



The graduate program in **Immunology** offers an outstanding learning environment, with 50 laboratories representing one of the largest and most diverse Immunology programs in the nation and a faculty that is highly committed to graduate education. The Immunology faculty are leaders in their field, developing and employing cutting-edge technologies, including the generation of genetically modified mice by gene targeting, proteomics, intra-vital microscopy, and high-throughput pathogen discovery.

Some the key questions explored here are specific to the field, while others deal with the immunological versions of more basic phenomena in areas such as developmental biology, signal transduction, and the regulation of gene expression. Because immunology is interdisciplinary and rapidly developing, the program trains students to develop specialty expertise in immunology itself, as well as basic knowledge in a number of general “emphasis” areas with broader applicability.

## Research Environment

Faculty research ranges from the basic sciences to the clinical application of basic science research. Thesis opportunities are available along this entire spectrum. The Immunology faculty are comprised of members from diverse departments and form a cohesive and collaborative immunology research environment at Washington University.

### research areas include:

- tumor immunobiology
- autoimmune diseases
- host-pathogen interactions
- immune system development
- lymphocyte function
- molecular immunology
- cytokine function
- lymphocyte differentiation
- lymphocyte signaling
- computational modeling of immune responses

# Immunology



## Required Courses

- Immunobiology I
- Immunobiology II
- Advanced Topics in Immunology
- Ethics & Research Science
- Graduate Research Fundamentals

## Advanced Electives

- Fundamentals of Molecular Cell Biology
- Molecular Microbiology & Pathogenesis
- Biotech Industry innovators
- Nucleic Acids & Protein Biosynthesis
- Macromolecular Interactions
- Systems Cell and Molecular Biology
- Developmental Biology
- Translational and Public Health Aspects of Basic Infectious Disease Research

APPLICATION  
DEADLINE

DECEMBER

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**EXPLORE & APPLY:**  
[tinyurl.com/dbbstour](https://tinyurl.com/dbbstour)

For more information about the **IMMUNOLOGY** program and faculty research:

[tinyurl.com/dbbs-immfaculty](https://tinyurl.com/dbbs-immfaculty)



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## Program Benefits & Support

- Full tuition funding and benefits\*, including:  
generous stipend | travel funds for scientific meetings | health, life, and disability insurance coverage
- Opportunities to obtain nationally competitive fellowships, awards, and grants
- Free Metro U-Pass to travel in and around the St. Louis area
- Access to all university educational, entertainment, and recreational resources

*\*guaranteed, provided that satisfactory progress towards completion of degree requirements is met*

**DBBS celebrates diversity in all of its forms.**

*We invite all students to apply, especially those from backgrounds historically underrepresented in the sciences, such as African, Latin, and Native Americans, those with disabilities, and individuals from low-income backgrounds.*

**To learn more about DBBS' diversity initiatives, visit:** <https://tinyurl.com/dbbsdiversity>