

Med School Watercooler

NEWS FROM FREDERICK P. WHIDDON COLLEGE OF MEDICINE
AT THE UNIVERSITY OF SOUTH ALABAMA

Wednesday, December 18, 2019

Register Now: Pediatric Symposium set for Jan. 17

Adolescent bariatric surgery, the long-term needs of child abuse patients and improving the outlook for patients living with cystic fibrosis will be among the topics covered during a pediatric symposium presented by the University of South Alabama department of pediatrics on Friday, Jan. 17, 2020.



The all-day event, designed to provide practitioners with timely updates and insights, will be held at the Strada Patient Care Center, 1601 Center Street in Mobile. Registration is \$25. Breakfast and lunch will be provided. Continuing education (CME/CEU) and MOC part 2 credits will be available. A reception for attendees is planned from 4 to 6 p.m.

Here's the lineup of topics and speakers:

- "Improving the Outlook in Cystic Fibrosis," presented by Hector Gutierrez, M.D., UAB Health, Pediatric Pulmonology.
- "Pediatric Urology Update on Evaluation and Management of Cryptorchidism," presented by Patience Wildenfels, M.D., Oschner Health, Pediatric Urology.
- "Child Abuse Panel on Acute and Long-Term Needs of Affected Children in Our Community," moderated by Jessi Kirk, M.D., Child Advocacy Center; Katriea Crummie, assistant district attorney, Child Advocacy Center; Farren Pryor, M.S.W., Child Protective Services Unit, Mobile County Department of Human Resources; Aimee Lott, L.B.S.W., TBI Care Coordinator, Children's Rehabilitation Services, Mobile Office; and Rosa Vidal, M.D., Pediatric Intensivist, USA Health Children's & Women's Hospital.
- "Demystifying Non-IgE Food Allergy," Jennifer Lightdale, M.D., University of Massachusetts, Pediatric GI Department.
- "Adolescent Bariatric Surgery," Katrina Weaver, M.D., USA Health, Pediatric Surgery.
- "Long-term Survival Issues in Children with Cancer," Preethi Marri, M.D., USA Health, Pediatric Hematology/Oncology.

To register, visit the [USA Office of Continuing Education website](#).

Posted by [Med School Watercooler](#) at [8:32 AM](#) No comments:

Search This Blog

Got news to share?

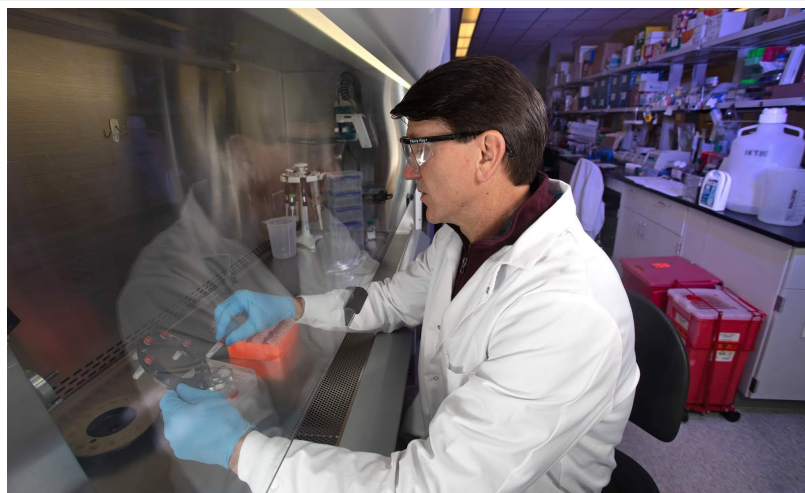
Feel free to email your ideas to lalyle@health.southalabama.edu

Blog Archive

- 2023 (11)
- 2022 (249)
- 2021 (269)
- 2020 (191)
- ▼ 2019 (245)
 - 12/22 - 12/29 (1)
 - ▼ 12/15 - 12/22 (3)
 - [Register Now: Pediatric Symposium set for Jan. 17](#)
 - [USA College of Medicine teams up with Yale on mosq...](#)
 - [Barrington receives grant to develop data on rare ...](#)
 - 12/08 - 12/15 (8)
 - 12/01 - 12/08 (9)
 - 11/24 - 12/01 (5)
 - 11/17 - 11/24 (4)
 - 11/10 - 11/17 (5)
 - 11/03 - 11/10 (10)
 - 10/27 - 11/03 (3)
 - 10/20 - 10/27 (5)
 - 10/13 - 10/20 (4)
 - 10/06 - 10/13 (4)
 - 09/29 - 10/06 (6)
 - 09/22 - 09/29 (5)
 - 09/15 - 09/22 (4)
 - 09/08 - 09/15 (4)
 - 09/01 - 09/08 (6)
 - 08/25 - 09/01 (6)
 - 08/18 - 08/25 (4)
 - 08/11 - 08/18 (5)
 - 08/04 - 08/11 (4)
 - 07/28 - 08/04 (3)
 - 07/21 - 07/28 (4)

Tuesday, December 17, 2019

USA College of Medicine teams up with Yale on mosquito research



Dr. Jonathan Rayner, associate professor of microbiology and immunology, and director of the Laboratory of Infectious Diseases at the University of South Alabama College of Medicine, works in his lab. Researchers at the College of Medicine are collaborating with members of the Yale School of Public Health and its West Nile 4K Project to reconstruct a picture of how the virus has spread and adapted.

To better understand the evolution of mosquito-borne viruses, University of South Alabama College of Medicine researchers are collaborating with members of the Yale School of Public Health and its West Nile 4K Project to reconstruct a picture of how the virus has spread and adapted during the past 20 years in the United States.

The West Nile 4K Project is a partnership between West Nile virus surveillance laboratories and academic institutions across the United States. The University of South Alabama is the first academic institution in the state to take part, said Dr. Nate Grubaugh, assistant professor, epidemiology of microbial diseases at the Yale School of Public Health.

Collaborations between public health and academic institutions, Grubaugh said, are critical for the project because public health labs are primarily doing the important surveillance activities, and academic institutions have the resources to do the large-scale analyses.

Genetic material taken from infected mosquitoes will be sent to Yale to be sequenced, said Dr. Jonathan Rayner, associate professor of microbiology and immunology, and director of the Laboratory of Infectious Diseases at the USA College of Medicine. "They are looking at how the virus has evolved over time by sequencing genomes."

A genome is an organism's complete set of genetic material, in this case RNA, including all of its genes. Each genome contains all of the information needed to propagate and perpetuate that organism.

"Our goal is to use genomics to understand how outbreaks occur and help design targeted control measures," said Grubaugh. "For this ambitious goal, we are sequencing thousands of West Nile virus genomes from across the country, and are using the genetic relatedness of the viruses to uncover the spatial and temporal patterns of West Nile outbreaks and spread."

Mosquito-borne viruses containing an RNA genome are known to mutate quickly, Rayner said, which is why studying how a virus such as West Nile adapts over time is vital in figuring out how to develop vaccines and therapeutics to protect or treat people.

The number of West Nile virus cases rose across the United States in 2018, claiming 167 victims, according to data from the U.S. Centers for Disease Control and Prevention. There were 2,647 cases of West Nile virus in 2018, the CDC said, 550 more cases than the year before.

- ▶ 07/14 - 07/21 (5)
- ▶ 07/07 - 07/14 (5)
- ▶ 06/30 - 07/07 (3)
- ▶ 06/23 - 06/30 (4)
- ▶ 06/16 - 06/23 (4)
- ▶ 06/09 - 06/16 (4)
- ▶ 06/02 - 06/09 (6)
- ▶ 05/26 - 06/02 (4)
- ▶ 05/19 - 05/26 (2)
- ▶ 05/12 - 05/19 (7)
- ▶ 05/05 - 05/12 (4)
- ▶ 04/28 - 05/05 (4)
- ▶ 04/21 - 04/28 (5)
- ▶ 04/14 - 04/21 (4)
- ▶ 04/07 - 04/14 (7)
- ▶ 03/31 - 04/07 (2)
- ▶ 03/24 - 03/31 (7)
- ▶ 03/17 - 03/24 (8)
- ▶ 03/10 - 03/17 (4)
- ▶ 03/03 - 03/10 (1)
- ▶ 02/24 - 03/03 (10)
- ▶ 02/17 - 02/24 (4)
- ▶ 02/10 - 02/17 (4)
- ▶ 02/03 - 02/10 (6)
- ▶ 01/27 - 02/03 (3)
- ▶ 01/20 - 01/27 (8)
- ▶ 01/13 - 01/20 (5)
- ▶ 01/06 - 01/13 (3)

- ▶ 2018 (236)
- ▶ 2017 (231)
- ▶ 2016 (206)
- ▶ 2015 (205)
- ▶ 2014 (241)
- ▶ 2013 (232)
- ▶ 2012 (245)
- ▶ 2011 (262)
- ▶ 2010 (247)
- ▶ 2009 (88)

West Nile virus was first detected in the U.S. in 1999 in New York. Within a few years the virus spread across the nation. Now, West Nile virus is endemic and has become a serious threat to people and animals in America and Europe. While outbreaks have occurred, little progress has been made in controlling them.

The data generated from the West Nile 4K Project — which now includes 48 institutions in 33 states — is being immediately released to the public via the westnile4k.org website, and along with other entomological data, will be used to uncover local transmission dynamics. Analyses and visualizations also are being made publicly available in real-time as data are produced.

For effective targeted control measures to be developed, there is a critical need to explore the diversity of circulating West Nile viruses and how this may influence the emergence of new virus strains that cause disease outbreaks, according to Grubaugh. Some of the questions that researchers hope to answer with this project include how prevalent the spread of West Nile is, if new virus outbreaks are caused by newly introduced viruses or older ones, and if different strains of West Nile have different outbreak potentials.

For more than 18 months, Rayner has been screening locally captured mosquito samples collected by the Mobile County Health Department for other viruses as well, including Eastern equine encephalitis, St. Louis encephalitis, dengue, zika and chikungunya. The insects collected are delivered to the Laboratory for Infectious Disease at USA and positive samples will be used in the West Nile 4K Project.


The idea is to provide direction locally on mosquito control efforts. Yet the ultimate goal of the research performed at USA will be to develop life-saving vaccines and therapeutics. There are currently no licensed human vaccines or therapeutics available to prevent or treat infection with any of these viruses, Rayner said.

So far, mosquito pools collected in Mobile County beginning in 2018 have tested positive for West Nile and Eastern equine encephalitis viruses.

Identifying viruses in mosquitoes in Mobile County can be a bit of a catch 22, Rayner said: "In this situation it's exciting to get a positive scientifically, but then it also means that people are at risk of being infected."

Most commonly spread through the bite of infected mosquitoes, West Nile Virus infection is typically a seasonal epidemic in the U.S. that begins in late spring or early summer and continues into the fall. Most people infected with West Nile experience no adverse impact, with 1 in 5 developing a fever and other side effects, according to the Centers for Disease Control and Prevention. Serious symptoms can include a high fever, severe headache, nausea, stiff neck, confusion, muscle weakness, paralysis, disorientation and seizures. About 1 in 150 develop a serious or deadly illness such as encephalitis or meningitis.

While most people with the disease recover completely, the elderly and those with compromised immune systems are at higher risk for long-term impacts or death. Although an effective veterinary vaccine against West Nile is available, no human vaccine has been approved for commercial use.

Posted by [Med School Watercooler](#) at [12:44 PM](#) No comments: 

Barrington receives grant to develop data on rare lung disease

Robert A. Barrington, Ph.D., associate professor of microbiology and immunology at the University of South Alabama College of Medicine, received \$49,730 through the 2019 College of Medicine Faculty Intramural Grants Program Research Awards to further investigate a rare lung disease.

"The funds will be instrumental for generating preliminary data on human patient samples with autoimmune pulmonary alveolar proteinosis, an uncommon lung




Robert Barrington, Ph.D., associate professor of microbiology and immunology at the University of South Alabama College of Medicine, works in the lab with medical student Brandon Rivers.

disease," Barrington said. "Our work is part of a multi-institutional effort with groups at UCLA and Cincinnati Children's Hospital to understand how heterogeneous the disease is, and whether we can determine if gene signatures in individual patients can predict responses to various therapies."

Raymond J. Langley, Ph.D., assistant professor of pharmacology, and graduate student Grant Daly will analyze the genetic data.

Barrington's lab has been an innovator in the study of autoimmune pulmonary alveolar proteinosis (ApAP). In 2016, Barrington's laboratory discovered the first model for (ApAP). Caused by antibodies to a cytokine called GM-CSF, unfortunately, as many as 25 percent of patients with pulmonary alveolar proteinosis (PAP) die within five years of diagnosis.

In an era when federal funding has become more limited, Barrington said, the intramural grants program provides an outstanding mechanism to support cutting-edge research, allowing investigators to expand and strengthen preliminary experimental data to build more competitive extramural proposals.

Posted by [Med School Watercooler](#) at [12:43 PM](#) No comments: 

[Newer Posts](#)

[Home](#)

[Older Posts](#)

Subscribe to: [Posts \(Atom\)](#)

StatCounter

Simple theme. Powered by [Blogger](#).