



MARINE BIOLOGICAL LABORATORY

Woods Hole, Massachusetts—a seaside town on the southern tip of Cape Cod—is an international hub for marine and environmental sciences and home to the Marine Biological Laboratory. **For over 125 years, the MBL has served as an exciting world-class destination to study marine biology, bringing together students and faculty from more than 58 countries to transform biological discovery and education.** A 2013 affiliation formed between UChicago and the MBL has afforded UChicago students comprehensive access to the MBL’s top-notch professors, state-of-the-art equipment, and an environment uniquely diverse in marine life. Connecting young scientists has long been a mission of the MBL, and by getting involved you’ll join a heralded international community of biological researchers.



The MBL is such a unique place in that you’re completely immersed, not only in the topic you’re studying, but in the scientific community in Woods Hole. Being in Woods Hole is really the perfect backdrop for learning about exciting fields and meeting fantastic new people.”

Abby Schmid, Class of 2020, Computational and Applied Mathematics



My experience at the MBL made me think about the importance of trying to acquire information from as many different sources as possible. Professors deal with seemingly unsolvable problems by looking at them from a different perspective—which comes from having a varied background.”

Khashiff Miranda, Class of 2020, Biology and Computer Science



AWARD-WINNING DISCOVERY

Research at the MBL had yielded wide-ranging advances. Among scientists with an affiliation to the MBL are 57 Nobel Prize winners, 263 members of the National Academy of Sciences, and 219 members of the American Academy of Arts and Sciences. Highlights include MBL summer investigator of 50 years Thomas Hunt Morgan, who won a 1933 Nobel Prize for his discoveries concerning the role of chromosomes in heredity; resident Distinguished Scientist Shinya Inoué, whose innovations in polarized light microscopy and video imaging have been instrumental in clarifying the cellular events of mitosis; and MBL Distinguished Scientist Osamu Shimomura, who was awarded the 2008 Nobel Prize in Chemistry for his discovery of green fluorescent protein in the early 1960s.

INTERTWINED HISTORY

Close ties between UChicago and the Marine Biology Laboratory extend back to both institutions' beginnings. Early UChicago faculty members—

including the MBL's 1888 founder, Charles O. Whitman—led the MBL for the first four decades of its existence. The board agreed the “formative principle” of the MBL had to be cooperation. In the over 125 years since, the scope of this collaboration has expanded globally, giving student-researchers ever greater opportunity as they begin their careers.



The Marine Biological Laboratory in Woods Hole, Massachusetts



STUDENT PROGRAMS

SEPTEMBER COURSES

These intensive, three-week courses are designed for students with a strong interest in research in the sciences. The courses meet 5-6 days a week, with lectures in the mornings and lab or field work in the afternoons. Classes are small (12-15 students), which allows for extensive interaction with UChicago and MBL faculty.

PRE-ORIENTATION PROGRAM

The Marine Biological Laboratory Experience is a four-day pre-orientation program that introduces students to the innovative work of the MBL, while also providing a venue for students to engage with leading scientists and MBL programs, learn about marine ecosystems, and enjoy the food, culture, and history of the New England coast. Along the way, students get to know other students in the College while having fun in the beautiful setting of Woods Hole.

SURF PROGRAM

The Summer Undergraduate Research Fellowship Program (SURF) introduces students to scientific research through the guidance of MBL's leading scientists. The 12-week program encourages students to initiate a project proposal that pairs them with an MBL faculty scientist whose expertise mirrors their research interests. The program features weekly lunch-seminars with MBL faculty, networking opportunities with other undergraduates, evening lectures, and cultural and social activities throughout the summer.

SEMESTER IN ENVIRONMENTAL SCIENCES

This is a 15-week fall semester at the Ecosystems Center of the Marine Biological Laboratory. Scientists at the MBL Ecosystems Center and at the MBL Josephine Bay Paul Center teach fundamentals of ecosystems science and discuss their current research, which touches on important issues of global and environmental change.

“MBL is one of the most intensive and rewarding experiences offered at UChicago. In lab and lecture, my class, *Observing Proteins in Action: How to Design and Build your own instruments*, exposed me to cutting-edge techniques and in-depth theories to study channel proteins and their activity. Labs were meant to show us different ways of understanding these channel proteins: from building model circuits, to inserting channels into isolated bilayers, to injecting RNA into cells and watching the proteins get expressed.”

Nora Bradford, Class of 2019, Neuroscience and Philosophy

“During my time at MBL, I've been able to go into the field every week to collect samples and analyze them in lab firsthand, developing laboratory skills that I otherwise would not have learned . . . It has also been great to interact with professors in the classroom as well as at meals and other activities. I have had the opportunity not only to learn about their research but also how they developed their interests in environmental science . . . All in all, my MBL experience has taught me to truly appreciate the time and effort it takes to make new discoveries, and has made me even more excited to be a scientist.”

Emi Lemberg, Class of 2019, Environmental Science