



The graduate program in **Molecular Genetics & Genomics** provides an ideal interdisciplinary training environment for students interested in exploring basic questions in biology. Students and faculty members in the program employ genetic and genomic approaches to investigate questions in genetics, cell biology, development, and physiology.

Common themes include research aimed at identifying and characterizing the genes and the genetic and molecular networks that control fundamental genetic and cellular processes, deciphering how defects in gene function disrupt these processes and lead to disease, and devising genetic and molecular methods to identify and treat diseases.

Research Environment

Students in the graduate program in Molecular Genetics & Genomics conduct research in diverse areas. A unifying principle is the desire to understand the genetic and molecular basis of specific molecular, cellular, and developmental processes at the highest level of resolution.

research areas include:

- genetic basis of human disease
- epigenetics
- animal models of human disease
- cancer genetics
- model organism genetics
- computational genomics and epigenomics
- regulation of transcription and translation
- population genetics
- developmental genetics
- gene therapy
- gene regulatory networks/systems biology
- genetic basis of microbial development and pathogenesis
- functional genomics
- sequence analysis and gene-structure prediction

Molecular Genetics & Genomics



Required Courses

- Fundamentals of Molecular Cell Biology
- Nucleic Acids & Protein Biosynthesis
- Advanced Genetics
- Genomics
- Genetics Journal Club
- Ethics & Research Science
- Graduate Research Fundamentals

Advanced Electives

- Computational Molecular Biology
- Developmental Biology
- Immunobiology
- Macromolecular Interactions
- Molecular, Cell and Organ Systems
- Molecular Microbiology & Pathogenesis

APPLICATION
DEADLINE

DECEMBER

1

EXPLORE & APPLY:
tinyurl.com/dbbstour

For more information about the **MOLECULAR GENETICS & GENOMICS** program and faculty research:
tinyurl.com/dbbs-mggfaculty



dbbs-info@email.wustl.edu



facebook.com/wustldbbs



[@WUSTLdbbs](https://twitter.com/WUSTLdbbs)

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>