

# BIOCHEMISTRY

Biochemistry is a very broad science that studies the molecules and chemistry of life. Biochemistry focuses on the structure, properties, and interactions of molecules such as proteins, nucleic acids, sugars and lipids. Biochemistry's aim is to understand how these molecules participate in the processes that support the various functions of the living cell. These studies are therefore essential for understanding disease and finding cures, for improving agriculture and the production of food and biofuels, and to produce innovation in biotechnology.

Whereas other biological science majors may focus on cellular, organismal or population level biology, biochemistry focuses on processes that occur at the molecular to cellular levels. Therefore, this major has a greater focus on basic and quantitative sciences, such as math and, particularly, on chemistry.

Biochemistry graduates go on to a variety of careers in science and science-related fields. The major is designed to fit the needs of the student who wishes to achieve bachelor's-level training as well as those planning to pursue graduate or professional study. The degree serves as an excellent background for medical school or veterinary school admission, as well as for graduate study in biochemistry or other allied fields (biology, bacteriology, genetics, molecular biology, or oncology).

## DEGREES/MAJORS/CERTIFICATES

- Biochemistry, B.S. (CALs) (<http://guide.wisc.edu/undergraduate/agricultural-life-sciences/biochemistry/biochemistry-bs/>)

## PEOPLE

### PROFESSORS

Amasino, Rick  
 Attie, Alan  
 Bednarek, Sebastian  
 Butcher, Sam  
 Cox, Mike  
 Craig, Elizabeth  
 Fox, Brian (Chair)  
 Friesen, Paul  
 Henzler-Wildman, Katie  
 Holden, Hazel  
 Kimble, Judith  
 Landick, Bob  
 Ntambi, James  
 Palmenberg, Ann  
 Ralph, John  
 Rayment, Ivan  
 Record, Tom  
 Rienstra, Chad  
 Senes, Alessandro  
 Sussman, Mike  
 Wright, Elizabeth

### ASSOCIATE PROFESSORS

Hoskins, Aaron

Raman, Vatsan

### ASSISTANT PROFESSORS

Cantor, Jason  
 Coyle, Scott  
 Grant, Tim  
 Kirchdoerfer, Robert  
 Lim, Ci Ji  
 Romero, Phil  
 Simcox, Judith  
 Venturelli, Ophelia  
 Weeks, Amy

### ASSOCIATE FACULTY

Pennella, Mario  
 Shu, Erica

### ACADEMIC ADVISORS

Biochemistry & Microbiology Undergraduate Advising Hub (<https://biochemmicrobio.wisc.edu/advising/>)  
 For more information, see the Department of Bacteriology directory (<https://bact.wisc.edu/people.php>).