

How Do I Find a Research Opportunity?

Where do I start?

If you are a chemistry major, you probably want to begin by looking for positions in the Chemistry Department. Positions are generally not advertised, so the best approach is simply to investigate online and contact any faculty member whose research interests you regardless of whether research opportunities have been posted. To find out which faculty members are working in areas that you find intriguing, please refer to Appendix A of the [Chemistry Undergraduate Advising Booklet](#), the [Chemistry Department website](#), or the [Chemistry Undergraduates Research page](#) on Canvas.

There are lots of options for undergraduate research, but do not be overwhelmed by them! It is not possible to collect all of the information about every lab and then put the data through some algorithm to identify the best lab for you. Random circumstance often governs which lab a student joins—many labs are particularly popular at one college because many people join the lab where their friends work. Look for a lab that is interesting to you. Talk to juniors and seniors, as well as your graduate student TAs, about their lab experiences. Which labs do they recommend? Contact chemistry professors with whom you've taken classes for advice about labs. The CHEM 391/491 Course Instructor is happy to meet with you to help identify a good match. If you are serious about joining a particular research group, visit the lab, ask to meet the undergrads already working there, and inquire as to the best method of approaching that particular professor.

How do I contact professors with whom I might want to work?

Do your homework. Most positions are not advertised, but are filled from among the students who contact faculty members. Read about each lab's research and try to talk with current group members to get a feel for the personality and expectations of the faculty member. Write a personal email to the faculty member. Do not send a mass email to multiple faculty members or your email will be considered spam and ignored.

Your introductory email conveys an important first impression and can influence how easy it will be for you to find a lab home. All heads of research labs have either a PhD or an MD degree and should be addressed as "Prof." or "Dr." or and not "Ms., Mrs., or Mr." In your email, tell the professor who you are (name, year at Rice), why you are looking for a position in a research lab, and why you are interested in his or her lab in particular. Describe any relevant course work or prior research experience, even if it was in high school. You also may want to include whether you are looking for a short (1 semester) or longer experience, and how many hours per week you can commit to lab work. If you are considering graduate school after Rice, include this interest in the letter.

How many labs should I contact?

Getting into a lab is partly timing and luck, so do not be discouraged if your first efforts are not successful. It's usually necessary to contact several labs to find a position. If you know someone in a lab where you want to work, ask that person to put in a good word for you. If you are not successful after several attempts, you may wish to ask the Course Instructor for feedback on your contact letter. Additional information about research opportunities and finding an advisor can be found by contacting the CHEM 391/491 Course Instructor.

Are there prerequisite courses I must take before joining a research lab?

Most students joining a lab have some background in inorganic chemistry from a general chemistry course or CHEM 360, and many will have taken organic. You may not have taken courses in other areas of chemistry by the time you join a lab, but you can envision many interfaces between chemistry and other fields. Physical chemistry is a great direction to go if you like physics and chemistry, and bio-organic chemistry is the interface between biological chemistry and organic. People who have strong interests or background in mathematics and/or computer science might consider becoming theoreticians or computational chemists. Rice has a rich history of excellence in nanotechnology, which has applications in almost all areas of chemistry, from biochemistry to materials science.