

Bayou Science & Mathematics Colloquium

Hosted by the College of Science & Engineering

Thursday, October 19, 2017 Bayou 2106, 12:00 Noon – 1:00 PM

Tick Talk: Ticks, Microbes, and the Ecology of Disease

Dr. Michael Allen

**Department of Molecular Cell Biology and Genetics
University of North Texas Health Science Center**

Ticks are obligate hematophagous parasites second only to mosquitoes as vectors of disease. A number of tick-borne diseases have been identified in the United States. The most prevalent among these, Lyme disease, has a CDC estimated incidence of approximately 300,000 cases annually in the United States, making it the most common vector-borne disease in the nation. Other diseases, including Rocky Mountain Spotted Fever and Powassan, are lower in incidence but potentially lethal, and a number of new viruses have recently been discovered. In this seminar I will discuss our efforts in the Tick-Borne Disease Research Laboratory to determine pathogen incidence and risk in Texas and surrounding states using PCR-based molecular diagnostics. I will discuss the advantages and pitfalls of next generation sequencing and 16S-based metagenomics to survey microbial populations in ticks, and more recent advances using droplet digital PCR. Finally, I will describe our efforts to define the effects of temperature on tick microbiomes in the laboratory using next generation DNA sequencing.

Host: Dr. Michael LaMontagne

Refreshments will be served in the hallway of Bayou 2106 from 11:30AM – 12:00Noon!

Contact Information: Dr. Michael LaMontagne
2700 Bay Area Blvd., Bayou Building, 3121
Houston, TX 77058 281-283-3754; LaMontagne@uhcl.edu

Any person needing an accommodation for a disability to participate in this program should contact the sponsoring organization at (281) 283-3770 to make the necessary arrangements.



UHCL

University of Houston  Clear Lake

The choice
is clear.