Biochemistry is the study of the molecular basis of cellular and organismal function, making it a central discipline in the biological sciences. Biochemists ask the question, “How do life processes work at the molecular level?”

Our faculty’s research is aimed at understanding the structures and functions of proteins and other biological macromolecules, such as RNA in biological systems. There is also a strong focus on understanding the molecular mechanisms of complex diseases, such as cancer and infectious diseases, that can lead to new therapies. Our efforts are broadened by collaborations with faculty in other university departments and with scientists at other academic and biotech research institutions.

The Department of Biochemistry is in the School of Medicine. We offer undergraduate programs leading to the BA and BS degrees in biochemistry with over 200 students enrolled. Graduates are well prepared for further studies in the biological sciences (MS and PhD programs), for degrees in the health sciences (MD, DO, DDS, PharmD), for employment in the chemical, pharmaceutical, and biotechnology industries, or as research assistants in research laboratories.

Biochemistry graduate programs lead to the MS and PhD degrees as well as a Graduate Certificate in Experimental Biotechnology, preparing graduates for careers in research in academia and the biotechnology industry. There are also dual-degree programs, leading to the MD/PhD, MD/MS, JD/MS, MS/MBA, and MS/MA in Patent Practice degrees. The department also participates in several interdisciplinary and interdepartmental programs in the School of Medicine and at Case Western Reserve University that provide additional avenues of study.

Programs
- Biochemistry, BA
- Biochemistry, BS
- Biochemistry, Minor
- Biochemistry, MS
- Biochemistry, PhD
- Experimental Biotechnology, Graduate Certificate

Dual Degrees
- Biochemistry, MS/Business Administration, MBA
- Biochemistry, MS/Law, JD
- Biochemistry, MS/Patent Practice, MA
- Biochemistry, MS/Medicine, MD
- Medical Scientist Training Program (MSTP), PhD/Medicine, MD