Interdisciplinary Toxicology Program
Spring 2013
DIGEST

Interdisciplinary Toxicology Program

WWW.TOXICOLOGY.UGA.EDU
Dear Colleagues,

As always, I would like to thank everyone for their dedication to the ITP. In particular, I would like to thank our faculty, who continue to maintain excellent international and national reputations in Toxicology. For example, last year ITP faculty published over 130 peer reviewed manuscripts. Their research was also funded by several nationally recognized sources, such as the Environmental Protection Agency (EPA), the National Institutes of Health and the National Science Foundation, and several other well respected entities. We also had 5 new faculty join ITP this year, which brings our total number up to 50. Thus, we continue to grow.

Our students also continued to excel. I am particularly proud that our students won several awards this year. This includes several Graduate Student Travel Awards, a UGA Presidential Honoree, a Provost Scholar, a Graduate Emerging Leaders Award, and several research awards at both Regional and National Meetings. Details can be found within this newsletter.

True to our dedication to our students, 66% of ITP budget last year went towards student stipends, with another 7% going towards student travel. Our graduate population currently numbers 35 students and we will welcome 6 new students for the Fall of 2013. Reflecting the interdisciplinary nature the ITP, our students represent 7 different UGA Colleges and 13 different departments. We also have supported student studies at several government agencies, including the EPA, USDA, the FDA and the CDC.

In the past year ITP continued to partner with the Southeastern Society of Toxicology to support their Regional Meeting in Athens, in October, 2012, and to host a Southeastern Society of Toxicology/UGA social at this year National Society of Toxicology Meeting in San Antonio. The social was a huge success and it was great to see several UGA Alumni there. ITP also had very successful Fall and Spring retreats. The Fall Retreat is always a highlight for me, as it’s organized by the students and hosts the most competitive Toxicology Trivia game in the Southeast (albeit, probably the only game), complete with excellent prizes. The Spring retreat was a bit more formal and was highlighted by excellent presentations from EPA scientists, as well as our own students. I would also like to introduce the new ITP logo, which can be seen on this page. This logo is available for download from our website, which incidentally, has undergone an extensive review, and has a great new look (check it out at www.toxicology.uga.edu, comments are welcome).

As always, I would like to thank the tireless efforts of Joanne Mauro. One of the most important things that Ms. Mauro does is keep track of our Alumni. Please check it out at www.toxicology.uga.edu/Alumni). If you are an alumni and don’t see your name, let us know.

Finally, we are always looking to increase our Foundation Funds, which allow both faculty and students to invite and support national and internationally known Toxicologists for seminars, and support programs that enhance ITP faculty and student experiences. Donations are tax-deductible and information on how to give can be found in this newsletter and at: http://www.toxicology.uga.edu

Dr. Brian S. Cummings
Director, ITP
ITP FACULTY

College of Agriculture and Environmental Sciences

Sayed Hassan, Crop & Soil Sciences
Qingguo (Jack) Huang, Crop & Soil Sciences
Raymond Noblet, Department Head, Entomology
Steve Stice, Director, Regenerative Bioscience Center
William Vencill, Crop & Soil Sciences
Roger Wyatt, Poultry Science

College of Public Health

Marsha Black, Environmental Health Science
Cham Dallas, Health and Policy Management
Travis Glenn, Environmental Health Science
Erin Lipp, Environmental Health Science
Kun Lu, Environmental Health Science
Luke Naeher, Environmental Health Science
Mary Alice Smith, Environmental Health Science
John Vena, Epidemiology & Biostatistics
Jia-Sheng Wang, Department Head, Environmental Health Science
Phillip Williams, Dean
John Yu, Environmental Health Sciences

College of Veterinary Medicine

Julie Cofield, Physiology & Pharmacology
Gaylen Edwards, Department Head, Physiology & Pharmacology
Rabindranath De La Fuente, Physiology & Pharmacology
Nikolay Filipov, Physiology & Pharmacology
Robert Gogal, Immunology & Immunotoxicology
Tai Guo, Veterinary Biosciences & Diagnostic Imaging
Jaroslava Halper, Pathology
Keith Harris, Department Head, Pathology
Steve Holladay, Department Head, Veterinary Biosciences & Diagnostic Imaging
Elizabeth Howerth, Pathology
S. Mark Tompkins, Infectious Diseases
Ralph Tripp, Infectious Diseases
Maria M. Viveiros, Physiology & Pharmacology
John J. Wagner, Physiology & Pharmacology
Xiaqin Ye, Physiology & Pharmacology

FDA

Jeff Fisher, Food & Drug Administration
National Center for Toxicological Research

Franklin College of Arts and Sciences

Anne O. Summers, Dept. of Microbiology

Odum School of Ecology

Richard Shefferson, Plant Biology
Stacey Lance, Savannah River Ecology Lab

R. C. Wilson College of Pharmacy

James Bruckner, Pharmaceutical & Biomedical Sciences
Brian Cummings, Pharmaceutical & Biomedical Sciences
Arthur Roberts, Pharmaceutical & Biomedical Sciences
Randall L. Tackett, Clinical & Administrative Pharmacy
Catherine White, Pharmaceutical and Biomedical Sciences
Jason Zastre, Pharmaceutical & Biomedical Sciences

USDA

Ronald T. Riley, Toxicology & Mycotoxin Research
Kenneth A. Voss, Toxicology & Mycotoxin Research
Nik Zitomer, Toxicology & Mycotoxin Research

Warnell School of Forestry & Natural Resources

Robert Bringolf, Warnell School of Forestry & Natural Resources
Richard Winn, Warnell School of Forestry & Natural Resources
Excellence in graduate education is fostered by offering a dynamic, forward-looking, interdisciplinary curriculum taught by a nationally and internationally respected faculty. A stimulating and challenging learning environment provides inspiration and encouragement for achieving the highest level of student success.

We welcome these new faculty members!
The ITP Executive Committee members are: Brian S. Cummings; Nick Filipov; Mary Alice Smith; J.S. Wang, Jim Bruckner; Ray Noblet; Ron Riley

The Executive Committee was tasked with several Strategic Plan items this year. A Training Grant Working Group was organized and led by Nick Filipov. His findings were used to organize over 46 different research projects into 3 categories of either Mechanistic, Molecular or Ecological toxicology. 20 different funding sources were identified. Using key words of the research projects, we were further able to identify the current top areas of research among our faculty. These areas are:

- Developmental and Reproductive Toxicology
- Ecotoxicology
- Mechanisms of Toxicity
- Immunotoxicology
- Naturally Occurring Toxins
- Genotoxicity
- Neurotoxicology
- Toxicokinetics

We also spent considerable time in updating our alumni database this year. These efforts, along with a complete update of our web site are part of an ongoing effort to strengthen ITP and ensure future readiness to serve the evolving needs of toxicologists.

Many thanks to our Admissions Committee for 2012-2103. Members are: Mary Alice Smith; Marsha Black, Jack Huang, Richard Shefferson, Ralph Tripp, John Wagner, and Jason Zastre.

This Academic Year has been very busy. We have updated our web page with Alumni information and have completed an assessment of our graduates’ progress in earning a Toxicology Ph.D. or M.S. The average time to complete a Ph. D. is 52.8 months, and to complete an M.S. is 32.8 months. We have graduated 47 M.S.’s and 66 Ph.D.’s since 1997. 44 came from Public Health; 19 from Pharmacy; 16 from Vet Med; 12 from Ecology; 9 from SREL; 3 from CAES; and 2 from Forestry.

We continue to expand our recruiting efforts. This year we implemented a correspondence campaign to thank references of successful students and to offer updates on their former students progress in our program. We also reached out to peers of our faculty and made contact with local science departments of several Georgia colleges. Recruiting trips this year included Georgia College and State University, Morehouse, Spellman, Clark, Georgia Tech, Georgia Southern, Georgia – Gwinnett, and the SOT Undergraduate Program at San Antonio, TX. We welcome new incoming students in these departments:

- Animal and Dairy Science
- Pharmaceutical and Biomedical Sciences
- Environmental Health Science
- Physiology and Pharmacology
- Veterinary Biosciences and Diagnostic Imaging
- Fish Biology and Ecotoxicology.
Dear UGATOX friends, it has been a great year since last summer. Our UGATOX committee did our best to serve all ITP students. Last fall, we held a wonderful bowling night for all students in the 2012 SESOT annual meeting. I believe everybody enjoyed the game very much. Of course, our ITP students also did a great job in academia.

Congratulations to all students who were awarded in the oral and poster competition.

Another exciting thing is that we finally have a UGATOX logo after a long time of negotiation and more than 6 different candidate versions. Here, we would like to thank all the help and support from Michael (our principle designer), Joanne and Dr. Cummings. All the ITP students and faculty are welcome to use it when participating in local, national or international meetings. Contact the Tox Office for a usable copy.

Since the next round of elections and nominations (2013-2014 academic year) will open soon, every ITP student is encouraged to serve in the UGATOX. Your support will be a distinct honor and will make our UGATOX community more productive and supportive!

Shuo
There are two research directions in Dr. Ye’s laboratory: 1) molecular mechanisms of embryo implantation (supported by NIH R15HD066301 & R01HD065939) and 2) reproductive toxicology (currently unfunded). The focus in the first direction is on uterine preparation for embryo implantation. Defective uterine receptivity is a contributing factor for female infertility in the general population and low pregnancy rate in patients undergoing in vitro fertilization. The understanding of how the uterus transiently transforms into a receptive state for embryo implantation remains far from complete.

The focus in the second direction is on two public health issues: endocrine disruptors on puberty and early pregnancy. Puberty and early pregnancy are controlled by hormones and thus can be influenced by endocrine disruptors. We use mouse models to study molecular mechanisms, including epigenetic mechanisms, of uterine preparation for embryo implantation and endocrine disruptors on puberty and early pregnancy. Current grants:

1. NIH R01HD065939 Ye (PI) 09/01/2011– 08/31/2016 Title: Molecular mechanism of LPA3-mediated uterine receptivity. Total cost: $1,577,815.00.

2. NIH R15HD066301 Ye (PI) 09/01/2010 – 08/31/2013 Title: Luminal epithelial microenvironment in Lpar3(-/-) peri-implantation uterus. Total cost: $371,250.00.
LOCAL
THE UNIVERSITY OF GEORGIA-COLLEGE OF VETERINARY MEDICINE SCIENCE OF VETERINARY MEDICINE RESEARCH DAY
Zhoumeng Lin
Development of comprehensive physiologically based pharmacokinetic models of the herbicide atrazine in the rat dam, fetus, and neonate. Lin, Z., Fisher, J. W., and Filipov, N. M. Advisor: N. Filipov

GEORGIA ONE SYMPOSIUM
Augustine K. Agyekum
Probiotics in the prevention of illness from exposure to foodborne pathogens. Augustine K. Agyekum1, 2,3 Gabriele Gross4, Kendra M. Edwards1 and Mary Alice Smith 1, 2,3 Advisor: M. A. Smith

REGIONAL
SOUTHEASTERN REGION OF THE SOCIETY OF ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY (SESETAC), ATHENS, GA
Zhoumeng Lin
Estimation of placental transfer and tissue distribution of atrazine and its main metabolites in the rat dam and fetus with physiologically based pharmacokinetic modeling. Lin, Z., Fisher, J. W., and Filipov, N. M. Advisor: N. Filipov

SOUTHEASTERN SOCIETY OF TOXICOLOGY, ATHENS, GA
Kwaku Agyekum
Probiotic protection against Cronobacter sakazakii invasion and neonatal death in a CD-1 mouse model. Advisor: M. A. Smith
Chen Chen
Toxicokinetics of low doses of the pyrethroid, deltamethrin in rats Advisor: J. Bruckner
Ahmed El Zowalaty
Expression of FXYD family of small ion transport regulators in wild type and Lpar3-/- periimplantation mouse uterus Advisor: X. Ye
Rong Li
Effects of genistein diet exposure on vaginal opening and spermatogenesis. Advisor: X. Ye
Zhoumeng Lin
Estimation of placental transfer and tissue distribution of atrazine and its main metabolites in the rat dam and fetus with physiologically based pharmacokinetic modeling. Advisor: N. Filipov

Natalie Scholpa
THIRD PLACE PLATFORM Nephrotoxicity of epigenetic inhibitors used for the treatment of cancer. Advisor: B. S. Cummings
Pankaj Sethi
Age related differences in plasma protein binding of pyrethroids. Advisor: J. Bruckner
Rachel Worley
SECOND PLACE PLATFORM Application of NHANES data to evaluate exposure via three exposure routes using physiologically-based pharmacokinetic (PBPK) modeling Advisor: J. W. Fisher
Shuo Xiao
Fei Zhao
Postweaning exposure to dietary zearalenone (ZEA), a mycotoxin, advances puberty and disrupts early pregnancy events in female mice. Advisor: X. Ye

NATIONAL
AMERICAN FISHERIES SOCIETY MEETING, ST. PAUL, MN
Kristen Kellock
Investigation for potential factors for high intersex rates of largemouth bass in small impoundments. Advisor: R. Bringolf

AMERICAN MOSQUITO CONTROL ASSOC., AUSTIN, TX
Joe Iburg
The effect of seston on the susceptibility of black fly larvae to Bti. Advisor: R. Noblet
Comparison of Listeria monocytogenes strains from the 2011 cantaloupe outbreak in an invasion assay.  
Advisor: M. A. Smith

Male germ cells mediate untargeted mutations to the maternal genome of offspring.  
Advisor: R. Winn

Bioaccumulation and maturation delay in an estuarine crustacean, Americamysis bahia, following chronic exposure to multi-walled carbon nanotubes.  
Advisor: M. Black

Comparison of multi-walled carbon nanotube chronic toxicity and bioaccumulation in two crustaceans: freshwater and estuarine.  
Advisor: M. Black

Persisting effects of intermittent, minor stressors or cocaine on long-term potentiation in dorsal and ventral hippocampus.  
Advisor: J. Wagner

Larval black fly mortality following bti exposure, implications for post treatment evaluations.  
Advisor: R. Noblet

Evoked IPSCs in hippocampal CA1 pyramidal neurons are reduced in rats following extended access to cocaine self-administration.  
Advisor: J. Wagner

Effects of post-weaning genistein exposure on uterine development and spermatogenesis.  
Advisor: X. Ye

Bafilomycin A1, a V-ATPase inhibitor, inhibits embryo implantation via local uterine fat pad injection.  
Advisor: X. Ye

Gestational and lactational physiologically-based pharmacokinetic (PBPK) models for the herbicide atrazine in rats: development and optimization. (This poster was also selected for a special SOT Poster Session for Visiting Undergraduate Students.)  
Advisor: N. Filipov

Nephrotoxicity of epigenetic inhibitors used for the treatment of cancer.  
Advisor: B. S. Cummings

Toxicokinetics of low doses of the pyrethroid, deltamethrin in rats.  
Advisor: N. Filipov

Effect of age on plasma protein binding of deltamethrin, cis-permethrin and trans-permethrin in rats.  
Advisor: J. Bruckner

ERK1/2 Pathway inhibition attenuates BoNT/A-induced neurite outgrowth in motor neurons.  
Advisor: J. Coffield

Partition coefficients of deltamethrin (DLM) and cis-permethrin (CIS) in male Sprague-Dawley rats.  
Advisor: J. Bruckner

Mechanisms of probiotic-induced growth inhibition of Listeria monocytogenes.  
Advisor: M. A. Smith
**STUDENT RESEARCH**

INTERNATIONAL
FRESHWATER MOLLUSK CONSERVATION SOCIETY. GUNTERSVILLE, AL

Peter Hazelton  
Happy as a clam? Behavioral and physiological effects of the antidepressant fluoxetine on freshwater mussels. **Advisor: R. Bringolf**

INTERNATIONAL SOCIETY OF EXPOSURE SCIENCE CONFERENCE, SEATTLE, WA

Adwoa Commodore  
A pilot study characterizing real time exposure to particulate matter and carbon monoxide from cookstove related woodsmoke in rural Peru. **Advisor: L. Naeher**

**STUDENT PUBLICATIONS**

Kwaku Agyekum  
Journal of Food Protection (Accepted May 2012) Susceptibility to Cronobacter sakazakii changes with increasing age in neonatal CD-1 Mice Arena N. Richardson, Elizabeth A. Pollak, Denita Williams, Kwaku Agyekum, and Mary Alice Smith

John Finger  

John Finger  

Joe Iburg  

Zhoumeng Lin  

Fei Zhao  

**FACULTY PUBLICATIONS**

Please visit our website for a complete list of faculty publications during the last year.  
http://www.toxicology.uga.edu
Dr. Ankley discusses EPA’s approach to screening and testing of endocrine disruptors.

Dr. Knudsen discusses “Computational Toxicology and in silico Modeling in a Virtual Embryo.”

Dr. Jones, Professor of Medicine, Emory University presents seminar, “Universal Environmental Chemical Exposure Surveillance.”

Dr. Hassan, Dr. Gogal and Dr. Riley view posters at the Spring Retreat.

The Interdisciplinary Toxicology Program in conjunction with UGATOX and several other departments hosted three seminars this academic year. These seminars serve a dual purpose, in that they bring top researchers to campus to discuss their latest research and it is also an opportunity for students to network with potential future employers.

Please contact the Tox Office if you are interested in bringing a researcher to campus.
PLATFORMS

Peter Hazelton

SECOND PLACE: Happy as a clam? Behavioral and physiological effects of the antidepressant fluoxetine on freshwater mussels. Advisor: R. Bringolf

Rong Li

FIRST PLACE: Effects of post-weaning dietary genistein exposure on mammary gland development in C57bl/6 mice. Advisor: X. Ye

Qi Luo

Remediation of perfluorooctane acid contamination by using immobilized laccase on soil. Advisor: J. Huang

Rahat W. Desai

Why were there so few pregnancy-related cases from the 2011 multistate outbreak of Listeria monocytogenes-contaminated cantaloupes? Advisor: M. A. Smith

POSTERS

Kwaku Agyekum

Probiotics in the prevention of illness from exposure to foodborne pathogens. Advisor: M. A. Smith

Manoj Amaraneni

Partition coefficients of deltamethrin (Dlm), cis-permethrin (Cis) and trans-permethrin (Trans) in adult male Sprague-Dawley rats. Advisor: J. Bruckner

Chen Chen

Toxicokinetics of low doses of the pyrethroid, deltamethrin (DLM), in rats. Advisor: J. Bruckner

Ahmed E. El Zowalaty

Localization of BSCL2 in the reproductive system by in situ hybridization. Advisor: X. Ye

Eric Goolsby

Interactive effects of diphenhydramine and sertraline in Ceriodaphnia dubia. Advisor: R. Shefferson

Minsu Kang

Aflatoxin exposure in human populations of Uganda. Advisor: J. S. Wang

Kristen Kellock

Factors associated with intersex largemouth bass (Micropterus salmoides) in Georgia USA. Advisor: R. Bringolf

Madhusudhanan M. Keralapurath

Evoked IPSCs in hippocampal CA1 pyramidal neurons are reduced in rats following extended access to cocaine self-administration. Advisor: J. Wagner

Zhoumeng Lin

Development and optimization of physiologically-based pharmacokinetic models for the herbicide atrazine in the rat dam, fetus and neonate. Advisor: N. Filipov

Liyun Liu

ERK1/2 Pathway partially mediates BoNT/A-induced neurite outgrowth in motor neurons. Advisor: J. Coffield

Emily R. McReynolds

Exposure to carbon nanotube contaminated-sediment increases morbidity in juvenile fat head minnow (Pimephales promelas). Advisor: M. Black

Natalie Scholpa

SECOND PLACE: Nephrotoxicity of epigenetic inhibitors used for the treatment of cancer. Advisor: B. S. Cummings

Pankaj Sethi

SECOND PLACE: Effect of age on plasma protein binding of deltamethrin, cis-permethrin and trans-permethrin in rats. Advisor: J. Bruckner

Chi-Yen Tseng

Effects of hydroxylated fullerenes and silver nanoparticles on early life stages of the fat head minnow (Pimephales promelas). Advisor: M. Black

Shuo Xiao

Acidification of uterine luminal epithelium is critical for embryo implantation. Advisor: X. Ye

Xian Wu

Quantification of neuron maturation and neurite outgrowth in vitro using human neural progenitor cell. Advisor: S. Stice

Kathy Xue

Mitigation of fumonisin biomarkers by green tea polyphenols. Advisor: J. S. Wang

Fei Zhao

FIRST PLACE: Effects and mechanisms of multigenerational exposure to zearalenone, a mycotoxin, on female reproduction. Advisor: X. Ye
STUDENT AWARDS

KWAKU AGYEKUM - Advisor: Mary Alice Smith. Center for Food Safety (CFS) Outstanding Poster Award 3/2012 Probiotic inhibition of bacterial pathogens in vivo and in vitro

ZHOUMENG LIN - Advisor: Nick Filipov. American Association of Chinese in Toxicology (AACT) and Charles River - Best Abstract Award; Biological Modeling Specialty Section (BMSS) Perry J. Gehring Student Award

SHUO XIAO - Advisor: Xiaolin Ye. Graduate School Dissertation Completion Award

PETER HAZELTON - Advisor: Robert Bringolf. Graduate School Dissertation Completion Award; UGA Presidential Honoree

RAHAT WADHWA-DESAI - Advisor: Mary Alice Smith. Best poster award for the maximum public health impact at the Thinc UGA Entrepreneurial Week event, Women at the Frontier Exhibit, 2013

5 DOCTORAL CANDIDACY AWARDS:

Liyun Liu, Advisor: Julie Coffield
Rong Li, Advisor: Xiaolin Ye
Madhu K. Mathilakath, Advisor: John Wagner
Emily McReynolds, Advisor: Marsha Black
Dean Meyer, Advisor: Phil Williams

ALUMNI OF THE YEAR AWARD

The Interdisciplinary Toxicology Program announces the creation of the Alumni of the Year Award. The first recipient of this award will be announced at the 2014 Annual Spring Retreat, Spring 2014, at the Georgia Center in Athens, GA. Nominations recognize UGA Toxicology graduates who have made significant contributions to the field. This award will include all travel expenses to the UGA Toxicology Spring Retreat. We are seeking nominations from you! These nominations can be for yourself or for another UGA Toxicology Alum. Nominations should include a nomination letter describing his/her accomplishments and a CV or Resume, and one supporting letter. The nominee must be able to attend the Spring Retreat and give a short presentation about their career in toxicology and/or a current topic related to their work. The nomination form can be found on our website under Alumni.

Pete Hazelton in the lab. Zhoumeng Lin in the lab.

GUOQING QIAN (PhD 2012) I have accepted a position as a Research Fellow at Emory University, Atlanta, GA. Advisory Committee Members: L to R: Xiaqin Ye, James Bruckner, Mary Alice Smith, (Guoqing Qian), Ron Riley, and Major Advisor Jia-Sheng Wang
Tara Almekinder Vogelien  Director Toxicology and Clinical Safety, Business and Research Administration  NC Research Campus, Kannapolis, NC
Suzanne Baird  MACTEC, Amherst, MA
Windy Boyd  NIEHS - Biomolecular Screening - Worm Tox Group, Research Triangle Park, NC
Jason Boyd  USRA Division of Space Life Sciences, Universities Space Research Association  Division of Space Life Sciences, Houston, TX
Jerry Campbell  Assoc. Director Center for Human Health Assessment, The Hamner Institute for Health Sciences, Research Triangle Park, NC
Deborah Cartwright-Iwanowicz  US Geological Survey - Leetown Science Center, Kearneysville, WV
Deanna Conners  Earthsky, http://earthsky.org/contact, Austin, TX
Eva Daneke-McLanahan  US EPA, LCRD, USPHS, Raleigh Durham, NC
Amy Dixon Delinsky  US EPA Human exposure and Atmospheric Sciences, RTP, NC
Gregory Dooley  Dept of Environmental & Radiological Health Sciences, Fort Collins, CO
Nikolay Filipov  College of Veterinary Medicine Dept. of Physiology and Pharmacology, Athens, GA
Xianglu Han  Dow Chemical, Midland, MI
Quanren He  Director Toxicology and Clinical Safety, Biothera, Saint Paul, MN
William Matthew Henderson  Research Toxicologist, Ecosystems Research Division, US EPA, Athens, GA
Ofia Hodoh  US EPA Region 4, Atlanta, GA
Victor Johnson  Toxicology and Molecular Biology Branch, Health Effects Laboratory Division, Centers for Disease Control and Prevention, Morgantown, WV
Angel Kelsey Wall  Savannah River Nuclear Solutions, Aiken, SC
Sang Hyun Kim  Drug Metabolism Team, NITR Korea Food & Drug Administration, Seoul, Korea
Jiyoung Kim  Institute of Toxicology, School of Public Health, Nanjing Medical University, Nanjing People's Republic of China.
Brad Konwick  Postdoctoral Fellow / KADAS Environmental & Engineering, Richland, VA
Soo Kwang Lee  Food and Drug Administration Johns Creek, GA
Michael Lumpkin  Environ, Atlanta, GA
Hongbo Ma  Assistant Professor, Univ of Wisconsin, Env & Occ Health, Milwaukee/Zilber School of Public Health, Milwaukee, WI
Audrey Majeske  Human Genome Sequencing Center, Baylor College of Medicine, Houston, TX
Leena Malayil  Research Tech Ctr Trop Emerging Diseases, Athens, GA
Kristi Manning Folden  Technical Sales, OLIS, Inc., Bogart, GA
Carrie Marr  Wildlife Biologist, US Fish and Wildlife Service, Phoenix, AZ
Sheppard Martin  National Health and Environmental Effects Research Laboratory, RTP, NC
Judy Mathew  Director Clinical Operations, RFS Pharma, Tucker, GA
Brooks McPhail  ORISE Post-doctoral Fellow at Centers for Disease Control, Atlanta, GA
Paul C. Melstrom  Epidemiologist/Toxicologist, CDC and Prevention, Atlanta, GA
<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>Jay Overmyer</td>
<td>Syngenta, Research Triangle Park, NC</td>
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<tr>
<td>Christopher Peredney</td>
<td>Toxics Cleanup Program, Washington State Department of Ecology, Olympia, WA</td>
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<tr>
<td>Brianna Peterson</td>
<td>Forensics Toxicologist, Washington State Patrol, Seattle, WA</td>
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<tr>
<td>Jennifer Peterson</td>
<td>Firehall 4 Animal Hospital, Athens, GA</td>
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<tr>
<td>Guoqing Qian</td>
<td>Research Fellow, Emory, Atlanta, GA</td>
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<tr>
<td>Junshan Qiu</td>
<td>Staff Fellow FDA Center for Veterinary Medicine, Rockville, MD</td>
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<tr>
<td>Bradley Reinhart</td>
<td>Instructor and Lab Manager, University of South Carolina, Aiken, SC</td>
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<tr>
<td>Arena Richardson</td>
<td>Postdoctoral Fellow, Food &amp; Sci Technology College, Athens, GA</td>
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<tr>
<td>Emily Rogers</td>
<td>Research Assistant, University of Tennessee, Knoxville, TN</td>
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<tr>
<td>Suparna Sarkar</td>
<td>Instructor, Barbara Davis Center for Diabetes, University of Colorado Anschutz</td>
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<tr>
<td>Neelesh Sharma</td>
<td>Faculty, Division of Veterinary Clinical Medicine, Jammu-181 102. INDIA</td>
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<tr>
<td>Patricia Shaw-Allen</td>
<td>U.S. Environmental Protection Agency, Cincinnati, OH</td>
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<tr>
<td>Gideon St. Helen</td>
<td>Cardiovascular Research Institute University of California, San Francisco, CA</td>
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<tr>
<td>Bin Sun</td>
<td>The Hamner Institute, Durham, NC</td>
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<tr>
<td>Matthew Taylor</td>
<td>Ashland, Inc., Covington, KY</td>
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<tr>
<td>Glenn E. Tillman</td>
<td>USDA FSIS OPHS Eastern Laboratory, Athens, GA</td>
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<tr>
<td>Masashi Tsunoda</td>
<td>Professor, Graduate School of Medicines, Kitasato University, Sagamihara, Kanagawa 228-8555, Japan</td>
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<tr>
<td>Olga Tsyusko</td>
<td>Faculty, Univ. of Kentucky, Lexington, KY</td>
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<tr>
<td>Jason Unrine</td>
<td>Faculty, Univ. of Kentucky, Lexington, KY</td>
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<tr>
<td>Aswani Vunnava</td>
<td>Department of Microbiology and Immunology, Emory, Atlanta, GA</td>
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<tr>
<td>Bob Wentworth</td>
<td>Emergency Preparedness Manager, Barrow Hall, UGA, Athens, GA</td>
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<tr>
<td>Denita Williams</td>
<td>OISE Fellowship, CDC, Atlanta, GA</td>
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<tr>
<td>Lonnie W. Williams</td>
<td>Kimberly Clark – Roswell, GA; Burdock Group, Vero Beach, FL</td>
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<tr>
<td>Li Xu</td>
<td>Postdoctoral Fellow, Univ. of Texas MD Anderson Cancer Center, Houston, TX</td>
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<tr>
<td>Neera Chhabra Young</td>
<td>Science Teacher, Lakeside HS, Augusta, GA</td>
</tr>
<tr>
<td>Xiaoling Zhang</td>
<td>Postdoctoral Fellow, Duke University, Durham, NC</td>
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</tbody>
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This list represents the latest placement info we have on our graduates. If you have additional information, please send it to toxinfo@uga.edu or call (706) 583-0058
Support the
Interdisciplinary Toxicology Program

We would like to take this opportunity to invite you to make a financial contribution to the UGA Toxicology Program. You can make a secure credit card contribution online: https://www.externalaffairs.uga.edu/os/makegift. When doing so, please select “Other” as the Unit and type Toxicology Program in the form space given. Doing so will ensure that your gift is directed to the Toxicology Program.

The Interdisciplinary Program in Toxicology Fund is a University of Georgia Foundation discretionary account supporting the activities of the Interdisciplinary Toxicology Program. It enables the Program to host internationally recognized speakers, hold conferences and workshops and provide support for graduate students to attend national meetings and present scientific results.

If you prefer to make a donation the old-fashioned way, please fill out this form, print it and mail it to our address below. All contributions are tax deductible.

Name: _______________________________________________________

Address: _______________________________________________________

Phone: ____________________   EMail: _________________________

I would like to contribute to the University of Georgia Foundation. My gift will be designated for the Interdisciplinary Program in Toxicology Fund.

The Interdisciplinary Program in Toxicology Fund is a University of Georgia Foundation discretionary account supporting the activities of the Interdisciplinary Toxicology Program. It enables the Program to host internationally recognized speakers, hold conferences and workshops and provide support for graduate students to attend national meetings and present scientific results.

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