

Drs. Scott Hammer and Frank Lowy

Project Abstract

This is a renewal application from the Columbia University Medical Center (CUMC) for a post-doctoral training grant in Infectious Diseases entitled "Columbia Integrated Training Program in Infectious Disease Research (TPIDR)". Drs. Scott Hammer and Franklin Lowy will remain as principal investigators (PIs) under the multiple PI NIH model. Both are established investigators with complementary research interests and longstanding commitments to the training of new investigators. The goal of this proposal is to train post-doctoral fellows with MD or MD-PhD degrees who are destined for academic infectious disease careers. The interdisciplinary program is designed to provide the necessary skillset to successfully pursue translational research whether this research be primarily basic or clinical/epidemiological. The dramatic advances in the fields of microbial genomics and biomedical informatics and the potential application of these rapidly evolving tools to translational research has necessitated a reappraisal of our approach to training new investigators. The ongoing recruitment to CUMC of world class investigators (e.g., Dr. Megan Sykes, Center for Translational Immunology; Dr. David Goldstein, Institute for Genomic Medicine) combined with pre-existent strengths in Infectious Diseases, pathogen discovery (Dr. Ian Lipkin, Center for Infection and Immunity), Biomedical Informatics (Dr. George Hripcsak) and retroviral host protein interactions (Dr. Stephen Goff, Howard Hughes Medical Institute) has allowed us to construct a Training Program that can recognize and nurture talented individuals. The TP-IDR, newly established in the current funding cycle, is not only producing new investigators but is also stimulating new interest in Infectious Disease research more broadly at CUMC. Resubmission is being sought to continue the success demonstrated thus far and to secure its future. Drs. Hammer and Lowy will continue to co-chair the Executive Steering Committee that serves as the governing body. A Recruitment and Candidacy Subcommittee will insure that our applicant pool is strong and diverse. A dynamic mix of well-established and junior investigators has been assembled to form a close-knit, dedicated faculty. Trainees selected to the TP-IDR have a choice of laboratory based or clinical/epidemiological-based research projects and have the option of obtaining a Master's degree in either Epidemiology or Biomedical Informatics. Didactic conferences and integrated TP-IDR seminars complement the educational experience. Mentorship, training, career development and feedback are thorough. An Advisory Committee, including members from within and outside the institution, will assist with oversight of the program. Institutional support is strong and broad-based. The intersection of microbial genomics, biomedical informatics and pathogenesis with clinical investigation, translational research, epidemiology and global health form the conceptual vision of the TP-IDR. This program permits us to train the academic Infectious Disease leaders of the future.