Dear students, faculty, alumni and friends of the Human Toxicology Program at Iowa,

Another year has passed and I am again pleased to inform you that through the outstanding work of our faculty and students, and the good will and contributions of our alumni, progress of the toxicology program at the University of Iowa continues to be impressive. Now 8 years since the re-founding of our new program in 2007, the Interdisciplinary Graduate Program in Human Toxicology has grown to over 30 affiliated faculty and over 20 fully-funded doctoral students. This past summer our program underwent an extensive review. The review committee was impressed with our program and the many achievements of our talented students. The Graduate College has increased its yearly financial support for our program.

As before, our students, faculty and alumni have received many accolades and prizes this year. I have listed a few on the following pages, along with some milestones.

For next year we are again planning an Iowa gathering at the upcoming Society of Toxicology 54th annual meeting in New Orleans. There you will have an opportunity to meet our alums and to visit with our current graduate students and faculty; details to follow. Please join us if you plan to be at the meeting or live in the area.

Please continue to support our efforts and spread the word about our Program. Like all training programs, we are always looking for good students. We certainly wish you the very best and would welcome you when you are in the neighborhood.

Our very best wishes for the holidays!

Please check out our website at http://toxicology.grad.uiowa.edu/
Student and Postdoc News:

Students earn Graduate College Post Comprehensive-Research Awards

The Human Toxicology Department submitted 3 names (maximum allowed) to the University of Iowa Graduate College for the Post Comprehensive Research Awards and all three were awarded! The award is intended to recognize students with distinguished academic achievement during their early graduate training. These achievements are evident from a combination of outstanding academic performance in coursework, as well as early scholarly research activities. The award provides a $9,130 stipend for the spring 2016 semester. Congratulations to Claire Doskey, Sabah Hassain Enayah, and Jaymie Voorhees!

Competition winners from Central States Society of Toxicology Meeting, October 2015

The University of Iowa Human Toxicology program had 6 winners at the Central States Toxicology Conference in Kansas City. Gopi Gadupudi won in Oral Presentations-Graduate Student; Susanne Flor won in Oral Presentations-Postdoctoral fellows; and Mengshi Li, Claire Doskey, Marisa Salomon Beltran, and Aditya Stanam won in Poster Presentations.

Pictured from left: Mengshi Li, Susanne Flor, Gopi Gadupudi, Claire Doskey, and Marisa Salomon Beltran. Not pictured Aditya Stanam.

Picture: courtesy of Korwel Photography

Student wins STEP Award

Miao Li, a doctoral candidate in the Interdisciplinary Graduate Program in Human Toxicology, was selected by the Society of Toxicology (SOT) Graduate Education Subcommittee as a recipient of the highly competitive Supplemental Training for Education Program (STEP). The SOT provides up to $1,000 to a graduate student who has passed his or her requirements to advance to Ph.D. candidacy and effectively demonstrates the value of the proposed experience in professional scientific development training that will enhance opportunities in his or her career path of choice. Miao Li was chosen for his proposal to attend the TERA Dose Assessment Response Boot Camp, which was held in June in Cincinnati, Ohio. Miao Li benefited greatly from the experience and submitted a blog post to the Society of Toxicology after the boot camp expressing his enthusiasm for the program.

Congratulations to 3 New Graduates:

Brita Kilburg-Basnyat successfully defended her doctoral dissertation entitled “Validation of Electrostatic Dust Collectors (EDCs) as Effective Passive Samplers” in January 2015 and her Ph.D. was conferred May 15, 2015. Dr. Peter Thorne was her mentor.

Xin Xing successfully defended her doctoral dissertation entitled “Effects of Polychlorinated Biphenyls (PCBs) on Telomere Maintenance in Hematopoietic Stem Cells and Progenitor Cells” in July 2015 and will graduate in December 2015. Drs. Gabriele Ludewig and Jerry Schnoor were her mentors.
Wen Xin Koh successfully defended her doctoral dissertation entitled “Polychlorinated Biphenyls and Their Hydroxylated Metabolites in Human Serum from Urban and Rural Cohorts in the United States” in June 2015 and will also graduate in December 2015. Drs. Peter Thorne and Keri Hornbuckle were her mentors.

Miao Li successfully defended his doctoral dissertation entitled “Protein Adducts and Crosslinking by reactive Metabolites of Polychlorinated Biphenyls (PCBs)” on the 10th of November 2015. His mentor is Dr. Gabriele Ludewig.

The Human Toxicology Program Welcomes 5 New Students This Year:

Tasnim Al Rashaideh’s interest in toxicology first started when she participated in research as an undergraduate student in Genetic Engineering and Biotechnology. During her research, she acquired a curiosity to explore what are the factors in our environment that interact with our DNA to cause human disease. In her home country, Jordan, toxicology is mainly related to venoms and poisons, and highly associated with forensic medicine. Women’s contribution to science in Jordan is growing and she wants to be part of this growth. Her ultimate goal is to establish a new perspective for toxicology in Jordan, conduct research on the most pressing environmental hazards, and serve her community to the maximum of her ability.

Dongyoul Lee received a Bachelor of Science in chemistry from the Korea Military Academy (2007) and a Master of Science in nuclear engineering from Texas A&M University (2011). He is an active officer of the ROK (Republic of Korea) Army and has been working in the research field of CBR (Chemical, Biological, and Radiological) defense. Dongyoul says, “It is a great opportunity for me to join the interdisciplinary program and pursue my Ph.D. studies. I believe the program will provide me with an opportunity to enhance my experience and knowledge in an effort to provide the critical services needed for the defense of my country”. After receiving his Ph.D., he’ll return to South Korea and work as a researcher in the CBR Defense Research Institute of the ROK Armed Forces. He hopes that he can contribute to the establishment of defense readiness to protect the people of Korea against the threat of WMD (Weapons of Mass Destruction).

Dustin May joined the Interdisciplinary Human Toxicology PhD Program in the fall of 2015. He chose the program due to its flexibility and focus on multiple disciplines relating to health. He is working with Dr. Michael Schultz studying environmental radioactivity in drinking water as well as the greater environment. He graduated from the University of Iowa with a Bachelor of Science in Chemistry in 2006. He is currently employed at the State Hygienic Laboratory at the University of Iowa. He has 10 years of experience in analytical chemistry with the last 5 years specializing in radioanalytical chemistry. His first project involves analyzing Iowa drinking water for unregulated radionuclides of concern. These analytes are of possible concern due to the potential of increasing the risk of cancer from long term exposure. He will be sampling from 75+ sites all over Iowa and perform nearly 400 analyses. Dustin grew up in Cedar Rapids, Iowa and has been a resident of Iowa City since 2002. In his free time he enjoys long distance running, brewing his own beer, and spending time with his wife Elizabeth and his two golden retrievers, Rosy and Teddy.

Jeffrey Stolwijk is from The Netherlands and lived in a city called Enschede, a city near the German border. He received his Bachelor of Applied Sciences in Chemistry in the Life Sciences Faculty at Saxion University

3
of Applied Sciences in Enschede. He had a broad spectrum of classes to attend to obtain a multidisciplinary education and work style. In the final 2 years of his program, he focused on nanotechnology and Nanochemistry and surface chemistry in particular. He is fascinated by functionalities and nanostructures made by nature. “Mankind has become great in taking those structures and functionalities, adapting them and applying them in products which make our lives better and easier. The downside however is that we don’t really know the long or even short-term effects on humans or our environment.” He hopes he can play a role in finding the perfect equilibrium between nanotechnology and its functionalities and its toxicological properties. That is one of the main reasons he came to Iowa City to join the Human Toxicology Program.

Yifang Wang received her Bachelor of Science degree in Biochemistry from the University of Iowa. There she built her basic science background and gained laboratory experience through years of study with many experienced professionals. She developed a keen interest in research, and she desires to help more people to live better with improved health care. The Human Toxicology Program seems to be the best fit for her goal because this program gives her the opportunity to know more experts across a network of majors and interests and learn from them how to make the world better. After she receives her Ph.D. degree, she hopes to work as a researcher-thinking and creating more advanced technology that will be useful for improvement of health care.

Faculty/Staff News:

Peter Thorne was appointed in January 2015 by EPA Administrator Gina McCarthy as Chair of the EPA Chartered Science Advisory Board.

David Purdy started as Program Administrator of the Human Toxicology Program and Superfund Research Programs in July 2015.

Keri Hornbuckle was the lead researcher on a recent study from the University of Iowa SRP Center, designed to inventory airborne polychlorinated biphenyls (PCBs) in Chicago. It found that soils, sewage sludge, and paint are major airborne PCB sources. The results suggest that current cleanup strategies may not be the most effective for protecting people’s health and strategies to further reduce exposure and ecosystem deposition must focus on the largest emissions sources rather than the most contaminated sites or the largest closed source legacy stocks.

Where Are They Now?

Jim Gibson retired from the Brody School of Medicine at East Carolina University as Professor of Toxicology in 2012. He and his wife Karen relocated to Chapel Hill, North Carolina.

James Kehrer is currently Dean of the Faculty of Pharmacy & Pharmaceutical Science at the University of Alberta, Canada. His term as dean will end on June 30, 2016 and after administrative leave he will be retiring on Oct. 31, 2017. He and Deb will be moving back to the USA in mid-2017 – they are building a home in Hayden, ID which is adjacent to the resort town of Coeur d’Alene, ID and only 30 miles from Spokane.

Hua Shen (class of 2011) completed his postdoctoral work at UC Berkeley and is now working for Royal Dutch Shell Oil Company in Houston, TX. His work is keeping him busy and involves trade association meetings with both business and government stakeholders and traveling throughout the world. It is a big career shift but Hua enjoys the new challenges.

P.K. Senthilkumar (class of 2012) left the U.S. EPA to work as a toxicologist at the National Institute for Occupational Safety and Health (NIOSH)-CDC in Cincinnati, Ohio.
**Arya Sobhakumari** (class of 2013) started her residency training in veterinary toxicology at UC-Davis. The residency is diagnostic/clinical toxicology in nature and she does research projects on various issues which may be of a public health concern.

**Xin Hu** (class of 2013) moved to Atlanta where she is now working as a post-doc at Emory University in the lab of Dean P. Jones. Her work involves animal and cell culture mechanistic experiments to study redox biology, employing among others newest omics techniques and bioinformatics data mining.

**Laura Badtke** (class of 2014) accepted in March the position of Associate Medical Writer with Complete HealthVizion. The head-quarter of the company is in London, but Laura is working at the Chicago office of the US branch. Complete HealthVizion offers a full range of medical communications applications, a perfect fit for Laura’s excellent communication skills.

**Kiran Dhakal** (class of 2014) finished his post-doc at UC Davis with Pam Lein and has moved with his family to Bethlehem, PA, where he started in his new job as a Toxicologist with Principle Labs, LLC.

**Sabine Vorrink** (class of 2014) accepted a post-doc position with Dr. Ingelman-Sundberg at the Karolinska Institutet in the Department of Physiology and Pharmacology, Sweden. “I will be working with liver spheroids to assess hepatotoxicity. The 3D culture system and projects the lab is working on are super interesting (look at [http://www.mip-dili.eu/index.php](http://www.mip-dili.eu/index.php) as an example) and Dr. Ingelman-Sundberg is a quite well-known researcher in the field of drug metabolism.”

**Wen Xin Koh** (class of 2015) recently accepted a job position (Product Safety and Regulatory Manager) with Siegwerk in Des Moines, Iowa. She will start her position there on November 23, 2015.