The Genetics and Developmental Biology area of concentration (GDB AoC) provides qualified students with fundamental interdisciplinary training in modern molecular genetics and developmental biology, emphasizing cellular and molecular aspects as well as tissue interactions. Areas of research include the mapping and cloning of human genes responsible for disease, RNA processing (including RNA editing, alternative splicing, antisense regulation, and RNA interference), the molecular mechanisms of aging, signal transduction pathways, microbial pathogenesis, developmental neurobiology, cell differentiation, musculoskeletal development, morphogenesis and pattern formation, reproductive biology and endocrinology. Faculty members are from several basic science and clinical departments and study a wide range of organisms including yeast, parasites, worms, fruit flies, birds, mice, zebrafish and humans. Students are encouraged to obtain in-depth training in molecular genetics and developmental biology. The GDB AoC prepares students to compete for job opportunities in traditional medical and dental school departments as well as a productive research career in either academia or industry.

Diverse Model Systems

36 PhD Students
6 MD/PhD & 1 DMD/PhD candidates

Stem Cell Research

Comprehensive Computational Genomic Analysis