



SPRING 2013

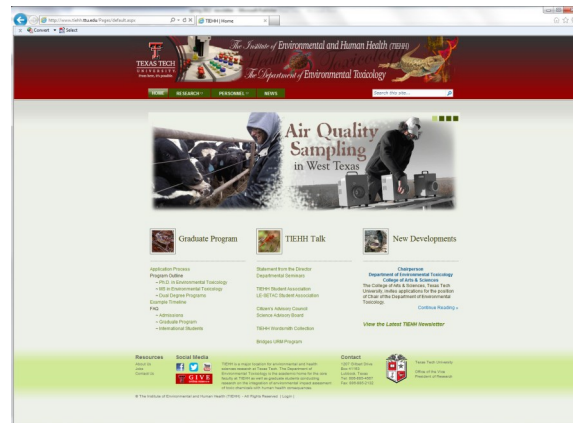
# "On The Move" Newsletter

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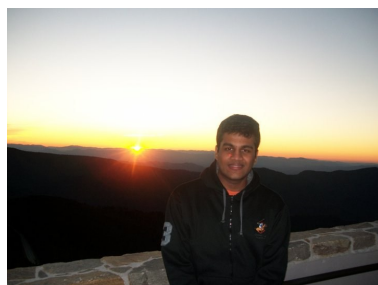
## New Department Webpage

Hopefully you have noticed that we redesigned the webpage. The old page served us well, but needed some updating after several years. We thank Lori Gibler and Jerrid Sanders for their hard work during the process, and also acknowledge the contributions of our *ad hoc* Outreach Committee for their input. We'd like your feedback as well. Some of the early comments were that it looked "Christmasy". If you have some similar constructive comments, please feel free to contact Lori.



## New Students

Our graduate program continues to grow. This spring, we added 3 new students: Ashwin Krishnaswamy from Mumbai, India (M.S. from North Carolina State University), Evelyn Reátegui Zirena from Arequipa, Peru (M.S. from Troy University) and Adric Olson from Centerville, Ohio (M.S. from Western Carolina University). Evelyn and Adric are graciously supported by fellowships from the College of Arts & Sciences.



Ashwin



Evelyn



Adric

## Moving On

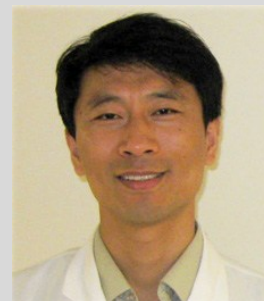
The end of 2012 also marked some significant changes in TIEHH Staff. Jerrid Sanders, an IT Specialist with TIEHH over the last 2+ years accepted a similar position with the City of Lubbock. Jerrid was the recipient of the TIEHH Outstanding Staff Award this past year. In addition, Dr. QingSong Cai, a graduate of our program (2007) and our instrument manager for the last 5 years accepted a similar position at the University of Georgia. While we are sorry to see both of them go, we certainly appreciate their contributions to the success of our program.

## Alumni



Back in the day, “Richards to Wu” was a lethal combination in the intramural flag football league. These two met up again at the 2012 SETAC Meeting in Long Beach, CA. Dr. Sean Richards (Ph.D. 2000) is now a Professor at UT-Chattanooga. Dr. Ted Wu (M.S. 2000) is now a scientist with the USDA in Fairbanks, AK.

After a 4 year postdoc at UCLA, Dr. Piwen Wang, a 2008 graduate of our program, is now an Assistant Professor at Charles R. Drew University of Medicine and Science in Los Angeles, CA. Piwen has continued with cancer chemoprevention research started during his dissertation.



Louise Venne (M.S. 2006) recently completed her Ph.D. in Wildlife Ecology and Conservation at the University of Florida. In January, Louise started work with AMEC E&I, Inc. She also recently published a paper on some of her thesis research on playa amphibians (*Wetlands*. 32:619-629).



Mindy (Landrum) Olivares (M.S. 2002) is with the Phoenix, AZ office of TRC companies, Inc. For the last 10 years, she has been involved with environmental consulting largely related to microbial, indoor air quality, water intrusion, and asbestos inspections.

## Student News

**Kim Wooten**’s research on phthalates in dog toys was reviewed in a recent issue of *The BARK* magazine, an essential guide to life with dogs (<http://www.thebark.com/content/toy-alert>). Kim is a Ph.D. student with Dr. Phil Smith.

Several students received travel awards from the graduate school to present their research at the Society of Toxicology (SOT) Annual Meeting in San Antonio, TX. Awardees included Meghan Cromie, Kaylyn Germ, Chuanwen Lu, Justin Treas, Tulika Tyagi, and Wenbin Zhu.



## More Student News

**Sarah Webb**, a Ph.D. student in Dr. Céline Godard-Coding's lab, had some of her sea turtle research featured in Environmental Health News (<http://www.environmentalhealthnews.org/ehs/news/2013/toxic-turtles>) and Scientific American (<http://www.scientificamerican.com/article.cfm?id=long-lasting-chemicals-may-harm-sea-turtles>). The research is on the effects of perfluorinated compounds on turtle cells. Sarah has also recently received several travel awards, including support from the graduate school at WT-AWIS to attend the International Sea Turtle Society Meeting in Baltimore.

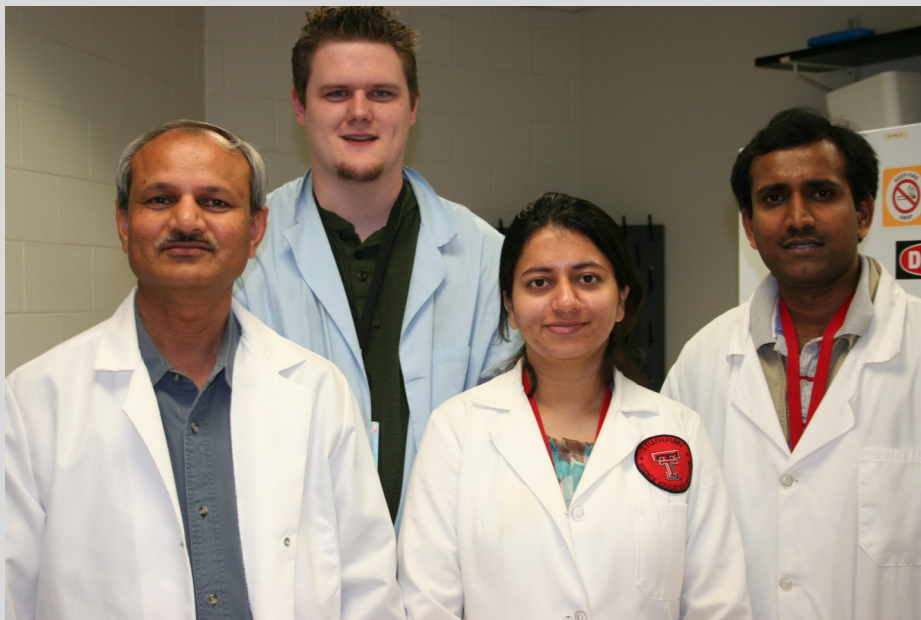
**Scott Weir** has been invited to present his research on hydrogen sulfide toxicity to lizards at the 2013 Joint Meeting of Ichthyologists & Herpetologists in Albuquerque.

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## Environmental Toxicants & Cancer Susceptibility

Though inheritance of genetic defects is known to play an important role in cancer susceptibility, the majority of human cancers are due to environmental influences on the human genome. Exposure to certain environmental chemicals has been linked to increased risk of cancer in humans. Recent research in Dr. Kamalleshwar Singh's Laboratory has shown that chemicals such as arsenic produce alterations in the DNA known as "epigenetic modification" that leads to increased susceptibility to human prostate and breast cancers. Singh's group and others have also shown that instead of using chemotherapeutic drugs for cancer treatments, natural products such as green tea can be used to revert some of these epigenetic modifications and therefore prevent some breast, prostate, and kidney cancers.

Most environmental carcinogens are known to cause oxidative stress in the body; scientists have shown that oxidative stress is linked to various diseases including cancer. Given the anti-oxidant activity of some natural products, Singh's research group is trying to understand how oxidative stress might be involved in causing epigenetic modifications that can subsequently put an individual at risk of developing cancer. The research team led by Dr. Singh includes graduate students Justin Treas, Tulika Tyagi, and Prathap Kumar. The group has recently published some of their findings in *Chemical Research in Toxicology* (24:340-349), *PLoS ONE* (7(8):e43880), and *Cancer Letters* (316:62-69). Given the high incidence of prostate cancer (target organ for arsenic-induced cancer) and higher levels of arsenic in certain regions of the Texas panhandle including the Lubbock area, their research is highly relevant and will help answer questions related to the links between chemical contamination and cancer risk.



Singh, Treas, Tyagi, and Kumar



## Faculty News

**Céline Godard-Coddig** is serving as Vice-Chair of the SETAC Career Development Committee. The committee seeks to foster technical and career development mentoring activities for SETAC members at all stages in their professional development.

**David Klein** spent part of February in Hawai'i meeting students and science collaborators at The University of Hawai'i and the Hawai'i Institute of Marine Biology. While there, he also collected samples from military bombing sites for analysis of metals and other contaminants.



**Seshadri Ramkumar** was notified by the Editor-in-Chief of the *Journal of Applied Polymer Science* that his 2005 manuscript entitled "Electrospinning of Nanofibers", was one of the most accessed papers during the last 12 months.

**Jonathan Maul** was invited to serve on the National Academy of Science's Ford Foundation Fellowship review panel for the fourth consecutive year. **Jaclyn Cañas-Carrell** has also been invited to serve on the panel.



In March, **Todd Anderson** gave an invited presentation on "Pharmaceuticals and Personal Care Products in Soil and Groundwater" at the Michigan Water Environment Association's annual biosolids conference in Dearborn, MI.

Following the spring meeting of the Texas Tech Board of Regents, we were informed that Drs. Maul and Ramkumar were successful in their bids for promotion and/or tenure in our department. **Seshadri Ramkumar** was promoted to Full Professor. **Jonathan Maul** was promoted to Associate Professor and granted tenure. These promotions become effective on September 1, 2013.

## More Faculty News



The Maul and Anderson Labs collaborated on a research project in response to the 2010 Deepwater Horizon oil spill. The research was on the bioaccumulation of MC-252 crude oil alone and in mixture with Corexit® in fiddler crabs. The research resulted in a 2013 publication in *Science of the Total Environment* (444:121-127).

## Institute News

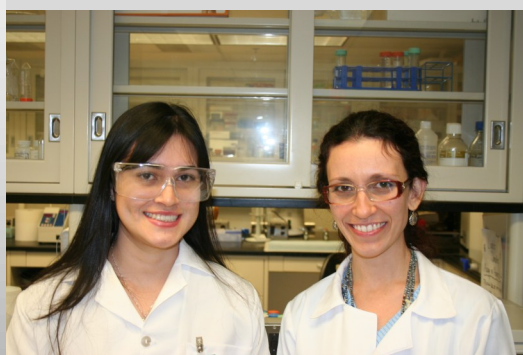
Weimin Gao is hosting a visiting scientist from Jinling Hospital of Nanjing. Dr. Tangfeng Lyu is working with Weimin's research group over the next year on the molecular mechanisms and therapy of lung cancer.



Dr. Tangfeng Lyu

We have started a fundraising effort to establish 2 Alumni Scholarships for incoming M.S. and Ph.D. students. The program has about 115 alumni with Texas Tech diplomas, so the time seemed right to begin this initiative. Response so far has been very positive. We'll start small and hope that the scholarships become sustainable. So far, we have received donations from the following alums:

Mindy Olivares (2002)	Shibin Li (2012)	Rodica Gelca (2009)
Lu Yu (2004)	Fujun Liu (2006)	QQ Cheng (2006)
QingSong Cai (2007)	Jody Wireman (2001)	Jennifer Anderson (2007)
Raga Avanasani (2010)	Piwen Wang (2008)	



Angelica

Silmara

Céline Godard-Coddling is hosting 2 interns this spring, both from the University of Sao Paulo, Brazil. Angélica Maria Sánchez Sarmiento and Silmara Rossi are spending a month in Celine's lab learning cell culture and cytotoxicity assays related to sea turtles and marine mammals.



Brad Thomas has joined TIEHH as an IT Specialist. Brad also has experience in graphic design and photography and is a graduate of West Texas A&M University.

The annual TIEHH Banquet is scheduled for April 25th at the 4 Bar K. ENTX alum Dr. Toby McBride (Ph.D. 2007) of the U.S. Fish and Wildlife Service in Sacramento, CA will be the guest speaker.

## More Institute News

In March, we parted ways with an Institute truck. Why is this newsletter worthy? Well, this 1999 Chevy 4x4 was the first vehicle purchased by TIEHH 15 years ago. The truck obviously had a lot of history; 170,000 miles of history. It survived trips to California and Nevada (through Death Valley), field work in Montana and Caddo Lake, mosquito trap deployment all over Lubbock County, and a trip from Fort Worth to Lubbock in 4-wheel drive (oops). On one of its final missions, it transported stranded faculty and students from TIEHH to Lubbock during the historic blizzard of 2013. We traded the truck straight across for a 1999 Chevy Astro van (31K miles). Not as high on the Rambo Scale as a 4x4, but it does have mag wheels.



## Final Thoughts

After completing Principles of Toxicology, you know (among other things) that cyanide (CN<sup>-</sup>) compounds are some of the most highly toxic chemicals known. OK, hopefully you knew that prior to completing Principles of Toxicology. Nonetheless, it is not a coincidence that the formula for such a highly toxic entity would also be the initials of the baddest man on the planet, Chuck Norris. There are lots of science-related Chuck Norris jokes circulating around. Send us a good one and we'll put it in the next newsletter. Below is one of our (Todd's) favorites.

*Chuck Norris destroyed the periodic table, because he only recognizes the element of surprise.*



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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[www.tiehh.ttu.edu](http://www.tiehh.ttu.edu)