UNIVERSITY OF MARYLAND, BALTIMORE

Program in Molecular Microbiology and Immunology

Bacteriology

Cell Biology

Immunology

Parasitology

Virology

The Program in Molecular Microbiology and Immunology offers a unique blend of cutting-edge research and training in diverse fields, including bacterial pathogenesis, vaccine development, HIV, malaria, inflammation, cellular immunology, and evolution of the immune system. The collaborative nature of the research and the congenial personalities involved ensure a friendly and interactive environment where students and faculty thrive. With over 60 faculty members from the School of Medicine, the Dental School, the Institute of Human Virology, and the Center of Marine Biotechnology, and a National Institutes of Health training grant providing additional funding for graduate education, we can provide a broad range of research and training opportunities in these scientific disciplines.

The number of students in the program has doubled during the last 10 years with more than 40 students currently in this program, and the number of applicants continues to increase each year. Students graduating from the program are securing increasingly high-quality positions in academic, government, and industry research organizations, including several graduates who have become University faculty members.

The Program in Molecular Microbiology and Immunology—formerly the Department of Microbiology and Immunology Graduate Program—has been training students for over 20 years. Associations with the Center for Vaccine Development , the Institute of Human Virology, and the Institute for Genome Sciences provide a significant increase in training opportunities for students.

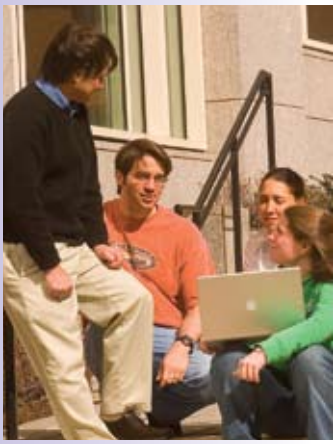
The faculty in the Program in Molecular Microbiology and Immunology perform cutting-edge research in several areas, including bacterial pathogenesis and vaccine development. This research is impacting global infectious diseases and has led to the licensing of a new vaccine for cholera. Studies on HIV at the Institute of Human Virology have revealed potential therapeutic approaches and vaccine targets to combat AIDS. Diverse studies in immunology are impacting important clinical problems such as cancer, transplantation tolerance, septic shock, arthritis, and vaccination, while deepening our understanding of immune system evolution and mechanisms.

Student Profiles

Charlotte Andreasen

Charlotte Andreasen graduated from the Program in Molecular Microbiology and Immunology in 2008. She published five research articles, including three first author papers, from her thesis work on the role of neutrophils and pertussis toxin in Bordetella pertussis infection. She presented her work at several national scientific meetings and won a travel award to the American Society for Microbiology General Meeting. Charlotte was an active member of the Graduate Student Association and of international student groups on campus. She also founded the program's Yellow Fever intramural soccer team and led them to the championship in their first season. She is currently a postdoctoral research fellow at Yale University Medical School.

Student Profiles



John Teijaro

John Teijaro graduated from the Program in Molecular Microbiology and Immunology in 2009. His thesis work has generated 7 currently published research articles from his project on memory CD4 T cell-mediated protection from influenza virus infection. He was invited to give talks at several national scientific meetings and was awarded multiple travel awards to the Keystone Immunologic Memory and Viral Immunology meetings, as well as the American Association of Immunologists annual meetings. John was an active member of the graduate program, directing immunology journal club and a newly formed immunology discussion forum. For John's scientific accomplishments, hard work and dedication to the program and his colleagues, he was awarded the distinguished Elaine Miye Otani Award for the outstanding GPILS graduate student in 2008. He was also the winner of the Eylar Award for the outstanding graduate student in the Molecular Microbiology and Immunology program in 2009. He is currently a postdoctoral research fellow at the Scripps Research Institute in the Department of Immunology and Microbial Science, where he is studying the immune response to chronic viral infection with Dr. Michael Oldstone.

Rebecca Brady

Rebecca Brady is a 2007 graduate of the Program in Molecular Microbiology and Immunology. She is the author of six peer-reviewed publications from her predoctoral work, with more currently in press. In her work, Brady determined the immunological profile of methicillin-resistant Staphylococcus aureus biofilms. She then used the identified antigens to design a novel in vitro imaging tool, as well as an anti-S. aureus vaccine that significantly decreased clinical and radiological signs of osteomyelitis infection in a rabbit. Brady began a postdoctoral fellowship at the U.S. Food and Drug Administration in the fall of 2007.

For More Information

Nicholas Carbonetti, PhD
Program Director
410-706-7677
ncarbone@umaryland.edu

June Green
Program Coordinator
660 W. Redwood St.
Howard Hall, Room 324-C
Baltimore, MD 21201
410-706-7126 | 410-706-2129 fax
jgreen@umaryland.edu

microbiology.umaryland.edu