

UC SAN DIEGO THE LIBRARY

UC San Diego Undergrads Lauded for Deft Library Research Skills

Four students win Library Research Prize for skillful use of library resources

Can Business Improvement Districts (BIDs) in California compensate for the elimination of redevelopment agencies? What is the cooling power of Normal-Insulating-Superconducting (NIS) junctions? How do international agreements impact the human rights records of individual governments? What methods should one employ to synthesize luminescent materials?

A handful of UC San Diego undergraduates conducted exemplary research on these topics, and as a result, were awarded the 2012 Undergraduate Library Research Prize in recognition of their skills. The annual prize, which includes cash awards of \$1000 and \$500 for first and second place respectively, is co-sponsored by the UC San Diego Library, the UCSD Alumni Association, and the Vice Chancellor for Student Affairs. Awards were given in two categories: Life Sciences/Physical Sciences; and Social Sciences/Arts/Humanities.

"The purpose of this prize is to encourage and recognize outstanding research skills, which include the ability to navigate and tap into a wide range of digital and physical library resources," said Brian E. C. Schottlaender, the university's Audrey Geisel University Librarian. "We at the university want students to learn that stellar academic research does not happen without careful, studious, and strategic library research. Our winners this year have clearly learned that important lesson."

To be considered for the Undergraduate Libraries Research Prize, students must be nominated by faculty members and must participate in either the annual UC San Diego Undergraduate Research Conference held in the spring or in other university programs that foster and recognize student research and scholarship. The Undergraduate Research Conference is one of three major undergraduate scholarly meetings that the Academic Enrichment Programs coordinate each year that afford students from all academic disciplines the opportunity to present findings of research conducted under the guidance of UC San Diego faculty members.

"UC San Diego is widely recognized for the breadth and depth of its research," said Penny Rue, UC San Diego's Vice Chancellor for Student Affairs. "Exposure to research and learning to conduct proper research is an important component of the undergraduate experience at this university, and students have many opportunities to work alongside faculty researchers and participate directly in the research process. I salute our undergraduate prize winners, who have displayed such prowess in tapping into the myriad resources offered by the university's library. I know their academic careers will benefit from this experience."

"The research skills these undergraduates have gained as they've conducted their impressive research projects are invaluable," said Armin Afsahi, Assistant Vice Chancellor for Alumni Affairs. "At a university like UC San Diego, where research is so prominent, gaining library research skills can make a real difference in a student's academic success. This type of training and knowledge can also make a difference after college. The Alumni Association is honored to support these amazing students and the Undergraduate Library Research Prize contest."



Lisa Krayer and physicist Brian Keating

The First Prize in the Life Sciences/Physical Sciences category was awarded to Lisa Krayer, a physics major at Thurgood Marshall College who worked in the experimental cosmology lab of Professor Brian Keating. Lisa's research focused on mathematically modeling the cooling power of Normal-Insulating-Superconducting (NIS) junctions, which has potential application for telescopes used in astrophysical data measurements.

"I have never met an undergraduate, in her second year at college, who even knew what a Ph.D. thesis was," said Professor Keating, who nominated Lisa. "Lisa not only knew what a thesis was but found several extremely pertinent theses via the Geisel Library staff, and she took the initiative to contact the authors directly, which is unheard of! In fact, due to her cheerful and tireless efforts to contact the author of the most relevant theses, Lisa has singlehandedly launched a new and extremely fruitful collaboration for my research group. The sine qua non for this was her work at Geisel."

In awarding Lisa 1st prize, the panel of judges were amazed with her tenacious approach and how quickly she exhibited the traits of an expert and professional researcher, tirelessly using the library resources every step of the way to acquire the knowledge she needed to complete her research. The panel agreed with Professor Keating, who described Lisa as "a rising star in physics."

The Second Prize in the Life Sciences/Physical Sciences category went to Young Jin Kim, an engineering student affiliated with Sixth College, who was nominated for the Undergraduate Library Research Prize by Joanna McKittrick, a professor of Mechanical and Aerospace Engineering. Young Jin's research project focused on designing and building a spray pyrolysis stem to produce luminescent powders for application in solid state lighting. McKittrick first hired Kim to work in her lab after he approached her with a proposal titled "I Want to Work in Your Lab," in which he explained his fascination with materials science. That initiative clearly made him stand out, as did his research subsequently.



Young Jin Kim and engineering professor Jan Talbot, representing Joanna McKittrick

"When Young Jin started this research, he knew nothing about solid state lighting or luminescent materials and I was impressed with his independent research into these topics," said McKittrick. "To develop this new method to synthesize particles, he needed to conduct some background research. He independently, and without my prodding, learned to use the vast library resources available to us on the campus. He has looked up papers on his research, read textbooks to understand the principles of spectroscopy and x-ray diffraction, and learned to use the JCPDS files in the library. I am truly astonished that he keyed onto the importance of using the library in this area of research; he has definitely surpassed some more senior graduate students in his research approach."

In selecting Young Jin for 2nd Prize, the jury was most influenced by the fact that he employed research methods not used before in McKittrick's lab, and as a result, he was able to set up experiments based on detailed descriptions he found in journal articles; previously, experiments were based on methods already in use in the lab. This demonstrates how critical the information resources he delved into were to his actual research, at every step of the process.



*Toyli Hojagulyev and political scientist
Phil Roeder*

Toyli Hojagulyev is a Thurgood Marshall student majoring in political science. Toyli, whose research examined the impact of international agreements on the human rights records of individual governments, was nominated by Philip Roeder, a professor in the Department of Political Science. In his research, Toyli identified the norms of the "Responsibility to Protect" or "RTP" as a controversial move by the United Nations Security Council which has drawn conflicting assessments from analysts. After struggling with how best to conduct his research Toyli, who participated in the department's Honors Program, learned about a subject librarian specializing in political science data and sources, who became instrumental to him in identifying the resources that would enable him to complete his research.

In his "enthusiastic" recommendation, Roeder cited Toyli's extensive use of library materials "to trace the development of this international norm and to undertake his case studies." The panel noted Toyli's tireless efforts in analyzing raw datasets, completing extensive literature searches, utilizing the Library's GIS Lab, and his close collaboration with the subject specialist librarian.



*Lauren Smyle and urban studies
professor Keith Pezzoli*

Lauren Smyle, an urban studies and planning major at Warren College, was the recipient of Second Prize in the Social Sciences/Arts/Humanities category. Lauren, who was nominated by Keith Pezzoli, supervisor of field studies for the Urban Studies and Planning Program, conducted research on whether Business Improvement Districts (BIDs) could compensate for the elimination of redevelopment agencies in California. She specifically examined the Center City Development Corporation (CCDC) and the Gaslamp BID in San Diego.

In completing her research, Lauren identified, evaluated, and synthesized an impressive variety of library resources, ranging from course guides and journal databases to extensive literature reviews and the "Chat with a Librarian" service. Links from the Library's Web site to state laws and codes, along with local news sources, provided an historical and contemporary context to Lauren's research. Underscoring the relevance of Lauren's research, her paper (which became her senior thesis) was featured in the San Diego Union-Tribune Newspaper.

"Lauren's paper argues that the BIDs cannot reasonably compensate for the loss of the redevelopment agency unless significant alterations are made to BID law to include several aspects of redevelopment law, suggesting that we need to look at other solutions to compensate for the loss of this agency that we heavily rely on," said Pezzoli. "This topic is a matter of great concern in policy and planning circles; it impacts many organizations and people throughout San Diego and California, and it has national implications as well. Lauren combines sharp intellect and passion with a serious commitment to making the world a better place."

Members of the jury also agreed with Pezzoli that "She is highly motivated to excel doing research, and she is also eager to transfer scholarly work into practice."

According to Catherine Friedman, Associate University Librarian for Academic Services, who oversees the Undergraduate Library Research Prize, all entrants must be nominated by UC San Diego faculty members and are judged based on: the significance of library materials used, including print, electronic, and primary resources; demonstrated expertise in mining library collections, including identifying, evaluating, and synthesizing a variety of materials in the generation of research; and evidence of significant personal learning and the development of substantive research and inquiry skills over time.

According to David Artis, director of Academic Research Programs and Dean of Undergraduate Research Initiatives, more than 150 UC San Diego undergraduates reported their research findings at the 2012 conference. A large crowd of family, friends, lab partners, and mentors attended the all-day event in support of the undergraduate participants. Members of the audience listened attentively and often engaged the undergraduate scholars in lively question and answer sessions after the respective 15-minute oral presentations.

With increasing regularity, undergraduates at UC San Diego and other selective and demanding colleges and universities act as research assistants to faculty members and with faculty mentors, said Artis. The students contribute to the generation of new knowledge on topics of local, national, and global interest. At UC San Diego's most recent conference, students presented research findings on a wide range of subjects, including: the effects of statins; first-generation antipsychotic use; social networks of pre-service teachers; how zoning may be encouraging obesity in San Diego; auditory preferences of children with autism; archaeoacoustics and archaeomusicology; supermassive black holes in nearby galaxies; communications technology and its impact on military deployments; and the underrepresentation of women in U.S. state legislatures.

"The UC San Diego faculty members who take undergraduate research assistants provide invaluable experiential opportunities to our students," said Artis. "Among the most beneficial strategic tips these mentors can give is an advanced knowledge of how to use UC San Diego's extraordinary library resources."

Ranked among the nation's top 20 public academic research libraries, the UC San Diego Libraries play an integral role in advancing and supporting the university's research, teaching, and public service missions. As the intellectual heart of the UC San Diego campus, the university libraries provide access to more than 7 million digital and print volumes, journals, and multimedia materials to meet the knowledge and information needs of faculty, students, and members of the public. Each day, the Libraries vast resources are accessed nearly 90,000 times through the Libraries' main Web site. For more information: <http://libraries.ucsd.edu/>

Media Contact

Dolores Davies
Director of Communications & Engagement

858-534-0667
ddavies@ucsd.edu

Share

Twitter

Google Plus

Facebook

Reddit

StumbleUpon

Delicious

Email

UC San Diego 9500 Gilman Dr. La Jolla, CA 92093 (858) 534-2230

Copyright ©2010 Regents of the University of California. All rights reserved.