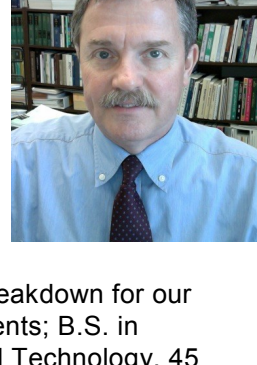


## Dr. Bill Campbell, Biological Sciences Unit Head

I am pleased the School of Biological Sciences is publishing this initial newsletter. We will be publishing these newsletters to inform alumni, students, faculty, and all interested persons, about recent events involving Louisiana Tech's School of Biological Sciences.



Student enrollment in Biological Sciences is strong, and Biology remains one of the most popular undergraduate majors on campus. The total combined enrollment for fall 2014, in all of our degree programs, was 527 students. The program breakdown for our undergraduate programs is: B.S. in Biology, 412 students; B.S. in Environmental Sciences, 30 students; B.S. in Medical Technology, 45 students. The program breakdown for our graduate programs is: M.S. in Biology, 21 students; M.S. in Molecular Sciences and Nanotechnology, 13 students; and the Ph.D. in Molecular Sciences and Nanotechnology, 6 students.

We currently have 19 full-time faculty members in our School, and we are interviewing candidates to fill our 20th faculty position. Our newest faculty member joined us in January 2015; Dr. Jennifer Hill came to us from the Dauphin Island Sea Lab in Dauphin Island, Alabama. We are excited to have Jennifer joining us. She will add strength to our course offerings and also new research opportunities for our students.

Earlier this fall we acquired access for our students and faculty to JoVE (the Journal of Visualized Experiments). JoVE is a peer-reviewed scientific video journal that was established about 8 years ago. It is a great resource for learning new experimental techniques or as a refresher for techniques students and faculty members may not have used in a while. These videos can be accessed by students and faculty from university or personal computers. Acquisition of access to JoVE was made possible by a generous contribution to the School of Biological Sciences.

## 2014-2015 Events & Honors

### Year-Long Events

•Weekly Biological Seminar Series. Seminars are held Monday's at 3:30 in CTH 227 with speakers from the University, LSUHSC, and LUMCON. [Click here](#) for a complete schedule of lectures.

•Monthly New Frontiers in Biomedical Research Seminar Series. This monthly seminar features nationally recognized researchers and scientists working in areas of biomedical research and diagnostics. [Click here](#) to see a complete schedule and link to recorded lectures.

### October 2014

•Annual Oktoberfest for student and faculty to take a break and visit over lunch.

•Louisiana Tech's Chapter of [Sigma Xi](#) recognized as a Chapter of Excellence.

•Dr. Terri Maness and undergraduate Connor Evans participated in the [Fall Celebration at Black Bayou](#) showing visitors Biological Science's collection of bird study skins to learn more about migrating birds and birds that winter in Louisiana. (Photo of Connor Evans at the Fall Celebration on the bottom left).

•Biological Sciences Alumni, [Dr. Jennie Thurston](#) (BS '88 & MS '91) visiting Louisiana Tech, met with students, and gave a lecture on her career in Cytogenetics. (Photo of Jennie and current graduate students shown on the bottom right).



### November 2014

•Retirement celebration for Dr. James Liberatos, Professor of Biological Sciences and Dean for the College of Applied and Natural Sciences

### Upcoming Events

#### April 2015

•[ANS Day](#), April 16, 2015 —Students present independent research in the form of posters and oral presentations. Awards are also presented to selected featured students and faculty for research, service, and teaching.

•University of Louisiana System Academic Summit, April 17 & 18 — This event features undergraduate research as well as service learning at the universities in the University of Louisiana System.

#### May 2015

•Spring Graduation, May 23, 2015 10:00 am

### Grants Awarded in 2014

#### Student awarded grants

##### Dr. Terri Maness

•Louisiana Board of Regents Pilot Fund \$10,000 "Secondary Immune Response and Immunological Memory in a Free-Living Vertebrate"

•Louisiana Department of Wildlife & Fisheries State Wildlife Grant \$107,915 "Overwinter Survival of Henslow's Sparrows in Louisiana"

•[Sigma Xi Grant in Aid of Research \(Awarded to graduate student Joshua Johnson\) \\$1,000 "Overwinter Survival of Henslow's Sparrows"](#)

##### Dr. Jamie Newman

•Louisiana Board of Regents Pilot Fund \$10,000 "The Role of Mediator in Regulating Mesenchymal Stem Cells"

•Louisiana Biomedical Research Network \$19,000 "The Role of Mediator in Regulating Mesenchymal Stem Cells"

•[Supervised Undergraduate Research Experience \(SURE\) Grant from Louisiana Board of Regents \(Awarded to undergraduate Demi Sandel\) \\$5,000 "The Role of Notching Signaling in Mesenchymal Stem Cells"](#)

##### Dr. Jeffry Shultz

•Louisiana Tech University Student Technology Grant \$17,833.69 for PCR machines (Co-PIs: Dr. Jamie Newman, Dr. Terri Maness, Dr. Bill Wolf, Dr. Patrick Hindmarsh, Dr. Becky Giorno).

##### Ms. Vanessa Johnson

•Louisiana Tech University Student Technology Grant \$8,071 for centrifuges in Medical Technology labs.

### 2014 Publications

#### \* student authors

•Yule, J.V., C.X.J. Jensen, R. [Fournier\\*](#), [J. Yang\\*](#). (2014) A relayed and synthesis of late Pleistocene extinction modeling: Progress delayed by mismatches between ecological realism, interpretation, and methodological transparency. *Quarterly Review of Biology* 89.2: 91-106.

•Yule, J.V. and [M. Scur\\*](#). (2014) Review of Lance Grande's The Lost World of Fossil Lake: Snapshots from Deep Time. *Quarterly Review of Biology* 89.4: 380-381.

•[Weisman, J.\\*](#), Nicholson, C, Tappa, K., Jammalamadaka, U., Wilson, C. and Mills, DK. (2014) Antibiotic and Chemotherapeutic Enhanced 3D Printer Filaments and Constructs for Biomedical Applications. *International Journal of Nanomedicine*.

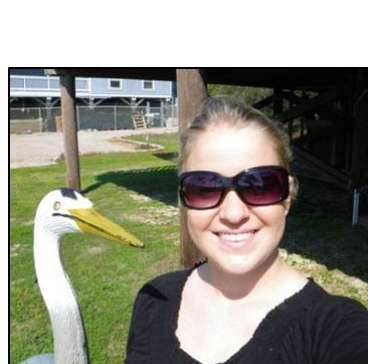
•[Karnik, S\\*](#) and Mills, D.K. (2014) Nanoenhanced Hydrogel System with Sustained Release Capabilities. *Journal of Biomedical Materials-Part A*.

•Wei, W., Minullina, R., Abdullayev, E. Fakhrollin, R., Mills, D.K., and Lvov, Y. (2014) Enhanced Efficiency of Antiseptics with Sustained Release from Clay Nanotubes, *RSC Advances* 4: 488-494.

### Features

#### Featured Faculty: Dr. Jennifer Hill

Dr. Hill received her B.S. in Marine Biology from Texas A&M University-Galveston, her Ph.D. in Biology from Georgia Institute of Technology, and was most recently a Postdoctoral Research Associate at the Marine Ecology Lab on Dauphin Island. Dr. Hill studies how animal behavior influences species interactions and ecological communities. She combines behavioral and sensory ecology research to understand the types of sensory cues animals use to make behavioral decisions and then investigate how that information and behavior changes with modifications to their environments. This runs the gamut from how animals adapt and respond to invasive species or how human-induced changes to animal habitats will affect species interactions. Most of Dr. Hill's work has been in marine systems, but she plans to pursue both marine and freshwater research at Tech.



#### Featured Student: Kayleigh Epling

Kayleigh Epling is a senior Biology major from Luling, LA, a small town southwest of New Orleans. She plans to graduate in the Spring and is currently interviewing for Physician Assistant Master's Programs. Kayleigh has been involved in many facets on campus and in the community, one as a student researcher. She worked on a project that characterized the secretory epithelium of the American alligator phallus sulcus to help understand its function. She presented her work at Louisiana Academy of Sciences annual meeting and Applied and Natural Sciences (ANS) Day at Louisiana Tech in 2014. She also presented two other posters at ANS Day for an Animal Behavior class research project about the potential effects of birder activities on the behavior of birds. Kayleigh is a member of Kappa Delta Sorority and served twice as Vice President of Membership. Through Kappa Delta, she was awarded an Orthopedic Research Internship at the VA Medical Center in Memphis, TN. The research team she worked with investigates a possible link between Periodontal Disease and Rheumatoid Arthritis. She was working to develop a protocol for growing a *Porphyromonas gingivalis* biofilm that could be used to infect arthritis induced mice. At the end of her program she presented the project's progress to researchers, medical doctors, and Kappa Delta Headquarters staff. Besides research, Kayleigh has been a member of the Society for Integrated and Comparative Biology, Lambda Sigma Honors Society, Tech Leadership Council, Union Board, and is still a member of the Order of Omega Honors Society. She is most proud of her two recent awards, the National Corde Anding Stegall Leadership Award, and being honored as a Featured student for Biological Sciences 2014.



### Getting Involved

The mission of Louisiana Tech University is to continue improving the education experience for our students through novel courses, opportunities to engage in research, and connecting them with opportunities that put them on the path to a successful career. As alumni of the University and the School of Biological Science, you can be an integral part of helping us achieve these goals by providing your contact information to serve as a connection for our students, visit Tech and our students to tell them about how you have used your degree, send us information on job openings or internship opportunities, or make a contribution to support research and education in the department. For more information on how you can get involved or help support the School of Biological Sciences contact Dr. Bill Campbell ([campbell@latech.edu](mailto:campbell@latech.edu)).

### Next Issue Winter-Spring 2015

The next newsletter will be sent at the end of the spring quarter where you can look forward to reading about...

- [ANS Minigrant Awardees](#)
- [Highlights from ANS Day](#)
- [2014 Conference Presentations](#)
- [Featured Alum](#)
- [Featured Graduate Student](#)

If you have news or events you would like to see featured in the Biological Sciences Newsletter, please contact Dr. Jamie Newman ([jjnewman@latech.edu](mailto:jjnewman@latech.edu))

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