UNDERGRADUATE RESEARCH SYMPOSIUM

THURSDAY, APRIL 18, PROGRAM
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 for the best posters and presentations. Judges include university administrators and distinguished faculty members. URS is made possible by support from the Office of the Provost, Office of Undergraduate Research (OUR), a unit of the Provost’s Office, as well as the Office of Admissions. Special thanks to Dr. Matthew Price, the Undergraduate Research and Office, as well as the Office of Admissions.

**Paul F. Diehl**
Director, Office of Undergraduate Research
Henning Larsen Professor of Political Science

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**EVENT OVERVIEW**

**THURSDAY, APRIL 18, 2013**

**I LLINI UNION**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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| 9:00-10:15 a.m. | Poster Presentations | PA Session: Illini Room A  
B Session: South Lounge |
| 10:00-11:00 a.m. | Oral Presentations | A Session: Room 209  
C Session: Room 206 |
| 10:45 a.m.-12:00 p.m. | Poster Presentations | PC Session: Illini Room A  
PD Session: Illini Room C  
PE Session: South Lounge |
| 11:00 a.m.-12:00 p.m. | Oral Presentations | B Session:  
B.1—Room 209  
B.2—Room 217  
B.3—Room 215  
B.4—Room 211 |
| 12:00-1:15 p.m. | Lunch | Featured Session: Illini Room B |
| 1:30-2:30 p.m. | Oral Presentations | C Session:  
C.1—Room 209  
C.2—Room 217  
C.3—Room 216 |
| 1:30-2:45 p.m. | Poster Presentations | PF Session: Illini Room A  
PG Session: South Lounge  
PH Session: Illini Room C |
| 2:30-3:30 p.m. | Oral Presentations | D Session:  
D.1—Room 209  
D.2—Room 217  
D.3—Room 215  
D.4—Room 217 |
| 3:15-4:30 p.m. | Poster Presentations | PI Session: Illini Room A  
PJ Session: South Lounge |
| 3:15-4:30 p.m. | Performances | Illini Room B |
| 3:30-4:30 p.m. | Oral Presentations | E Session:  
E.1—Room 209  
E.2—Room 217  
E.3—Room 215 |

**LEVIS FACULTY CENTER**

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<th>Time</th>
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<tr>
<td>4:30-6:30 p.m.</td>
<td>ISUR Poster Expo</td>
<td>1st Floor</td>
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**ORAL PRESENTATIONS**

**A SESSION, 10:00-11:00 a.m.**

**The Importance of Culture (Illini Union, 209)**
- Differences From the Eastern and Western Cultures Expressed Through Music
  - Kei U Laa, Junior, Civil Engineering, ENG
  - Michael Ayala, Freshman, Interdisciplinary Health, AHS
  - China and the United States: Differences in Attitudes on Foreign Cultures
  - Margaret Kien, Senior, English, LAS
  - Katherine Bai (Xuehai Bai), Junior, Political Science, LAS

**B Session, 11:00 a.m.-12:00 p.m.**

**B.1, Dimensions of Race and Ethnicity (Illini Union, 209)**
- African-American Humor and Audience
  - Lauren Jackson, Senior, English, LAS
- American Communists and the Campaign to Abolish Segregation in Major League Baseball
  - Soren Bluemke, Senior, History, LAS
- What is in a Name? The Relationship Between Asians and Their Usage of English Names
  - Yukako Kuyama, Junior, Political Science, LAS
  - U’Wang Song, Junior, Japanese Studies, LAS

**B.2, Issues in the Writing Process (Illini Union, 217)**
- Writing Processes and Attitudes Across the Curriculum
  - Clara Mount, Junior, English, LAS
  - Joanna Chronik, Senior, English, LAS
  - Building Knowledge: Expectation and Evaluation in Writing Aesthetics
  - Todd Ross, Senior, English, LAS
  - Lauren Jackson, Senior, English, LAS
  - Multilingual and Multicultural Writers
  - Grace Rosen, Junior, English, LAS
  - Alex Loh, Junior, English, LAS

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**C SESSION, 1:30-2:30 P.M.**

**C.1, Literature as an Agent of Change (Illini Union, 209)**
- Domestic Sarcasm in the 1980s
  - Michelle Songer, Senior, English, LAS
- Toursim, Terrafoming, and the Picturesque: Visualizing Colonial India
  - Jonathan Chong, Senior, English, LAS
- The Man-Made Key to Women: How Women’s Sexuality Was a Product of Male Desire
  - Reva Ghadge, Senior, English, LAS

**C.3, Issues in Curriculum and Instruction (Illini Union, 215)**
- Teaching Students Counseling Skills: Training in MSW Fieldwork
  - Kasandra Swamgan, Senior, English and Communication, LAS
- Vocal Pedagogy: An Investigation of the Foundational Aspects of Singing and Methods to Identify and Remediate Vocal Dysfunction Caused by Chronic Respiratory Illness
  - Jasmine Henderson, Senior, Music, FAA
- Mentorship and Academic Achievement in Higher Education Music Curriculum
  - Emily Malamud, Senior, Music Education, FAA
- No Single Definition
  - Aliya Proctor, Senior, Social Work, SSW

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**B.4, Chinese Education Patterns, Part I (Illini Union, 211)**
- Teacher Preparation: A Comparison of Teacher Education and Development in China and the United States
  - Ryle Wharton, Junior, Elementary Education, EDU
  - Mary Johnson, Junior, Elementary Education, EDU
- Gaokao: China’s National College Entrance Examination and Chinese Students’ Perspective
  - Megan Lee, Junior, Elementary Education, EDU
  - Kristen Wang, Senior, Early Childhood Education, EDU
- English Language Education in Chinese Schools
  - Kayla Bull, Senior, Elementary Education, EDU
  - Charyl Dogan, Senior, Elementary Education, EDU
- Physical Education in China’s Education System
  - Michelle Rosen, Junior, Elementary Education, EDU
  - Stephanie Church, Junior, English, LAS
- The Importance of Music Education in China
  - Amos Adeola, Freshman, Music Education, FAA
  - Catherine Anabella Lai, Junior, Architectural Studies, FAA

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**Examinering the Writing Tutoring Session**
- Anna Majoki, Senior, English, LAS
- Reagan Roberts, Senior, English and Electrical Engineering, LAS and ENG

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*End of presentation.*
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