

CHEMISTRY UNDERGRADUATE RESEARCH GUIDE

**Interested in doing chemistry research in a lab but
don't know where to begin? Begin Here!**

STEP 1: INVESTIGATE



Investigate research areas

Start by investigating what kind of research is going on at Emory and going on in general. Visit faculty member's research websites--what do you find interesting? What do you find exciting?

Get started by taking a look at the [research in the Department of Chemistry](#). Keep notes about the labs/research that interest you so you can go back and dig deeper later.

Then review the [Research Opportunities](#) available for the upcoming semester. If a faculty member's name is not listed on the Research Opportunities page, you can still contact them (step 2 below). But this table will give you a sense of which labs are currently looking for undergraduate researchers.

In addition to learning about the research in different labs, you can:

- Attend the [Symposia](#) at the end of each semester to learn more about what kind of undergraduate research is going on in the labs. Talk to the students and ask them about their experiences.
- Take a look at what students are saying: [Stories from undergraduates in the chemistry labs \(Links to an external site\)](#).

Investigate and think about pathways into labs

Volunteering - Doing research on an ad-hoc basis to gain experience or joining a lab mid-semester

Class Credit - See [CHEM 399](#) , appropriate for an initial research experience.

Work-study/Pay - If your financial aid package includes a Federal Work-Study Award, it may be possible to earn it through undergraduate research work. If

you do not have a Work-Study Award, you can still be hired to do research in a lab for pay. You cannot, however, be paid **and** simultaneously receive course credit.

Office of Undergraduate Education's Research Programs- OUE oversees two research programs that provide support and resources for students interested in doing lab research.

- [Scholarly Inquiry and Research Experience \(SIRE\)](#)
 - Fall/Spring program
 - Rising second- and third-year students only
 - Applications due May prior to the next academic year
- [Summer Undergraduate Research Experience \(SURE\)](#)
 - Full-time summer program
 - Applications due January prior to the summer

Dig Deeper

From your initial notes, now dig a little deeper into 3-4 faculty member's research. Do this by reading a few papers- at least the abstracts- from their labs to flesh out your understanding of their research. You may not understand all of the details, but that's okay! You should still get a sense of the research. You may choose papers that pertain to your interest areas or the two most recent papers.


You can find papers several ways. Some faculty members may link to their papers directly from their websites. But probably the easiest tool to use is [Google Scholar](#). To use Google Scholar:

- 1.) Type in the faculty member's name.
- 2.) At the top of the search results, you should see a hyperlink that says "User Profiles for ..." and the person's name you searched for. Click on that hyperlink.
- 3.) Now you should see a list of all publications from that person's lab.
- 4.) You can click on the "Year" column to sort by the most recent.

You can also use [PubMed](#) to find papers by certain faculty members.

As you read, keep notes! What is exciting to you? What do you want to know more about? What questions do you have from what you read?

STEP 2: CONTACT FACULTY MEMBERS



Once you've found a research lab that piques your interest, e-mail the faculty member to introduce yourself and ask if they have openings for undergraduates. Be sure to include:

1. Why you want to join the lab (reference your notes from the papers you read)

- Is a project they are working on particularly interesting?
- Are they using a technique you are eager to learn more about?

2. Tie-ins to your previous experiences, if any

- What relevant coursework (could include chemistry or other science & math) have you taken?
- Have you worked in other research labs?
- Did you participate in a science fair?
- Was there a specific project in a course at Emory that you really enjoyed?

3. Your availability

- When can you start
- How many hours a week can you work. *Most faculty will want a minimum commitment of at least 10 hours a week.*

4. Attach your CV/Resume

In your email, be informative but concise. There will be time to discuss your questions and ideas in detail in the future. Your goal for your initial email is to introduce yourself, indicate your interest in their research, and find out if they have an opening.

STEP 3: GET STARTED OR TRY AGAIN

The space availability in research labs varies from group to group and can change often. Persistence can pay dividends in faculty interactions. If you don't receive an initial response, follow up with an additional email. If your first interest doesn't work out, try again! Contact the next faculty member on your list.

In addition to labs in Department of Chemistry, look for chemistry-related research in the School of Medicine's [Department of Biochemistry](#), the [Department of Physics](#), the [Department of Environmental Sciences](#), the [Department of Biology](#), and the [Rollins School of Public Health](#).

For additional questions about research opportunities, including the Honors Program contact:

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