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 9 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 year our program underwent an extensive review by the Graduate College. Our program was placed in the Commendable Category!

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 56th annual meeting in Baltimore, Maryland. 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:

Roh wins Graduate College Post Comprehensive-Research Awards

The Human Toxicology Program has been very successful in submitting and getting awarded Post Comprehensive Research Awards from the University of Iowa Graduate College. 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 Fall 2016 semester. Congratulations Taehyun!

May wins CHEEC Award

Human Toxicology student Dustin May was awarded a $40,000 research grant from the Center for Health Effects of Environmental Contaminants (CHEEC). Dustin’s dissertation work is focusing on health effects of chronic exposure to low level natural radiation. His research mentor is Dr. Michael Schultz. The funded project supports a state wide study of private well-water concentrations of natural radionuclides that have not been assessed previously in the state of Iowa, with particular attention to alpha emitter Po-210 and its parent Pb-210. Congratulations Dustin!

Enayah wins SOT Travel Award

Sabah Hassain Enayah won a $1000 Graduate Student Travel Award from the Society of Toxicology (SOT) to attend the National SOT Meeting in New Orleans in March 2016. She presented a poster entitled “Polychlorinated Biphenyls (PCBs) and Lead Act Synergistically on Brain Dopamine Cells In Vitro.” Congratulations Sabah!

Okeke wins ACT Award

Barbara Okeke has won a $5000 American College of Toxicology (ACT) Graduate Fellowship Award. Only 3 awards are given each year. The award is used towards anything relating towards their education, research, or personal/professional development. Congratulations Barbara!

Students Win International Conference Poster Awards

The University of Iowa had two of the five poster award winners at the Ninth International PCB Conference in Kobe, Japan in October 2016. Victoria Parker and Eric Uwinama brought home the awards with Eric being awarded the top poster presentation. Congratulations Victoria and Eric!
Congratulations to 5 New Graduates:

Claire Doskey successfully defended her doctoral dissertation entitled “Towards Absolute Quantitation in Cell Culture: Expression of Dose of Xenobiotics and Capacity of Cells to Remove H2O2 with Implications to Pharmacological Ascorbate in Cancer Therapy” in March 2016 and her Ph.D. was conferred May 13, 2016. Dr. Garry Buettner was her mentor.

Andrew Nelson successfully defended his doctoral dissertation entitled “Naturally Occurring Radioactive Materials Associated with Unconventional Drilling for Natural Gas” in February 2016 and his PhD. was conferred on May 13, 2106. Dr. Michael Schultz was his mentor.

Aditya Stanam successfully defended his doctoral dissertation entitled Inflammatory Cytokine Signaling Contribute to Erlotinib Resistance in Head and Neck Cancer ” in March 2016 and his PhD degree was conferred on May 13, 2016. Dr Andrea Simmons Burnett was his mentors.

Sabah Hassain Enayah successfully defended her doctoral dissertation entitled “Heavy Metals, Polychlorinated Biphenyls (PCBs) and Toxicities in Iowa Construction Workers” on June 7, 2016 and her PhD degree was conferred on August 10, 2016. Dr. Gabriele Ludewig was her mentor.

Gopi Gadupudi successfully defended his doctoral dissertation entitled “PCB 126-Induced Metabolic Disruption: Effects on Liver Metabolism and Adipocyte Development” on July 11, 2016 and his PhD degree will be conferred in December 2016. Dr. Larry Robertson was his mentor.
The Human Toxicology Program Welcomes 5 New Students This Year:

**Yinwen Cheng** received her bachelors and master’s degrees of environmental science from Anhui University and the University of Chinese Academy of Sciences, respectively. Her previous research area mainly focused on the biodegradation kinetics and QSAR study of PBDEs. These experiences excited her interest on the environmental behavior of POPs, so she decided to go on to study in this area.

Human toxicology program was the best choice for her, where she could combine her interest and previous experiences on organic contaminants. In China there are many people suffering from environmental pollution, so it is very important to her to learn how contaminants influence human health. After her graduation, she would like to come back to her hometown and do research work about POPs contamination for the local people’s health.

**Benjamin Elser** received a Bachelor’s of Science in Biochemistry from Indiana University (2016). His interest in toxicology developed from his undergraduate research experience where he participated in studies investigating mechanisms of hepatotoxicity and chemically-induced carcinogenesis. Specifically, he is interested in understanding the mechanisms by which chemicals alter biochemical processes and hopes to use the experience he gains from the program to work as a toxicologist in the pharmaceutical industry.

He became interested in the University of Iowa’s Human Toxicology program after reading about the collaborative work being done through the superfund program. The interdisciplinary nature of the Human Toxicology program appealed to him as a means to better understand the broad field of toxicology.

**Ezazul Haque** grew up in the bustling cities of Dhaka and New York. He received his B.S. in Environmental Health Science from York College at the City University of New York (CUNY). His undergrad thesis was focused on assessing the quality of groundwater from NYC’s Brooklyn-Queens aquifer by studying heavy metals using ICP-MS. He received an M.S. at the CUNY School of Public Health with a focus on Environmental & Occupational Health Science. For his master thesis he studied the prevalence of tungsten (W) in air, dust, soil, water and urine near a new tungsten mine in Vietnam. He also worked as a research assistant at Columbia University’s Lamont-Doherty Earth Observatory (LDEO) where he worked on few projects which include studying W adsorption kinetics to ferrihydrite minerals, and developing a method of using mobile phone cameras as an analytical tool for measuring water arsenic in the field.

During his masters’ program, he became interested in toxicology after learning about its critical role in enacting new regulations and standards. He joined the Human Toxicology Doctoral program in Fall 2016 because he was attracted by its interdisciplinary approach to the subject and flexibility presented to the student to shape their research and experience in the direction in which they would like to take in the field of toxicology.

**Panithi Saktrakulkla** received a Bachelor and a Master of Science in Pharmacy from Chulalongkorn University, Thailand. Working in the Pharmaceutical industry for almost 6 years made him realize the risk of people, especially those living in remote areas, to unavoidably consume impurities from expired medicines. Therefore, he would like to expand his knowledge of Pharmacokinetics, Toxicodynamics, and Toxicokinetics to prevent this matter. He found the Human Toxicology is a flexible interdisciplinary program allowing him the opportunity to achieve his goal.
Because of his research background in medical chemistry, he is also keen to understand enzyme-catalyzed reactions that make most of lead compounds fail to become a drug candidate and turn to be xenobiotics. This is an essential part for the drug development. Furthermore, he would like to deepen his knowledge in analytical chemistry as he plans to become a lecturer in this field after receiving his PhD.

**Duo Zhang** came to the University of Iowa four years ago from China to study biochemistry. She got her biochemistry bachelor degree with a minor of chemistry last December. She strongly developed her deep interest of both biology and chemistry during the years she spent at Iowa. She was lucky to have gotten chances to work with lots of smart and experienced people. She desires to do more research to help improve people’s health care.

The Human Toxicology PhD program was her first choice because of its comprehensiveness. It connects so many different areas like chemical engineering and pharmaceutics. Therefore, there must be massive interesting stuff waiting to be explored or created. She has always had a passion to explore things. She hopes she can do R&D jobs after she gets PhD degree. She used to be a professional swimmer and can also play the piano. She hopes to have a colorful five-years in the program.

**Faculty/Staff News:**

Dr. Gerald Schnoor was recognized by *Environmental Science and Technology* in their July 5, 2016 journal. The issue of *ES&T* was dedicated to honoring Jerry’s impacts in areas such as global air issues, groundwater pollutant transport, and remediation, and raising awareness of sustainability on a national and international stage.

Dr. Larry Robertson, Dr. Gabrielle Ludewig, Dr. Michael Duffel, Dr. Keri Hornbuckle, Dr. Hans-Joachim Lehmler, and Dr. Andres Martinez presented at the Ninth International PCB Conference in Kobe, Japan in October 2016.

**Where Are They Now?**

**Brita Kilsburg Basnyat** is working as a Postdoctoral Research Scholar in the Pharmacy and Toxicology Department at the Brody School of Medicine, East Carolina University, Greenville, North Carolina.

**Claire Doskey** is a Post-Doctoral Research Scholar in the Biochemistry and Molecular Biology Department at Michigan State University in East Lansing, Michigan.

**Sabah Hassain Enayah** is an Assistant Professor at Thi Qar University in Nasiriyah, Iraq.

**William Klaren** is working as a Post-Doctorate Research Associate at Texas A and M University in College Station, Texas. He is working in Dr. Ivan Rusyn’s Veterinary Integrative Biosciences Laboratory with fellow University of Iowa Human Toxicology graduate **Fabian Grimm**.

**Andrew Nelson** had a very busy 2016. His son Arthur was born. Andrew graduated from the Human Toxicology Program in May and his wife, Leah Nelson, finished her MD at the University of Iowa. He briefly post-doctored (June-August) with Dr. Tori Forbes in University of Iowa Chemistry to finish up some drilling
projects. His wife started her residency at the University of New Mexico in June. Andrew joined Sandia National Laboratory in Albuquerque, New Mexico this September as a Postdoctoral Appointee in International Biological and Chemical Threat Reduction.

Aditya Stanam is serving as a Supervisor - RAC CDS at Prime Healthcare Management, an innovative and progressive health care system provider. He lives in Rancho Cucamonga, California with his wife Shivani. He recently had a paper published in Octotarget entitled “Interleukin-1 blockade overcomes erlotinib resistance in head and neck squamous cell carcinoma.”

Donate to our Program!

Please donate to the Human Toxicology Program. Rather than sending pledge cards this year, we encourage you to pledge online. Please visit the University of Iowa Foundation Graduate College website at http://www.uifoundation.org/graduate/. Click on “Give to Iowa.” Then click on “Graduate College General Fund” and below that under Gift Instructions type in “Gift to the Human Toxicology Program”. Thanks!