Director, Office of Undergraduate Research
Henning Larsen Professor of Political Science

Paul F. Diehl
Director, Office of Undergraduate Research

welcome to the sixth annual campus-wide Undergraduate Research Symposium (URS). The breadth and scope of the oral and poster presentations as well as the performances featured today reflect not only the wide range of academic disciplines at the University of Illinois, but also speak to the caliber of our undergraduate students. Our students are enterprising and thoughtful, eager to learn from their advisors and mentors. Their projects also demonstrate the ongoing commitment of our faculty to support and expand undergraduate research opportunities on campus and beyond.

The presentations, posters, and performances listed here address some of society’s most pressing issues, including education, health care, violent conflict, and natural disasters. As is true of the mentors who support them, these students and their projects hold the potential to change the world for the better. The featured session during lunchtime includes presentations from three students who are engaged in applied research that seeks to construct practical solutions to the problems of environmental sustainability, prescription drug dispensing, and disability access.

URS 2013 includes a record number of participants from an expansive range of departments, colleges, and other units on campus. Also, for the first time, there will be awards in various categories at the end of the day. Special thanks go to Dr. Matthew Price, the Undergraduate Research and Office, as well as the Office of Admissions. Special thanks to our student coordinators at URS 2013 includes a record number of participants from an expansive range of departments, colleges, and other units on campus.

SYMPOSIUM (URS)

welcome to the sixth annual campus-wide Undergraduate Research Symposium (URS). The breadth and scope of the oral and poster presentations as well as the performances featured today reflect not only the wide range of academic disciplines at the University of Illinois, but also speak to the caliber of our undergraduate students. Our students are enterprising and thoughtful, eager to learn from their advisors and mentors. Their projects also demonstrate the ongoing commitment of our faculty to support and expand undergraduate research opportunities on campus and beyond.

The presentations, posters, and performances listed here address some of society’s most pressing issues, including education, health care, violent conflict, and natural disasters. As is true of the mentors who support them, these students and their projects hold the potential to change the world for the better. The featured session during lunchtime includes presentations from three students who are engaged in applied research that seeks to construct practical solutions to the problems of environmental sustainability, prescription drug dispensing, and disability access.

URS 2013 includes a record number of participants from an expansive range of departments, colleges, and other units on campus. Also, for the first time, there will be awards in various categories at the end of the day. Special thanks go to Dr. Matthew Price, the Undergraduate Research and Office, as well as the Office of Admissions. Special thanks to our student coordinators.

SYMPOSIUM (URS)

welcome to the sixth annual campus-wide Undergraduate Research Symposium (URS). The breadth and scope of the oral and poster presentations as well as the performances featured today reflect not only the wide range of academic disciplines at the University of Illinois, but also speak to the caliber of our undergraduate students. Our students are enterprising and thoughtful, eager to learn from their advisors and mentors. Their projects also demonstrate the ongoing commitment of our faculty to support and expand undergraduate research opportunities on campus and beyond.

The presentations, posters, and performances listed here address some of society’s most pressing issues, including education, health care, violent conflict, and natural disasters. As is true of the mentors who support them, these students and their projects hold the potential to change the world for the better. The featured session during lunchtime includes presentations from three students who are engaged in applied research that seeks to construct practical solutions to the problems of environmental sustainability, prescription drug dispensing, and disability access.

URS 2013 includes a record number of participants from an expansive range of departments, colleges, and other units on campus. Also, for the first time, there will be awards in various categories at the end of the day. Special thanks go to Dr. Matthew Price, the Undergraduate Research and Office, as well as the Office of Admissions. Special thanks to our student coordinators.

SYMPOSIUM (URS)

welcome to the sixth annual campus-wide Undergraduate Research Symposium (URS). The breadth and scope of the oral and poster presentations as well as the performances featured today reflect not only the wide range of academic disciplines at the University of Illinois, but also speak to the caliber of our undergraduate students. Our students are enterprising and thoughtful, eager to learn from their advisors and mentors. Their projects also demonstrate the ongoing commitment of our faculty to support and expand undergraduate research opportunities on campus and beyond.

The presentations, posters, and performances listed here address some of society’s most pressing issues, including education, health care, violent conflict, and natural disasters. As is true of the mentors who support them, these students and their projects hold the potential to change the world for the better. The featured session during lunchtime includes presentations from three students who are engaged in applied research that seeks to construct practical solutions to the problems of environmental sustainability, prescription drug dispensing, and disability access.

URS 2013 includes a record number of participants from an expansive range of departments, colleges, and other units on campus. Also, for the first time, there will be awards in various categories at the end of the day. Special thanks go to Dr. Matthew Price, the Undergraduate Research and Office, as well as the Office of Admissions. Special thanks to our student coordinators.

SYMPOSIUM (URS)

welcome to the sixth annual campus-wide Undergraduate Research Symposium (URS). The breadth and scope of the oral and poster presentations as well as the performances featured today reflect not only the wide range of academic disciplines at the University of Illinois, but also speak to the caliber of our undergraduate students. Our students are enterprising and thoughtful, eager to learn from their advisors and mentors. Their projects also demonstrate the ongoing commitment of our faculty to support and expand undergraduate research opportunities on campus and beyond.

The presentations, posters, and performances listed here address some of society’s most pressing issues, including education, health care, violent conflict, and natural disasters. As is true of the mentors who support them, these students and their projects hold the potential to change the world for the better. The featured session during lunchtime includes presentations from three students who are engaged in applied research that seeks to construct practical solutions to the problems of environmental sustainability, prescription drug dispensing, and disability access.

URS 2013 includes a record number of participants from an expansive range of departments, colleges, and other units on campus. Also, for the first time, there will be awards in various categories at the end of the day. Special thanks go to Dr. Matthew Price, the Undergraduate Research and Office, as well as the Office of Admissions. Special thanks to our student coordinators.
The Influence of Time Pressure on Conformity
Jared Mathew, Senior, Psychology and Communication, LAS

How Does Learning Affect Dendritic Properties in the Mouse Primary Cortex?
Aksia Prokopakia, Senior, Psychology and International Business Management, LAS and BUS

Developmental Analysis of Neocortical Vascular Abnormalities in a Mouse Model of Fragile X Syndrome
Stephan Fleming, Junior, Psychology, LAS

Inter-Strain Comparison of Exercise-Induced Hippocampal Neurogenesis
Jennifer Morritt, Senior, Psychology, LAS

Packaging Past and Envisioning Futures: Milennial Latin Americans and New Cosmopolitanism
Tara McGovern, Senior, Anthropology, LAS

Neoliberal and Privatized Security: Causes, Context, and Implications
Ife Solajum, Senior, Sociology, LAS

Emblematica Online II
Jean Abraham, Senior, Spanish, LAS
Jacqueline Mentod, Senior, Mathematics and English, LAS
Melina Nanas, Freshman, Psychology, LAS

Stereotypes at the University of Illinois
Stephanie Kragan, Senior, Political Science and Sociology, LAS

The Arctic in Literature
Sara Backlund, Junior, English and Comparative Literature, LAS

Emblematica Online I: Digitization and Stitching
Hudi Heim, Sophomore, Art History, LAS
Patricia Fleming, Freshman, English, LAS
Phillip Brambaugh, Senior, English, LAS

The Cultural Exchange Between Ancient Rome and China in Theatre
Quanhe Liao, Senior, Theatre, FAA

The Role of Copper and Extractive Industries in the Andes
Lara Sotoxoa, Senior, Global Studies and Spanish, LAS

The Effect of Negative Emotional Stimuli on Relational Memory
Ingo Karositsa, Senior, Psychology, LAS

LUNCH: 12:00-1:15 P.M., ILLINI ROOM B

PE.04 The Influence of Time Pressure on Conformity
PE.05 How Does Learning Affect Dendritic Properties in the Mouse Primary Cortex?
PE.06 Developmental Analysis of Neocortical Vascular Abnormalities in a Mouse Model of Fragile X Syndrome
PE.07 Inter-Strain Comparison of Exercise-Induced Hippocampal Neurogenesis
PE.08 Packaging Past and Envisioning Futures: Milennial Latin Americans and New Cosmopolitanism
PE.09 Neoliberal and Privatized Security: Causes, Context, and Implications
PE.10 Emblematica Online II
PE.11 Stereotypes at the University of Illinois
PE.12 The Arctic in Literature
PE.13 Emblematica Online I: Digitization and Stitching
PE.14 The Cultural Exchange Between Ancient Rome and China in Theatre
PE.15 The Role of Copper and Extractive Industries in the Andes
PE.16 The Effect of Negative Emotional Stimuli on Relational Memory

PE.17 Promoting Children’s Outreach and Vocational Education in Uganda Through Applied Research in an International Service-Learning Course
Cournay Kramer, Junior, Global Studies, LAS
Kris Holdenrudatz, Senior, Economics and Genetics, LAS
Elizabeth Melby, Senior, Architecture, FAA
Vigneshwar Korthikyan, Senior, Electrical Engineering, ENG
Christina Du, Senior, Molecular and Cellular Biology, LAS
James Santoyo, Junior, Agricultural Engineering, ACES
Michal Seymolanski, Senior, Computer Science, ENG

PE.18 Policy Coherence in the European Union: Going Beyond Aid
Valerie Ferrin, Senior, Political Science and Economics, LAS

PE.19 EU Influence on Immigration Policy and Its Implications for Maghrebian Immigrants
Joshua Erb, Senior, Global Studies, LAS

PE.20 The Power of Capitalization and Race
Miriam Kahn, Senior, Psychology, LAS

Valerie Bravkovic, Junior, Political Science, LAS

PE.22 The Effects of Hypothalamic Obesity on Encoding and Retrieval of Paired-Associate Memory
Amnaa Cherka, Senior, Psychology, LAS

PE.23 Comparing the Experimental and Calculated Equilibrium Water Activity of Dual-Textured Food Systems
Alexandra Pierce, Senior, Food Science and Human Nutrition, ACES

PF SESSION: 1:30-2:45 P.M., ILLINI ROOM A

PF.01 Tracing Learning in Aphasia
Anna Orsogna, Senior, Speech and Hearing Science, AH
Alexandra Bartugan, Junior, Speech and Hearing Science, AH

PF.02 Fitness Selectively Modulates: Aspects of Academic Achievement in Children
Eric Lamb, Senior, Kinesiology, AH

PF.03 Visual Attention Gradients and Written Word Processing
Krisnan Zweick, Senior, Speech and Hearing Science, AH

PF.04 Hospital Re-Admission: Causes and Comparisons
Kimla Brooks, Senior, Community Health, AH
Nicole Parkins, Junior, Community Health, AH

PF.05 Eating Away at the Relationship Between Mealtime Distractions and Child Food Consumption
Allison Bynoe, Sophomore, Community Health, ACES
Lily Bonser, Senior, Food Science and Human Nutrition, ACES
Simi Jha, Senior, Community Health, ACES

PF.06 Efficacy of Intermittent or Continuous Blood Flow–Restriction Resistance Training
Mark Walsh, Senior, Kinesiology, AH

PF.07 Assessment of the Blended Classroom
Ryan Warming, Senior, Community Health, AH

PF.08 Dietary Intakes of Carbohydrates Associated with Dental Caries Among Young Mexican College Students
Jiaying Ren, Senior, Food Science and Human Nutrition, ACES

PF.09 Gray Matter Volume Changes in the Brain in Tinnitus and Hearing Loss
Erika Lindgren, Junior, Speech and Hearing Science, AH

PF.10 Neuroimaging and Behavioral Techniques in Speech Perception
Alexander Sotara, Junior, Neuroscience, LAS

PF.11 Exploring Metabolic Risk Factors in Mexican College Students
Erika Rivas, Junior, Community Health, AH

PF.12 Space Bound: A Phenomenological Look at Contemporary Sensory Theatre in Non-Standardized Spaces
Mates Hurtado, Freshman, Acting, FAA

PF.13 House Finch and House Sparrow Interactions Along an Invasion Front
Eric Jansson, Senior, Natural Resources and Environmental Sciences, ACES

PF.14 Identification of Chromatin Remodeling Enzymes Functioning in Planarian Regeneration
Rivka Selmam, Sophomore, Molecular and Cellular Biology, LAS

PF.15 Characterization and Expression of Transcripts Involved in the Alkaloid Biosynthetic Pathways in Medicinal Plants
Alyssa Oitman, Junior, Biochemistry, LAS

PF.16 Scintillation Detector Enhancement with Silicon Nanoparticles
Charles Ye (Haichuan), Junior, Electrical Engineering, ENG

PF.17 The Religion of Atheism: Types of Atheists and Disguised Responses to Christian Beliefs
Ryan Parolisi, Senior, Psychology, LAS

PF.18 Perceived Utility of Shame and Guilt and Repetition Sensitivity in Depression
Fan Wu, Senior, Psychology, LAS

PF.01 Beyond Leadership Change: International Conflict and Regime Transitions
Grace Lee, Junior, Political Science, LAS

PF.02 A Conflicted State
Colin Zimmerman, Junior, Political Science, LAS

PF.03 Architects of National Destiny: When and How Do State Leaders Use Nationalist Appeals?
Sungmin Lee, Senior, Political Science and East Asian Languages and Cultures, LAS

PF.04 Dollars and Democracy: Regime Type and FDI
Nathan Gilbert, Senior, Political Science, LAS

PF.05 Public Opinion and Foreign Aid: The Limits of Representation
Nicholas Dietrich, Junior, Political Science, LAS

PF.06 Property Rights and Agricultural Growth
James Reed, Junior, Political Science and Spanish, LAS

PF.07 Breastfeeding Education in Incarcerated Mothers
Diana Dominguez, Senior, Nursing, College of Nursing

PF.08 Narcissism and Emotional Responses to Social Rejection
Corinne Kazemrek, Senior, Psychology, LAS

PF.09 Effects of Perinatal Exposure to BPA on Adult Hippocampal Volume
Tanthey Kim, Senior, Psychology, LAS
Exploring the Effects of Genetic Variation in Host ERP Correlates of Familiarity and Recollection
Replacing Generic Parameterizations of Stomatal Long-Term Weathering Mechanisms
Smart Parents Get Their Kids Moving!
Experiences of Siblings of Persons with Autism
The Price of Welfare
Department of LGBTQ Activism and Movement
Assessment of Learning in the Classroom
Improving Methods for Laboratory and Toxicity Testing: A Historical Comparison of Roman
The Mystery of American Goldfinch
in Tropical and Subtropical Environments
Justin Ostrowski,
Heather Weissinger,
Senior, Community Health, AHS
Emmon Biah,
Olatoyosi Akinrotimi,
Junior, Community Health, AHS
Michelle Kwak,
Junior, Industrial Design, FAA
Lana Rottler,
Junior, Industrial Design, FAA
Sophomore,
Sophomore, Interdisciplinary Health, AHS
and Family Studies, ACES
Jordan Coleman,
Junior, Natural Resource and Environmental Sciences, ACES
Pradeep Kumar,
Senior, Community Health, AHS
Richard Hartland,
Senior, Speech and Hearing Science, AHS
Sarah Duple,
Senior, Integrative Biology, LAS
Kevin Wolz,
Senior, Integrative Biology, LAS
Jenna Marmitt,
Junior, Human Development and Family Studies, ACES
Alexis Bryd,
Senior, Speech and Hearing Science, AHS
Jia Wang,
Senior, Speech and Hearing Science, AHS
Catherine Andelka Lee,
Junior, Integrative Studies, FAA
Sarah Duple,
Senior, Integrative Biology, LAS
Julia Celentano,
Senior, Psychology, LAS
Amanda Berngard,
Senior, Psychology, LAS
Emily Murphy,
Senior, Integrative Biology, LAS
Jillian Bernard,
Senior, Integrative Biology, LAS
Shih-Hao Chien,
Junior, Computer Engineering, ENG
sameer kumar bojja venkatarama,
Sophomore, Computer Engineering, ENG
Brandon Boyce,
Junior, Aerospace Engineering, ENG
Sameer kumar bojja venkatarama,
Senior, Agricultural and Biological Engineering, ACES
Carlton lloyd,
Junior, Agricultural and Biological Engineering, ACES
Serena Brodsky
, Senior, Agricultural and Biological Engineering, ACES
" and Family Outcomes of Performing Toru Takemitsu's Music
Nol Wan,
Senior, Speech and Hearing Science, AHS
Jasmine Henderson,
Senior, Speech and Hearing Science, AHS
Jenna Marmitt,
Junior, Human Development and Family Studies, ACES
Alexis Bryd,
Senior, Speech and Hearing Science, AHS
Catherine Andelka Lee,
Junior, Integrative Studies, FAA
Sarah Duple,
Senior, Integrative Biology, LAS
Kevin Wolz,
Senior, Integrative Biology, LAS
Jenna Marmitt,
Junior, Human Development and Family Studies, ACES
Jordan Coleman,
Junior, Natural Resource and Environmental Sciences, ACES
Pradeep Kumar,
Senior, Community Health, AHS
Richard Hartland,
Senior, Speech and Hearing Science, AHS
Sarah Duple,
Senior, Integrative Biology, LAS
Kevin Wolz,
Senior, Integrative Biology, LAS
Jenna Marmitt,
Junior, Human Development and Family Studies, ACES
Alexis Bryd,
Senior, Speech and Hearing Science, AHS
Catherine Andelka Lee,
Junior, Integrative Studies, FAA
Sarah Duple,
Senior, Integrative Biology, LAS
Kevin Wolz,
Senior, Integrative Biology, LAS
Jenna Marmitt,
Junior, Human Development and Family Studies, ACES
Alexis Bryd,
Senior, Speech and Hearing Science, AHS
Catherine Andelka Lee,
Junior, Integrative Studies, FAA
Sarah Duple,
Senior, Integrative Biology, LAS
Kevin Wolz,
Senior, Integrative Biology, LAS
Jenna Marmitt,
Junior, Human Development and Family Studies, ACES
Alexis Bryd,
Senior, Speech and Hearing Science, AHS
Catherine Andelka Lee,
Junior, Integrative Studies, FAA
Sarah Duple,
Senior, Integrative Biology, LAS
Kevin Wolz,
Senior, Integrative Biology, LAS
Jenna Marmitt,
Junior, Human Development and Family Studies, ACES
Alexis Bryd,
Senior, Speech and Hearing Science, AHS
Catherine Andelka Lee,
Junior, Integrative Studies, FAA
Sarah Duple,
Senior, Integrative Biology, LAS
Kevin Wolz,
Senior, Integrative Biology, LAS
Jenna Marmitt,
Junior, Human Development and Family Studies, ACES
Alexis Bryd,
Senior, Speech and Hearing Science, AHS
Catherine Andelka Lee,
Junior, Integrative Studies, FAA
Sarah Duple,
Senior, Integrative Biology, LAS
Kevin Wolz,
Senior, Integrative Biology, LAS
Jenna Marmitt,
Junior, Human Development and Family Studies, ACES
Alexis Bryd,
Senior, Speech and Hearing Science, AHS
Catherine Andelka Lee,
Junior, Integrative Studies, FAA
Sarah Duple,
Senior, Integrative Biology, LAS
Kevin Wolz,
Impact of Viscous Flow Conditions on Airfoil Ice Accretion  
Paul Schlais, Junior, Aerospace Engineering, ENG

Effects of Multipath and Side Lobe Algorithms at JFK  
Sarah Shimizu, Junior, General Engineering, ENG

Improving Contact Resistance of Graphene Field-Effect Transistors (GFETs)  
Maryann Tung, Senior, Electrical Engineering, ENG

Proprioceptive Hardware Feedback Platform for Upper-Limb Robotic Prostheses  
Logan Wan, Junior, Mechanical Engineering, ENG

Characterization of Metal Cavity Quantum Dot and Quantum Well Nanolasers  
Eric Wei, Senior, Electrical Engineering, ENG

Variability in Shoulder Movement and Force During Wheelchair Propulsion: The Effect of Shoulder Pain  
Matthew Wesly, Senior, Bioengineering, ENG

Developing Flavin-Based Fluorescent Proteins for Biological Imaging  
Kevin Weyant, Senior, Chemical Engineering, LAS

The Effects of PVP(Fe(III)) Catalyst on Polymer Molecular Weight and siRNA Delivery via Biodegradable Cross-Linked Polyethylenimine  
Connie Wong, Sophomore, Chemical Engineering, LAS

Investigation of Mutual Coupling in Patch Antennas  
Yuou Zhang, Junior, Electrical Engineering, ENG