela Hernandez, Senior, Community Health, AHS  
(Research Mentor: Rebeca Agosto Rosa, Political Science)

Jonathan Hu, Freshman, Electrical & Computer Engineering, ENG  
(Research Mentor: David Mitchell, Electrical & Computer Engineering)

Vanessa Jakachira, Junior, Psychology, LAS  
(Research Mentor: Imani Canton, Kinesiology & Community Health)

Chenyu Jiang, Junior, Political Science, LAS  
(Research Mentor: Shuyuan Shen, Political Science)

Serena Jobi, Sophomore, Mathematics, LAS  
(Research Mentor: Joe Coyle, Anthropology)

Hannah Kapur, Freshman, Bioengineering, ENG  
(Research Mentor: Sana Saboowala, Program for Ecology, Evolution & Conservation Biology)

Soo Ah Kim, Freshman, Chemistry, LAS  
(Research Mentor: Seo Young Jung, Political Science)

Julia Kreczko, Sophomore, Psychology: Interdisciplinary Studies, LAS  
(Research Mentor: Allison Carrington, Social Work)

Lisa Kwan, Sophomore, Molecular & Cellular Biology, LAS  
(Research Mentor: Valeria Trivellone, Prairie Research Institute)

Aparna Lakkaraju, Sophomore, Chemistry, LAS  
(Research Mentor: Søren Warland, Political Science)

Alice Li, Freshman, Computer Science, ENG  
(Research Mentor: James Steur, Political Science)

Yunhao Liu, Junior, Computer Science + Economics, LAS  
(Research Mentor: Hyo-Won Shin, Political Science)

Julianna Longo, Freshman, Undeclared, DGS  
(Research Mentor: Abigail Beck, Civil & Environmental Engineering)

Maisie Lotthian, Senior, Earth, Society & Environmental Sustainability, LAS  
(Research Mentor: Jeongsu Shin, Anthropology)

Ava Marginean, Freshman, Political Science, LAS  
(Research Mentor: David Reinhard, Law)

Thomas Marousek, Junior, MCB, Psychology, LAS  
(Research Mentor: Isaiah Raynal, Political Science)

Crista Mathers, Freshman, Undeclared, DGS  
(Research Mentor: Yash Laxman Kamble, Chemical and Biomolecular Engineering)

Maya Mert, Freshman, Industrial Design, FAA  
(Research Mentor: Amirhossein Teimouri, Sociology)

Esther Nam, Freshman, Psychology, LAS  
(Research Mentor: Laura Valderrama, Educational Psychology)

William Neff, Freshman, Political Science, LAS  
(Research Mentor: James Steur, Political Science)

Yon Park, Sophomore, Engineering Mechanics, ENG  
(Research Mentor: Luis Rodriguez Koett, Materials Science & Engineering)

Shivam Patro, Sophomore, Chemical Engineering, LAS  
(Research Mentor: Ravindra Prajapati, Prairie Research Institute)

Jennifer Pena, Sophomore, Anthropology, LAS  
(Research Mentor: Jonathan Pye, Spanish & Portuguese)

Shiuli Rai, Junior, Psychology, LAS  
(Research Mentor: Shiyu Sun, Educational Psychology)

Michelle Ru, Freshman, Computer Science + Chemistry, LAS  
(Research Mentor: Nurila Kambar, Materials Science & Engineering)

Anushka Saha, Sophomore, Biology, LAS  
(Research Mentor: Urbi Saha, Neuroscience & Bioengineering)

Emma Shu, Freshman, Computer Science + Linguistics, LAS  
(Research Mentor: Brennan Dell, Linguistics)

Srijan Shukla, Sophomore, Computer Science + Economics, LAS  
(Research Mentor: Sakshi Bhalla, Institute of Communications Research)

Victoria Siek, Freshman, History, LAS  
(Research Mentor: Christopher Getowicz, Education, Policy, Organization & Leadership)

Evan Smith, Junior, Philosophy, LAS  
(Research Mentor: Kaylee Wells, Agricultural and Applied Economics)
Shivam Srivastava, Freshman, Economics, LAS
(Research Mentor: James Steur, Political Science)

Matthew Tan, Freshman, Computer Science, ENG
(Research Mentor: Daniel Kiv, Computer Science)

Samuel Tinubu, Freshman, Undeclared, DGS
(Research Mentor: Emma Lundin, Recreation, Sport & Tourism)

Giselle Torres, Senior, Psychology, LAS
(Research Mentor: Sara Castro Cantú, Spanish & Portuguese)

Ellin Wang, Sophomore, Integrative Biology, LAS
(Research Mentor: Devin Edmonds, Natural Resources & Environmental Sciences)

Jordan Westphal, Freshman, Mechanical Engineering, ENG
(Research Mentor: Yaswanth Sai Jetti, Mechanical Science & Engineering)

Lilyanna Williams, Sophomore, Linguistics, LAS
(Research Mentor: Katie VanDyne, Spanish & Portuguese)

Olivia Wong, Sophomore, Molecular & Cellular Biology, LAS
(Research Mentor: Yenny Yook, Molecular & Integrative Physiology)

Shengan Wu, Senior, Computer Science + Statistics, LAS
(Research Mentor: Benjamin Jasperson, Materials Science & Engineering)

Kei Yamato, Sophomore, Geography & GIS, LAS
(Research Mentor: Jonathan Oliveira, Recreation, Sport & Tourism)

Nancy Zhang, Freshman, Computer Science + Advertising, Media
(Research Mentor: Hyunseo Yoon, Recreation, Sport & Tourism)

Jay Zhang, Freshman, Philosophy, LAS
(Research Mentor: M.J. Salas, Communication)
Exceptional mentoring necessitates ample support, dedicated time, and unwavering commitment. We invited our undergraduate presenters to share their invaluable experiences and the profound impact of their research mentors. The following entries provide just a glimpse of the overwhelming response we received. Alongside our students, we extend our recognition and deepest gratitude to all those who continue to guide and mentor our undergraduate researchers at Illinois.

“Dr. Godoy, thank you for your continuous support and guidance over the past few years. Working in your lab has hugely impacted my success as an undergraduate, and I cannot thank you enough for all you have taught me. I will carry this experience with me as I move forward to veterinary school.”

-Savannah Limberg
Research Mentor:
Maria Cattai de Godoy, Animal Sciences

“Thank you, Dr. Cardoso, for your endless support during this independent research project! I appreciate your willingness to help me achieve my goal of learning more about the research process. Your mentorship and support are ones I will always be grateful for. You are the best!”

- Emma Prybylski
Research Mentor:
Phil Cardoso, Animal Sciences

“Dear Kun, Thank you for giving me this opportunity to work on your project and for being such an excellent, supportive, and patient mentor! Working with you was a lot of fun, and I learned a lot from you this semester!”

-Jason Yan
Research Mentor:
Kun Wu, Electrical & Computer Engineering
Mr. Trung, I feel that I am so lucky to have had a golden opportunity to work under your guidance. I will be grateful for the math knowledge and research skills you have imparted to me. Thank you for sharing your passion for research with me.

- Chen-Wei Chou

Research Mentor:
Trung Vu, Mathematics

Thank you, JT, for being a wonderfully kind, knowledgeable, and supportive mentor over my years here at Illinois.

- Jason Brickman

Research Mentor:
John Toenjes, Dance

Thank you, Dr. Hunter, for all the support you’ve given me in the past year in so many ways. Since taking Multiculturalism with you, your advice and support has helped me get to where I am today, so I will forever be grateful to you, thank you!

- Rithika Baskar

Research Mentor:
Carla Hunter, Psychology

Thank you, Dr. Angrave, for your dedication in promoting accessible technology for students at UIUC and across the country. Your ongoing mentorship has deeply enriched my undergraduate research and helped me grow over the past 3 years!

- Joanna Huang

Research Mentor:
Lawrence Angrave, Computer Science

Thank you to Dr. Pinshane Huang and Dr. Yichao Zhang for your mentorship and guidance. I have learned so much working with you!

- Alice Gao

Research Mentors:
Pinshane Huang and Yichao Zhang, Materials Science & Engineering

Thank you Dr. Kuo, for your substantial support throughout this school year. I will always be thankful that you took the time to mentor me to elevate my thoughts and research.

- Alex Gallegos

Research Mentor:
Rachel Kuo, Media & Cinema Studies
"Thank you so much, So Young, for your incredible support and mentorship over the last two years! I’m so grateful to know and have had the opportunity to work and learn from you!

" - Julianne Enas
Research Mentor:
So Young Park, Human Development & Family Studies

"Holly, thank you for encouraging me whenever I feel unconfident about my work, for helping me grow as both a researcher and an individual, for always keeping me in mind for professional development opportunities, and for so much more. Thank you for making my first research experience a great one.

" - Jingyi Xiang
Research Mentor:
Holly Dinkel, Aerospace Engineering

"Thank you, Dr. Channell, for all your help in the lab! We genuinely appreciate all of your support and guidance throughout the semesters. Your passion is inspiring, and we are grateful for the time we have shared and will continue to share with one another.

" - Madison Barrera, Abigail Keasler and Alexa Mendoza
Research Mentor:
Marie Moore Channell, Speech & Hearing Science

"Gunnar, I truly appreciate your unwavering support and belief in my abilities throughout my project. Your expertise has been invaluable in helping me navigate the challenges of the research process, and your mentorship has helped me grow as a researcher. I will ensure to carry your advice into my career.

" - Vincent Lam
Research Mentor:
Gunnar Thompson, Chemical & Biomolecular Engineering
National and International Scholarships

Every year, University of Illinois students successfully apply for nationally and internationally competitive scholarships, supported and guided by the National and International Scholarships (NIS) Program. NIS aims to help high-achieving Illinois undergraduates and alumni prepare for these scholarships through valuable advising and feedback for applicants. Students should consider applying for one or more awards if they are dedicated to a mission or vocation, whether it is research, policy, or service-based! If you are interested in pursuing such awards, NIS can help you unlock your potential and become a stronger candidate. Interested students—from freshmen to recent alumni—are encouraged to visit NIS to discuss these opportunities.

The Office of Undergraduate Research applauds the work by NIS and proudly congratulates the following winners of these nationally and internationally competitive awards.

The Goldwater Scholarship

**Are you a STEM researcher?** The Barry M. Goldwater Scholarship recognizes students who demonstrate a strong commitment to a research career in math, science, or engineering. Successful applicants display intellectual curiosity and possess potential for significant future contributions in their chosen field. The scholarship is for juniors or exceptional sophomores who are current U.S. citizens, U.S. nationals, or resident aliens. In addition to receiving one- or two-year $7,500 awards, Goldwater recipients also become part of a cohort of scholars. Applicants should be committed to pursuing a Ph.D. in the research fields of mathematics, sciences, or engineering.

**Deadline:** The campus deadline is November 27, 2023. For more information and support with applying, please contact NIS.
The Fulbright Scholarship

Are you looking for an exciting way to spend a year abroad after you graduate? The Fulbright The Fulbright U.S. Student Program awards approximately 2,100 full scholarships annually for U.S. citizens to pursue an academic year experience in over 130 countries worldwide. Juniors, seniors, and alumni may apply to pursue a research project or a graduate degree program abroad. In addition, applications may be submitted to spend one year as an English Teaching Assistant (ETA) in any of almost 80 countries. The University of Illinois perennially is recognized by The Chronicle of Higher Education as a Top Producing Institution of Fulbright student awards.

Deadline: The campus deadline is August 28, 2023. For more information and support with applying, please contact NIS.

Schwarzman Scholars

Are you aspiring to be a global leader in your field? Schwarzman Scholars is a program for the next generation of young leaders, anchored in a fully funded, 11-month master’s degree in Global Affairs at Beijing’s Tsinghua University. The experience encompasses amazing opportunities in and outside the classroom, including extensive leadership training, a network of senior mentors, internships, career development, and travel seminars around China. Schwarzman Scholars prepares young leaders for a world where China plays a vital role. Scholars learn from world class faculty and guest speakers about the emergence of China as an economic and political force through a rigorous and dynamic core curriculum. Students and alumni of any citizenship are eligible.

Deadline: The campus deadline is August 24, 2023. (May 20, 2023 for students holding passports from China, Hong Kong, Taiwan, or Macao). For more information and support with applying, please contact NIS.

Beinecke Scholarship

Are you a humanities or social sciences student interested in graduate school? The Beinecke Scholarship offers U.S. citizen juniors $5,000 immediately prior to entering graduate school and an additional $30,000 while attending graduate school. The Beinecke is interested in students who demonstrate superior standards of intellectual ability, scholastic achievement, and personal promise. Preference is given to candidates for whom the award would increase the likelihood that they would be able to attend graduate school. Most recipients are students hoping to attain a PhD.

Deadline: The campus deadline is January 16, 2024. For more information and support with applying, please contact NIS.
Udall Scholarship

Are you a passionate environmentalist? The Udall Scholarship awards $7,000 to sophomores or juniors who are taking action to address environmental concerns and are committed to a career related to the environment. There are also awards for Native American students interested in Tribal policy or health care. The Udall scholarship honors the legacies of Morris Udall and Stewart Udall, whose careers had a significant impact on Native American self-governance, health care, and the stewardship of public lands and natural resources. Students must be U.S. citizens, U.S. nationals, or U.S. permanent residents. A successful applicant will have a GPA of 3.0 or higher and demonstrate leadership and a commitment to service.

**Deadline:** The campus deadline is January 29, 2024. For more information and support with applying, please contact NIS.

Writers Workshop

A research university is a writing university. The Writers Workshop provides support for all writers in the campus community—undergraduate and graduate students, post-doctorates, faculty, and staff—via writing consultations, writing groups and retreats, and webinars and presentations. By doing so, the Writers Workshop advances the mission of the University to create an inclusive learning environment that fosters students’ abilities to achieve their academic, professional, and personal goals.

The Writers Workshop supports all forms of academic and professional writing, at any stage of the writing process. We provide feedback on essays, research papers, personal statements, cover letters, theses and dissertations, manuscripts for publication, presentations, digital compositions, and anything between and beyond.

**Find more information at:**
https://writersworkshop.illinois.edu/

University Library

Librarians and staff provide innovative services, technology, collections, and environments to enhance collaboration and exploration; engage students in the inquiry process and educate them in their roles as content consumers and creators in the design, production, and delivery of content and media for research, discovery, and learning; and anticipate new and emerging needs to facilitate undergraduate student success.

**Find more information at:**
https://library.illinois.edu/
Supporting Undergraduate Research at Illinois

Invest in Scholars Today

Your generous donation to the Office of Undergraduate Research can make a profound difference in the lives of our Illinois undergraduate researchers.

Whether it's a small or large gift, your support directly contributes to providing grants and awards that enable these students to explore their passions, gain valuable experience, and achieve academic excellence. Your donation can help us continue to foster a culture of inquiry, innovation, and discovery among our talented undergraduate researchers. Please join us in supporting their success and making a lasting impact on their academic journey.

Thank you in advance for your support.
# Index

<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abera, Semira</td>
<td>Certificate Awardees</td>
</tr>
<tr>
<td>Accardo, Claire</td>
<td>Poster PD - Social Science &amp; Behavior</td>
</tr>
<tr>
<td>Acquaviva, Mason</td>
<td>Oral Panel - Storytelling: Novel Approaches</td>
</tr>
<tr>
<td>Adebayo, Mutmaina</td>
<td>Poster PB - Science &amp; Technology</td>
</tr>
<tr>
<td>Adedun, Ivana</td>
<td>Poster PM - Health &amp; Wellness</td>
</tr>
<tr>
<td>Adogun, Nia</td>
<td>Poster PD - Social Science &amp; Behavior</td>
</tr>
<tr>
<td>Adeoye, Samuel</td>
<td>Poster PC - Health &amp; Wellness</td>
</tr>
<tr>
<td>Adjei, Anastasia</td>
<td>Poster PG - Learning &amp; Development</td>
</tr>
<tr>
<td>Adnan, Ansuya</td>
<td>Oral Panel - Science &amp; Technology: Developments in Biocompatibility</td>
</tr>
<tr>
<td>Adusei-Poku, Serwa</td>
<td>Poster PJ - Nature, Life, and Environment</td>
</tr>
<tr>
<td>Afzar Ali, Afzuan</td>
<td>Poster PC - Health &amp; Wellness</td>
</tr>
<tr>
<td>Agarwal, Ananya</td>
<td>Poster PP - Language, Culture &amp; Society</td>
</tr>
<tr>
<td>Agarwal, Suniti</td>
<td>Poster PB - Science &amp; Technology</td>
</tr>
<tr>
<td>Agrawal, Mahima</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Agrawal, Saumya</td>
<td>Certificate Awardees</td>
</tr>
<tr>
<td>Aguero, AJ</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Ahlawat, Vashyriadhan</td>
<td>Parkland Honors Program</td>
</tr>
<tr>
<td>Ahmad, Ilya</td>
<td>Poster PO - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Akindulunene, Joy</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Al Majed, Hanis</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Alberta-Stauning</td>
<td>Emily: Certificate Awardees</td>
</tr>
<tr>
<td>Aldreen, Nawaf</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Aldunate, Vi</td>
<td>Oral Panel - Plants and Animals</td>
</tr>
<tr>
<td>Alexander, Karmen</td>
<td>Oral Panel - Mental Health</td>
</tr>
<tr>
<td>Allen, Nicholas</td>
<td>Poster PA - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Almeida Silva, Ana</td>
<td>Carolina: Oral Panel - Innovations in Agriculture Technology</td>
</tr>
<tr>
<td>Althaus, Curtis</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Altschuler, Allison</td>
<td>Poster PJ - Nature, Life, and Environment</td>
</tr>
<tr>
<td>Ambasht, Chinnay</td>
<td>Celebrating Our Student Scholars</td>
</tr>
<tr>
<td>Anand, Nithya</td>
<td>Poster PM - Health &amp; Wellness</td>
</tr>
<tr>
<td>Anand, Achaal</td>
<td>Poster PO - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Anderson, Sofia</td>
<td>Poster PF - Social Science &amp; Human Behavior</td>
</tr>
<tr>
<td>Anderson, Nathan</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Annagaye-Bonsu, Melissa</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Appleton, Casey</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Arellano, Juste</td>
<td>Poster PK - Science &amp; Technology</td>
</tr>
<tr>
<td>Arias, Geovany</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Arnold, Nicole</td>
<td>Poster PP - Language, Culture &amp; Society</td>
</tr>
<tr>
<td>Arroyo, Jackie</td>
<td>Poster PR - Science &amp; Technology</td>
</tr>
<tr>
<td>Arsky, Katrina</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Arun, Neha</td>
<td>Oral Panel - Viruses and Pathogens: Next Generation Therapeutics</td>
</tr>
<tr>
<td>Ashley, Evelyn</td>
<td>Parkland Honors Program</td>
</tr>
<tr>
<td>Athreya, Husshekahsa</td>
<td>Poster PB - Science &amp; Technology</td>
</tr>
<tr>
<td>Averbuch, Timor</td>
<td>Oral Panel - Fostering Inclusive Education Systems</td>
</tr>
<tr>
<td>Awartramani, Chiara</td>
<td>Celebrating Our Student Scholars</td>
</tr>
<tr>
<td>Azhar, Bushra</td>
<td>Poster PA - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Balakir, Doiyana</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Balan, Jain</td>
<td>National &amp; International Scholarships</td>
</tr>
<tr>
<td>Balepuri, Nishant</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Banerian, Coggan</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Banerjee, Ayush</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Banerjee, Tathagata</td>
<td>Certificate Awardees</td>
</tr>
<tr>
<td>Barac, Milica</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Barnes, Connor</td>
<td>Oral Panel - Challenging the Status Quo: Athletics and Policy Development</td>
</tr>
<tr>
<td>Barrera, Madison</td>
<td>Poster PJ - Learning &amp; Development</td>
</tr>
<tr>
<td>Barua, Esha</td>
<td>Poster PM - Health &amp; Wellness</td>
</tr>
<tr>
<td>Baskar, Rihika</td>
<td>Oral Panel - Fostering Inclusive Education Systems</td>
</tr>
<tr>
<td>Baskiewicz, Kayla</td>
<td>Poster PJ - Nature, Life, and Environment</td>
</tr>
<tr>
<td>Bates, Emilee</td>
<td>Poster PH - Health &amp; Wellness</td>
</tr>
<tr>
<td>Bauer, Spencer</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Baxter, Katerina</td>
<td>Poster PA - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Beaulin, Sohny</td>
<td>Poster PK - Science &amp; Technology</td>
</tr>
<tr>
<td>Bedlow, Hannah</td>
<td>Poster PB - Science &amp; Technology</td>
</tr>
<tr>
<td>Bellamy, Mike</td>
<td>Parkland Honors Program</td>
</tr>
<tr>
<td>Beltran, Guillermo</td>
<td>Poster PP - Language, Culture &amp; Society</td>
</tr>
<tr>
<td>Beltran, Chase</td>
<td>Parkland Honors Program</td>
</tr>
<tr>
<td>Berry, Lauren</td>
<td>Poster PC - Health &amp; Wellness</td>
</tr>
<tr>
<td>Bhambiri, Sreeleya</td>
<td>Poster PH - Health &amp; Wellness</td>
</tr>
<tr>
<td>Bharel, Arushi</td>
<td>Poster PC - Health &amp; Wellness</td>
</tr>
<tr>
<td>Bhargava, Ria</td>
<td>Poster PB - Science &amp; Technology</td>
</tr>
<tr>
<td>Bhukodiya, Divya</td>
<td>Poster PH - Health &amp; Wellness</td>
</tr>
<tr>
<td>Bieber, Katherine</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Bigelow, Jasmine</td>
<td>Oral Panel - Mental Health</td>
</tr>
<tr>
<td>Bily, Megan</td>
<td>Oral Panel - Robotic Advancements in Support of Aging Populations</td>
</tr>
<tr>
<td>Biswas, Rachika</td>
<td>Poster PE - Learning &amp; Development</td>
</tr>
<tr>
<td>Bizan, Natalie</td>
<td>Poster PO - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Blackwell, Taylor</td>
<td>Parkland Honors Program</td>
</tr>
<tr>
<td>Blair, Anna</td>
<td>Poster PP - Language, Culture &amp; Society</td>
</tr>
<tr>
<td>Blanco, Cesar Diaz</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Bledgett, Jolene</td>
<td>Poster PN - Nature, Life &amp; Environment</td>
</tr>
<tr>
<td>Blohm, Delaney</td>
<td>Poster PN - Nature, Life &amp; Environment</td>
</tr>
<tr>
<td>Blyskal, Sarah</td>
<td>Poster PD - Social Science &amp; Behavior</td>
</tr>
<tr>
<td>Bodas, Deeya</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Boetel, Katelyn</td>
<td>Poster PC - Health &amp; Wellness</td>
</tr>
<tr>
<td>Bojic, Tiana</td>
<td>Poster PK - Science &amp; Technology</td>
</tr>
<tr>
<td>Boudreaux, Jonathan</td>
<td>Poster PO - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Bowers-Strong, Chavon</td>
<td>Poster PF - Social Science &amp; Human Behavior</td>
</tr>
<tr>
<td>Bradshaw, Jeshal</td>
<td>Poster PH - Health &amp; Wellness</td>
</tr>
<tr>
<td>Brady, Kassidy</td>
<td>Poster PM - Health &amp; Wellness</td>
</tr>
<tr>
<td>Brickman, Jason</td>
<td>Exhibit</td>
</tr>
<tr>
<td>Brown, Joshua</td>
<td>Poster PD - Social Science &amp; Behavior</td>
</tr>
<tr>
<td>Brown, Noeleen</td>
<td>Poster PN - Nature, Life &amp; Environment</td>
</tr>
<tr>
<td>Brown, Alana</td>
<td>Parkland Honors Program</td>
</tr>
<tr>
<td>Bruehl, Jacob</td>
<td>Poster PK - Science &amp; Technology</td>
</tr>
<tr>
<td>Brunk, Lauren</td>
<td>Celebrating Our Student Scholars</td>
</tr>
<tr>
<td>Bubeng, Jared</td>
<td>ISUR Program Research Expo; Poster PK - Science &amp; Technology</td>
</tr>
<tr>
<td>Buckley, Brendan</td>
<td>Poster PD - Social Science &amp; Behavior</td>
</tr>
<tr>
<td>Bui, Celine</td>
<td>Poster PI - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Burdette, Mary</td>
<td>Poster PF - Social Science &amp; Human Behavior; Celebrating Our Student Scholars</td>
</tr>
</tbody>
</table>
Goodhart, Jordan: Parkland Honors Program
Gopanagari, Meghana: Poster PK - Science & Technology
Gourtios, Sotis: Poster PD - Social Science & Behavior
Govrishankar, Saathveek: Oral Panel - Robotic Advancements in Support of Aging Populations
Goyal, Anessa: Poster PC - Health & Wellness
Graham, Chloe: Poster PP - Language, Culture & Society
Grant, Maya: ISUR Program Research Expo
Gray, Kyle: Poster PN - Nature, Life & Environment
Grayburn, Emily: Poster PC - Health & Wellness
Green, Alison: Poster PP - Language, Culture & Society
Groeb, Emily: ISUR Program Research Expo
Guo, Tammy: Poster PO - Cells & Molecules
Gupta, Meenakshi: Poster PH - Health & Wellness
Gupta, Arshiya: Poster PQ - Data, Information & Machine Learning
Gura, Drew: Poster PE - Science & Technology
Gurbani, Sonja: Poster PA - Cells & Molecules
Haake, Logan: Parkland Honors Program
Habib, Salifu: Poster PC - Health & Wellness
Hagedorn, Bridget: Poster PL - Food Systems
Hall, Harrison: Poster PL - Food Systems
Hartman, Emma: Poster PG - Learning & Development
Hashim, Sarah: ISUR Program Research Expo
Hays, Rachel: Poster PE - Science & Technology
He, Ryan: Poster PE - Science & Technology
Heinburger, Kyle: Poster PJ - Nature, Life, and Environment
Henderson, Emma: Poster PP - Language, Culture & Society
Hendrickson, Jessica: Poster PL - Food Systems
Hendrixson, Dylan: Celebrating Our Student Scholars
Hendry, Megan: Poster PG - Learning & Development
Hernandez, Daniela: Poster PD - Social Science & Behavior
Herrera, Aleksei: ISUR Program Research Expo
Higgins, Allison: Poster PN - Nature, Life & Environment
Higgs, Kevin: ISUR Program Research Expo
Hilbing, Katherine: Poster PG - Learning & Development
Hoang, Bach: Oral Panel - Numbers and Computation
Hoang, Bahda: Poster PO - Cells & Molecules
Hollyfield, Drew: Poster PB - Science & Technology
Homa, Grace: Poster PE - Science & Technology
Horton, Marshall: Poster PR - Science & Technology
Hossainy, Sahir: Poster PN - Nature, Life & Environment
Hsu, Chihao: Oral Panel - Science and Computation: Models and Processes
Hsu, Peter: Poster PK - Science & Technology
Hu, Jonathan: Poster PR - Science & Technology
Huan, Jennifer: Poster PL - Cells & Molecules
Huang, Alysia: Oral Panel - Questions of Belonging; Poster PG - Learning & Development
Huang, Joanna: Poster PK - Science & Technology
Huang, Jieshu: ISUR Program Research Expo
Hubbard, Dwayne: Parkland Honors Program
Hudson, Jamiee: Parkland Honors Program
Hudson, Jeffrey: Celebrating Our Student Scholars
Hudson Jr., Jeffrey: Poster PC - Health & Wellness
Hults, Connor: Poster PN - Nature, Life & Environment
Humphreys, Eleanor: Certificate Awarded
Hussain, Sumayyah: Poster PG - Learning & Development
Hussaini, Husna: Poster PC - Health & Wellness; Celebrating Our Student Scholars
Hussein, Ehrar: Poster PQ - Data, Information & Machine Learning
Ibanez, Emma: Poster PR - Science & Technology
Ignatiyus Newton, Sharon: Poster PO - Cells & Molecules
Inaoka, Mira: Poster PL - Food Systems
Islam, Malika: Poster PM - Health & Wellness
Jacobson, Michael: Oral Panel - Identity and Memory
Jacyiuk Moskalis, Lukas: Poster PP - Language, Culture & Society
Jagdello, Jake: Poster PJ - Nature, Life, and Environment
Jain, Shruti: Poster PK - Science & Technology
Jain, Yosheer: Poster PR - Science & Technology
Jacakira, Vanesa: Poster PM - Health & Wellness
Jameel, Rami: Poster PL - Food Systems
Jammi, Shreyas: Poster PB - Science & Technology
Jaquet, Izabelle: Celebrating Our Student Scholars
Jara, Melinda: Poster PM - Health & Wellness
Jasek, Zuzanna: Poster PC - Health & Wellness
Javeri, Rajvi: Poster PG - Learning & Development
Jawad, Mona: Poster PG - Learning & Development
Jayanth, Anshita: Poster PI - Cells & Molecules
Jenkins, Matthew: Poster PP - Language, Culture & Society
Jie, Jie: Poster PI - Cells & Molecules
Jia, Gehan: Oral Panel - Telling Stories
Jiang, Kelvin: Oral Panel - Numbers and Computation
Jiang, Chenyu: Poster PP - Language, Culture & Society
Jimenez, Jorge: Poster PR - Science & Technology
Jinoh, Rushdan: Poster PB - Science & Technology
Jobi, Serena: Poster PP - Language, Culture & Society
Jog, Anisha: Poster PG - Learning & Development
Joglekar, Aniket: Poster PO - Cells & Molecules
Joshi, Ishan: Celebrating Our Student Scholars
Ju, Leah: Cancer Center Research Symposium
Kakkersery, Sasha: Poster PO - Cells & Molecules
Kakururu, Neeka: Poster PI - Cells & Molecules
Kallembach, Carly: Poster PN - Nature, Life & Environment
Kambhala, Shashank: Poster PQ - Data, Information & Machine Learning
Kamdar, Myra: Cancer Center Research Symposium
Kaminsky, Alanna: Cancer Center Research Symposium; Poster PH - Health & Wellness; Celebrating Our Student Scholars
Kang, Mina: Oral Panel - Cellular Dynamics
Kang, : Poster PR - Science & Technology
Kansal, Anushka: ISUR Program Research Expo
Kapoor, Amba: Poster PD - Social Science & Human Behavior
Kapur, Hannah: Poster PR - Science & Technology
Kara, Ethalia: ISUR Program Research Expo; Poster PR - Science & Technology
Karhoff, Quin: Poster PN - Nature, Life & Environment
Karras, Joanna: Poster PM - Health & Wellness
Kaupp, Cacia: Poster PC - Health & Wellness
Kaur, Parmeet: Poster PR - Science & Technology
Keasler, Abigail: Poster PG - Learning & Development
Keck, Abigail: Poster PH - Health & Wellness
Keilman, Greta: Poster PN - Nature, Life & Environment
Kelly, Arlysia: Poster PF - Social Science & Human Behavior
Kennel, Jackson: Poster PK - Science & Technology
Kessiri, Preethi: Parkland Honors Program
Kettler, Lilly: Poster PE - Science & Technology
Khan, Tadique: Poster PN - Nature, Life & Environment
Khan, Yasmin: Poster PO - Cells & Molecules
Khan, Alham: ISUR Program Research Expo
Khandekar, Nikhil: Poster PQ - Data, Information & Machine Learning
Kim, Soo Ah: Poster PD - Social Science & Behavior
Kim, Laura: Poster PG - Learning & Development
Kim, Seoyoung: Poster PG - Learning & Development
Kim, Jeonghyun: Poster PI - Cells & Molecules
Kim, Yosheer: Poster PR - Science & Technology
Kim, Max: Poster PO - Cells & Molecules
Kim, Jaylynn: ISUR Program Research Expo
Kim, Kihong: Cancer Center Research Symposium
Redman, Sarah: Poster PC - Health & Wellness
Reed, Jacob: Certificate Awardee
Renteria, Paulina: Poster PC - Health & Wellness
Rigo, Isaiah: Celebrating Our Student Scholars
Robbenrodt, Dale: Certificate Awardee
Roberson, Tyler: Certificate Awardee
Robieson, Isabella: Poster PP - Language, Culture & Society
Robinson, Jason: Celebrating Our Student Scholars
Rockwell, Hannah: Poster PI - Cells & Molecules
Roddy, Moira: Poster PQ - Cells & Molecules
Role, Mia: Poster PE - Science & Technology
Rodriguez, Olivia: Oral Panel - Cellular Dynamics
Rogers, Benjamin: Poster PL - Food Systems
Rojas, Olivia: Poster PC - Health & Wellness
Romanov, Alexander: Oral Panel - Virtual Realities; Certificate Awardee
Rosend, Aymaan: Certificate Awardee
Rou, Dan: Poster PB - Science & Technology
Ru, Michelle: Poster PE - Science & Technology
Rubovits, Eve: Poster PC - Health & Wellness
Ryan, Edward: Oral Panel - Identity and Memory
Ryan, Nora: Poster PN - Nature, Life & Environment
Krepa, Natalie: Poster PF - Social Science & Human Behavior
Rzeszutek, Dominik: Poster PE - Science & Technology
Sachdeva, Arshbeer: Poster PR - Science & Technology
Sadruddin, Rahil: Cancer Center Research Symposium; Poster PH - Health & Wellness
Safar, Adira: Cancer Center Research Symposium; Poster PA - Cells & Molecules
Saha, Anushka: Poster PO - Cells & Molecules
Sahasrabudhe, Chinmay: Oral Panel - Science & Technology: Developments in Biocompatibility
Salam, Hanif: Poster PC - Health & Wellness
Salgado, Vanessa: Poster PR - Science & Technology
Sallenback, Emily: Poster PF - Social Science & Human Behavior
Samhouri, Fouad: Poster PC - Health & Wellness
Sanchez, Aarif: Poster PJ - Nature, Life, and Environment
Sanghavi, Mahan: Poster PE - Science & Technology
Santiago, Halle-Mari: Parkland Honors Program
Satli, Isma: Oral Panel - Design Thinking: Developing Innovative Tools and Techniques in Health Literacy; Complaint Mechanisms; and Robotic Motion Planning
Satish, Sanjana: Poster PO - Cells & Molecules
Saucedo, Aaron: Parkland Honors Program
Schell, Alina: Poster PC - Science & Technology
Scherschel, Elizabeth: Poster PJ - Learning & Development
Schueller, Kriti: Oral Panel - Plants and Animals
Schermer, Emily: Poster PC - Health & Wellness
Schoeder, David: Parkland Honors Program
Sebastian, Evan: Poster PM - Health & Wellness
Seth, Aarav: Poster PR - Science & Technology
Shaffer, Alex: Oral Panel - Virtual Realities
Shah, Arnav: Oral Panel - Virtual Realities
Shah, Ved: Poster PK - Science & Technology
Shah, Krupa: Humanities Research Lab Showcase
Shamsh, Megan: Poster PA - Cells & Molecules
Shane, Shewna: Parkland Honors Program
Sharma, Anisha: ISUR Program Research Expo; Poster PE - Science & Technology
Sharma, Garima: Poster PP - Social Science & Human Behavior
Shelton, Savannah: Poster PN - Nature, Life & Environment
Shen, Yiyang: Poster PO - Cells & Molecules
Shepherd, Daniel: Oral Panel - Storytelling: Novel Approaches
Shields, Jaime: Poster PD - Social Science & Behavior
Shim, James: Poster PF - Social Science & Human Behavior
Shirkevich, Sonja: Poster PD - Social Science & Behavior
Shou, Fangyi: Poster PK - Science & Technology
Shou, Mag: Communication Undergraduate Research Event
Shrestha, Royal: Poster PA - Cells & Molecules; Certificate Awardee
Shu, Emma: Poster PR - Science & Technology
Shukla, Srijan: Poster PD - Social Science & Behavior
Shwatal, Austin: Poster PQ - Data, Information & Machine Learning
Siek, Victoria: Poster PF - Social Science & Human Behavior
Sikander, Qasim: Cancer Center Research Symposium
Simon, Alexandra: Certificate Awardee
Singh, Ananya: Oral Panel - Health and Wellness
Singh, Jessica: Poster PO - Language, Culture & Society
Singh, Mohit: Poster PQ - Data, Information & Machine Learning
Sinaradze, Natalie: Poster PC - Health & Wellness
Sivakumar, Rishi: Oral Panel - Numbers and Computation
Skocinski, Jessica: Poster PK - Science & Technology
Smart, Tyler: Poster PR - Science & Technology
Smith, Jordan: Poster PG - Learning & Development
Smith, Evan: Poster PN - Nature, Life & Environment
Smith, Trinity: Poster PP - Language, Culture & Society
Smith, Jazmine: Parkland Honors Program
Snikijbol, Valerie: Celebrating Our Student Scholars
Snoep, Brandon: Poster PM - Health & Wellness
Sornson, Anika: Celebrating Our Student Scholars
Southey, Nicole: Poster PB - Science & Technology; Poster PE - Science & Technology
Souza, Paris: Poster PF - Social Science & Human Behavior
Sparks, Janae: Poster PN - Nature, Life & Environment
Spencer, Rayna: Poster PK - Science & Technology
Sreshthapak, Gunu: Celebrating Our Student Scholars
Srivasav, Shyam: Poster PP - Language, Culture & Society
Stark, Brenna: Poster PN - Nature, Life & Environment
Steephen, Ann: Poster PO - Cells & Molecules
Steinlein, Amelia: Poster PI - Cells & Molecules
Stenger, Pete: Poster PG - Learning & Development
Stevenson, Abigail: Poster PA - Cells & Molecules; Celebrating Our Student Scholars
Stratton, Alex: Poster PQ - Data, Information & Machine Learning
Suearez, Melissa: Poster PC - Health & Wellness
Sun, Rachel: Poster PD - Social Science & Behavior
Sunderland, Gloria: Poster PD - Social Science & Behavior
Swanson, Tyler: Poster PJ - Nature, Life, and Environment; Poster PN - Nature, Life & Environment; Celebrating Our Student Scholars
Swanson, Jesse Bradford: Parkland Honors Program
Sved, Adam: Oral Panel - Learning Experiences and Human Development
Sved, Maha: Oral Panel - Questions of Belonging
Szamocki, Madelyn: Oral Panel - Challenging the Status Quo: Athletics and Policy Development
Takanaka, Yudai: Poster PL - Food Systems
Takir, Bora: Poster PN - Nature, Life & Environment
Tan, Matthew: Poster PE - Science & Technology
Tan, Irvyn: Poster PI - Cells & Molecules
Tang, Elizabeth: Poster PO - Cells & Molecules
Tarig, Bilkisu: Poster PG - Learning & Development
Techmanski, Sylvia: Humanities Research Lab Showcase
Tegge, William: ISUR Program Research Expo
Thaatte, Vivek: ISUR Program Research Expo
Theurer, Savannah: Poster PB - Science & Technology
Thomas, Andrianna: Poster PP - Language, Culture & Society
Thomas, Brennen: Cancer Center Research Symposium
Thomas, Tyler: Parkland Honors Program
Tibrewal, Anushree: Poster PM - Language, Culture & Society
Timbu, Samuel: Poster PD - Social Science & Human Behavior
Tiwari, Anagha: Poster PQ - Data, Information & Machine Learning
Tiwari, Akshata: Poster PO - Data, Information & Machine Learning
Tiwari, Srishti: Certificate Awardee
Tiwary, Nalin: Poster PC - Fostering Inclusive Education Systems
<table>
<thead>
<tr>
<th>Name</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wu, Zonghan</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Wu, Shengan</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Wu, Ryan</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Wu, Olivia</td>
<td>Poster PO - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Vuyyuri, Sndiaka</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Vyas, Khushali</td>
<td>Poster PJ - Nature, Life, and Environment</td>
</tr>
<tr>
<td>Vargas, Lesli</td>
<td>Poster PP - Language, Culture &amp; Society</td>
</tr>
<tr>
<td>Vargas, Sofia</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Velazquez, Yoselyn</td>
<td>Poster PP - Language, Culture &amp; Society</td>
</tr>
<tr>
<td>Vemuri, Aparajita</td>
<td>Poster PD - Social Science &amp; Behavior</td>
</tr>
<tr>
<td>Vicencio, Lauren</td>
<td>Poster FM - Health &amp; Wellness</td>
</tr>
<tr>
<td>Vinjamuri, Shreyaa</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Vittore, Kayla Marie</td>
<td>Certificate Awardees</td>
</tr>
<tr>
<td>Vohra, Sara</td>
<td>Celebrating Our Student Scholars</td>
</tr>
<tr>
<td>Vritakaa, Katrinna</td>
<td>Poster PO - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Yancey, John</td>
<td>Communication Undergraduate Research Event; Poster PD - Social Science &amp; Behavior</td>
</tr>
<tr>
<td>Yan, Leo</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Yan, Hannah</td>
<td>Poster PG - Learning &amp; Development</td>
</tr>
<tr>
<td>Yan, Zexuan</td>
<td>Poster PR - Science &amp; Technology</td>
</tr>
<tr>
<td>Yang, Qi</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Yang, Ruozhen</td>
<td>Poster PN - Nature, Life &amp; Environment</td>
</tr>
<tr>
<td>Yang, Chia</td>
<td>Poster PG - Learning &amp; Development</td>
</tr>
<tr>
<td>Yang, Yifan</td>
<td>Poster PF - Social Science &amp; Human Behavior</td>
</tr>
<tr>
<td>Yang, Yeoh</td>
<td>Poster PO - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Ye, Zhiheng</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Yeacel, Amanda</td>
<td>Certificate Awardees</td>
</tr>
<tr>
<td>Yadavalli, Anjali</td>
<td>Poster PF - Language, Culture &amp; Society</td>
</tr>
<tr>
<td>Yeoh, Benedict</td>
<td>Poster PO - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Yessen, Will</td>
<td>Oral Panel - Marginalizations</td>
</tr>
<tr>
<td>Yung, Syi</td>
<td>Poster PN - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Yu, Mingyi</td>
<td>Poster Engineering Technologies: Object Manipulations; Pattern Analyses</td>
</tr>
<tr>
<td>Yu, Zeyuan</td>
<td>Poster PA - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Yeo, Patrick</td>
<td>Poster PE - Science &amp; Technology</td>
</tr>
<tr>
<td>Yu, Tyler</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Yuan, Boqin</td>
<td>Poster PD - Social Science &amp; Behavior</td>
</tr>
<tr>
<td>Yuan, Ashley</td>
<td>Poster PP - Language, Culture &amp; Society</td>
</tr>
<tr>
<td>Vaycheska, Dmitry</td>
<td>Poster PH - Health &amp; Wellness</td>
</tr>
<tr>
<td>Zaidi, Faisal</td>
<td>Oral Panel - Cellular Dynamics</td>
</tr>
<tr>
<td>Zeng, Wenqi</td>
<td>Poster PG - Learning &amp; Development</td>
</tr>
<tr>
<td>Zeng, Jinhling</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Zhai, Yuhui</td>
<td>Poster PK - Science &amp; Technology</td>
</tr>
<tr>
<td>Zhang, Jay</td>
<td>Poster PD - Social Science &amp; Behavior</td>
</tr>
<tr>
<td>Zhang, Yifan</td>
<td>Poster PF - Social Science &amp; Human Behavior</td>
</tr>
<tr>
<td>Zhang, Nancy</td>
<td>Poster PF - Social Science &amp; Human Behavior</td>
</tr>
<tr>
<td>Zhang, Andrew</td>
<td>Poster PO - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Zhang, Zora</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Zhang, WeiQi</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Zhao, Delu</td>
<td>Poster PP - Language, Culture &amp; Society</td>
</tr>
<tr>
<td>Zhao, Ying</td>
<td>Poster PQ - Data, Information &amp; Machine Learning</td>
</tr>
<tr>
<td>Zheng, Athena</td>
<td>Poster PB - Science &amp; Technology</td>
</tr>
<tr>
<td>Zheng, William</td>
<td>Poster PK - Science &amp; Technology</td>
</tr>
<tr>
<td>Zeng, Runlin</td>
<td>ISUR Program Research Expo</td>
</tr>
<tr>
<td>Zheng, Gang</td>
<td>Celebrating Our Student Scholars</td>
</tr>
<tr>
<td>Zhou, Megan</td>
<td>Poster PA - Cells &amp; Molecules</td>
</tr>
<tr>
<td>Zhu, Minxing</td>
<td>Poster PL - Food Systems</td>
</tr>
<tr>
<td>Zilinger, Amber</td>
<td>Poster PN - Nature, Life &amp; Environment</td>
</tr>
<tr>
<td>Zimmerman, David</td>
<td>Poster PK - Science &amp; Technology</td>
</tr>
<tr>
<td>Zorziga, Michelle</td>
<td>Poster PR - Science &amp; Technology</td>
</tr>
</tbody>
</table>
Thanks to Our Sponsors

UNIVERSITY OF ILLINOIS
URBANA-CHAMPAIGN

OFFICE OF THE PROVOST

Stevick Foundation