

DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

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Professor and chair

microbiology.vcu.edu (<http://microbiology.vcu.edu/>)

The Department of Microbiology and Immunology is focused on research, cutting-edge technologies and educational programs with emphasis on microbial pathogens, cancer and the host immune defense system, which protects individuals from disease. The training is rigorous, emphasizing conceptual and experimental strategies using state-of-the-art technologies in modern facilities.

Departmental microbiologists study the molecular mechanisms by which microorganisms (i.e., bacteria, viruses, fungi and parasites) colonize a host, evade the immune response and cause damage. Immunologists in the department study the molecular and cellular mechanisms by which the immune response either defends the host against pathogens or goes awry, such as with an allergic reaction. Many of the department's molecular cell biologists are studying the fundamentals of cancer and new therapeutic approaches. All conduct research using the tools of molecular biology, genetics, cell culture, infection models, transgenic animals and bioinformatics.

A major goal of the department is to train the next generation of research scientists. Ph.D. students and postdoctoral fellows work alongside principal investigators to test hypotheses of medical importance. Laboratory training is supplemented with rigorous course work, seminars, journal clubs and lab meetings. Most trainees present their research findings at national and international meetings.

Students who complete the requirements for this degree will receive a Doctor of Philosophy in Microbiology and Immunology.

- Microbiology and Immunology, Doctor of Philosophy (Ph.D.) (<https://bulletin.vcu.edu/graduate/school-medicine/microbiology-immunology-phd/>)

Students who complete the requirements for this degree will receive a Master of Science in Microbiology and Immunology.

- Microbiology and Immunology, Master of Science (M.S.) (<https://bulletin.vcu.edu/graduate/school-medicine/microbiology-immunology-ms/>)