DEAN’S WELCOME

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DEAN’S WELCOME

It is an exciting time to begin my tenure as the Dean of the Graduate College at the University of Illinois at Chicago. UIC has emerged as a vibrant, urban-centered research university in a culturally rich and incredibly diverse city. The Graduate College is home to over 7500 graduate students in 57 doctoral and 90 master’s degree programs in the Arts, Humanities, Life Sciences, Social Sciences, Physical Sciences, and Engineering. Students are able to obtain the most advanced training in their disciplines by taking advantage of our excellent faculty and the wide variety of inter- and multidisciplinary programs that exist across the UIC campus and with external private and academic institutions in the city of Chicago.

I want to begin by thanking Dr. Henri Gillet for his outstanding service as the Interim Dean of the Graduate College. I am indebted to him for establishing several new programs to improve student outreach and professional development, and initiating efforts to formalize student assessment and program evaluation that help graduate programs monitor student progress and strategically improve their diversity and outcomes. I look forward to continuing these important initiatives and interweaving them with my own goals for the college.

As Dean of the Graduate College at UIC, I aspire to put into place initiatives and partnerships to ensure that our graduate students obtain outstanding training in a supportive and intellectually rich environment, with the ultimate goal of creating an experience that prepares them to succeed in satisfying careers inside and outside the academy. Towards this goal, we will not only continue our work to recruit the very best and most diverse students, but also increase efforts to provide all students with educational and social support, as well as opportunities for professional development. The Graduate College staff will work to improve student mentoring by building long term relationships with students from our recruitment and fellowship programs, and by engaging local alumni to provide mentoring and career counseling for our students. In addition, staff will help students find funding opportunities, and facilitate the development of unique interdisciplinary programs that take advantage of the intellectual diversity on our campus and in the Chicago area. My hope is that these efforts will allow the Graduate College to develop into a valued partner that works with all graduate programs towards the shared goal of attaining the highest level of excellence in graduate education.

In this newsletter, I am pleased to share highlights of the achievements of our students, faculty and Graduate College staff. I encourage you to reconnect with the UIC Graduate College and welcome your comments and participation in our initiatives!

Karen J. Colley,
Dean and Professor of Biochemistry and Molecular Genetics
“Life is tough. Then you graduate.” So goes the tagline for “Piled Higher, Deeper,” a film about post-graduate education by Jorge Cham that is based on a web comic strip he created while completing a PhD at Caltech.

On Saturday, October 8, 2011, the Graduate College hosted Cham for a screening of his debut movie, also referred to as “The PhD Movie.” Several hundred graduate students gathered in the Illinois Room of Student Center East to enjoy a weekend break from studies. The Graduate College provided food and drinks, and also gave away several framed “PhD” comic strips that were signed by Dr. Cham.

“The PhD Movie” takes an amusing but honest look at the trials and challenges that doctoral students face throughout their academic career. As one of the film’s protagonists explains, “In the highest levels of higher education, there’s always someone at the bottom.” From the opening scene, the movie paints the doctoral process as a long ladder to climb, with many broken rungs and stomping feet above to face along the way. The film also reveals the gift of community and friendship that graduate students are able to provide for each other. It is this community that ultimately proves invaluable to the film’s central characters.

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The screening of “The PhD Movie” was such a success, the Graduate College decided to organize a second screening in the evening of Wednesday, October 26 in the Science Engineering Laboratories building. The turnout was again strong, as students enjoyed food and drink to go along with the film.

Screening this film for our graduate students provided an opportunity to recognize the community they belong to that exists beyond their specific labs or departments. Students from a diverse array of educational tracks came together to laugh at the comical side of their common experience. The Graduate College would like to organize more events like this movie screening and welcomes any suggestions.
In the McMurdo Dry Valleys of Antarctica, one of the few regions of Antarctica without ice, large lakes cover the lowermost portion of most valleys. The lakes are some of the most fascinating on Earth, and range from completely freshwater, to the saltiest body of water on the planet (Don Juan Pond). The lakes are permanently covered by ice, and because most are closed basin (no outflow) they are exceptionally sensitive to hydrological and climatic changes.

For almost two decades, Peter Doran, Professor of Earth and Environmental Sciences at UIC, has monitored ice cover and water column properties in the Dry Valley lakes to understand how climate affects the physical properties of the lakes. In the Taylor Valley, a small monitoring station has been installed in the middle of each lake. The stations act much like a weather station, monitoring water level, ice sublimation (akin to evaporation), and the quantity of sunlight that penetrates the ice cover. The data is recorded beneath the permanent ice cover, but is accessed on the surface. For the last two years, I have travelled to Antarctica in the fall (Antarctic spring), to recover a year’s worth of data, perform maintenance on the stations, and carry out manual measurements.

While most of the measurements are automated beneath the ice cover, the fun comes in when we have to access the equipment. The ice cover is typically over 10 feet thick and can take hours to drill through. For the best drilling and melting conditions, we arrive early, when the ice is still cold. In late October 2011, our first two nights at Lake Fryxell were -18°F, which is great for drilling, but terrible for sleeping!

Over the last decade, the lake levels in all of the Dry Valleys have been increasing. The 2011 measurements continue this trend, and indicate a changing hydrologic regime. Our research is part of a Long Term Ecological Research program funded through the National Science Foundation (NSF), which operates in the Dry Valleys (http://www.mcmlter.org/). The collaboration between researchers that monitor climate, glaciers, and streams enable us to investigate the larger processes that are controlling the long term rise in lake levels, changes in the ice cover, and the physical hydrology of the lakes.

In addition, I have been specifically studying Lake Vida, which has the thickest ice cover (>20 m) of any lake on Earth. In 2010, a field campaign funded through NSF and the American Recovery and Reinvestment Act, recovered brine and ice core samples from Lake Vida. The ice has sealed in and isolated liquid-brine, creating a cold, dark, oxygen-free ecosystem beneath 20 meters of ice. Lake Vida is an ideal Mars analog for understanding the preservation of liquid brine and ice beneath sediment in a desert environment and the survival of life in extreme environments.

My graduate research has been possible with the financial support of a UIC Graduate College University Fellowship, and funding through the Natural Sciences and Engineering Research Council of Canada (NSERC) and the National Science Foundation (NSF).
UIC’s Summer Research Opportunities Program (SROP) is designed to prepare talented undergraduate students for the pursuit of post-baccalaureate degrees and careers in research. Scholars participating in UIC-SROP come from various backgrounds majoring in the Social Sciences and Humanities as well as Science, Technology, Engineering, and Mathematics (STEM). Last summer, during their nine-week stay, thirty-three students worked with UIC faculty on various research projects and developed themselves as researchers.

Recognized as a successful program offered by UIC’s Graduate College, SROP is proud of its legacy of over twenty-five years of preparing students from traditionally underrepresented groups for graduate school and careers in academia. Each summer, thirty-five to forty-five talented undergraduate students from across the country come to UIC’s SROP for a research experience, yet leave our campus with so much more. Aside from incredible benefits such as a competitive research allowance, free housing, and free GRE test preparation, our renowned and dedicated faculty work diligently each summer to prepare SROP scholars to become proficient researchers. Our SROP scholars develop skills in research, writing and oral presentation that make them very competitive when applying to graduate programs.

In its twenty-five years at UIC, SROP has seen our alumni students matriculate into post-baccalaureate programs throughout the country at schools such as Cornell, University of Michigan, New York University, Northwestern, University of Oregon, University of Chicago and University of California at Berkeley, just to name a few. We are proud to report that our program’s scholars have gone on to complete master’s, doctoral, and professional degrees, and many are serving as faculty and administrators at various colleges and universities nationwide.

At last count, 97% of those students who participated in UIC-SROP are continuing their studies or have earned a bachelor’s degree, 47% are working toward or have completed a graduate degree, and 21% are working toward or have completed a professional degree. The testimony to our success and the impact of this program can be found in the perspectives of our SROP scholars. Many students arrive on campus with little to no experience in research and scholarship. However, most walk away better prepared to pursue graduate school with a newfound appreciation for the research process. Participants feel focused, excited and empowered from what they have gained through their SROP experience. Before they leave UIC’s campus, students create mission statements for their professional and personal lives that speak to the valuable contributions SROP has made in helping them further their goals.

As SROP Alum Moises Lopes stated, “Entering the world of academia will allow me to speak for those who can no longer speak for themselves, act for those who are disenfranchised, and ultimately create knowledge credible for the use of all people. A doctoral degree will not guarantee me a job, but an opportunity. My inspiration and dedication belongs to those people who have not been afforded such an opportunity.” SROP at UIC continues to dedicate itself to creating scholars for service as well as faculty for the future.

To find out more about how you can support UIC-SROP or for information about applying to the program, please email giveGC@uic.edu or call 312-413-2560.

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SROP, to me, means that someone outside my family wants me to succeed. It means that other young, talented students who come from traditionally disadvantaged backgrounds have a chance of competing in the future.

--Venancio J. Gonzalez
GRADUATE PROGRAM IN NEUROSCIENCE
INTERDISCIPLINARY INNOVATION

Neuroscience, the study of the structure and function of the nervous system, is seemingly everywhere, from the bestseller Proust was a Neuroscientist (2007) to specialized subfields like neuroeconomics and neuroaesthetics.

UIC boasts two interdisciplinary neuroscience programs: the Laboratory of Integrated Neuroscience (LIN) and the Graduate Program in Neuroscience (GPN). Both grew out of long-term efforts by faculty members from several colleges across the UIC campus to establish neuroscience as an identifiable force at UIC.

LIN was founded as a cross-departmental unit of the College of Liberal Arts and Sciences in 1999 and the GPN, housed in the Graduate College, was approved by the Illinois Board of Higher Education in February, 2006.

These programs brought together neuroscientists from multiple departments across campus to provide programmatic support for undergraduate and graduate students in neuroscience. Directed by Michael Ragozzino (Psychology), LIN has faculty and students from the Departments of Biological Sciences, Chemistry, Psychology, and Philosophy. It offered the first BS in Neuroscience in Illinois, and enjoys close ties to the GPN, as well as the Neurobiology Program in Biological Sciences and the Behavioral Neuroscience Program in Psychology.

The GPN is even more interdisciplinary. Led by the triumvirate of Simon Alford (Biological Sciences), Daniel Corcos (Kinesiology & Nutrition), and Mark Rasenick (Physiology & Biophysics and Psychiatry), and a program coordinator, James Unnerstall (Anatomy & Cell Biology), its faculty and funding are supplied from the Colleges of Allied Health Sciences, Bioengineering, Dentistry, Liberal Arts and Sciences, Medicine, Nursing, and Pharmacy. Small and selective, the program provides in-depth training and practical research experience in cellular/molecular, systems/cognitive, and behavioral/therapeutic approaches to the study of neuroscience leading to a PhD, doctoral concentration, or MS in Neuroscience. Current students include a doctor of physical therapy as well as future MD/PhD clinicians from the Medical Scientists Training Program, while recent graduates enjoy postdoc positions at the University of Michigan and Yale.

More information and opportunities to contribute to these neuroscience initiatives can be found at www.uic.edu/depts/neuro and www.uic.edu/las/LIN respectively.

THE IMAGE OF RESEARCH
A PICTURE IS WORTH A THOUSAND WORDS

2012 marks the fifth year of UIC’s The Image of Research exhibit competition. This annual event is organized by the Graduate College and the University Library to provide a snapshot of the diverse and interesting research that UIC graduate students are doing.

Winners for the 2011–2012 competition were:

First Place: Thomas Marrinan, Computer Science and Ian Gould, Bioengineering
Second Place: Meg Corcoran, Earth and Environmental Sciences
Third Place: Paul Bick, Anthropology

Honorable Mentions: Patrick Callahan, Urban Planning; Jennifer Nguyen, Architecture; Rasika S. Phansalkar and Karina Szymulanska-Ramanurthy, Pharmacognosy

Each year the winners and finalists are displayed in the Richard J. Daley Library and become a permanent part of the University Archives. The winning entries are also on exhibit in the Library of Health Sciences and featured on light pole banners around campus.

Please visit http://grad.uic.edu/image for more information about The Image of Research.

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http://grad.uic.edu/giving