

# MOLECULAR AND CELL BIOLOGY, B.S.

## ABOUT THE MAJOR

Molecular and Cell Biology is the basic science that seeks an understanding of biological processes in terms of the properties and functions of the molecules that make up living cells. The scope of questions addressed in molecular and cell biology ranges from evolution to development to the regulation of gene expression. A career in molecular and cell biology requires a strong background in biology as well as a solid foundation in chemistry, mathematics, and physics.

The Molecular and Cell Biology major has been designed primarily for three groups of students:

1. those who plan to enter a research career in molecular and cell biology or related areas such as biochemistry, genetics, oncology, microbiology, cell biology or developmental biology;
2. pre-professional students who plan to enter either a research or clinical career in medicine, or allied health fields;
3. students who plan to pursue careers in the biotechnology and pharmaceutical science industries.

Students with other interests are also welcome, of course. Career opportunities for students with an undergraduate degree in molecular and cell biology are amazingly diverse. Graduates of the program have gone into patent law, science journalism, forensics, philosophy, nutrition, genetic counseling, veterinary medicine, anthropology, archeology, marine biology, theology, and much more ([https://molecularebiologymajor.wiscweb.wisc.edu/wp-content/uploads/sites/290/2017/07/What\\_can\\_I\\_do\\_with\\_a\\_MolBio\\_Major\\_.pdf](https://molecularebiologymajor.wiscweb.wisc.edu/wp-content/uploads/sites/290/2017/07/What_can_I_do_with_a_MolBio_Major_.pdf)).

Major requirements have been set to assure a high degree of proficiency in the various areas specified while still allowing as much flexibility as possible for students to individualize their programs. For the undergraduate interested in life sciences, this major uniquely provides access to the extraordinary scope and strength of biology courses and laboratories on the UW-Madison campus. Each student in the major is assigned a faculty advisor, and it is hoped that students will take advantage of both the staff and faculty advising service available to make a judicious choice of courses, as well as to gain scholarly experience outside the classroom that will further their academic and career goals.

Students who wish to obtain further information about the program or to declare a molecular biology major should contact the student services coordinator. (<https://molecularbio.ls.wisc.edu/advising/>) Faculty advisors are assigned through the program office and are located in many related departments throughout campus. Molecular and Cell Biology faculty advisors are especially competent to provide counsel regarding the major and career opportunities in molecular biology.

## UNDERGRADUATE RESEARCH

Undergraduate Molecular and Cell Biology students at UW-Madison are fortunate to have the opportunity to work with some of the world's leading researchers. Many opportunities for laboratory research experience are available on campus for undergraduate students and this type of experiences is strongly encouraged. Such an experience provides students the opportunity to apply what they're learning and complement their

knowledge with practical skills. Research experience is highly valued by employers, graduate programs, and professional schools. See the major website (<https://molecularbio.ls.wisc.edu/undergraduate-research/>) for more information on how to get involved in undergraduate research.