

## Research Opportunities and Mentors

Fellows have a diverse and extensive pool of research mentors, laboratories, and opportunities from which they can choose their research projects of interest.

### Areas of Research Interest of the Clinical ID Faculty

- **John Beigel, M.D.:** clinical studies for novel treatment of influenza and other respiratory infections
- **John Bennett, M.D.:** pathogenesis, diagnosis, treatment, prevention, and epidemiology of mycoses, particularly cryptococcosis and candidiasis
- **Sarah Browne, M.D.:** anticytokine autoantibody-associated immunodeficiencies
- **Jeffrey Cohen, M.D.:** molecular genetics, pathogenesis, and clinical aspects of human herpesviruses, especially Epstein-Barr virus, cytomegalovirus, and herpes simplex virus
- **Peter Crompton, M.D.:** human malaria infection biology and immunity
- **Jennifer Cuellar-Rodriguez, M.D.:** clinical transplant infectious diseases; transplant for primary immunodeficiency syndromes
- **Robert Danner, M.D.:** septic shock and functional genomics of critical illness and injury
- **Sandip Datta, M.D.:** immune responses against bacteria, with an emphasis on *Staphylococcus aureus*
- **Lesia Dropulic, M.D.:** viral infections and immunodeficiency; vaccine and antiviral clinical trials
- **Anthony S. Fauci, M.D.:** immunopathogenic mechanisms of HIV infection and disease progression
- **Karen Frank, M.D., Ph.D.:** pathogenesis of staphylococcal pneumonia, host-pathogen interaction, resistance in gram-negative bacteria
- **Alexandra Freeman, M.D.:** pediatric infectious diseases, infections in primary immunodeficiency syndromes

- **Juan Gea-Banacloche, M.D.:** clinical complications of hematopoietic stem cell transplantation, particularly opportunistic infections after transplant and their potential as an indicator of “functional immune reconstitution”
- **Colleen Hadigan, M.D., M.P.H.:** metabolic and cardiovascular complications of HIV infection
- **Steven Holland, M.D.:** integrated host and pathogen investigation of phagocyte defects and their specific infections; examples include chronic granulomatous disease, hyper IgE (Job) syndrome, GATA-2 deficiency, susceptibility to disseminated mycobacterial infections
- **Amy Klion, M.D.:** mechanisms of eosinophil activation and eosinophilia; host immune responses to parasitic helminth infections
- **Shyam Kottlil, M.D.:** novel mechanism-based therapeutics to cure hepatitis
- **Joseph Kovacs, M.D.:** *Pneumocystis jiroveci* infection and toxoplasmosis in HIV patients
- **H. Clifford Lane, M.D.:** pathogenesis of HIV infection emphasizing mechanisms of immunodeficiency, immunologic approaches to therapy for HIV infection
- **Julie Ledgerwood, D.O.:** vaccine clinical trials for HIV, biodefense, and emerging infections; vaccine-induced immune responses
- **Mihalis Lionakis, M.D.:** mechanisms of mammalian antifungal immunity, host genetic susceptibility to mucosal and systemic fungal infections
- **Frank Maldarelli, M.D., Ph.D.:** HIV resistance mechanisms
- **Adriana Marques, M.D.:** Lyme disease
- **Henry Masur, M.D.:** critical care, catheter-associated infections, HIV infection
- **JoAnn Mican, M.D.:** HIV clinical studies
- **Stephen Migueles, M.D.:** mechanisms of immunologic restriction of HIV replication; long-term nonprogressors or “elite controllers” of HIV

infection

- **Caryn Morse, M.D.:** metabolic and skeletal complications of HIV infection
- **Robert Munford, M.D.:** immune response to bacterial lipopolysaccharides
- **Thomas Nutman, M.D.:** mechanisms of eosinophil activation and eosinophilia; clinical expression, diagnosis, treatment, and control of human helminth infections; host immune responses to parasitic helminth infection
- **Kenneth Olivier, M.D.:** mechanisms of airway dysfunction, primary ciliary dyskinesia, bronchiectasis, pulmonary mycobacterial infections
- **Tara Palmore, M.D.:** hospital epidemiology; studies involving the crossroads between multidrug-resistant organisms, infection control, and genomics
- **Mark Parta, M.D., M.P.H.T.M.:** treatment of complicated methicillin-resistant *Staphylococcus aureus* and gram-negative infections that conventional therapy fails
- **John Powers, M.D.:** design and interpretation of clinical research studies; relationships between antibiotic resistance and patient outcomes; development of patient-reported outcome scales as endpoints in clinical research studies; evaluation of types of biases in various clinical research designs
- **Irini Sereti, M.D.:** HIV immune reconstitution syndrome, role of interleukin-2 and interleukin-7 in the management of HIV, HIV and tuberculosis
- **Michael Sneller, M.D.:** HIV clinical studies, hepatitis C cryoglobulinemia
- **Peter Williamson, M.D.:** host-pathogen genetics in fungal infections, focusing on *Cryptococcus*; development of antifungal agents and fungal imaging methodologies
- **Christa Zerbe, M.D.:** clinical studies in patients with primary immunodeficiencies

## **NIAID Laboratories**

Explore the research of NIAID laboratories at our [Info About Labs page](#).

## **International Research**

NIAID has clinical investigators engaged in collaborative research projects in Mali, Peru, Thailand, South Korea, Kenya, South Africa, India, and elsewhere. Fellows have been principal investigators on their own international research projects at some of these sites. A typical fellow project involves translational studies of infectious diseases that are endemic to a given site where there is an NIH research infrastructure and/or collaboration with a local academic center.