



PROGRAM

Tuesday, **April 12, 2011**

**UNDERGRADUATE
RESEARCH
SYMPOSIUM**



WELCOME



elcome to the fourth annual campus-wide Undergraduate Research Symposium. Showcased today are oral and poster presentations that remind us of just how deeply Illinois students are involved in the university's mission to discover and create—and to do so on behalf of the publics our institution serves. Deep, too, is the engagement of faculty and other instructional staff: nearly all symposium participants report that work on their projects was mentored by a professor, postdoctoral fellow, or doctoral student.

This year's symposium follows plans established by working groups that were convened by the Office of the Provost during the 2007–08 and 2008–09 academic years. Thanks once more to the faculty who led these groups: Professor Wojtek Chodźko-Zajko (Kinesiology and Community Health, AHS), Professor Jennifer Bernhard (Electrical and Computer Engineering, ENG), and Professor Wayne Pitard (Religion, LAS; and Spurlock Museum). This year, as in past years, interns provided invaluable support as plans for the symposium matured. Cristina Stanciu (Ph.D., English, LAS) and Emily Pinheiro (B.A. student, Spanish, LAS; Chancellor's Scholar) deserve our heartfelt thanks.

Even as we face unprecedented challenges across campus, we will continue to recognize the value of inviting students to play significant roles in research, scholarly, and creative endeavors at Illinois. The extraordinarily high quality of these endeavors distinguishes Illinois as a world-class university, one where undergraduates are partners in receiving the education they will need to become leaders in the twenty-first century.

Richard Wheeler

Vice Chancellor for Academic Affairs and Provost (Interim)

EVENT OVERVIEW

TUESDAY, APRIL 12, 2011

Illini Union

9:00-10:15 a.m.	PA Session: Poster Presentations, Pine Lounge	1:30-2:30 p.m.	B Sessions: Oral Presentations (Illini Rooms A, B, C; General Lounge; Room 210; Room 314B)
9:00-10:15 a.m.	Refreshments, Pine Lounge	1:30-2:45 p.m.	PC Session: Poster Presentations, Pine Lounge
10:45 a.m.-Noon	PB Session: Poster Presentations, Pine Lounge	3:00-4:15 p.m.	C Sessions: Oral Presentations (Illini Rooms A, B, C; General Lounge, Room 210)
11:00 a.m.-Noon	A Sessions: Oral Presentations (Illini Rooms A, B, C; Room 210; Room 314B; Room 405)	3:15-4:30 p.m.	PD Session: Poster Presentations, Pine Lounge
Noon-1:00 p.m.	Lunch Available for Presenters, Attendees, and Mentors, Illini Rooms Foyer	3:15-4:30 p.m.	Refreshments, Pine Lounge
12:15-12:30 p.m.	Remarks by Richard Wheeler, Vice Chancellor for Academic Affairs and Provost (Interim), Illini Room B		
12:30-1:15 p.m.	Featured Session: "CampusCrime.net," Illini Room B	4:30-6:30 p.m.	Illinois Scholars Undergraduate Research Program Poster Expo, Levis 2nd Floor

Levis Faculty Center

ORAL PRESENTATIONS

A SESSIONS, 11 A.M.–NOON

A.1, Proteins, Nutritional Variation, and Bioenergy (Illini Room A)

Which Populus clone genotype produces the most biomass?

Tahir Asmah Ibrahim, Senior, Horticulture, ACES

Computational modeling of the Min protein system in Escherichia coli

Corey R. Fry, Junior, Chemistry, LAS

The effects of nutrition on adult worker size of the fire ant Solenopsis invicta

Amanda Lynn Robinson, Senior, Integrative Biology, LAS

Characterization of PAR-enhanced 2-finger transcription factors via fluorescent anisotropy

Peiyi Wang, Senior, Chemical Engineering, LAS

Nathan Yee, Senior, Chemical Engineering, LAS

A.2, Political Science Forum (Illini Room B)

Democracy, the rule of law, and political conflict: A global analysis in the post-World War II era

Jennifer Nestor, Senior, Political Science, LAS

Brittany Eslary, Junior, Political Science, LAS

Philip Santoso, Senior, Political Science, LAS

A.3, Advances in the Computing and Physical Sciences (Illini Room C)

PyMercury: Interactive python for the mercury Monte Carlo particle transport code

Forrest Iandola, Junior, Computer Science, ENG

Short-term spectroscopic variability of quasars in the Sloan Digital Sky Survey

Benjamin Tyler Montet, Senior, Physics and Astronomy, LAS

Dissipation of graphene within a high-Q superconducting CPW resonator

Emily Sprague, Senior, Engineering Physics, ENG

A.4, Race, Ethnicity, and Cross-Cultural Communication in Local and Global Perspectives (General Lounge, Room 210)

The efficacy of cross-cultural training approaches

Ishva Minefee, Jr., Senior, Global Studies, LAS

A tale of two integrations: Minnie Miñoso, Ernie Banks, and Chicago baseball

Ryan A. Schmidt, Junior, History, LAS

Ethnocentrism and individualism: Aspects to discuss when considering the decline of the United States' international status

Marissa Ann Mayes, Junior, Political Science, LAS

Kuok Pui San, Visiting Student

Many paths to "Desi": Indian-American undergraduates and the consumption and performance of culture at the University of Illinois

Rachel Ann Zibrat, Senior, Anthropology and Linguistics, LAS

A.5, Politics, Power, and Finance (Room 314B)

Determinants of cross-border mergers and acquisitions and private equity transactions

Richard M. Crowley, Junior, Finance and Accountancy, BUS, and Mathematics, LAS

Analyzing deterrence: Defensive alliance formation and militarized dispute onset

Michael R. Kenwick, Senior, Political Science and History, LAS

Taming the bear: Does regime type matter for economic recovery?

Jacob Foster Hollars, Senior, Political Science, LAS

Beyond borders: How territorial norms affect postcolonial states

Benjamin Ostick, Senior, Political Science, LAS

A.6, American Art: At Home, In the World (Room 405)

In All My Years: Exploring the social and artistic elements of African American photography

Sydney Stoudmire, Senior, Art History, LAS

American art in the Venice Biennale

Christina Michelin, Senior, Art History, FAA

FEATURED SESSION NOON–1:15 P.M. (ILLINI ROOM B)

Noon

Boxed lunches available in the Illini Rooms foyer

12:15 p.m.

Undergraduate Research, Scholarship, and Creative Activity

Remarks by

Richard P. Wheeler, Vice Chancellor for Academic Affairs and Provost

12:30 p.m.

CampusCrime.net

Presentation by

Taylor Anne Lemick, Senior, Journalism, MDIA

Kate Szyszka, Senior, Journalism, MDIA

Emily Carlson, Journalism, MDIA

In response to unprecedented concern about crime on campus, more than 40 journalism students created an interactive online resource so others could get past myth and rhetoric and examine campus crime in a uniquely interactive way. With more than a month's worth of research and analysis, CampusCrime.net uncovers the truth behind the rumors and misconceptions of campus crime. Rather than create text-based narratives that force readers to follow only one pathway through material, they presented, without comment, audio highlights of hundreds of interviews they conducted and created interactive features that allowed users to query the data their research uncovered in whatever manner the users desired. Students developed new skills in data analysis and visualization plus techniques of online coding and design in addition to practicing professional journalistic skills.

B SESSIONS, 1:30–2:30 P.M.

B.1, Realizing the Power of Natural Resources (Illini Room A)

Prepartum supplementation of distillers grains to beef cows influences cow performance

Adam R. Schroeder, Senior, Animal Science, ACES

Improving day-ahead wind forecasts using a Bayesian model averaging for better wind power grid integration

Maxwell Smith, Senior, Atmospheric Sciences, LAS

An evaluation of BAF prism size and tree measurement techniques in the central hardwood region of southern Illinois

Timothy Michael Ward, Senior, Natural Resources and Environmental Sciences, ACES

B.2, Cellular and Genomic Science (Illini Room B)

Functional significance of adult hippocampal neurogenesis in pro-cognitive effects of exercise

Daniel Scott Miller, Senior, Molecular and Cellular Biology and Psychology, LAS

Successful gene delivery with receptor-targeted PAMAM dendrimers occurs via caveolae-mediated pathways

Jacob R. Becraft, Chemical and Biomolecular Engineering, LAS

The impact of genome rearrangement on the evolution of human gene regulatory elements

Peter J. Cote, Bioengineering, ENG

A parallel-plate flow chamber to screen for cadherin-mediated cell adhesion

Shyam M. Saladi, Freshman, Electrical Engineering, ENG

B.3, New Research on Diabetes, Ovarian Cancer, Ecological Stressors, and Genotoxicity (Illini Room C)

Blueberry varieties grown in Southern Illinois and their in vitro anti-diabetic potential

Anita Lucius, Senior, Food Science and Human Nutrition, ACES

Comparison between healthy and cancerous domestic hen (Gallus domesticus) ovary as a model for human ovarian cancer

Elsa C. Holden, Senior, Animal Sciences, ACES

Mammalian in vitro toxicity of disinfected water contaminated with an X-ray contrast agent drug

Kevin M. Homann, Junior, Chemical Engineering, LAS

Urinary C-Reactive Protein as a measure of inflammatory response to ecological stressors in rural Poland

Laura Danielle Klein, Senior, Integrative Biology Honors, LAS

B.4, Language and Writing (General Lounge, Room 210)

Ich denke, ich sage, ich wei, daß: *The use of projection in second language writing*

Christine M. Evans, Senior, German and Mathematics, LAS

Researching our practice: Writers and their languages

Steven Blumenthal, Junior, Political Science and Spanish, LAS

Nick Martin, Sophomore, English and History, LAS

Erin Dittmer, Senior, English and Political Science, LAS

Michael Shetina, Senior, English, LAS

George Monteagudo, Junior, English and Global Studies, LAS

Ashton Blair, Senior, English and Political Science, LAS

B.5, Educational Systems: Local and Global Voices (Room 314B)

How much it's a choice, and how much it's situational: A comprehensive study on a dilemma faced by international students

San Seul, Senior, Political Science, LAS

Cheok Meng Fai, Visiting Student

Lam Nga Cheng, Visiting Student

Justin Del Rosario, Freshman, Political Science and Spanish, LAS

Extraversion in students and economic development in the U.S. and China

Natalie Hann Koepke, Political Science, LAS

Jinyi Ye, Visiting Student

Every child left behind: The contradicting inequalities of No Child Left Behind

Samantha R. Kocher, Sophomore, Elementary Education, EDU

Keeping up with the youth?

Kimberly Anne Jaworski, Junior, Elementary Education, EDU

Yan Yiting, Visiting Student

Chan Fong, Visiting Student

C SESSIONS, 3–4:15 P.M.

C.1, Researching and Engaging Community Health (Illini Room A)

Access to healthcare in a free clinic population: What are the barriers?

Kinnary Desai, Junior, Community Health, AHS

Mary Grace Senseng, Senior, Community Health, AHS

Mohammad Nassaruddin, Senior, Community Health, AHS

An analysis of the impact of hospitals on the health of the community

Hunyah Basathia, Sophomore, Community Health, Health Planning and Administration, AHS

Jessica Hong, Community Health, AHS

Elizabeth Sams, Community Health, AHS

Payal Rana, Community Health, AHS

Evan Marlatt, Community Health, AHS

Symon Shmukler, Community Health, AHS

The high cost of emergency department (ED) overutilization

Megan I. Eiten, Community Health, AHS

University of Illinois service dog training

Bridget M. Evans, Community Health, AHS

The use of free health clinics in an underserved population

Christina D. Kim, Senior, Community Health, AHS

Marium Kahn, Senior, Community Health, AHS

Theresa Osunero, Senior, Community Health, AHS

C.2, Advances in the Engineering Sciences (Illini Room B)

Tracking cattle movements: Holistic modeling for an animal-based crop rotating system

Athanasia E. Xeros, Junior, Agricultural and Biological Engineering, ENG

Brett Ramirez, Junior, Agricultural and Biological Engineering, ENG

Chemical erosion studies of lithiated graphite

Andrew Nicholas Groll, Junior, Nuclear Engineering, ENG

Integration of continuous testing with unit test repair

Johnston Jiaa, Sophomore, Computer Science, ENG

Developing manufacturing techniques for portable microfluidic "lab-on-chip" devices

Tom Bassett, Senior, Chemical and Biomolecular Engineering, LAS

Experimental demonstration of perching by tailless articulated MAV

Joseph Kim, Junior, Aerospace Engineering, ENG

C.3, Understanding U.S. Literature and Culture (Illini Room C)

James Scholar research in American literature

Courtney Ross, Junior, English, LAS

Ryan Richardson, Junior, English, LAS

Katherine Li, Sophomore, English and Political Science, LAS

Paula Bucko, Junior, English, LAS

Margarita Altidis, Junior, English, LAS

C.4, Women and Children Matter (General Lounge, Room 210)

Feeding America's children: Evaluating the Child and Adult Care Food Program and nutrition in day care centers

Nicholas James Larmore, Senior, Consumer Economics and Finance, ACES

Abigail Holicky, Senior, Community Health, Health Education and Promotion, AHS

Catherine Topolinski, Sophomore, Global Studies, LAS

Gender and judicial agenda setting: Why women matter

Leslie Barron, Senior, Political Science and Spanish, LAS

POSTER PRESENTATIONS

PA SESSION

9–10:15 A.M. (PINE LOUNGE)

PA.01 *Modified integrative literature review of the relationship between tanning bed use and melanoma*

Laura Katherine McKean, Nursing, UIC

PA.02 *Most effective nonpharmacologic comfort measures for pain management in NICU premature infants: A modified integrative literature review*

Andrea Revethis, Nursing, UIC

PA.03 *American and Russian cooperation on a common enemy*

Vince Filicetti, Sophomore, Political Science, LAS

PA.04 *Determinants of separatist violence*

Michael Adam Lopuszynski, Senior, Political Science and International Studies, LAS

PA.05 *Survey of the hemoparasites in avian vertebrates of central and southern Illinois*

Kendall Leigh Annetti, Junior, Animal Sciences, ACES, and Integrative Biology, LAS

PA.06 *Harvesting methods for exploring DNA associated with language impairment*

Esther Faye Thomas, Senior, Speech and Hearing Science, AHS

PA.07 *Comparing achievement between charter schools and comparable public schools in the same area*

Hannah Deutsch, Sophomore, Special Education, EDU

Amy Nadell, Sophomore, Elementary Education, EDU

Pamela Renee Hochwert, Sophomore, Special Education, EDU

PA.08 *Factors influencing teenage mothers to breastfeed: A modified integrative literature review*

Giny Edakkunnathu, Senior, Nursing, UIC

PA.09 *Breaking ethnocentrism, enhancing intercultural connections and understanding*

Samuel J. Carey, Sophomore, Political Science, LAS

PA.10	<i>The social networks of war: Contextualizing non-state actors in civil conflict</i> Jared Hall , Senior, Political Science and Linguistics, LAS
PA.11	<i>The price of childhood obesity: Fries may be cheap, but are they worth your health?</i> Lana A. Moy , Junior, Interdisciplinary Health, AHS Risa Umeno , Junior, Interdisciplinary Health, AHS Collin Gruca , Junior, Social Work, SOCW
PA.12	<i>Human microbial distribution: A phylogenetic study of biosensors of an individual's health</i> Suravi Gongulee Thomas , Senior, Molecular and Cellular Biology, LAS
PA.13	<i>An exploration of identity: Immigrant groups in France as portrayed through film</i> Jenna Tsarpalas , Senior, Global Studies, LAS
PA.14	<i>Fruit and vegetable identification and preference among pre-school children</i> Jessica A. Torres , Senior, Kinesiology, AHS Kasey L. Pontarelli , Junior, Human Nutrition, ACES Katherine Georginis , Junior, Human Nutrition, ACES
PA.15	<i>Are you really listening to what your child's doctor has to say?</i> Sarah E. Schaefer , Senior, Kinesiology, AHS Francesca Moral , Senior, Community Health, AHS Shayda Teymourpour , Junior, Communication, LAS
PA.16	<i>Is liberalization occurring in Egypt? An analysis of the political and social effects on Coptic Christians and the Egyptian state</i> Jacqueline Mary Smerz , Senior, International Studies, LAS
PA.17	<i>Elimination of duplicated bacteria isolates for the study of the effects of microbial community in the host's fitness</i> Ran Pang , Sophomore, Molecular and Cellular Biology, LAS
PA.18	<i>Do regulated microfinance institutions achieve better sustainability and outreach? Evidence from West African data</i> Sarah E. Peters , Junior, Economics, LAS
PA.19	<i>Exercise-enhanced learning and memory in male Sprague-Dawley rats through the up regulation of brain-derived neurotrophic factor (BDNF) signaling pathways</i> Stephany L. Park , Senior, Molecular and Cellular Biology, LAS Claire Jacqueline Scavuzzo , Graduate Student, Neuroscience Program
PA.20	<i>A definite diagnosis with attention deficit hyperactivity disorder</i> Carolyn Margaret Moran , Senior, Nursing, UIC
PA.21	<i>Inadequate calcium and dairy consumption in Mexican college applicants</i> Melanie Ann Mackeben , Junior, Food Science and Human Nutrition, ACES

PA.22	<i>Ethical implications of reintegrating former substance abusers into healthcare</i> Rachel Jamora , Senior, Nursing, UIC
PA.23	<i>When legislative activity and district demographics don't match up</i> Ramsen E. Zacharia , Senior, Political Science and Psychology, LAS
PA.24	<i>A comparative study of United States and Chinese healthcare systems</i> BoYa Yin , Junior, Civil Engineering, ENG
PA.25	<i>Generation XXXL: Parents, what's your role?</i> Erin Christina Howell , Senior, Communication, LAS John Karlak , Senior, Communication, LAS Katherine Reed , Senior, Food Science and Human Nutrition, ACES
PA.26	<i>Tiger mothers</i> Minjung Chwe , Junior, Agricultural Accounting, ACES
PA.27	<i>U.S. humanitarian assistance to North Korea</i> Mari Naganuma , Senior, International Studies and Political Science, LAS
PA.28	<i>An identification of a Type III polyketide synthase in eucalyptus species</i> Braden Boone Christian , Junior, Chemical Engineering, LAS

PB SESSION

10:45 A.M.–NOON (PINE LOUNGE)

PB.01	<i>College students' perceptions of rural areas and issues</i> Richard Ryu , Senior, Community Health, AHS Nicholas Chmielewski , Junior, Community Health, AHS Patrick Florido , Junior, Community Health, AHS Stephen Tulley , Junior, Community Health, AHS
PB.02	<i>Complexity and variability in wheelchair propulsion</i> Ajith R. Susai , Junior, Kinesiology, AHS Anna J. Wetzel , Junior, Kinesiology, AHS Andrew J. Hermann , Senior, Kinesiology, AHS
PB.03	<i>A psychometric analysis of childhood vocabulary tests</i> Ellen Bogue , Senior, Speech and Hearing Science, AHS
PB.04	<i>Measuring success in microfinance: Assumptions and realities in Senegal</i> Jessica Loiacono , Senior, International Studies, LAS
PB.05	<i>Bedtime TV consumption</i> Kevin M. Thomas , Junior, Interdisciplinary Health, AHS Natasha Paris , Senior, Food Science and Human Nutrition, ACES
PB.06	<i>Older adults are just as smart as younger adults</i> Timothy Weng , Senior, Psychology, LAS
PB.07	<i>Parental empathic perspective-taking and preschool children's hostile attributions: Parent and child gender moderate associations</i> Jenna Reid , Senior, Psychology, LAS

PB.08	<i>Studying the effects of atmospheric pressure on ammonia sensors</i> Loren A. Anliker , Junior, Agricultural and Biological Engineering, ENG
PB.09	<i>The effects of processing fluency and goal pursuit</i> Hanna Y. Chang , Senior, Psychology, LAS
PB.10	<i>Dopamine, ovarian hormones, and the prefrontal cortex</i> Alexandria Rebecca Packard , Senior, Psychology, LAS
PB.11	<i>sRNA-regulated artificial gene circuits in an arsenic-gold bioremediation system</i> Will Jones , Junior, Biochemistry, LAS Angela Chen , Freshman, Agricultural and Biological Engineering, ACES Amanda Chang , Junior, Molecular and Cellular Biology, LAS
PB.12	<i>Titration of arachidonic acid requirement for immune, skin, and intestinal functions</i> Luis Rolando Muñoz , Food Science and Technology, Zamorano, Honduras
PB.13	<i>Save the rural schools: A search for arts programs in rural Illinois</i> Kirsten Nold , Freshman, Elementary Education, EDU
PB.14	<i>Spanish and community-based learning</i> Nina Pesch , Junior, International Business Management, BUS Lou Schmitt , Junior, Spanish, LAS Amanda White , Senior, Spanish, LAS Chris Rivera , Junior, Spanish, LAS Gabby Pantoja , Junior, Spanish, LAS
PB.15	<i>Factors affecting infant mortality rate among underserved populations</i> Cristina Florig Alagaban , Senior, Nursing, UIC
PB.16	<i>What do adults know? How generic language shapes children's understanding of speaker knowledge</i> Dawson John Price , Senior, Psychology, LAS
PB.17	<i>Pornography, real or fantasy sex?: Conceptualizing hostile masculinity and hypersexuality in sexual aggressors</i> Dominique Alexis Malebranche , Senior, Psychology, LAS
PB.18	<i>Morphological analysis of dendritic spines in a mouse model of fragile X mental retardation using live animal, 2-photon microscopy</i> Shruthi Rao , Senior, Psychology, LAS
PB.19	<i>Examining the influence of college community integration on life satisfaction of undergraduate students with physical disabilities</i> Sarah Sciortino , Senior, Psychology, LAS Tiffany Wilkinson , Senior, Community Health, AHS Marta Hitchcock , Senior, Community Health, AHS
PB.20	<i>Components driving the success of social movements</i> Lauren Dyan Zabrin , Senior, Political Science, LAS

PB.21	<i>Determination of antioxidant capacity of citrus bioactive compounds using oxygen radical absorption capacity-fluorescein assay</i> Felicia Stefani , Senior, Food Science, ACES
PB.22	<i>Giving the learner control: Exemplar selection in category learning</i> Robert Molitor , Senior, Psychology, LAS
PB.23	<i>A study of the effects of progesterone in mice models</i> Dana Theresa Ahern , Junior, Anthropology, LAS
PB.24	<i>How many shots do you need to make the grade?</i> Olivia M. Garcia , Sophomore, Molecular Cellular Biology, LAS Lily Criscione , Sophomore, Molecular and Cellular Biology and Spanish, LAS
PB.25	<i>Are you useful or useless? Brain activity associated with processing of emotionally-valenced language</i> Daniel J. Frost , Senior, Psychology, LAS
PB.26	<i>The impact of acculturation and acculturative stress on dietary habits of Latina immigrants in central Illinois</i> Melissa Morales , Senior, Food Science and Human Nutrition, ACES
PB.27	<i>How does TV really influence our children's eating habits?</i> Sara Lisa Gillman , Senior, Human Nutrition, ACES Carla Philizaire , Senior, Human Nutrition, ACES
PB.28	<i>Disproving prominent stereotypes of Chinese and American cultures</i> Matthew L. Felty , Senior, Economics, LAS Teng Teng Lao , Visiting Student Chan Man Wa , Visiting Student Kasandra Swanigan , Sophomore, Creative Writing and Communication, LAS
PB.29	<i>Analysis of neocortical vascular density in a mouse model at various life stages of the Fragile X Syndrome</i> Ashley Marie Galvan , Senior, Psychology, LAS
PB.30	<i>Keeping up with the youth?</i> Kimberly Anne Jaworski , Sophomore, Elementary Education, EDU Yan Yiting , Visiting Student Chan Fong , Visiting Student
PB.31	<i>Ungoverned spaces, terrorist safe havens, and tribal agency</i> Richard Dembinski , Senior, Global Studies, LAS
PB.32	<i>Understanding the development of terrorism in Pakistan</i> Aina S. Niaz , Senior, Political Science and Psychology, LAS

PC SESSION

1:30–2:45 P.M. (PINE LOUNGE)

PC.01	<i>OSR1 activates Cl/SO₄²⁻-exchange activity of Drosophila Slc26a5: Drosophila model of kidney stones</i> Anna Czapar , Junior, Bioengineering, ENG
PC.02	<i>Investigating bee bowl color in prairie habitats</i> Bridgette Moen , Senior, Earth Systems, Environment, and Society, LAS
PC.03	<i>Delayed auditory feedback and dual-task effects on speech rate</i> Rebecca Breanne Tibbs , Senior, Speech and Hearing Science, AHS
PC.04	<i>Flow modeling of the Connecticut River estuary</i> Seren Gountanis , Senior, Mathematics and Geology, LAS
PC.05	<i>Factors in military spending in the United States and Russia</i> Karol A. Stadnicki , Senior, Political Science, LAS
PC.06	<i>No laughing matter: The effects of entertainment news on political knowledge and cynicism</i> Stephen Schleicher , Senior, Political Science, LAS
PC.07	<i>Robust control of crystallisation of Lasp</i> Min Hao Wong , Junior, Chemical and Biomolecular Engineering, LAS
PC.08	<i>Robust control of protein purification</i> Pui Yin Tham , Junior, Chemical Engineering, LAS Min Hao Wong , Junior, Chemical Engineering, LAS
PC.09	<i>The effect of the time of weaning on efficacy of the CO-Synch + CIDR estrus synchronization protocol</i> Emily Carson , Animal Sciences, ACES
PC.10	<i>Maternal parenting and eating habits: Does matriarchal influence play a factor in children's eating behaviors and weight gain?</i> April A. Moore , Senior, Health Communication, LAS Adina Hattar , Senior, Food Science and Human Nutrition, ACES Laurie Penalber , Senior, Speech and Hearing Science, AHS
PC.11	<i>A new model to study mechanical movement in chemoattractant sensing of neutrophils</i> Jaclyn Spitz , Junior, Bioengineering, ENG
PC.12	<i>Fermentation of blueberries and the inhibitory capacity of starch degrading enzymes</i> Tessa L. Meyer , Senior, Food Science and Human Nutrition, ACES
PC.13	<i>An examination of the effect of different intensities of exercise on affect and enjoyment</i> Annie M. Nekoliczak , Senior, Kinesiology, AHS
PC.14	<i>An exploration of the role and future of the arts: A case study of Portland, Oregon</i> Ashton McCrate , Senior, Recreation, Sport and Tourism, AHS

PC.15	<i>The effects of moderate aerobic exercise training on inflammatory status of the colon during acute ulcerative colitis</i> Collette L. Williams , Junior, Molecular and Cellular Biology, LAS
PC.16	<i>The impact of father involvement on children's later social-emotional outcomes</i> Margaret Ann Tunney , Senior, Human Development and Family Studies, ACES
PC.17	<i>Body mass index and validity of self-reported body size among Mexican young adults</i> Jilber Alexander Jerman , Junior, Community Health, AHS
PC.18	<i>Women, health, and context: Understanding the health behaviors and health attitudes of women of color</i> Quianna Tillisa Hart , Senior, Community Health, AHS Laura Myers , Junior, Community Health, AHS
PC.19	<i>Emotional styles, distress, and voluntary and involuntary attention to emotion</i> Shanshan Huang , Senior, Psychology, LAS
PC.20	<i>A comparison of rural, urban, and suburban charter schools</i> Lauren R. Donoho , Sophomore, Elementary Education, EDU
PC.21	<i>Motion planning for a planar elastica</i> Rasheed Ibrahim , Junior, Aerospace Engineering, ENG, and Applied Mathematics, LAS
PC.22	<i>The effects of parental distress on young adult CNS cancer survivors' employment and community integration</i> Nancy Intapura , Junior, Psychology, LAS Jenna Reid , Senior, Psychology, LAS Elizabeth Howard , Junior, Community Health, AHS
PC.23	<i>Self-healing silver particle circuits</i> Sarut Chayanupatkul , Junior, Materials Science and Engineering, ENG
PC.24	<i>Changing the channels: Understanding U.S. democracy promotion assistance</i> Michelle Eack , Senior, Political Science and Psychology, LAS
PC.25	<i>Public transportation costs and future cities</i> Emily Blumenthal , Sophomore, DGS
PC.26	<i>Chronic d-amphetamine administration increases hippocampal neurogenesis in C57Bl/6J mice</i> Emily Christine Dabe , Senior, Psychology and English, LAS
PC.27	<i>Do you hear it? Using illusory sounds to differentiate hearing impaired, tinnitus, and normal hearing adults</i> Kristina N. Rutas , Senior, Speech and Hearing Science, AHS Corinne Heller , Junior, Speech and Hearing Science, AHS Jenise Chappell , B.S., Speech and Hearing Science, AHS
PC.28	<i>A house divided: The effects of contested primaries on the ensuing general elections for U.S. house members</i> Andrew P. Maloney , Senior, Political Science, LAS

PC.29	<i>Objective behavioral correlates of hearing loss and tinnitus</i> Stephanie D. Willard , Senior, Speech and Hearing Science, AHS
PC.30	<i>Achievement, student demographics, and teacher certification in Illinois charter schools</i> Kathleen E. Kreisel , Sophomore, Pre-Education, EDU Katrina Nelson , Sophomore, Pre-Education, EDU
PC.31	<i>Change detection: The identity of faces with happy and fearful emotions</i> Natalie Henry , Senior, Psychology, LAS
PC.32	<i>Heat transfer in TEMHD-driven liquid lithium flow</i> Travis Mui , Sophomore, Nuclear, Plasma, and Radiological Engineering, ENG Ryan Switts , Junior, Nuclear, Plasma, and Radiological Engineering, ENG
PC.33	<i>Gendered violence on the U.S.-Mexico border: Femicide in Ciudad Juárez</i> Victoria F. Briones , Junior, Psychology and Latina/o Studies, LAS

PD SESSION

3:15–4:30 P.M. (PINE LOUNGE)

PD.01	<i>New yeast strain development using UV mutagenesis for cellulosic ethanol production</i> Jenny Yang , Junior, Human Nutrition, ACES
PD.02	<i>Parents' Recording of Children's BMI: Fact or Fiction?</i> Jennifer Rogers , Senior, Community Health–Administration and Planning, AHS Justine Lee , Junior, Community Health–Health Education and Promotion, AHS
PD.03	<i>(Are) you coming? Parent question types to their children in the earliest stages of grammatical development</i> Elizabeth Marie Eichorst , Senior, Speech and Hearing Science, AHS
PD.04	<i>Parent-examiner differences in their use of toy talk and its relationship to input informativeness</i> Brittany A. Jansen , Senior, Speech and Hearing Science, AHS
PD.05	<i>The Sentence Diversity Checklist: Characterizing early syntactic development using parent report</i> Megan Marie McKenna , Senior, Speech and Hearing Science, AHS
PD.06	<i>The effects of aerobic exercise training on inflammation-associated depression</i> Stephanie Johnson , Junior, Kinesiology, AHS
PD.07	<i>Investigating the mechanism of DNA damage induction by three haloacetic acid drinking water disinfection by-products</i> Justin Kyan Ang , Senior, Animal Sciences, ACES

PD.08	<i>Characteristics of university-affiliated charter schools</i> Monika K. Patel , Sophomore, Elementary Education, EDU
PD.09	<i>If you play, I play (and other little truths of parent-child activity)</i> Dorian Laura Gittleman , Senior, Psychology, LAS
PD.10	<i>Stress, distress tolerance, and impulsive behaviors</i> Alex Lane , Senior, Psychology, LAS
PD.11	<i>Fast food choices: Using the core meal to select healthier options in today's fast food environment</i> Wenbo Jia , Junior, Chemical Engineering, LAS
PD.12	<i>Conversational repetition and aphasia: A case study</i> Kyle P. Easter , Senior, Speech and Hearing Science, AHS
PD.13	<i>The effects of early childhood feeding practices on oral health development in young children</i> Sonny Yuan Song , Junior, Psychology, LAS
PD.14	<i>Backcrossing D6D gene into 129S6/SvEvTac strain strengthens conclusions of AA and DHA deficiency</i> Jannah Elizabeth LaHood , Senior, Molecular and Cellular Biology, LAS
PD.15	<i>How marital status influences family mealtime frequency and household chaos</i> Stephanie Clara Hall , Senior, Food Science and Human Nutrition, ACES
PD.16	<i>Assessing clinicians' fidelity in adolescent substance abuse treatment</i> Caitlin L. Regan , Junior, Social Work, SOCW Natalie M. Cullen , Junior, Social Work, SOCW
PD.17	<i>Education levels among food-insecure families</i> Christopher Bulaon , Junior, Agricultural and Consumer Economics, ACES
PD.18	<i>An investigation of betaine-homocysteine methyltransferase and its mutants' activity level based on alterations at the potassium binding site</i> Katie L. Lowry , Senior, Food Science and Human Nutrition, ACES
PD.19	<i>Correlation between fat and sodium content in commercially packaged foods</i> Daniel Joseph Krause , Junior, Food Industry and Business, ACES
PD.20	<i>Sleep deprivation and sugar consumption in Mexican young adults</i> Esther Adaeze Ikoro , Junior, Community Health, AHS
PD.21	<i>Childhood trauma, personality, and health: Does personality mediate the relationship between trauma and health?</i> Elizabeth Gonzales , Senior, Psychology, LAS
PD.22	<i>The role of response selection and inhibition in an elicited-response false-belief task</i> Gina C. Petro , Senior, Psychology and Philosophy, LAS

PD.23	<i>Verb bias effects following sentential-clause biased verbs: A reading-time study</i> Pawel Laciak , Senior, Neuroscience and Psychology, LAS
PD.24	<i>Curriculum and instruction in Illinois charter schools</i> Erika Foster , Junior, Early Childhood Education, EDU Jenny Alger , Junior, Elementary Education, EDU Courtney Wills , Sophomore, Early Childhood Education, EDU
PD.25	<i>Studio interact: Evaluation and proposal of architectural studio uses and needs at the University of Illinois at Urbana-Champaign</i> Jordan Billingsley , Senior, Architectural Studies, FAA Kenneth Baumgartner , Senior, Architectural Studies, FAA
PD.26	<i>Design of photonic crystal slab hydrogen sensors</i> Jared Carter , Senior, Electrical Engineering, ENG
PD.27	<i>Breastfeeding practices among low-income women</i> Tiffany N. Freeman , Senior, Community Health, AHS Krystal Wilson , Senior, Community Health, AHS Monica Ahn , Senior, Food Nutrition and Science, ACES
PD.28	<i>Childhood obesity: Children's various food intake in relation to parents' level of education and nutritional knowledge</i> Lisa Ann Pearson , Senior, Community Health, AHS
PD.29	<i>Males and nursing</i> Melissa Kolod , Junior, Community Health, AHS
PD.30	<i>An analysis of a multi-scale approach to associative memory</i> Felix Wang , Senior, Electrical Engineering, ENG
PD.31	<i>Identification of a sleep-promoting region in the brain of a diurnal rodent</i> James R. Allen , Senior, Molecular Cellular Biology and Psychology, LAS
PD.32	<i>The effects of amphetamine exposure during adolescence on inhibitory control behavior in adulthood in male rats</i> Maria Fernanda Piñeros-Leaño , Senior, Psychology, LAS
PD.33	<i>Is TV controlling your diet?</i> Chris Oberst , Junior, Community Health, AHS Lauren Anderson , Senior, Communication, LAS Lezlee Gaither , Senior, Interdisciplinary Health, AHS
PD.34	<i>Exploring home literacy practices and parental beliefs for children with writing delays</i> Elizabeth S. Pelletier , Senior, Speech and Hearing Science, AHS Eileen P. Kerins , Junior, Speech and Hearing Science, AHS
PD.35	<i>Synthesis of graphene</i> Maninpat Naviroj , Junior, Materials Science and Engineering, ENG

PD.36	<i>Characterization of anxiety-like behavior and depressive-like symptomology in two strains of mice with impaired responsiveness to estrogen</i> Christopher Johnson , Senior, Psychology, LAS
PD.37	<i>Does membrane fusion during the sperm acrosome reaction occur at membrane rafts?</i> Amanda C. Hankes , Senior, Animal Sciences, LAS
PD.38	<i>Teachers' perspectives of charter schools</i> Madeleine Lynch , Sophomore, Elementary Education, EDU Mandy Moore , Sophomore, Elementary Education, EDU
PD.39	<i>Illinois bridge to China: Survey, design, and optimization of bridges in rural China</i> Qiyuan Gou , Senior, Civil Engineering, ENG Zhe Zhao , Senior, General Engineering, ENG Julie Fry , Junior, Civil Engineering, ENG
PD.40	<i>The role of temporal information in the recognition of speech sounds</i> Jeremy A. Lacocque , Psychology, LAS

ISUR POSTER EXPO 4:30–6:30 P.M. (LEVIS FACULTY CENTER)

Illinois Scholars Undergraduate Research Program Poster Expo, Levis 2nd Floor

The Illinois Scholar Undergraduate Research (ISUR) program is a yearlong experience for engineering students. It is generously funded by the Semiconductor Research Corporation, BP, Lockheed Martin, Rockwell Collins, and Shell. Through this program, Undergraduate Scholars are offered a unique opportunity to expand their academic experience beyond the walls of the traditional classroom. Students are introduced to research by working closely with graduate mentors and faculty on complex research projects. Each year their findings are presented at a poster expo.

The ISUR Expo is open to the public.

<i>Optimizing photovoltaic arrays</i> Rohan Amin , Electrical Engineering, ENG
<i>Modeling of defect diffusion in metal oxide semiconductors for gas sensing and nanoelectronic applications</i> Gloria An , Chemical Engineering, LAS/ENG
<i>Green friendly BPMs for rest areas</i> Abigail Benuska , Civil and Environmental Engineering, ENG
<i>Wheelchair data cleaning, mediolateral stability in MS patients</i> Daniel Bonistalli , Bioengineering, ENG
<i>Fabricating biodegradable zein microfluidic devices</i> Serena Brodsky , Agricultural and Biological Engineering, ACES/ENG
<i>Pathogen removal in water using bio-sand filters</i> Adrian Carmona , Industrial Engineering, ENG
<i>Combining planning and motion planning to manipulate complex devices</i> Ritchie Cervantes , Agricultural and Biological Engineering, ACES/ENG

<i>Control of nonlinear and distributed parameter systems and nonlinear oscillations</i> Cory Cetkovic , Mechanical Engineering, ENG
<i>Nano manufacturing</i> Salem Cherenet , Mechanical Engineering, ENG
<i>Sonoscan on 3T3 cell pellets</i> Michael Chow , Electrical Engineering, ENG
<i>Discovery of novel Type III polyketide synthases from bioactive plants</i> Braden Christian , Chemical Engineering, LAS/ENG
<i>Energy efficiency of a pneumatically powered AFO</i> Jaclyn Coyle , Mechanical Engineering, ENG
<i>Automated histopathology procedures for human GI tract</i> Caroline Cvetkovic , Bioengineering, ENG
<i>EEG-based brain-computer interaction</i> Michelle Diaz , Aerospace Engineering, ENG
<i>Mechanical properties of polyacrylamide hydrogels</i> Hannah Friedman , Engineering Mechanics, ENG
<i>Naturally occurring oxides for photovoltaics</i> Rachel Garrick , Materials Science Engineering, ENG
<i>Analyzing the moments on a micro turbine blade</i> Leonardo Gomes , Aerospace Engineering, ENG
<i>Coupling process-based models to improve the simulation of land-atmosphere interactions</i> Tom Hayes , Computer Science, ENG
<i>Effects of wind speed on power generation</i> Jennifer Hong , Electrical Engineering, ENG
<i>Digital health device</i> Eric Johnson , Electrical Engineering, ENG
<i>Nondestructive testing of wood</i> Lauren Kelly , General Engineering, ENG
<i>FTIR data processing for cancer</i> Lindsey King , Electrical Engineering, ENG
<i>Galvanometer-mirror system for remote sensing</i> Nathaniel Liu , Electrical Engineering, ENG
<i>Quantum well and quantum dot lasers</i> Colleen Meagher , Engineering Physics, ENG
<i>3D swept wing icing research</i> Cassie Meisner , Aerospace Engineering, ENG
<i>Growth of carbon nanotube on different substrates</i> Monisha Menon , Materials Science Engineering, ENG
<i>Creating a life-cycle testing rig for a gear-shifting system in a manual wheelchair</i> Lee Ann Monaghan , Mechanical Engineering, ENG
<i>DFB laser surface chemistry</i> Guillermo Monroy , Computer Engineering, ENG

<i>Investigating the effect of nonlinear acoustic propagation on ultrasound attenuation</i> Nikita Patel , Mechanical Engineering, ENG
<i>TweetSpiration: Leveraging social media for design inspiration</i> Aaron Phelps , Computer Science, ENG
<i>Laser optics and pilot rake design</i> Heath Reising , Aerospace Engineering, ENG
<i>Versatile electric propulsion aircraft testbed</i> Jenny Roderick , Aerospace Engineering, ENG
<i>Directed evolution of flavin based mutants</i> Cassandra Schneider , Chemical Engineering, LAS/ENG
<i>Use of CAM assays in determining if Hydroxyapatite Powder can induce vascularization</i> Megan Silas , Bioengineering, ENG
<i>3D image rendering using a set of photos</i> Walter Sorto , Computer Science, ENG
<i>Acoustic metamaterials</i> Melicent Stossel , Engineering Mechanics, ENG
<i>Construction and system identification of a small scale model tractor</i> Amanda Stowers , Mechanical Engineering, ENG
<i>Robot grasping strategies</i> Sravan Suryadevara , Computer Science, ENG
<i>A study on the seismic response of linear structural models representing nonlinear behavior</i> Stephanie Tong , Civil and Environmental Engineering, ENG
<i>Electrical and optical properties of semiconductor nanolasers</i> Eric Wei , Electrical Engineering, ENG
<i>Controlling gene expression with engineered promoters and zinc finger protein</i> Kevin Weyant , Chemical Engineering, LAS/ENG
<i>Performance test of high-sensitivity sensorboard for Imote2 platform</i> Kaitlin White , Civil and Environmental Engineering, ENG



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Nikki Hodge, Office Administrator

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Emily Pinheiro, Undergraduate Intern