Biochemistry, Cellular and Molecular Biology

Overview

This major is a convergence of many scientific fields, including modern biological chemistry, cellular and molecular biology, chemistry, botany and biology. It covers most requirements for the Medical College Admission Test. Your experience is defined not only by the quality of research facilities (ours are new, clean and well-equipped) but also by your relationships with peers and faculty. Labs are capped at 14 students, allowing for maximum interaction, instruction and sharing of ideas. Small classes mean you also gain experience with oral presentations and scientific writing in a research-oriented atmosphere. By the time you graduate, you will be proficient in the use of computers to model chemical systems and control lab instruments.

Research Opportunities

You spend a lot of time working with professors on innovative research in their fields. We view teaching and research with students as a single unified activity. You might spend your summers working with faculty through the Keck Foundation program or a fellowship funded by the National Science Foundation or the National Institutes of Health. Many students co-author articles in scientific journals with professors and present their work at major research seminars in the United States and abroad. Some go overseas to continue their research, participating in an ongoing collaboration with scientists at the University of Bologna.

Study Abroad

Study abroad for a semester or participate in one of the College’s own Study Away Teach Away (SATA) programs. Through SATA, you travel to destinations like South Africa or Italy and take classes with a Connecticut College professor and faculty at local universities.
Faculty

Phillip Barnes, Associate Professor of Biology
B.S., Xavier University; Ph.D., University of Minnesota
Genetics; evolution of complex quantitative traits; insect flight

Stanton Ching, Margaret W. Kelly Professor of Chemistry; Chair of Chemistry Department
B.A., Pomona College; Ph.D., Northwestern University; Postdoctoral Fellow, University of North Carolina
Inorganic materials chemistry; electrochemistry

Deborah Eastman, Associate Professor of Biology
B.A., Grinnell College; Ph.D., University of Minnesota; Postdoctoral fellowships, Institute of Molecular Biology and Biochemistry, Greece, and Yale University
Genetics; molecular development

Vicki Fontneau, Senior Lecturer in Chemistry
B.S., Florida State University; M.S., University of Hawaii
Protein biochemistry; laboratory safety; chemistry education

Martha Grossel, Professor of Biology
B.S., Colorado State University; Ph.D., Tufts University School of Medicine
Molecular cell biology

Timo V. Ovaska, Hans & Ella McCollum ’21 Vahlteich Professor of Chemistry
M.S., University of Turku; Ph.D., University of Connecticut
Organic chemistry

Maureen Ronau, Senior Lecturer in Chemistry
B.A., Niagara University; M.A., University of Notre Dame
Analytical chemistry; organic chemistry

Emily Tarsis, Lecturer in Chemistry
B.S., Coastal Carolina University; Ph.D., Duke University
Physical chemistry; laser spectroscopy; atmospheric chemistry

Marc Zimmer, Jean C. Temple ’65 Professor of Chemistry; Dean of Studies
B.S., M.S., University of Witwatersrand, South Africa; Ph.D., Worcester Polytechnic Institute; Post-Doctorate, Yale University
Computational chemistry; fluorescent proteins

Selected Courses

Genetics; Molecular Development; Molecular Cell Biology; Biochemistry; Atomic and Molecular Structure and Dynamics; Chemistry Seminar Series; Organic Spectroscopic Methods

About Connecticut College

Connecticut College educates students to put the liberal arts into action as citizens in a global society. A leader in the liberal arts since 1911, the College is home to nationally ranked programs for internships, community action, arts and technology, environmental studies and international studies. Our beautiful 750-acre arboretum campus is located in the historic New England seaport community of New London, Conn.

WHAT CAN YOU DO WITH A MAJOR IN BIOCHEMISTRY, CELLULAR AND MOLECULAR BIOLOGY?

Health Physicist, National Institute of Standards & Technology
Chemist, Pfizer Inc.
Genetic Toxicologist, SRI International
Lab Technician, Massachusetts General Hospital
Research and Development Associate, Alexion Pharmaceuticals
Science Teacher, West Haven Public Schools
Assistant Professor, Illinois State University
Legislative Director, The Environmental League
Surgeon, Hartford Hospital
Registered Nurse, Tufts Medical Center
Professor and Department Chair, University of Tennessee Medical Center

EXAMPLES OF STUDENT RESEARCH IN BIOCHEMISTRY, CELLULAR AND MOLECULAR BIOLOGY

Khushbu Pandya ’16
The effects of oil spill on amoA gene expression in ammonia oxidizing microbes

Derrick Roy ’15
Synthesis of the Novel Firefly Luciferase Inhibitor Benzothiophene Dehydroluciferin Sulfamoyl Adenosine

Parinda Darden ’13
The effectiveness of HIV/AIDS treatments on Botswana youth: traditional vs. conventional

FOR MORE INFORMATION, VISIT WWW.CONNCOLL.EDU/ACADEMICS/