



Biological Sciences Newsletter

UIC COLLEGE OF
LIBERAL ARTS & SCIENCES
Department of Biological Sciences

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Boss' Corner

Hello Everyone,

I trust everyone is looking forward to Spring, and shedding heavy coats and boots, with the imminent arrival of warm weather. At this time of year, the faculty and students of the Department of Biological Sciences are in full gear, teaching, learning, conducting research, and writing grant proposals. During the semester, I am happy to report that two of our faculty colleagues, Professors Henry Howe and Joel Brown, were recognized on campus for their outstanding scholarship, as the LAS Distinguished Professor and UIC Researcher of the Year, respectively. Kudos to them! I should also add that in the coming weeks, we will be hosting separate award ceremonies for undergraduates (April 14th) and graduate students (May 6th), thereby honoring our most studious biochemistry, biology, and neuroscience majors, along with our graduate students who have had notable accomplishments in teaching and/or scholarship. Commencement in the College of Liberal Arts and Sciences will then be just around the corner. At commencement, many of our graduating majors will attend a festive ceremony, attended by parents and faculty, along with graduate student who will receive their Ph.D. hoods. It is indeed a busy time of year!

All the best,

Brian Kay, Ph.D.



Professor John Leonard presenting Elizabeth Chrzanowska with her award. Elizabeth is co-winner of the Louis Pasteur Award.



Lisa Zhang, winner of the Edward G. Rietz and Stanley K. Shapiro Award in Biochemistry, standing with Professor Emeritus, Stanley Shapiro.



Professor Steve Kelso standing with alumna, Bharat Walia



Awardees Lisa Zhang, Noelle Kwan, Chen Shi, and Lucia Wu at the Undergraduates Award Day Reception.

Alumni Spotlight: Mary Lou Bareither, Ph.D.

I really enjoyed biology class in high school, particularly getting high grades when identifying and labeling the parts of a cell. I thought I was destined to become a scientist. However, I also had a love for animals and was fortunate to have an opportunity to volunteer at the Lincoln Park Zoo while in high school. I was torn – would I pursue laboratory science or veterinary medicine?



Not sure what you want to do when you graduate?

Visit the Office of Career Services.
1200 West Harrison Street
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Chicago, Illinois 60607

Call (312) 996-2300 to schedule an appointment or consult the Office of Career Services website for drop-in advising times.

Research Library open Monday-Friday from 8:30am to 5pm.

One of my favorite classes I took at UIC was Microtechniques taught by Dr./Mrs. Willey. I had a passion for looking at cells and cell structure, but at graduation I was still undecided about my career path. (I admit I was not as focused as many of the students I would later know and work with at UIC). After graduation, I decided to work as a research technician. My first job was in the Department of Anatomy and Cell Biology here at UIC in the neuroendocrine lab of Dr. Conwell Anderson. I loved it! I was sure research science research was indeed my destiny.

I became a doctoral student in the Department of Anatomy and Cell Biology in the College of Medicine here at UIC. I had a great advisor, Dr. Ralph Wynn, who was also the head of the Ob/Gyne Department. We began looking at the cellular structure of the lining of oviducts. I learned the process of electromicroscopy and the interpretation of cellular ultrastructure in Dr. Wynn's lab but finished my doctoral training under a different advisor, Dr. Harold Verhage. Dr. Verhage was as equally dedicated as I and we continued the work on oviducts in both cats and humans. I thoroughly enjoyed my graduate experience as a student and the opportunity to become an accomplished histologist.

Although I loved the science lab and the research, I decided to take a small hiatus from research to raise a family. I did continue to teach, and four sons later and with 15 years of experience teaching graduate anatomy and histology, I came back to UIC. I have been a part of the Department of Kinesiology and Nutrition for the past 17 years. Teaching and administration have outweighed my research in this position. Higher education administration is something I really never thought about, but it is something I have thoroughly enjoyed. As the Director of Undergraduate Studies in Kinesiology and Nutrition I have had great opportunities to improve teaching and learning in our program. Working with undergraduate students has been a truly rewarding experience. I have also managed to keep my hands in the research pie as well. As a science educator I have had the opportunity to conduct research on effective means of delivering science education. I have also had the opportunity to work in our department's biomechanics laboratory alongside Dr. Mark Grabiner and Dr. Karen Troy, focusing on the impact of mechanical loading on bone strength. This opportunity has provided several of my students an opportunity to engage in research as well. In addition I have also been able to be involved in research on connective tissues with a former classmate from graduate school, Dr. Carol Muehleman at Rush University.

I have certainly had some interesting changes in the direction of my career path, something I would suggest all students accept and welcome. We never know exactly where we will end up, but for the most part, and for me, this has been a good, albeit rather circuitous path back to UIC.

Faculty Spotlight: Q. Tian Wang, Ph.D.

I was born in Shanghai, China and grew up in Luoyang, a small city with more than 4,000 years of documented history. My family moved to the big city of Beijing when I was 9 and I got my BS in Biochemistry from Beijing University. I came to Northwestern University after college to pursue a Ph.D. from the Department of Biochemistry, Molecular Biology, and Cell Biology, where I used the fruit-fly as a model system to study how gene expression patterns are set up by a zinc-finger transcription factor. My fascination with gene regulation continues as I went to sunny California for my postdoc and studied gene expression patterns during mammalian pre-implantation development at Stanford University. I moved back to Chicago in 2007 and started my own lab at UIC to study the role of chromatin in gene regulation in mammalian development and diseases.



The nucleus of a typical human cell is 10 micrometer (10^{-5} meter) in diameter but contains over 1 meter of genomic DNA. The cell packs the DNA into chromatin—a highly organized, highly dynamic structure that underlies various biological processes such as replication, gene expression, gene silencing, and recombination. Certain changes in chromatin structure can be inherited by daughter cells over multiple cell divisions. While inheritance of DNA sequences is known as genetics, inheritance of chromatin structure is a phenomenon of epigenetics. My lab is interested in 1) the mechanism by which inheritable chromatin structure is created and maintained and 2) the role of such mechanism in development and disease.

I teach BIOS 220: Mendelian and Molecular Genetics to undergraduates, and Molecular Biology and a seminar course on Chromatin to graduate students.

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Faculty in the News

- Professors Oliver Pergams and Joel Brown were profiled by the Medill News Service. You can read more about [Oliver Pergams](#) and [Joel Brown](#).
- Professor Joel Brown received the 2009 Researcher of the Year Award in the Basic Life Sciences.
- John Larson, professor of psychiatry and Thomas Park, professor of the Biological Sciences are highlighted for their research on naked mole rats in the Chicago Tribune. You can read the full story [here](#). They are also mentioned in [U.S. News & World Report](#)
- LAS Distinguished professor, Henry Howe gave a lecture in January entitled, “Experimental Restoration of Tropical Complexity.”
- Professor Hormoz BassiRad is the recipient of the UIC Excellence in Teaching Award for 2009-2010.
- Professor David Featherstone received the Alexander von Humboldt Foundation award from Germany.
- Professor Boris Igic participated in the LAS Meeting of the Minds, entitled “Evolutions of Darwin” on November 16, 2009.
- Professor Oliver Pergams represented the American Ethical Union during a briefing at the White House on February 26.

The following award recipients were recognized for their accomplishments during Undergraduate Awards Day on April 14, 2010.

Students Eligible for Departmental, High*, and Highest‡ Departmental Distinction.

‡Juan Abadia‡
Ivy Abraham‡
Shefta Akhunji
Michelle Apple
Furquan Baqui
Catherine Barone
Trina Basu
Tanya Bhattacharya
Ji-in Choi
Elizabeth
Chrzanowska‡
William Corston
Danielle Ellinger
Joseph Esparaz
Weronika Flis
Nitin Garg
Ekua Gilbert-Baffoe
Akhila Gummi
Laura Hamad
John Hamilton
Zuzana Harrison‡
Thomas Hatzilabrou
Christopher Hetrea
Mohammed Hussain
Zainab Hussain
Alexander Hutnik
Ishaq Ibrahim
Rhoda Jamadar‡
Tapan Jani
Kyle Kalchbrenner
Joshua Kannankeril‡
Navin Kesari*
Ambreen Khalid‡
Ekaterina
Khramtsova‡
Sa Woon Kim
Caroline Kiser
Noa Krugliak‡
Noelle Kwan
Eugenia
Kyriakopoulos
Alice Lee
Chris Lee
Eun-Hee Lee‡

Steffi Leung‡
Brian Lin
Mary Marcos
Anita Mathew
Nisha Mehta
Mintcho Mintchev‡
Girish Mohan
Gergana Nikolova‡
Jocelyn Ou
Vysakh Padiyara‡
Milan Patel
Priyal Patel
Mohini Pathria
Ramanujan Raghavan
Jamie Rayahin‡
Anup Reddy‡
Catherine Rim
Elizabeth Roesler
Patrick Ryan
Bilal Salameh
Justin Sanders
Shravan Sarvepalli‡
Dipa Shah
Khushbu Shah
Natasha Shah
Sujay Shah
Prashansa Sharma‡
Jack Shen
Cesar Sison
Vinay Soni‡
Abdul Rehman Sozzer
Rutger Stache
Ewa Stec
Monika Suchmiel
Prashant Sukhani
Adewunmi Sulaiman
Sarah Tien*
Huong Tong‡
Jessica Weinstock
Brian Werstein
Grace Wu
Lucia Wu‡
Nada Hany Youssef
Lisa Zhang‡

Mark A. Wyatt Award

This award honors the memory of Mark Wyatt, a former biology major and member of the Honors College. The award is given to a pre-medical biology junior who actively participates in the Honors College and Tri-Beta

Honoree: Chen Shi

Elmer Hadley Award

This award is given to honor the memory of Dr. Elmer Hadley, a prominent member of the Department of Biological Science. The award is given to a student with high academic achievement who has carried out an outstanding research project in the area of ecology, evolution, or conservation biology.

Honoree: Sreeja Nair

Edward G. Rietz and Stanley K. Shapiro Award in Biochemistry

This award honors an outstanding graduating senior in Biochemistry and is jointly sponsored by the Department of Biological Sciences and Chemistry, whose generous bequest endows various awards in the department, and Stanley Shapiro, Professor Emeritus and former head of the Department of Biological Sciences, whose tireless efforts were responsible for the development and promotion of the biochemistry major.

Honoree: Lisa Zhang

Louis Pasteur Award

This award is given to a graduating Biological Sciences major who meets the requirements for Highest Departmental distinction. Emphasis is placed on carrying out an exceptional research project and defending it before a faculty committee.

Honorees: Juan Abadia and Elizabeth Chrzanowska

The Hirsch Family Award

This award is given to an undergraduate Biological Sciences major who shows high academic achievement.

Honoree: Philip Nolan

The Hodgkin and Huxley Neuroscience Award

This award is given to an outstanding graduating Neuroscience major with a GPA above 3.7 and who performed an exceptional research project.

Honoree: Rhoda Jamadar

Outstanding Scholarship

Biology of Cells and Organisms: Samuel Kang, Roxana Marincas, Sean Williams

Biology of Populations and Communities: Andrew Skoirchet, Julia Ann Webster, Kristine Sevilla

Mendelian and Molecular Genetics: Sean Williams, Sylvia Pawlowska, Thomas Hatzilabrou

Biology Colloquium Awards

Best Professor: Dr. Paul Malchow

Best Teaching Assistant: Eric Hancock

Best Student Leader: Duyen Tran

Student Accomplishments

- Susan Kang, a neuroscience major, and Lucia Wu, a biological sciences major were awarded an Olive and Alfred Kuhn Scholarship. This scholarship is based on merit.
- Isna Kugshia is the recipient of the Gilman Study Abroad Award. She is currently studying in Cape Town, South Africa.

Faculty Research

- Oliver Pergams participated in a meeting by the Wildlife Conservation Society to look into 'health as an ecosystem service.'

In December I traveled to India as a member of the Scientific Advisory Committee (SAC) for whale shark research in Gujarat. Whale sharks frequent the Gujarat coast, and the animals were once hunted here in large numbers. Once whale shark hunting was banned in India, the Wildlife Trust of India began a campaign of whale shark education, conservation, and research. The research program directed by the SAC includes satellite tracking to follow whale shark movements, habitat studies to find what draws sharks to the area, photo identification to establish the number of whale sharks and genetic analysis to compare the Gujarat animals to other whale shark populations. The SAC meets yearly in Gujarat; this year's meeting was held in Ahmedabad, after which we traveled to the coastal town of Dwarka to attend the local whale shark festival. The festival included a parade with a life sized inflatable whale shark, local children in whale shark shirts, a marching band, and a formal ceremony with speeches by officials supporting the whale shark campaign. (See pictures below)

Contributed by: Professor Jennifer Schmidt



Summer Session

4 Week Session: May 17-June 11

8-Week Session: June 14-August 8

For additional information please refer to the website at www.summer.uic.edu
or call (800) 625-2013

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Jennifer Schmidt, Ph.D.
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<http://www.uic.edu/depts/bios/ungradstudy.shtml>

Make a Gift to Biology

We are committed to developing support for our Biology students. We have a number of scholarships to fund students and their research. We are focused on increasing the scholarship opportunities provided to them, and enhancing the classroom experience by acquiring up to date technology for our laboratories. Making a gift is easy and tax-deductible and it has an immediate impact on the experience of Biology students.

Keep in Touch!

Alumni Questionnaire

Please send me more information on:

- Contributing to an article in the newsletter
- Upcoming seminars
- Department needs for private support
- Volunteer opportunities
- Other please specify

Name

Address

E-mail Address

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-OR-

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