



INDIANA UNIVERSITY

MOLECULAR LIFE SCIENCES

BACHELOR OF SCIENCE (B.S.)

A **MODERN**, MOLECULAR
FOUNDATION FOR
YOUR CAREER.

PRE-MEDICINE

RESEARCH CAREERS

LIFE SCIENCES

GRADUATE STUDIES



COLLEGE OF ARTS + SCIENCES
**MOLECULAR LIFE SCIENCES
PROGRAM**
Indiana University Bloomington

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THE MOLECULAR LIFE SCIENCES B.S. DEGREE IS IT FOR YOU?



In this track, you will be exposed to breakthrough advances that have been made using a variety of experimental systems including bacteria, yeast, nematodes, fruit flies, frogs, mice, and plants (just to name a few). Basic principles of cell and developmental biology that have been uncovered with these model systems are coupled with an understanding of how deviations in normal function lead to human disease. Molecular mechanisms of human disorders and diseases will be an important element of the Cell and Development track.

MOLECULAR AND STRUCTURAL TRACK

Students pursuing the Molecular and Structural MLS track are interested in developing a contemporary, mechanistic understanding of living systems. They build a strong foundation in cell biology, molecular biology and biochemistry. Students then apply molecular and structural approaches to understand protein metabolism, learn about nucleic acid metabolism and epigenetic regulation, and explore bioinformatic approaches to characterizing biomolecules. They will engage advanced course topics such as signal transduction to understand how information flows in cells.

On this track, students will learn how breakthrough technologies, such as Cryo-EM, RNAseq, bioinformatics, and whole genome sequencing have impacted virtually every aspect of modern life

sciences research. Students will develop a synthetic, molecular understanding of living systems and connect failures in physiology with human disease.

CELLULAR AND DEVELOPMENT TRACK

Our Cell and Development track is designed for students who are interested in exciting topics in cell biology, developmental biology, genetics, and molecular biology. The course sequence offers both introductory and advanced level courses in each of these disciplines. You will learn how individual cells function, how they interact with their neighbors, and how a single cell grows and develops into a fully functional adult. Our course instructors conduct cutting-edge research in these fields and bring a modern perspective of these topics into the classroom.

CONTACT US

We welcome your questions about our program.

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