Dr. Chen is the Chief of the Adult Clinical Studies section, University of Maryland Center for Vaccine Development (CVD), which focuses on the development and clinical testing of vaccines for the infectious diseases. Dr. Chen’s research focuses on development and testing of vaccines including for the pulmonary pathogens, influenza and tularemia, and for enteric and other infections. The CVD is a global program that offers opportunities to test vaccines in third world settings.

Highlighted Publications:


Links:
Med School faculty page: http://www.medschool.umd.edu/profiles/Chen-Wilbur/

Matt Frieman (MFrieman@som.umaryland.edu):

Dr. Frieman’s research focused on how respiratory viruses cause disease with a specific interest in Coronaviruses. The Frieman laboratory uses both \textit{in vitro} and \textit{in vivo} models of replication and pathogenesis to study the Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) and the Middle East Respiratory Syndrome Coronavirus (MERS-CoV). The lab is currently focused on identifying the role of comorbidities in exacerbating MERS-CoV and a wide range of therapeutics against these and other highly pathogenic coronaviruses.

\textbf{Highlighted Publications:}


Links:
Med School faculty page: http://www.medschool.umaryland.edu/profiles/Frieman-Matthew/
PubMed publications:

**Don Milton (dmilton@umd.edu):**

Dr. Milton’s work focuses on the interrelated areas of infectious bioaerosols, exhaled breath analysis, and development and application of innovative methods for respiratory epidemiology. Fellows working in my lab will have the opportunity to participate in a variety of federally funded research projects. Currently the lab is working on development and testing of innovative non-invasive measurement of deep lung biomarkers with a transdisciplinary team of engineers, molecular biologists, and photonics experts. Dr. Milton is also performing molecular epidemiologic studies of the importance of the airborne mode in transmission of influenza and other respiratory viruses using whole genome sequencing of viruses from exhaled breath aerosols and NP swabs to identify the source of transmitted viruses.

Highlighted Publications:


Links:
Faculty webpage: http://sph.umd.edu/people/donald-milton
CATCH-the virus study page: https://catch.umd.edu/
Google Scholar Profile: https://scholar.google.com/citations?user=35qhH0QAAAAJ&hl=en
Dr. Ortiz' research interests focus on respiratory virus surveillance, vaccine clinical trials, observational research, policy development, and clinical epidemiology and prevention of pneumonia.

Highlighted Publications:

Links:
Med School faculty page: [http://www.medschool.umaryland.edu/profiles/Ortiz-Justin](http://www.medschool.umaryland.edu/profiles/Ortiz-Justin)

Dr. Shirey's research focuses on the ability of pathogens, e.g., Francisella tularensis, Respiratory Syncytial Virus (RSV), and influenza to modulate the host's innate immune response by altering macrophage differentiation (alternatively activated phenotype (M2)) and skewing toward a Th2-like phenotype (e.g., IL-4, IL-13, TSLP). A second aspect of Dr. Shirey's research focuses on host-oriented approaches as novel therapeutics for pathogens that induce acute lung injury by modifying expression of cytokines and endogenous danger-associated molecular pattern (DAMP) molecules. Working with Dr. Vogel, Dr. Shirey demonstrated that the TLR4 antagonist, Eritoran, blocks influenza-mediated acute lung injury even when given late in infection. More recently, this work has been followed up with other small molecule inhibitors or neutralizing antibodies that have effectively blocked viral-induced lethality in mice and cotton
Highlighted Publications:

Links:
PUBMed publications: https://www.ncbi.nlm.nih.gov/sites/myncbi/1xQKiut_y7t5X/bibliography/48010950/public/?sort=date&direction=ascending

\textbf{Stefanie Vogel (svogel@som.umaryland.edu)}:

Dr. Vogel’s focuses on the innate immune response to infection, the mechanisms by which inflammatory responses are regulated, macrophage differentiation and disease outcome, and targeting TLR signaling pathways to blunt pathogen-mediated acute lung injury. Dr. Vogel’s most recent work has identified novel strategies for treating influenza therapeutically by blocking Toll-like receptor 4 signaling, the role of metabolism in the differentiation of macrophages, the
cross-talk between innate immune signaling pathways, and other related topics. Innate immune responses to respiratory infections

Highlighted Publications:


Links:
PubMed publications: