



CHICAGO AREA undergraduate research symposium

April 14, 2007
Loyola University Chicago Law Center

Review



Introduction

The American Undergraduate Research Society (AURS) is proud to present the Chicago Area Undergraduate Research Symposium, an annual event held each spring that allows hundreds of undergraduates from six outstanding Chicago area universities the opportunity to present their research results in a professional setting. Any undergraduate science or engineering student conducting research is invited to submit an application and abstract. CAURS also accepts research proposals and will award a research grant for the best proposal, to be announced at the event's awards banquet. This is only open to students who are presenting a poster at the event.

CAURS provides an excellent opportunity for students to learn about the research of their peers, speak to the attending university faculty, interact with industry representatives, and receive both wisdom and inspiration from the invited speakers. Members of the larger Chicago and Midwest scientific research community are invited to attend. This unique event is a collaboration involving the University of Chicago, the University of Illinois at Chicago, Loyola University Chicago, Illinois Institute of Technology, DePaul University, and Northwestern University.

The 3rd Annual CAURS

The 2007 Chicago Area Undergraduate Research Symposium was held on April 14, 2007 at the beautiful Law Center building on Loyola University Chicago's Water Tower Campus. Over 100 undergraduates from all six institutions presented 88 research projects as poster presentations and 12 oral presentations in the fields of biology, chemistry, physics, social sciences, psychology, engineering, mathematics, and economics. These projects were of very high quality and ranged from theoretical physics to paleobiology to visual computing to food chemistry to industrial organization. Many faculty members from the participating institutions generously donated their time to judge these poster and oral presentations. After registration, oral presentations were held at the neighboring Maguire Hall and two sessions of poster presentations were held after lunch in Kasbeer Hall of the Law Center. The research lecture and banquet were held after the poster sessions at Beane Hall of Lewis Towers, and the symposium ended with an exciting awards ceremony. Dr. Nancy Tuchman, Ph.D, Associate Provost for Research at Loyola University gave a warm opening address, while Dr. Thomas Meade, Ph.D, chemistry and biology professor at Northwestern University presented his research in an engaging research lecture. Dr. Nancy J. Zeleznik-Le, Ph.D, Associate Professor of Medicine at the Loyola University Medical Center gave a fascinating keynote address.



The Host School: Loyola University Chicago

Loyola University Chicago, a private university founded in 1870 as St. Ignatius College, is Chicago's only Jesuit Catholic University and one of the largest of the 28 Jesuit colleges and universities in the United States. Loyola University Chicago is comprised of four campuses: Lake Shore (LSC), Water Tower (WTC), Loyola University Health System (LUHS), and the John Felice Rome Center in Italy; and is home to nine schools and colleges: arts and sciences, business administration, education, graduate studies, law, medicine, nursing, professional studies, and social work. Loyola also serves as the U.S. host university to the Beijing Center for Chinese Studies in Beijing, China.

Recognizing Loyola's excellence in education, U.S. News and World Report has ranked Loyola



consistently among the “top national universities” in its annual publications. The Lake Shore campus is the main undergraduate campus and is home to more than 40 buildings, including the Michael R. and Marilyn Quinlan Life Sciences Education and Research Center, an innovative facility featuring state-of-the-art science labs, and Cudahy Library, the main University library. Research is strongly promoted for Loyola undergraduates and the Loyola Undergraduate Research Opportunities Program seeks to enrich, enhance, diversify and individualize the learning experiences of Loyola undergraduate students. We are grateful to have Loyola University Chicago be our host school this year, with Suzzane Brown as the Loyola director of the symposium. Every year, representatives from the host school are responsible for planning the logistics of the event, booking a venue, and securing speakers and special guests.

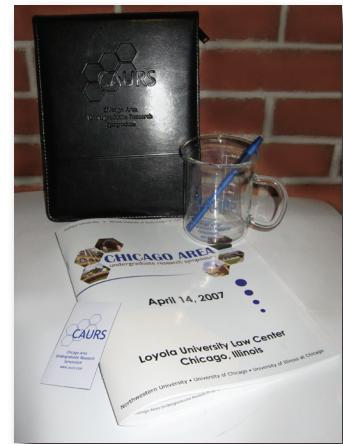
Schedule

10:00 am	Registration and Breakfast
10:45 am	Opening Address: Nancy C. Tuchman, Ph.D., Associate Provost for Research at Loyola University
11:00 am	Oral Presentations
12:15 pm	Lunch with graduate/medical school information tables
1:15 pm	Poster Presentations, Session I
2:15 pm	Coffee Break
2:45 pm	Poster Presentations, Session II
3:45 pm	Research Lecture: Thomas Meade, Ph.D., Professor of Chemistry, Biology and Radiology at Northwestern University
4:30 pm	Banquet Dinner (Keynote: Nancy J. Zeleznik-Le, Ph.D., Associate Professor of Medicine at the Cardinal Bernardin Cancer Center) and Awards Ceremony

Review

Students were greeted at the registration desk with a CAURS program, mug, magnet, and pen while guests and judges received an additional CAURS padfolio. Scientific artwork submitted by participants was displayed throughout the Law Center and Maguire Hall, and volunteers and Inter-School Board members were available during the day to assist students and judges. Participants were treated to a light breakfast, a healthy lunch, a refreshing afternoon snack, and a delicious dinner and dessert throughout the day.

After a greeting from Dr. Nancy Tuchman, oral presentations were held in three rooms simultaneously at Maguire Hall, monitored by a CAURS Inter-School Board member and judged by faculty. During lunch, representatives from graduate schools in the Chicago Area were available to speak with students and to give them more information about their programs. Poster presentations were held in Kasbeer Hall where participants shared their posters with their peers and





faculty judges. At the neighboring Lewis Towers, the research lecture was given by Dr. Thomas Meade, who spoke of his discoveries and subsequent patents in disease diagnosis and radiology using biological and chemistry techniques. After the research lecture, participants settled down for an elegant white tablecloth banquet with a jazz trio playing in the background. When dessert was finished, the keynote lecture was given by Dr. Nancy Zeleznik-Le, who spoke of her research on the MLL protein and leukemia.

Following the keynote speech, the awards ceremony wrapped up the end to a long and fruitful day. A red Ipod was raffled off to participants who had submitted an abstract by an early deadline. In addition to serving a good incentive for submitting abstracts early, the red Ipod was chosen because \$10 of each Ipod purchase is set aside to fight AIDS in Africa as part of the (RED) campaign. From each institution who had enough Inter-School members and were financial sponsors of our event, a faculty member was recognized for their outstanding support of undergraduate research:

- Susan M. Fischer, Ph.D of DePaul University
- Jeffrey L. Doering, Ph.D of Loyola University
- Richard B. Silverman, Ph.D of Northwestern University
- Philippe Cluzel, Ph.D of University of Chicago

Awards were then presented to the top poster presentations in each field, the top oral presentation, the top proposal, and the top overall abstract/presentation. The top overall award is designated the Joe Cribari President's Award in appreciation of Joe Cribari who was a faculty founding member of CAURS and former director of the Undergraduate Success in Science program at Northwestern University. The award for top proposal carries the stipulation that the awardee present at the subsequent year's CAURS. Each award includes a cash prize.

- **Joe Cribari President's Award:** Ryosuke Kita of Northwestern University
- **Top Proposal:** Jason Eng of Northwestern University
- **Top Oral Presentation:** Yonatan Kahn of Northwestern University
- **Top Poster Presentation:**
 - **Biology:** Michael Schieber of Northwestern University
 - **Chemistry:** Sharan Srinivasan of Northwestern University
 - **Engineering:** Brian Neiswander and Minaz Virani of Illinois Institute of Technology
 - **Mathematics/Economics:** Carl Philips and Stephanie Valencia of DePaul University
 - **Physics:** Alessandro Lauro of University of Chicago
 - **Psychology/Social Sciences:** Anthony Evans of Northwestern University

All posters and oral presentations were of the highest quality and we were extremely impressed by all of the participants. We are very grateful for the support of our sponsors, the six participating institutions, and of the faculty members who served as advisors and judges for our event. Thank you also to the student participants who presented their research and enjoyed the opportunity to learn about the research of their peers at neighboring institutions.

The Inter-School Board

The CAURS Inter-School Board is comprised of student representatives from the six participating institutions. These talented and responsible individuals devote much time during their school year to travel to meetings and to plan the event. Many months of planning are involved, and careful detail is paid to ensure that each symposium is a professionally run event. For each institution that is represented on the board, students have an equal voice in the decisions that are made and

have an important role in ensuring that their institution is well represented at the event. Board members also lend their expertise in web design, event planning, fundraising, and other areas to make important contributions to CAURS. Planning the event also provides excellent opportunities for ISB members to make valuable connections in the academic and scientific field. Additionally, ISB members have a strong voice in deciding faculty awardees for outstanding support of undergraduate research, which are recognized at each year's awards ceremony. ISB members are sometimes supported by a faculty advisor at their institution who helps them with administrative and publicity tasks. Nonetheless, the spirit of CAURS continues to be that of a student-run professional event that gives Chicago area undergraduates an exciting opportunity to present their research in a supportive atmosphere fully backed by their institution's faculty and administration.

This year's ISB members are:

Loyola University Chicago: Suzzane Brown (host director)

DePaul University: Sean McCormick, Rafael Yah

Northwestern University: Gregory Cvetanovich, Terrance Lee (director), Carlyn Tan, Alice Tang, Bi-Shun Zeng

University of Chicago: Frank Aguilar, Marsela Jorgolli, Rhyan Washington

University of Illinois at Chicago: Christopher Urso

Faculty advisors:

Northwestern University: Thy Nguyen

Illinois Institute of Technology: Carlo Segre, Ph.D

CAURS is also grateful for the tremendous support that student volunteers provided during the event, especially at registration and during poster presentations. Volunteers often become ISB members themselves during subsequent years due to their experience, and the help is much appreciated.

Acknowledgments

The Chicago Area Undergraduate Research Symposium would not have been developed without the help of countless people at all 6 participating institutions. In particular, we would like to thank the following individuals for their help and support:

DePaul University

Rev. Dennis H. Holtschneider, C.M., President
Victoria Simek, Staff Council

Illinois Institute of Technology

Allan S. Myerson, Ph.D, P.E., Provost and Senior Vice President
Carlo Segre, Professor of Physics and Associate Dean of the Graduate College

Loyola University

Rev. Michael J. Garanzini, S.J., President
Nancy C. Tuchman, Ph.D, Associate Provost for Research
Nancy J. Zeleznik-Le, Ph.D, Associate Professor of Medicine at the Cardinal Bernardin Cancer Center
Mary Cashman, Sales & Marketing Manager, Conference Services
Claudine Clarke, Catering Manager

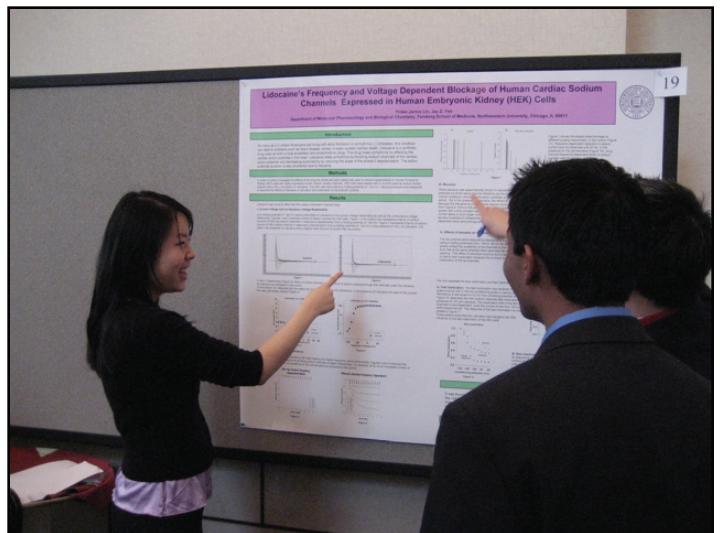
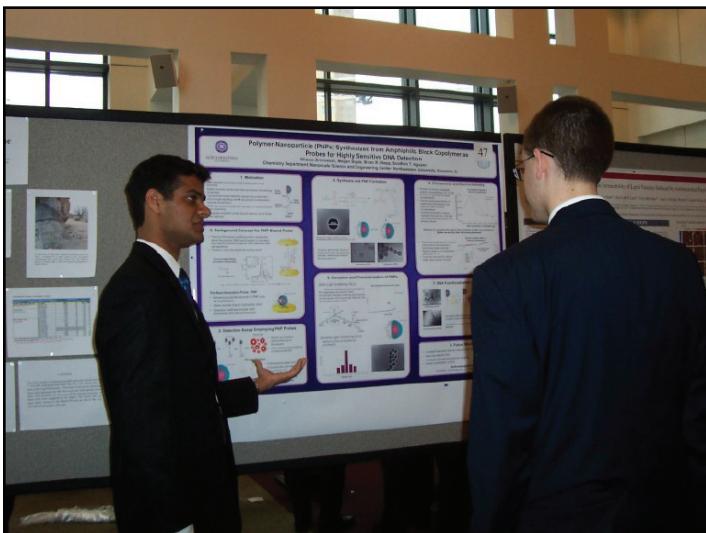
Northwestern University

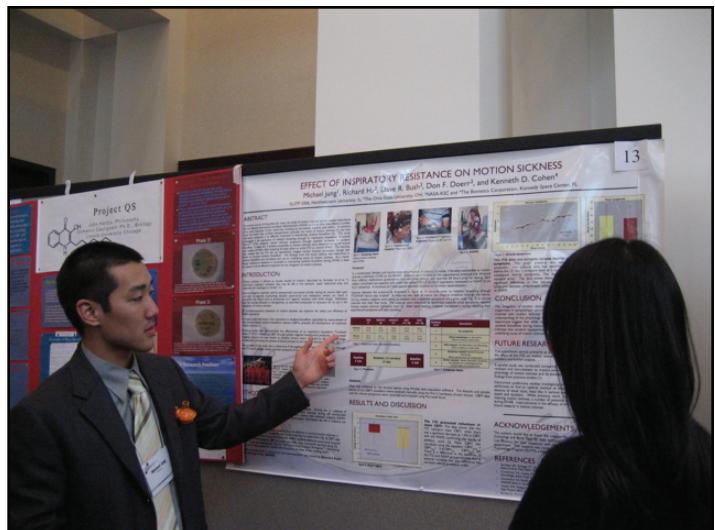
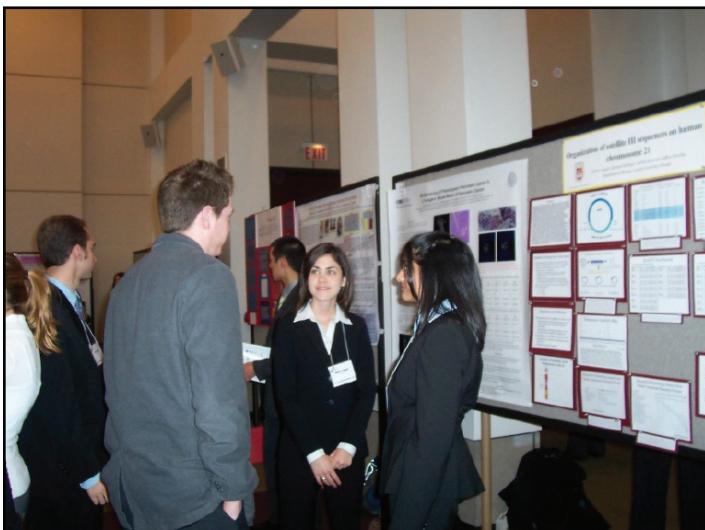
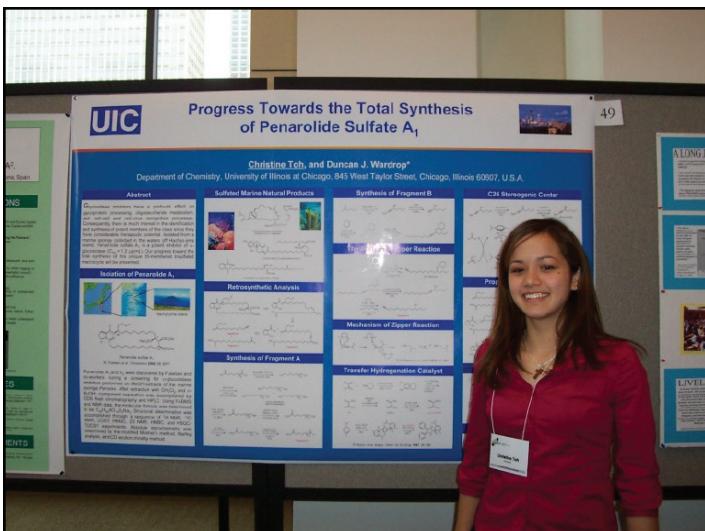
Henry S. Bienen, Ph.D., President
William J. Banis, Vice President for Student Affairs
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Steven T. Rosen, M.D., FACP, Director of the Lurie Comprehensive Cancer Center
Teresa K. Woodruff, Ph.D., Thomas J. Watkins Memorial Professor of Obstetrics & Gynecology
Thomas J. Meade, Ph.D., Professor of Chemistry, Biology, and Radiology
Thy Nguyen, Assistant Director of Engineering & Science, University Career Services

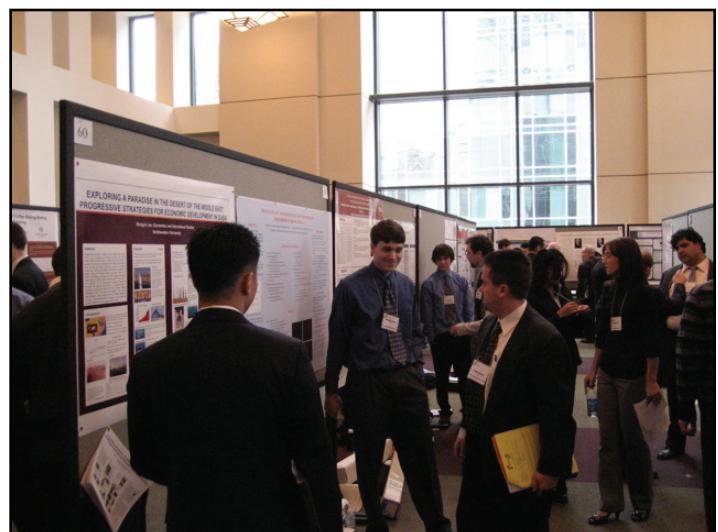
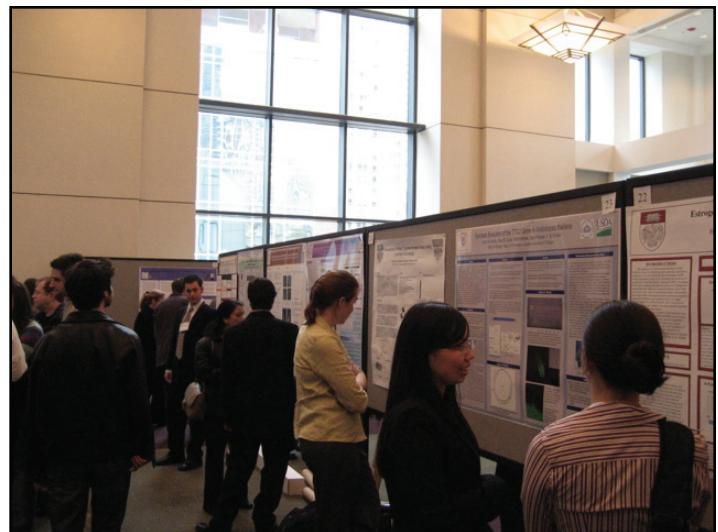
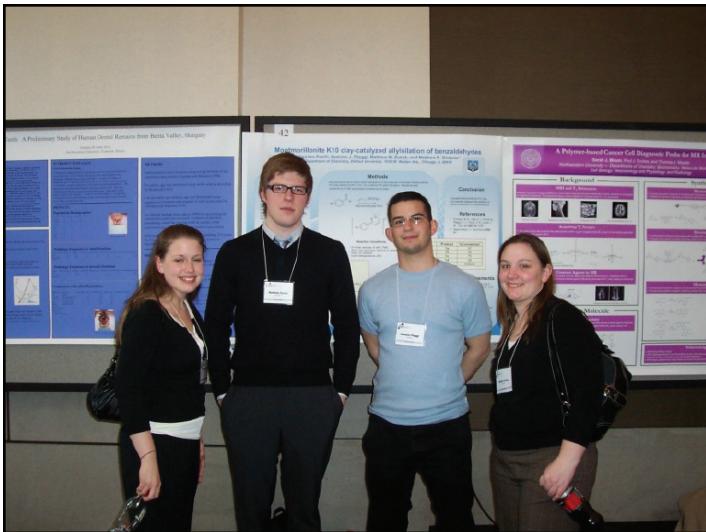
University of Chicago

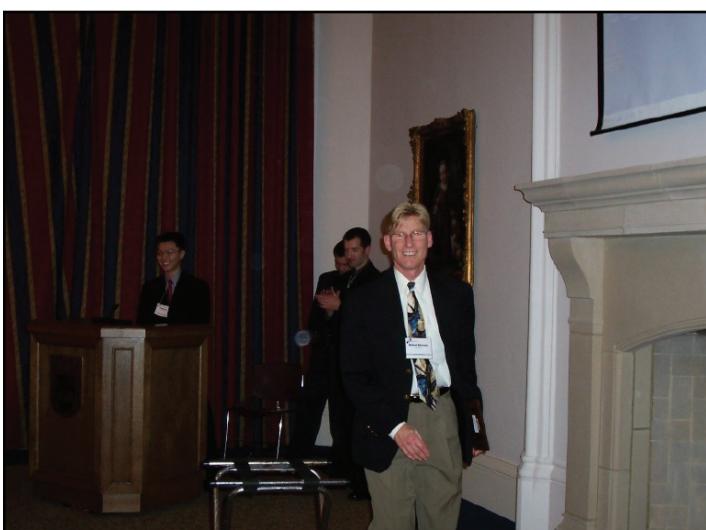
Robert J. Zimmer, Ph.D, President
Richard P. Saller, Provost

Pictures











The Chicago Area Undergraduate Research Symposium would like to acknowledge the generous contributions of the following sponsors:



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UNIVERSITY CAREER SERVICES



ROBERT H. LURIE
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OF NORTHWESTERN UNIVERSITY

"I was greatly impressed with how professional the symposium was, the good quality of research students were presenting, and the line-up of research and keynote speakers for the afternoon."

Nancy Tuchman, Ph.D, Loyola University

"You and your CAURS team did a fantastic job last Saturday! The symposium ran smoothly and the dinner was, surprisingly, excellent."

Rick Silverman, Ph.D, Northwestern University