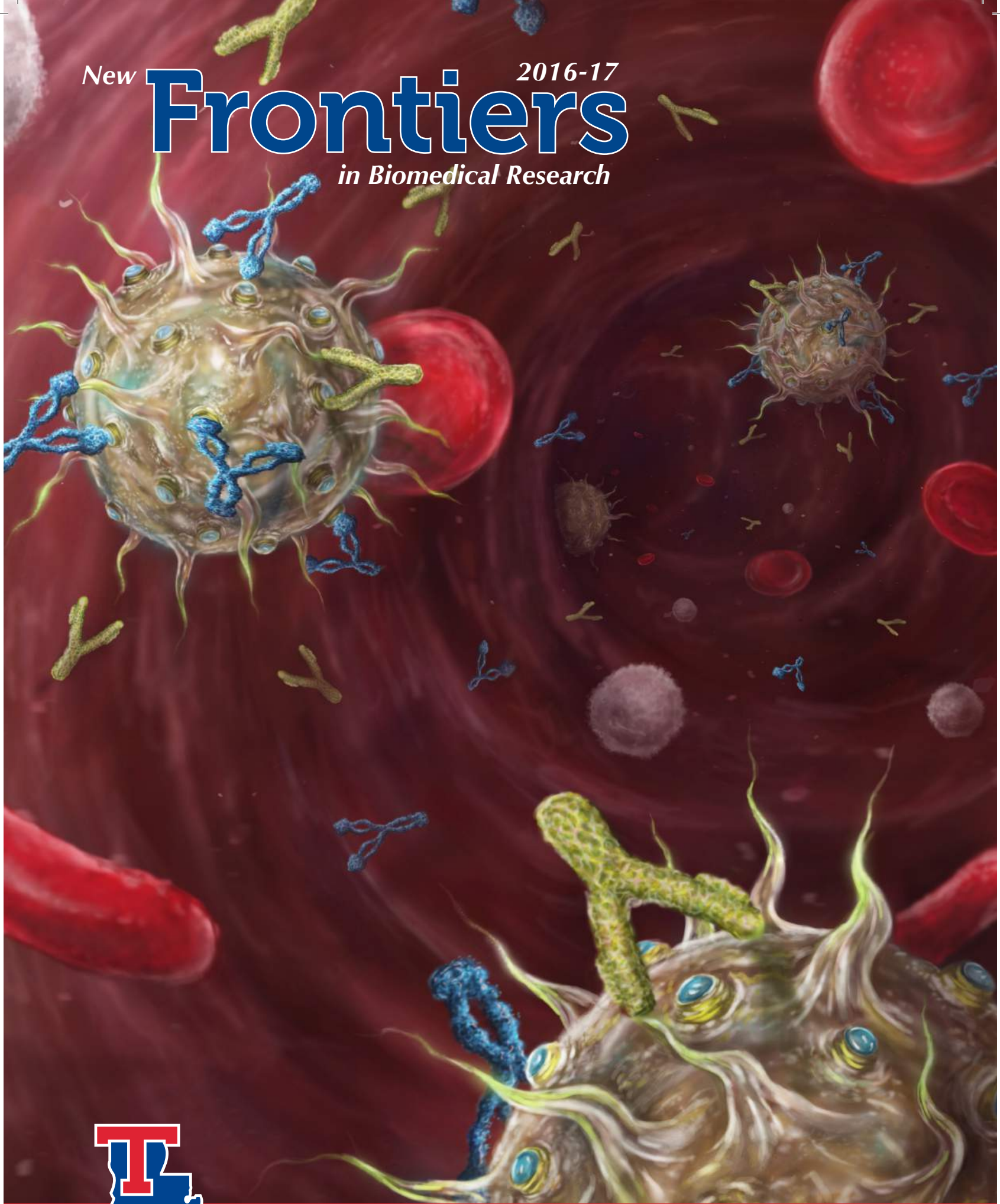


New **Frontiers** 2016-17  
*in Biomedical Research*



# New Frontiers in Biomedical Research

## Impacts on Health and Society

All seminars will be held at Louisiana Tech University in University Hall beginning at 3:30 p.m. Light refreshments will be served. Seminars will be recorded for remote viewing.

Every day, new discoveries in the areas of biomedical engineering, biology, physics, and chemistry expand our understanding of human health and disease. As a University, we are part of that growing body of knowledge. Through interdisciplinary collaborations and interactions with leaders in these fields, we will continue to increase our own impact on science.

Please join us in welcoming and learning from nationally recognized researchers in our annual seminar series. You will learn about cutting-edge research that is changing the way we address problems in biological research and human health, and the tools we use to study them.

This year the New Frontiers in Biomedical Research Seminar Series continues to expand to a critical area beyond the research bench to explore related career paths and the responsibility of research and education. In collaboration with Louisiana Tech's Waggoner Center and Sigma Xi the series will host Dr. Karen Oates, Dean of Arts & Sciences at Worcester Polytechnic Institute. She will speak on her involvement in promoting civic engagement and responsibility of scientists. In the continued partnership with Louisiana Tech's School of Design, the series will host Ms. Natalie Doolittle, Director of Medical Animation, High Impact & Syntropy Studios Art & Science Foundation who will present on the professional field of medical illustration and the need for visual communication of science. Over the last three years the series has continued to grow and demonstrate the interdisciplinary nature of biomedical research we are excited about the new collaborations for the 2016-2017 academic year.



### *Physics, Physiology and Behavior as Drivers of the Obesity Epidemic*

**Monday, October 24, 2016**

**Dr. Claude Bouchard**

John W. Barton Sr. Chair in Genetics and Nutrition

Human Genomics Laboratory

Pennington Biomedical Research Center

*Lecture Sponsors: Louisiana Tech University and Lincoln Health Foundation*



### *The Obligation of Knowledge*

**Monday, December 12, 2016**

**Dr. Karen Kashmanian Oates**

Professor of Biochemistry

Dean of Arts & Sciences

Worcester Polytechnic Institute

*Lecture Sponsors: Sigma Xi and Waggoner Center*



***Novel Lipid Nanostructures for Drug Delivery***

**Monday, January 23, 2017**

**Dr. Vijay John**

Leo S. Weil Professor of Engineering  
Tulane University

*Lecture Sponsor: College of Engineering and Science*



***Lessons I Have Learned from Cancer Research and Treatment***

**Monday, February 6, 2017**

**Dr. Philip Salem**

President  
Salem Oncology Centre

*Lecture Sponsors: Louisiana Tech University and Lincoln Health Foundation*



***Integrating 3D Bioprinting and Nanomaterials for Complex Tissue Regeneration***

**Monday, March 13, 2017**

**Dr. Lijie Grace Zhang**

Associate Professor, Mechanical and Aerospace Engineering,  
Biomedical Engineering and Medicine  
George Washington University

*Lecture Sponsors: School of Biological Sciences and  
College of Applied and Natural Sciences*



***Biomedical Visualization: Art Influencing Science and Medicine***

**Monday, March 27, 2017**

**Natalie Doolittle, M.S.**

Director of Medical Animation, High Impact & Syntropy Studios  
Art & Science Foundation

*Lecture Sponsor: Art and Science Foundation*



***Real Time Control of Seizures in Animal Models of Epilepsy***

**Monday, April 10, 2017**

**Dr. John Huguenard**

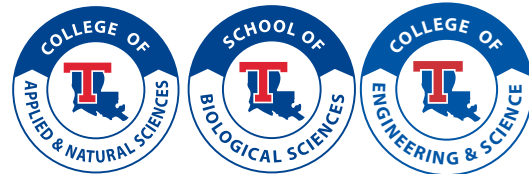
Professor of Neurology and Neurological Sciences and Neurosurgery and,  
by courtesy, Molecular and Cellular Physiology  
Stanford University School of Medicine

*Lecture Sponsor: Center for Biomedical Engineering and Rehabilitation Science*





## Sponsors



**Front Cover Art**  
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Title: "antibody antigen interaction"  
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Student artist: Jessica Horne  
Title: "viruses in circulation"

**Special thanks to members of the Tech and Ruston communities for their generous donations.**

For additional information about this lecture series contact, Dr. Jamie Newman ([jjnewman@latech.edu](mailto:jjnewman@latech.edu)) or Dr. Mary Calderera Moore ([mcmoore@latech.edu](mailto:mcmoore@latech.edu)) or go to <http://biomedicalresearch.wixsite.com/new-frontiers>

