

# Advice for Undergraduates looking to do research in Biological Sciences

## Your Goals

You may want to get several things out of doing research as an undergraduate. Here are some possibilities to consider.

A new kind of experience. Research can and should be fun. And most lab environments are social. You learn life and career skills that cannot be obtained in classes. And you learn to solve problems.

Learning that will feed back to your academic studies. In many instances the research that you perform in a lab will help you grasp concepts that are central to classes that you need to graduate.

Experience that will benefit your career. For some careers, doing lab work can be a kind of advanced training. And research experience looks good on most job applications.

Publications. Many labs publish papers with students as authors.

Grants. There are many local, state, and national opportunities to win thousands of dollars to support yourself and your research.

Salary or Credit. The research may be paid or assigned credit. Degrees in Biological Sciences require a Senior Capstone class, a requirement that can be replaced by research for credit (check with your advisor for details). Even if you don't need the credit, the biology department offers a "0 credit" option to enable you to take part in research activities.

## What Else to Consider

Do you have passion for the work? Your research experience will be the most satisfying if you pick a lab that fits your long-term interests.

Is the social environment of the lab a good match? Joining a lab is not a life-long contract. If you don't like the interactions (or the work), leave and look elsewhere. To get a sense of whether you will fit well with the lab, have a chat with students already in the lab.

Do you have the time? Doing research is a bigger time commitment than taking a class. Discuss with your professor the realities afforded by your schedule. If you have lots of extra-curricular activities, you may not have time for research.

## **Your Professor's Goals**

Taking on undergraduates in research is rewarding for the professor. But it has possible downsides. One is that undergrads take longer to train than graduate students. Thus, it is a big investment for a lab to accept undergrads in research. The professor may have criteria for joining the lab, as listed below. Don't be put off by these, just be prepared. The professor may look at the following:

- How much time you have before graduation. Is your interest in research merely to check a box for your med school application, or are you interested in the long term?
- How much time you have to work in the lab per week. And will you be around in summers?
- Your grades. Are they good? Have you taken the appropriate courses for the work?
- How much you already know about the lab's work. Professors are often most impressed when approached by someone who knows what the lab does. However, this factor is less important for undergrads wishing to join than for grad students.