

Fall 2019

***“On The Move” Newsletter***

INSIDE THIS  
ISSUE:

Fall Graduates

Fall New Students

Student News

Student Recruitment

Faculty News

Staff News

Published Journal Articles

Summary of Student Awards,  
Grants, Fellowships and/  
or Scholarships

External Research Project  
Funding Received

External Research Project  
Funding Proposals Pending

Alumni News

Chairman's Note

***Tis The Season!***





Lihua Lou



Naveen Kumar



Cassandra  
Schmitt



Preston  
McCullough

## ENTX Graduates

### \*EHH Graduates - 2019

Lihua Lou, Ph.D. ....Dr. Seshadri S. Ramkumar, advisor  
Naveen Kumar, Ph.D. ....Dr. Jordan Crago, advisor  
Cassandra Schmitt, Ph.D. ....Dr. Jordan Crago, advisor

### \*FS Graduates - 2019

Preston McCullough, M.S. ....Dr. Megan Thoen, advisor

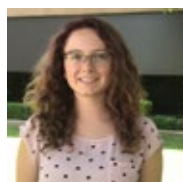


\* EHH Environmental and Human Health Focus

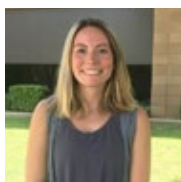
\* FS Forensic Science Focus

## ENTX New Students - Fall 2019

### Environmental and Human Health Students



Kirstyn  
Cardwell [M.S.]



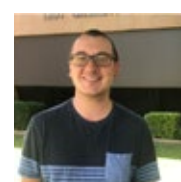
Amanda  
Csipak [M.S.]



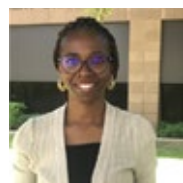
Jon'Ayo  
Farquharson [M.S.]



Farzana  
Hossain [Ph.D.]



Dillon  
Huff [Ph.D.]



Mary  
Iheanacho [M.S.]



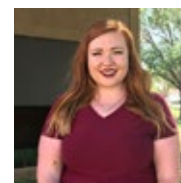
Edowaye  
Ihenyen [Ph.D.]



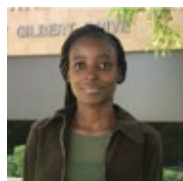
Ramji  
Kandel [M.S.]



Gabriella  
McConnell [M.S.]



Sarah  
Nash [Ph.D.]



Grace  
Olorunyomi [Ph.D.]

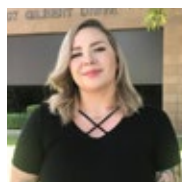


Bianca  
Rendon [Ph.D.]

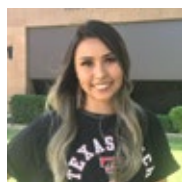


Shuangmei  
Tian [Ph.D.]

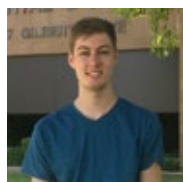
## Forensic Science Students



Sydney  
Ayers [M.S.]



Arrin  
Canales [M.S.]



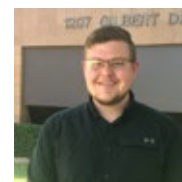
Jacob  
Jahn [M.S.]



Jacqueline  
Molinar-Miranda [M.S.]

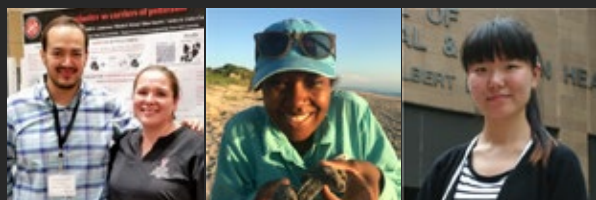


Kirsten  
Nettles [M.S.]



Samuel  
Seay [M.S.]

## Student News



### Graduate Student Research Support Awards

Armando Elizalde, Caleshia Calvin and Lihua Lou were awarded a Graduate Student Research Support Award. This funding is provided through the Texas Tech University Office of Parent and Family Relations, the Graduate Assembly, and the Graduate School. There were many outstanding applicants for this award, and this is a great honor for these three students.



### 5th Annual Texas Tech University Three Minute Thesis Competition

Fengqian Chen, James Ayodeji, Olushola Awoyemi and Armando Elizalde Velazquez participated in the 5th Annual Texas Tech University Three Minute Thesis Competition held by the Graduate School on Thursday October 29 2019.

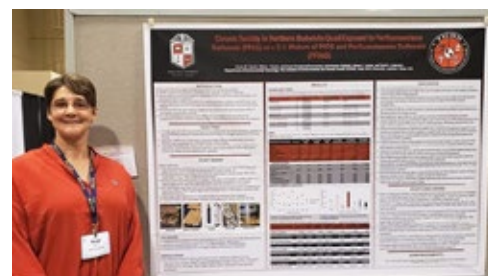
Students were judged on their ability to explain their research in a language appropriate to a non-specialist audience using one static PowerPoint slide within a cap time of three minutes. Students were evaluated by a panel of judges from Texas Tech and the Lubbock community.

The Three-Minute Thesis Competition is aimed at giving students an opportunity to practice telling people what they do and why it's important.

The four students made it to the 2nd round of Finalists and Armando tied in the 3rd Position overall.

### Graduate Students attend 2019 Texas Mosquito Control Association conference in Waco, Texas, and earn scholarships

Steve Peper, Bianca Rendon, and Samantha Luna attended the 2019 Texas Mosquito Control Association conference in Waco, Texas. Steve presented his research on Texas-wide vector control capabilities and Bianca competed in the student competition. Dr. Presley's students had a clean sweep of the three scholarships offered to TMCA students. Bianca received The Jimmy K. Olson Memorial Scholarship, Gabriella McConnel (who unfortunately was not able to attend) received The James "Gus" Foyle Memorial Scholarship, and Samantha received The James D. Long Undergraduate Scholarship. All 3 scholarships come with a \$1,000 award plus an all expenses paid trip to the 2020 TMCA conference to present their research findings.



### Graduate School Grant Awarded \$400 for Travel to Annual North America SETAC Meeting in Toronto Canada

Steven Lasee's poster was titled "Effects of Soil Organic Carbon Content on Plant Uptake of Soil PFAA and Potential Regulatory Implications".

Nicole Dennis' poster was titled "Chronic Toxicity in Northern Bobwhite Quail Exposed to Perfluorooctane Sulfonate (PFOS) or a 2:1 Mixture of PFOS and Perfluorohexane Sulfonate (PFHxS)."

### Water Conservation Research Fellowships Awarded

Nicole Dennis and Olukayode James Ayodeji received two of three Water Conservation Research Fellowships awarded from Texas Tech University Graduate School. This photo was taken at the 20th Annual Donor-Recipient Dinner at Mckenzie-Merket Alumni Center October 9th, 2019.



## Student Recruitment

### Graduate & Professional School Fair

The Department of Environmental Toxicology recruited graduate students at the Graduate & Professional School Fair at Texas Tech University on September 11, 2019. Several ENTX students helped recruit, along with faculty and staff.



### ENTX at SETAC North America 40th Annual Meeting

The Department of Environmental Toxicology was well-represented at the SETAC North America 40th Annual Meeting in Toronto, Ontario, Canada. The conference was held on November 3rd-7th, 2019.

Several students presented posters and a couple gave platform presentations. ENTX also recruited graduate students at their booth. Many current students, current faculty, staff, past students, and past faculty are pictured.



### TTU Majors and Minors Fair

Dr. Megan Thoen and Analisa Guevara had a table at the TTU Majors and Minors Fair on October 24, 2019, to recruit for the undergraduate forensic science minor, and the ENTX graduate programs.

## In the Community

On a cold Monday, the 28th of October, LE-SETAC at TIEHH held its bi-annual Adopt-a-Highway litter clean-up event. Thank you to all participants. We don't mess with Texas!



## Faculty News



**He will provide advice on technical issues underlying National Ambient Air Quality Standards.**

Ron Kendall, a professor of environmental toxicology and head of the Wildlife Toxicology Laboratory at The Institute of Environmental and Human Health at Texas Tech University, was appointed today (Sept. 13) to serve on the U.S. Environmental Protection Agency's (EPA) Clean Air Scientific Advisory Committee. His term begins immediately and lasts until Sept. 30, 2022.

**Dr. Steve Presley Presented with the 2019 SOVE Distinguished Achievement Award in Puerto Rico**

Drs. Steve Peper and Steve Presley organized and co-chaired a symposium entitled "Healthcare, Public Health, and Vector Control: The

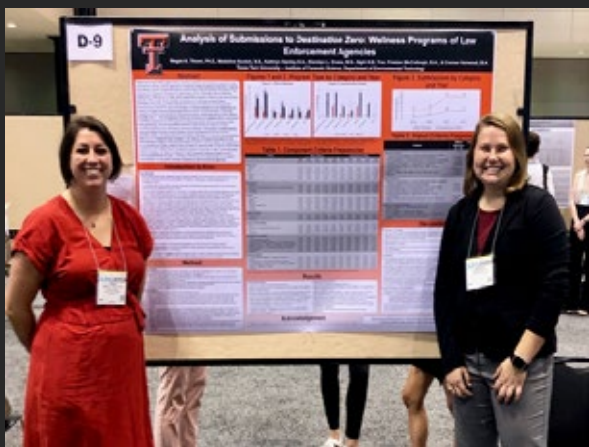
Disconnect" at the 49th Annual Conference of Society for Vector Ecology in San Juan, Puerto Rico during 22-26 September.

Symposium speakers included physicians, veterinarians, public health administrators, vector control professionals, vector-borne infectious disease researchers, and non-governmental aid organizations from the United States and Brazil.

Dr. Presley was presented with the "2019 Distinguished Achievement Award for Outstanding Achievement in Vector Ecology Science". The annual award recognizes a U.S. or international scientist that has contributed significantly to advancing the knowledge base regarding arthropod vectored disease ecology.



### Annual Convention of the American Psychological Association



Dr. Megan Thoen and FSCI program alumna, Madeline Scotch, presented a poster ("Analysis of Submission to Destination Zero: Wellness Program of Law Enforcement Agencies") at the Annual Convention of the American

Psychological Association on August 9, 2019, in Chicago, IL.

Non-presenting co-authors included FSCI students Kate Ganley, Preston McCullough, and Connor Harwood, FSCI alumna Kierstyn Evans, and Psychological Sciences undergraduate Nghi "Skyler" Tran.

### Researchers Develop Better Method to Remove Toxic Dyes From Wastewater



Researchers from Texas Tech Environmental Toxicology and Engineering have developed functionalized nanoweb, which effectively degrades toxic dyes in visible light. The research published online August 23 will appear as a cover page article in a forthcoming issue of Particle & Particle Systems Characterization.

## Faculty News

### Dr. Ramkumar Awarded Silver Medal from International Society



Seshadri Ramkumar has been awarded a Silver Medal for his work on sustainable materials and finishing for protecting environment by United Kingdom-based Society of Dyers and Colourists (SDC). SDC was founded in 1884 and

is the world's leading society focusing on dyeing and coloration of fibrous materials. The citation states, Society for "Significant contributions to the coloration industry and the environment". The award function will be held in England in May, 2020.



### Phil Smith Appointed Associate Editor of Environmental Pollution



Dr. Phil Smith has been appointed associate editor of Environmental Pollution, an international scientific journal published by Elsevier (United Kingdom). Environmental Pollution publishes original, novel research on all issues relevant to the nature, distribution and ecological effects of all types and

forms of chemical pollutants in air, soil and water. Dr. Smith concurrently serves as associate editor for the Society of Environmental Toxicology and Chemistry's flagship journal, Environmental Toxicology and Chemistry.



### Invited addresses

In October, Dr. Thoen and one of her doctoral trainees in forensic assessment, Mr. Taylor Ramler, gave an invited continuing education presentation to the Lubbock Private Defenders' Office entitled "Select Topics in Competency to Stand Trial Examinations and Reports."



### Todd Anderson travelled to Erzincan University

Todd Anderson travelled to Erzincan University in September to collaborate with faculty colleagues in biology and physics. While there, he was invited by the school rector to give the opening plenary talk of the academic year at TC Kemah Erzincan University Vocational School.



### TrUE High Impact Practice Grant Award – Females in Forensics

The Center for Transformative Undergraduate Experiences (TrUE) awarded Dr. Paola Prada-Tiedemann a High Impact Practice Grant. The Office of the Provost provided this funding to support novel efforts to increase the overall number of students and/or advance the inclusion of underrepresented populations participating in high impact practices. The project is titled "An Undergraduate Research Team Design for the Generation of Forensic Decomposition Odor Studies - Females in Forensics". The purpose of this project was to undertake an experimental design that would allow a female undergraduate research team to evaluate the decomposition odor profile in an arid region such as West Texas. The project encompassed looking at various variables of the decomposition process using meat-simulation and/or pig carcasses as models for analysis.



## Faculty News

### **Dr. Seshadri Ramkumar Awarded At The Celebration Of Faculty Excellence In Research, Scholarship And Creative Activity**



Dr. Seshadri Ramkumar was recognized by TTU for achieving national/international recognition in the 2018-19 academic year in an event on November 7th, Celebrating Faculty Excellence In Research, Scholarship and Creative Activity.

### **Dr. Ramkumar Appointed Deputy Editorship of International Journal**



Seshadri Ramkumar has been appointed as the Deputy Editor for Textile Progress, published by London based Taylor & Francis Group for The Textile Institute (TI). TI is an international professional association in the fibers to fashion field founded in 1910, based in Manchester, United Kingdom.



### **Institute for Forensic Science and State and Lubbock Fire Marshal's Office to Offer Practical Student Learning Experience**

This Fall 2019 term Dr. Paola A. Prada-Tiedemann established an educational collaboration with the Lubbock Fire Marshal's Office as part of her new course "Explosives and Arson Investigation". Dr. Prada-Tiedemann with Sgt. Billy Lang along with his canine Kyra and Assistant Fire Marshal Michael Jones provided valuable lectures to forensic science students culminating in a final practical exercise in fire investigation procedures. The practical exercise provided students with the hands-on experience of collecting evidence from an arson fire scene. This is a huge step for the Institute for Forensic Science in providing quality forensic science education by allowing Investigators from the Lubbock Fire Marshal's Office to offer their expertise during their learning experience. A huge thank you to Lubbock Fire Department Engine 3 crew for monitoring the controlled burn and Yates Flooring Center for providing some of the materials used in the practical exercise.

### **TTU White-tailed Deer Research Program.**

Dr. Ernest Smith's Laboratory with the assistance of Odia Osemwegie and Landon Butler has continued Texas Tech's engagement and service with a focus on solutions for Deer breeders. Currently, they are developing biomarkers for monitoring general health status with an emphasis on neuroendocrine markers. In January, this ENTX team will be hosting a round-table at the Deer Breeders Convention in Horseshoe Bay Texas, to outline steps towards the development of White-tailed deer specific courses at Texas Tech University.



## Published Journal Articles:

Dr. Presley's lab had a publication stemming from Hannah (Greenberg) Tiffin's master's research published in a special issue of the journal *Insects: The Influence of New Surveillance Data on Predictive Species Distribution Modeling of Aedes aegypti and Aedes albopictus in the United States*.

Dr. Thoen and her colleagues at the University of Mississippi had their article "Perceptions and use of videoconferencing in forensic mental health assessments: A survey of evaluators and legal personnel" accepted to *Psychology, Crime & Law*. Undergraduate research team member alum Esteisy Escalera also was an author.

Dr. Thoen and her TTU colleagues from the Departments of Psychological Sciences and Human Development and Family Studies had their article "Agency-offered and officer-utilized suicide prevention and wellness programs: A national study" accepted to *Psychological Services*. Forensic science graduate student alum Ethan Dodson also was an author.

Kalyanasundaram, A., Brym, M.Z., Blanchard, K.R., Henry, C., Skinner, K., Henry, B.J., Herzog, J., Hay, A., Kendall, R.J. 2019. Life-cycle of *Oxyspirura petrowi* (Spirurida: Thelaziidae), an eyeworm of the northern bobwhite quail (*Colinus virginianus*). *Parasites & Vectors*. 12:555.

Blanchard, K.R., Kalyanasundaram, A., Henry, C., Commons, K.A. Brym, M.Z., Skinner, K., Surles, J.G., Kendall, R.J. 2019. Identification of eyeworm (*Oxyspirura petrowi*) and caecal worm (*Aulonocephalus pennula*) infection levels in northern bobwhite quail (*Colinus virginianus*) of the Rolling Plains, TX using a mobile research laboratory: Implications for regional surveillance. *Biomolecular Detection and Quantification*. Vol. 17."

Brym, M.Z., Henry, C., Kendall, R.J. 2019. Greater roadrunner (*Geococcyx californianus*) predation on juvenile quail in the Rolling Plains ecoregion of Texas. *The Southwestern Naturalist*. 63(3):204-206.

Steven Lasee's article "Plant Uptake of Per- and Polyfluoroalkyl Acids under a Maximum Bioavailability Scenario" was published in the journal *Environmental Toxicology and Chemistry* in August 2019.

Lihua Lou, Jilong Wang, Yong Joon Lee, and Seshadri S. Ramkumar. 2019. Visible Light Photocatalytic Functional TiO<sub>2</sub>/PVDF Nanofibers for Dye Pollutant Degradation. *Particle & Particle Systems Characterization*, 36:1900091(1-12).

## Summary of Student Awards, Grants, Fellowships and/or Scholarships:

Armando Elizalde Velazquez, [Ph.D.] Caeshia Calvin, [Ph.D.] Lihua Lou, Ph.D.	Graduate Student Research Support Award. Awarded by Texas Tech University Office of Parent and Family Relations, the Graduate Assembly, and the Graduate School.
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Armando Elizalde Velazquez, [Ph.D.] Fengqian Chen, [Ph.D.] James Ayodeji, [Ph.D.] Olushola Awoyemi, [Ph.D.]	The 5th Annual Texas Tech University Three Minute Thesis Competition was held by the Graduate School. The four students made it to the 2nd round of Finalists and Armando tied in the 3rd Position overall.
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Steve Peper, Ph.D. Bianca Rendon [Ph.D.] Samantha Luna	At the 2019 Texas Mosquito Control Association Conference, Bianca received The Jimmy K. Olson Memorial Scholarship, Gabriella McConnel received The James "Gus" Foyle Memorial Scholarship, and Samantha received The James D. Long Undergraduate Scholarship.
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Steven Lasee [Ph.D.] Nicole Dennis [M.S.]	Graduate School Grant Awarded for Travel to Annual North America SETAC Meeting. Steven Lasee and Nicole Dennis were awarded \$400 for travel to Toronto, Canada to present at a poster session at the annual North America SETAC meeting.
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Nicole Dennis [M.S.] Olukayode James Ayodeji [Ph.D.]	Nicole Dennis and Olukayode James Ayodeji received two of three Water Conservation Research Fellowships awarded from Texas Tech University Graduate School.
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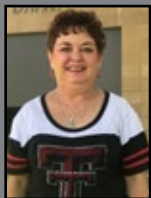
## External Research Project Funding Received

***Congratulations to the ENTX faculty members who have been awarded external research project funding since our last Newsletter in June 2019, including:***

- Dr. Jaclyn Canas-Carrell was awarded \$86,225 from the National Institute of General Medical Sciences, NIH, for a project entitled Plains Bridges to the Baccalaureate: Diversifying West Texas Scientist
- Dr. Greg Mayer was awarded \$115,000 from the Army Corps of Engineers, U.S. DoD, for a project entitled Biomarkers of Environmental Exposures and Health Assessment
- Dr. Steve Presley was awarded \$140,788 from the National Institute of Allergy and Infectious Diseases, NIH, for a project entitled Development of a Universal Influenza Vaccine Against Influenza A and B Viruses
- Dr. Steve Presley was awarded \$100,000 from the Texas Department of State Health Services for a project entitled Insecticide Resistance Testing of Texas *Aedes aegypti* and *Aedes albopictus* Populations
- Dr. Steve Presley was awarded \$205,215 from the Texas Department of State Health Services for a project entitled Public Health Emergency Preparedness
- Dr. Steve Presley was awarded \$10,000 from the Texas Department of State Health Services for a project entitled Regional Seasonal Influenza Surveillance
- Dr. Seshadri Ramkumar was awarded \$1,364 from Cotton Incorporated for a project entitled Environmentally Friendly Processing of Cotton for Value Added Products
- Dr. Seshadri Ramkumar was awarded \$1,245 from Cotton Incorporated for a project entitled New Markets for Low Micronaire Cotton
- Dr. Kamaleshwar Singh was awarded \$19,209 from the West Virginia University Research Corporation for a project entitled Carcinogen-Specific Twist1 Regulation in Lung Epithelial Cells
- Dr. Kamaleshwar Singh was awarded \$53,891 from the National Institute of General Medical Sciences, NIH, for a project entitled Plains Bridges to the Baccalaureate: Diversifying West Texas Scientist
- Dr. Phil Smith was awarded \$6,280 from the Atlas Sand Company, LLC, for a project entitled Captive Breeding at the Dallas Zoo
- Dr. Phil N Smith was awarded \$12,085 from the Atlas Sand Company LLC, for a project entitled Locating the Dunes Sagebrush Lizard with Environmental DNA
- Dr. Phil N Smith was awarded \$26,733 from the Atlas Sand Company LLC, for a project entitled Methods for Creating or Enhancing Habitat for Dunes Sagebrush Lizard

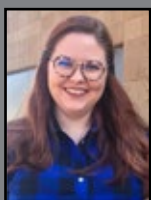
## Staff News

### Staff Member of the Semester



**Julie Gollihugh**  
Receptionist  
Congratulations!

### New Research Staff



**Kimberly Cory**  
Research Associate

## External Research Project Funding Proposals Pending

Best wishes for success to the ENTX faculty members who have submitted research project proposals since our last Newsletter in June 2019, including:

- Dr. Todd Alan Anderson
- Dr. Jaclyn Canas-Carrell
- Dr. Jordan Crago
- Dr. Greg Mayer
- Dr. Steve Presley
- Dr. Seshadri Ramkumar
- Dr. Kamaleshwar Singh
- Dr. Phil Smith
- Dr. Megan Thoen
- Dr. Degeng Wang

Funding agencies included:

- Atlas Sand Company, LLC
- Cotton Incorporated
- EA Engineering, Science, and Technology, Inc.
- National Institutes of Health
- National Science Foundation
- Texas Department of State Health Services
- U.S. Department of Agriculture, NIFA Cooperative State Research Ed & Extension Service
- U.S. Department of Defense, Army Corps of Engineers
- U.S. Egypt Joint Sciences and Technology Fund
- U.S. Department of Justice

## Alumni News

### **Terracon Foundation Provides ENTX Graduate Student Scholarships**

(TIEHH Alumni) presented a check in the amount of \$5,000 to the Department of Environmental Toxicology student scholarships for 2018. Pictured with the Terracon representative, Kristina Kohl, is Department of Environmental Toxicology Chair Dr. Steve Presley, Dr. Todd Anderson, Dr. K.P. Singh, Student Organization President Kalin Skinner, LE-SETAC Organization President Cassie Henry, and ENTX Student Bianca Rendon.



## A note from the Chair ...

Season's greetings alumni, colleagues and friends:

As we prepare for the end of the Fall 2019 semester, as well as the end of another year, I think we all reflect on our accomplishments and challenges during the past year. Once again the preceding pages of this newsletter are replete with the many individual and team academic and professional accomplishments of our students, staff and faculty during the past six months. I particularly want to congratulate the 17 Environmental Toxicology graduate students that received awards, grants, fellowships, and scholarships this past semester. Also congratulations to the four new Department of Environmental Toxicology alumni who graduated this Fall, including three Ph.D. degrees in Environmental Toxicology, and one M.S. degree in Forensic Sciences. I offer you all my best wishes for great success and happiness as you pursue the next chapter in your professional career.

I also want to congratulate the many outstanding accomplishments of our ENTX faculty, both environmental and human health-focused and forensic sciences-focused, for the numerous professional awards and scholarly accomplishments. I particularly want to acknowledge the significant work by the ENTX Curriculum Committee and the other faculty members that have worked tirelessly to develop curricula for undergraduate minor course offerings and online/distance learning courses.

One of the key metrics of the success of an academic department is the amount of external funding that is received by its faculty for research and other scholarly and creative efforts. Since our last Newsletter (June 2019) ENTX faculty have been awarded more than \$716,770 to fund 15 research projects, while at least 16 new research funding proposals have been submitted to sponsors and are pending. These significant and well-deserved awards and scholarly achievements also reflect the dedicated physical and technical support, and encouragement provided by the outstanding ENTX Staff – thank you.

To help enhance the opportunities for ENTX students to travel to professional meetings and enable the department to reward their academic and scholarly accomplishments, your financial donation to the Alumni Scholarship Fund would be very much appreciated. If you would like to donate please fill-out your check to "Texas Tech University" and mail it to Department of Environmental Toxicology (Attn: Tami James), Box 41163, Lubbock, TX 79409-1163.

My sincere best wishes to you and yours for a relaxing and joyous Holiday Season.

Steve Presley, Ph.D.  
Professor and Chair  
Department of Environmental Toxicology  
TTU College of Arts & Sciences



Newsletter compiled, produced and published by Julie Wheeler, Lori Gibler, and Brad Thomas

## VISION STATEMENT

*"We will be a leader in integrating research and education for environmental and human health sciences, and forensic sciences. Our department and institutes will contribute innovative solutions to real world problems by embracing disciplinary diversity, creating partnerships and committing to excellence."*