

# Honors Program Spotlight: Biology as a Learning Community

Lori Adams

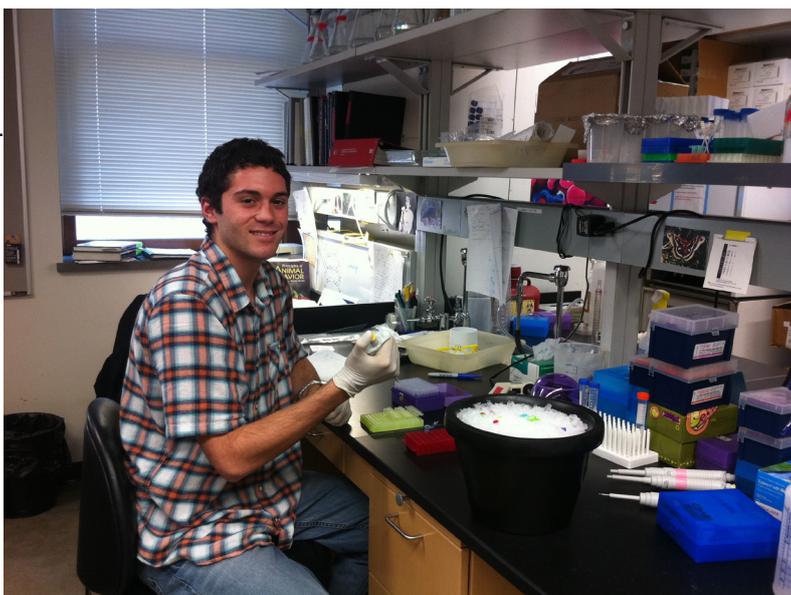
*Graduation with Honors in a major is not only a great credential; it's also a powerful learning experience, as Lori Adams and her students affirm in this article about Honors in Biology. Future issues of Honors@Iowa will feature different majors.*

The training of future biologists in the spirit of scientific inquiry through mentored undergraduate research experiences, like those offered through the Biology Honors Program, is and has always been a priority in the Department of Biology at the University of Iowa. The Biology Honors Program is strongly supported and held in high esteem by the faculty and staff in the Department of Biology. By choosing to participate in the Biology Honors Program, Biology majors learn research techniques and scientific methodology directly from the faculty and their research groups. Biology Honors students acquire skills through writing a research proposal and an Honors Thesis describing their research results and present their work in a seminar in the department. My role as the advisor of the Biology Honors Program is one of the most rewarding aspects of my career as an educator and scientist, and I am honored to work with such talented students. It is my goal that all eligible Biology undergraduate students be made aware of the unique opportunity to perform independent research, which is likely to enhance their UI experience regardless of the career path they choose.

The majority of Biology Honors Program students are accepted into medical school, dental school, or graduate school and report that the research experience was an essential component for the application process by demonstrating perseverance and commitment. Importantly, students engaged in research also find themselves in a “living, learning community” when they join a laboratory within the Department of Biology. Students that become part of a dynamic research group identify themselves as part of the Department of Biology and find a place to “hang their hat”.

It is the recommendations from the Biology Honors students themselves that speak volumes about the importance of this experience and the value of faculty research mentors. Biology Honors student, Patric Vaelli (pictured above in the laboratory) who is currently conducting his Honors research in the laboratory of Associate Professor, John Logsdon, identifies “five truths” he has learned about Honors in Biology. Yihan Sun (pictured on page 6 with Lori Adams), a recent UI Biology Honors Program graduate, performed her research in the laboratory of Associate Professor, Christopher Stipp and is now enrolled in the Pharm.D. program at the University of Michigan in Ann Arbor. After graduating from the University of Iowa, she can now reflect on how much the program meant to her education and future career plans. (See Vaelli’s “Five Truths” and read about Sun’s experience on page 6.)

In order to learn more about departmental honors, check departmental websites, or contact the departmental honors advisor. A listing is provided on the honors website at [http://honors.uiowa.edu/advising/major\\_advisors/index.shtml](http://honors.uiowa.edu/advising/major_advisors/index.shtml).



## Five Truths About the Honors in Biology

1. You learn to think like a scientist, to be analytical and use proper language when expressing scientific ideas.
2. The lab members are very helpful in aiding your understanding of concepts.
3. You're not expected to be an expert, the lab members cater to your ability.
4. You learn more than you realize and are exposed to concepts, theories, and paradigms before they are presented in classes.
5. You develop presentation skills and etiquette that result in high success for classroom presentations.

Patric Vaelli



## Reflections of a Graduate: Honors in Biology

Getting involved in the biology undergraduate honors research was one of the best choices I made while attending the University of Iowa. By reading scientific papers, asking questions, conducting experiments and presenting research results, I gained invaluable sights into how scientists think, work, and communicate.

You may ask how the research experience will continue to help me in pharmacy school. I would say it will help me in two ways. First, I am trained to become a prudent, organized investigator during my research. These two qualities are important for a competent pharmacist because they ensure the safety of medication dispensing. Second, I have learned the beauty of patience and commitment through repeating the same experiment to get the best result. The quality of patient care is not only measured by promptness and safety but also measured by devotion.

In closing, I encourage every student to participate in undergraduate research. It is not just a fantastic experience; it may open a door to you in your future career decision-making as well.

Yihan Sun