

**Table 2. Participating Faculty Members  
(Specialty Area – By group leader then alphabetically by faculty member)**

OMB Number 0925-0001 (Rev. 8/12 Approved Through 8/31/2015)

Name/Degree(s)	Rank	Primary (& Secondary) Appointment(s)	Role in Program	Research Interest
<b>Host Defense:</b>				
Group Leader: Nauseef, William M., MD (BP)	Professor	Internal Medicine (Microbiology, Interdisciplinary Program in Immunology & MSTP)	Mentor	Cell and molecular biology of phagocytes
Barker, Jason H., MD (BP)	Assistant Professor	Internal Medicine – Infectious Diseases	Co-Mentor	Studies of <i>Francisella tularensis</i> , the agent of tularemia, with specific interest in how <i>Francisella</i> LPS structure changes during infection, and how <i>Francisella</i> LPS structure modulates interactions with host immunity
Bishop, Gail A., PhD	Professor	Microbiology (Internal Medicine, MSTP, & Interdisciplinary Program in Immunology)	Mentor	Molecular mechanisms of lymphocyte activation dur- ing primary immune re- sponse and during EBV infection
Cassel, Suzanne, MD (VP)	Assistant Professor	Internal Medicine – Immunology (Interdisciplinary Program on Immunology)	Co-Mentor	The initial activation of the innate immune response and in particular how that specific activation occurs as well as understanding the effect of that activation on the global immune response
Harty, John, PhD (BP, VP)	Professor	Microbiology (MSTP, Interdisciplinary Program in Immunology)	Mentor	Combines cellular and molecular approaches to dissect T cell mediated resistance to pathogens

Table 2 (cont'd)

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<b>Host Defense:</b>				
Sutterwala, Fayyaz, MD, PhD (BP)	Associate Professor	Internal Medicine (Interdisciplinary Programs in Molecular and Cellular Biology & Immunology, MSTP)	Mentor	A recently described family of molecules called NLRs (NOD-like receptors) involved in the regulation of innate immune responses and cell death pathways
Welsh, Michael J., MD (BP, VP)	Professor	Internal Medicine (Molecular Physiology and Biophysics, Interdisciplinary Program in Molecular and Cellular Biology)	Mentor	The biology of cystic fibrosis; developing gene therapy to treat cystic fibrosis and other genetic diseases; study the cellular and molecular biology and physiology of the novel DEG/ENaC cation channel family
Wilson, Mary E., MD	Professor	Internal Medicine – Infectious Diseases (Microbiology, Interdisciplinary Program in Immunology, Interdisciplinary Program in Molecular Biology, Interdisciplinary Program in Genetics; College of Public Health-Epidemiology, MSTP)	Mentor	Molecular mechanisms of host-parasite interactions in leishmaniasis
<b>Bacterial Pathogenesis:</b>				
Allen, Lee-Ann, PhD (Group Leader; HD)	Professor	Internal Medicine (Microbiology, MSTP, & Interdisciplinary Program in Immunology)	Mentor	Macrophage and neutrophil biology in the context of infections caused by two bacterial pathogens: <i>Helicobacter pylori</i> and <i>Francisella tularensis</i>

Table 2 (cont'd)

Name/Degree(s)	Rank	Primary (& Secondary) Appointment(s)	Role in Program	Research Interest
<b>Bacterial Pathogenesis (cont'd):</b>				
Horswill, Alexander, PhD (HD)	Associate Professor	Microbiology (MSTP, Inflammation Program)	Mentor	Peptide quorum sensing system of <i>Staphylococcus aureus</i> and its interconnection with biofilm development
Ijdo, Jacob	Assoc. Professor	Internal Medicine (Inflammation Program)	Co-Mentor	Interactions of neutrophils with Anaplasma (formerly Ehrlichia) phagocytophilum
McCray, Paul B., MD (HD,VP)	Professor	Pediatrics (Internal Medicine, Microbiology, Interdisciplinary Programs in Genetics and Molecular and Cellular Biology, MSTP)	Mentor	Pulmonary host defense and gene transfer for the treatment of inherited diseases. Pathogenesis and treatment of cystic fibrosis
McElroy, Steven J., MD	Assistant Professor	Pediatrics – Neonatology	Co-Mentor	Gastrointestinal developmental stages and response to inflammation. Mechanisms by which immaturity of the small intestine predisposes to development of NEC
Schlievert, Patrick M., PhD	Professor and Chair	Microbiology (Internal Medicine, MSTP, Interdisciplinary Program in Immunology)	Mentor	Mechanisms of gram positive bacteria ( <i>Staph</i> , <i>Enterococcus</i> , and streptococci) infective endocarditis, particularly focusing on the role of superantigens and related molecules. Also, role of <i>Staphylococcus aureus</i> in other serious diseases & development of novel strategies to manage infections.

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<b>Bacterial Pathogenesis (cont'd):</b>				
Weiss, Jerrold P., PhD (HD)	Professor	Internal Medicine – Infectious Diseases (Microbiology, Interdisciplinary Program in Immunology, MSTP)	Mentor	Structural and biochemical mechanisms of host recognition of Gram-negative bacterial endo-toxins. Coupling of endo-toxin recognition to the induction of inflammation, bacterial killing and clearance. Also cellular and extracellular mechanisms of host defense against Gram-positive bacteria
Winokur, Patricia, MD (VP)	Professor	Internal Medicine (Interdisciplinary Graduate Program in Translational Biomedicine)	Mentor	Vaccines and the molecular mechanisms of antibiotic resistance. Clinical trials on H1N1 influenza and attenuated smallpox. Development of human colonization model for <i>Haemophilus influenzae</i>
Yahr, Timothy, PhD	Professor	Microbiology (MSTP)	Mentor	Signaling pathways that allow <i>Pseudomonas</i> to deploy the type III secretion system during infections; vaccine development targeting the type III secretion system

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Name/Degree(s)	Rank	Primary (& Secondary) Appointment(s)	Role in Program	Research Interest
<b>Viral Pathogenesis:</b>				
Perlman, Stanley M., MD, PhD (Group Leader; HD)	Professor	Microbiology – (Pediatrics, Interdisciplinary Programs in Immunology and Neuroscience, MSTP)	Mentor	Molecular biology, immunology and pathogenesis of murine and human coronavirus infections
Haim, Hillel MD, PhD	Asst. Prof	Microbiology (Interdisciplinary Program in Molecular and Cellular Biology)	Co-Mentor	Evolution of the structure and function of the HIV envelope glycoproteins
Legge, Kevin, PhD (HD)	Associate Professor	Pathology (Interdisciplinary Program in Immunology, MSTP)	Mentor	Examine how DC activate and regulate, depending on the type of pulmonary exposure, CD8 T cell responses
Okeoma, Chioma M., PhD	Assistant Professor	Microbiology (Interdisciplinary Program in Molecular and Cellular Biology)	Co-Mentor	Mechanisms underlying host response to viral infection and breast cancer
Maury, Wendy J., PhD	Professor	Microbiology (Interdisciplinary Program in Molecular and Cellular Biology, MSTP)	Mentor	Enveloped virus/host cell interactions
Meier, Jeffrey L., MD	Associate Professor	Internal Medicine – Infectious Diseases (Interdisciplinary Program in Molecular and Cellular Biology)	Mentor	Molecular mechanisms of cytomegalovirus latency. Clinical trials of new anti-retrovirals in HIV patients
Roller, Richard, PhD	Professor	Microbiology (Interdisciplinary Program in Molecular and Cellular Biology, MSTP)	Mentor	Molecular biology of herpes simplex virus assembly and egress
Schmidt, Warren, MD, PhD	Professor	Internal Medicine	Mentor	Hepatitis C virus (HCV), oxidative stress, and the response of anti-oxidative enzymes during viral infection

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<b>Viral Pathogenesis:</b>				
Stapleton, Jack T., MD (HD)	Professor	Internal Medicine – Infectious Diseases (Microbiology, Interdisciplinary Program in Molecular and Cellular Biology, MSTP)	Program Director	Pathogenesis of GBV-C infection, hepatitis C infections
<b>Epidemiology and Statistics:</b>				
Diekema, Daniel, MD, MS (BP)	Clinical Professor	Internal Medicine (Pathology)	Mentor	Epidemiology, prevention and control of healthcare-associated infections
Herwaldt, Loreen A., MD (BP)	Professor	Internal Medicine – Infectious Diseases (Epidemiology, College of Public Health)	Mentor	Prevention of nosocomial infections, molecular epidemiology of MRSA infections, and antimicrobial use in the pediatric ICU
Ohl, Michael, MD	Assistant Professor	Internal Medicine – Infectious Diseases	Mentor	Epidemiology of HIV infection in rural areas. Quality of care for HIV-infected, and systems for care delivery for persons with HIV and/or HCV infection in rural and outlying urban settings
Perencevich, Eli, MD	Professor	Internal Medicine (Epidemiology, College of Public Health)	Mentor	Prevention and treatment of infections in the healthcare environment. Understanding environmental and geographic factors that increase risk of MRSA and CRE infections.