



# *“On The Move” Newsletter*

SPRING 2012 ISSUE

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The Institute *of* Environmental  
& Human Health (TIEHH)

*Spring 2012*

## TIEHH News Update

At the March 2012 meeting of the Texas Tech University Board of Regents funding for the building of a Biological Safety Level Laboratory-3 (BSL-3) facility at TIEHH was approved. This will be a collaboration between Texas Tech University and the City of Lubbock with financial support from the Department of Homeland Security and Centers for Disease Control. This will be the only BSL-3 at Texas Tech and will create many collaborative opportunities for TIEHH scientists and faculty at Texas Tech University and Texas Tech University Health Sciences Center. The availability of a BSL-3 facility will give us the capability to handle toxins and pathogens that were not previously capable of being handled with current containment facilities. Design of the facility has already begun and construction will begin soon. We will keep you updated on progress in our next newsletter but this is a very significant development for TIEHH and Texas Tech.



Drs. Seshadri Ramkumar and Ronald J. Kendall, TIEHH Director

**Dr. Seshadri Ramkumar, Associate Professor of Environmental Toxicology at TIEHH was presented a "Certificate of Recognition" for his achievement in inventing "Fibertect", a nonwoven decontamination wipe and bringing it to market as Texas Tech University's first commercialized product. Along with the Certificate of Recognition, Dr. Ramkumar was awarded \$1,000.**

### TIEHH FACT



"Fibertect", a nonwoven decontamination wipe, invented by TIEHH Associate Professor Seshadri Ramkumar, was tested by the Lawrence Livermore National Laboratory and found to be the best decontamination wipe for chemical warfare agents and toxic chemicals. The results of these tests were published in the peer-reviewed scientific journal, *Industrial & Engineering Chemistry Research*. Funding for the development of "Fibertect" was provided by the United States Army.

## Assistant Professors Promoted

Over this past year, Drs. Jaclyn Cañas, Weimin Gao, and Céline Godard-Codding have gone through the Tenure and Promotion review process and all have been promoted to Associate Professor of Environmental Toxicology effective September 1, 2012.



Jaclyn Cañas



Weimin Gao



Céline Godard-Codding

## Faculty News



**Dr. Ken Dixon** will participate in the SETAC 6th World Congress / SETAC Europe 22nd annual meeting in Berlin, Germany, in May. He is co-chairing a platform session, “Global scale modeling of environmental cause-effect chains for risk assessment and life cycle assessment: Quo vadis?” He will also present an invited platform presentation in the special session “Memorisk session on terrestrial ecotoxicology.”

**Dr. Céline Godard-Codding** was appointed co-investigator under the US NOAA for the Marine Mammal Health and Stranding Response Program for 2012-2014.

Dr. Godard-Codding conducted marine mammal research on protected Gray whales in Laguna San Ignacio, Mexico, in March as part of an international project involving Mexico, Italy, and the United States.



**Dr. Jonathan Maul** received an Accelerated Research Program grant from the State of Texas to support his work “Nanotechnology in Agriculture: Interactions between Nanomaterials and Cotton Agrochemicals”. The award is for \$80,000 and what is so significant about this extremely competitive award is that this was the only one received at Texas Tech this year. In fact, statewide, only 12 were given out so this makes the award to TIEHH even more significant as our grants program continues to build momentum.



## Student News



**Brett Blackwell** has received the 2012 Society of Environmental Toxicology and Chemistry/ Procter & Gamble Company Global Fellowship for Doctoral Research in Environmental Sciences award. Brett is a doctoral student under the direction of Dr. Phil Smith.

**Blackwell, B.R., Cai, Q.,** Buser, M..D., Johnson, B.J., Baker, M., Cobb, G.P., **Smith, P.N.** *"LC-MS/MS: Analysis of veterinary growth promotors in airborne particulate matter"*. SETAC North America, Boston, MA., November 13-17, 2011.

**Blackwell, B.R., Karnjanapiboonwong, A., Anderson, T.A., Smith, P.N.** *"Uptake and biotransformation of 17 $\beta$ -trenbolone by the common bean plant (*Phaseolus vulgaris*)"*. SETAC North America, Boston, MA., November 13-17, 2011.



**Anna Gibson** presented *"Mosquitos, West Nile Virus and Drought"* at the Texas Mosquito Control Association Meeting in October 2011.



**Tulika Tyagi** presented *"Effect of a curcumin and epigallocatechin gallate in combination with demethylating agent, 5-aza-2'deoxyctidine in breast cancer cell growth inhibition"* at the annual meeting of the Society of Toxicology, San Francisco, CA., March 11-15, 2012.

**Tulika** also presented *"Evaluation of anti-breast cancer properties of naturally occurring compounds"* at the South Central and Gulf Coast Joint Annual Regional Chapter Meeting, New Orleans, LA., October 27-29, 2011.

LE-SETAC hosted their first Science Saturday in January, spending a day conducting environmental science-themed experiments and demonstrations with local 5th graders. Student instructors were **Kim Wooten, Cait Ryan, Andrew McEachran, Derek Faust, Stephanie Plautz, Morgan Willming, Kaylyn Germ, Catherine Baxter, and Kevan Athanasiou.**

Congratulations to the TIEHH Students winning the 11th Annual Graduate Student Research Poster competition in the Environmental Toxicology category!



1st Place: **Morgan Willming**



2nd Place: **Stephanie Plautz**



3rd Place: **David Kimberly**



Cait Ryan is serving as the Women and Minorities Co-Chair for the Ecological Society of America's National Student Section for 2011-2012.

The TIEHH Student Association holds an annual banquet each April to acknowledge outstanding students. Each year, Syngenta Crop Protection, Inc. and Waste Control Specialists sponsor awards for our most outstanding doctoral and master's students in environmental toxicology. Students receiving the awards are selected on criteria such as publications and grants submissions, among other professional standards.

Recipients of the Syngenta award are:



Chuanwen Lu (doctoral)



Kimberly Wooten (master's)

Recipients of the Waste Control Specialists award, presented by Greg Zychowski, are:



Brett Blackwell (doctoral)



Tulika Tyagi (master's)

Winners of the 2nd annual photo contest were: Kimberly Wooten (Director's Choice), Stephanie Plautz (1st Place), and Kaylyn Germ and Morgan Willming (tied for 2nd).

The recipients of our first ever Safety Awards were Babina Shrestha (Outstanding PPE Compliance), Sarah Webb (5P's award—Proper Planning Prevents Poor Performance), Donn Edwards (Proactive Laboratory Compliance), and Anna Gibson (Cleanest Lab).

Other award winners were: Kaylyn Germ (Outstanding Teaching Assistant), Dr. Jonathan Maul (Outstanding Faculty), and Jerrod Sanders (Outstanding Staff).

Winners of the TIEHH/Texas Tech University ToxExpo were:

1st Place — Scott Weir

2nd Place—Kimberly Wooten

3rd Place—Shuangying Yu



Director's Choice

Winning Photo

Courtesy of Kimberly Wooten

## Operation Idiopathic Decline

**The Rolling Plains Quail Research Foundation (RPQRF) will provide \$1.5 million to staff a new laboratory at The Institute of Environmental and Human Health (TIEHH) at Texas Tech University that will support the assessment of diseases, parasites and contaminants that could impact quail.**



"Poor bob-white," the iconic song of one of America's most popular game birds, is fading into a golden oldie as quail disappear in massive numbers. Now thousands of Texans want to know where all the quail have gone.

To find the answers, the Rolling Plains Quail Research Foundation (RPQRF) will provide \$1.5 million to staff a new labora-

tory at The Institute of Environmental and Human Health (TIEHH) at Texas Tech University that will support the assessment of diseases, parasites and contaminants that could impact quail.

The lab will serve as a Central Receiving Laboratory of quail samples for a partnership called Operation Idiopathic Decline, through which researchers from TIEHH, RPQRF, Texas A&M University and Texas A&M-Kingsville sample quail from 19 different counties across West Texas and 10 sites in western Oklahoma. Also, it will process various specimens to share with colleagues at other institutions.

In addition to the Central Receiving Laboratory, which is staffed for operational capability seven days a week, TIEHH has created other support facilities. Part of the funding already received helped to build a new aviary to conduct experiments on the response of quail to various environmental issues.

Dr. Steve Presley, Associate Professor at TIEHH, will oversee the Central Receiving Laboratory and Ronald J. Kendall, Director of TIEHH, will serve as Principal Investigator of two of the quail research projects being supported by RPQRF. Dr. Phil Smith, Associate Professor at TIEHH, is collaborating in the field and laboratory aspects of this initiative and Dr. Todd Anderson, Professor of Environmental Toxicology, is providing collaboration in the area of environmental chemistry. Numerous graduate students are participating and are being supported by this project.



## Recent Publications

**Cañas JE, Qi, B, S Li, JD Maul, SB Cox, S Das, MJ Green.** 2011. Acute and reproductive toxicity of nano-sized metal oxides (ZnO and TiO<sub>2</sub>) to earthworms (*Eisenia fetida*). *Journal of Environmental Monitoring* 13(12):3351-3357.

Ibrahim, M.A., Johnson, H.W.B., Jeong, J.W., Lewis, G.L., Shi, X., Noguchi, T., Williams, M., Leahy, J.W., Nuss, J.M., Woolfrey, J., Banica, M., Bentzien, F., Chou, Y.C., **Gibson, A.**, Heald, N., Lamb, P., Mattheakis, L., Matthews, D., Shipway, A., Wu, X., Zhang, W.T., Zhou, S., Shankar, G. 2012. "Discovery of a Novel Class of Potent and Orally Bio-available Sphingosine 1-Phosphate Receptor 1 Antagonists". *Journal of Medicinal Chemistry*. Web Publication January 3.

**Kimberly, D.A.** and **Salice, C.J.** 2012 Understanding Interactive Effects of Climate Change and Toxicants: Important of Evolutionary Processes. *Integrated Environmental Assessment and Management* 8(2).

**Kimberly, D.A.** and **Salice, C.J.** 2012. Dietary acclimation affects dietary selection in the freshwater snail, *Planorbella trivolvis*. *Journal of Molluscan Studies* (in press).

**Sata, U.R.** and **Ramkumar, S.S.** "Developments in Decontamination Technologies of Military Personnel and Equipment" in *Defense-Related Intelligent Textiles and Clothing for Ballistic and NBC Protection: Technology at the Cutting Edge, NATO Science for Peace and Security Series B: Physics and Biophysics*. Jayaraman, S. and Kiekens, P. Ed., SpringerLink Publishing Company. 2012, pp. 177-195.

## Graduate student awards, grants, fellowships and/or scholarships: October 2011—March 2012

Brett Blackwell	Ph.D.	Society of Environmental Toxicology and Chemistry (SETAC) Procter & Gamble Fellowship
Derek Faust	M.S.	I-20 Wildlife Preserve & Jenna Welch Nature Study Center SETAC Travel Award
Shibin Li	Ph.D.	American Chemical Society (ACS) Environmental Chemistry Travel Award
Chuanwen Lu	Ph.D.	Society of Toxicology (SOT) Travel Award
Stephanie Plautz	Ph.D.	Conchologists of America
David Kimberly	Ph.D.	Conchologists of America
Vinit Singh	Ph.D.	J. Watumall Foundation Scholarship Industrial Fabrics Foundation Scholarship
Song Tang	Ph.D.	TTU Grad School Travel Award
Tulika Tyagi	M.S.	TTU Grad School Travel Award SOT Travel Award
Catherine Baxter	M.S.	Grad School AT&T Chancellor's Endowed Fellowship



Chuanwen Lu



Stephanie Plautz



Vinit Singh

The Institute of  
Environmental and Human  
Health (TIEHH) and  
Department of  
Environmental Toxicology

Texas Tech University  
Box 41163  
Lubbock, Texas 79409-  
1163  
806-885-4567



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*TIEHH is taking a leadership role in the facilitation of a successful SEJ meeting. Sponsorship opportunities are available. Please contact TIEHH Director's Office for more information.*

## SEJ Lubbock

22nd Annual Conference

# BIG LAND BIG SKY BIG ISSUES

Society of Environmental Journalists

TEXAS TECH UNIVERSITY

OCT 17-21, 2012

This October 17 – 21, 2012, upward of 900 journalists and support personnel will attend the 2012 meeting of the Society of Environmental Journalists, hosted by Texas Tech University. In a rich tradition of holding their annual meetings in collaboration with National Research Universities (such as Stanford, Virginia Tech, MIT, UCLA and the University of Colorado, among others), this presents an outstanding opportunity for Texas Tech University to communicate to the world press its excellence in environmental, agricultural and energy research. It also will create an enormous opportunity for the city of Lubbock and the region as well as area industries to communicate the national and international importance of our area.

The Society of Environmental Journalists is the only North American membership association of professional journalists dedicated to more and better coverage of environmental-related issues. SEJ's mission is to strengthen the quality, reach and viability of journalism across all media to advance public understanding of environmental issues. For more information about SEJ, please visit [www.sej.org](http://www.sej.org).