



BIOCHEMISTRY

With emphasis on hands-on learning, Stonehill's Biochemistry program provides the practical knowledge and skills necessary for graduate study in biochemistry, chemistry, molecular biology, genetics and biotechnology or admission to professional school.

It also enables students, who benefit from labs taught exclusively by professors, to obtain skilled technical positions after graduation in university research laboratories, biotechnology or pharmaceutical development industries, hospitals and government agencies.

HONORS SOCIETY AFFILIATION

Phi Lambda Upsilon

The National Chemistry Honor Society

Lambda Epsilon Sigma

Stonehill's campuswide honor society

INTERNSHIP OPPORTUNITIES

Places where Stonehill students have recently interned include:

- Boston Children's Hospital
- Cubist Pharmaceuticals
- Good Samaritan Medical Center
- Harvard Medical School

GRADUATE/PROFESSIONAL SCHOOL STUDIES

Graduate programs that Stonehill graduates have attended (Note: Ph.D. students receive full scholarships and a stipend):

Ph.D. Programs

- Boston College
- Boston University
- Brandeis University
- Cornell University
- Johns Hopkins University
- Massachusetts College of Pharmacy and Health Sciences
- University of Connecticut
- University of Notre Dame

Medical School

- Pennsylvania State University
- University of Vermont

Dental School

- Boston University
- Pennsylvania State University

CAMPUS RESOURCES

Shield Science Center

Studying biochemistry at Stonehill puts students in a \$34 million, 89,000-square-foot state-of-the-art science center and has them working with accomplished faculty using equipment normally available only to graduate students.

Spectrometers

- Ultraviolet-Visible Spectrophotometers (UV-VIS)
- Spectrofluorophotometer
- High Field Nuclear Magnetic Resonance Spectrometer (NMR)
- Raman Spectrophotometer
- Fourier Transform Infrared Spectrophotometer (FT-IR)

Chromatographs

- High Performance Liquid Chromatography (HPLC)
- Gas Chromatography (GC)
- Flash Chromatography

Chromatographs/Spectrometers

- Gas Chromatograph/Mass Spectrometer
- Ultra Performance Liquid Chromatography/Mass Spectroscopy

Miscellaneous

- Glove Box
- Digital Polarimeter
- Femtosecond Pulse Laser
- Scanning Electron Microscope
- Solution Calorimeter
- Tensiometer

Biotechnology Instruments

- Sorvall ultracentrifuge
- Refrigerated microcentrifuges
- Temperature control water circulators
- Electroporator
- Microplate reader
- PCR and quantitative PCR machines
- Minus 80°C freezer
- Digital-photo-equipped UV transilluminator
- Shaker platform incubator



BIOCHEMISTRY

CAREER OUTCOMES

Places where Stonehill graduates have recently been employed include:

- Alexion Pharmaceuticals
- Bioscale
- Bishop Connolly High School
- Dana-Farber Cancer Institute
- Genzyme
- MIT Cancer Research: Koch Institute
- Siemens
- St. Jude's Research Hospital

“The Biochemistry program at Stonehill gave me both the freedom to explore what I want to do after graduation and the tools to pursue my chosen career.”

— Evan Tallmadge '10

Currently pursuing a Ph.D. in physical organic chemistry at Cornell University

RESEARCH OPPORTUNITIES

Science students participate in highly competitive and prestigious summer research programs across the country and around the world.

- Research Experience for Undergraduates (REU) Program in Nanotechnology at UMass-Amherst
- NSF-Thai REU Program in Chemistry in Bangkok at the Chulabhorn Research Institute
- ACS IREU Summer Program at the University of Strathclyde, Scotland
- AMGEN Summer Scholars Program at the University of California, San Diego
- Columbia University REU Summer Program in Organic Chemistry

Stonehill Undergraduate Research Experience

This an opportunity for students who have completed their first year at Stonehill to perform full-time, high-quality research over the summer months under the guidance of an expert faculty researcher. The experience includes weekly lunches, postgraduate career seminars, programwide outings and a student poster session in the fall.

Recent examples

Biochemistry major Cara Seward '15 worked recently with Magdalena James-Pederson, associate professor of Biology and Biochemistry, on learning more about essential genes in *Armillaria gallica*, a saprophytic fungus found in temperate forests.

Caitlyn Taveira '13 worked recently with Marilena Hall, associate professor of Chemistry, on the genetic origin of fast-propagating bacteriophage.

CAREER SERVICES RESOURCES FOR STUDENTS

General

- The Office of Career Services offers extensive assistance to students seeking employment, pursuing advanced studies or participating in postgraduate service opportunities. By completing internships and utilizing mentors, students are empowered to build lifelong career management skills.

Biochemistry-specific

- Extensive on-campus recruiting program for internships and entry-level jobs.
- Annual career fairs.
- Biotech and Pharmaceuticals career lunches.

Stonehill at a Glance

Founded by the Congregation of Holy Cross, Stonehill College values integrity, tradition and the rewards that come when you pair rigorous academics with world-class faculty committed to their students' success. Our nationally recognized experiential learning programs and focus on service shape graduates into compassionate leaders and global thinkers.

- 2,590 full-time students (1,588 women, 1,002 men).
- 93% of students live on campus.
- 167 full-time faculty (100% of classes taught by professors).
- 13:1 student/faculty ratio (average class size: 19 students).
- Tuition: \$36,160. Room and board: \$13,710.
- 86% retention rate.
- 93% of enrolled students receive financial assistance. Average freshman award, including scholarships, grants, federal student loans and work study, is \$25,451.
- \$50.5 million: amount of aid Stonehill students received in 2013-2014 academic year.
- 80% of the Class of 2013 completed an internship-related experience while at Stonehill.
- Ranked in the top 10% nationally for opportunities abroad, Stonehill offers internships, study and service travel programs around the globe.
- 91% of students participate in internships, study abroad, research practicum or fieldwork.
- 50% of the class of 2013 had secured a job by graduation, double the national average of 25%.

98%

OF ALUMNI ARE IN CAREERS,
TOP GRADUATE PROGRAMS
OR VOLUNTEERING
WITHIN ONE YEAR OF
GRADUATION