



Washington University in St. Louis

SCHOOL OF MEDICINE

Biochemistry & Molecular Biophysics Summer Undergraduate Research Program

The Department of Biochemistry and Molecular Biophysics (BMB) at the Washington University School of Medicine in St. Louis invites undergraduate students interested in completing an 8-week research program over the summer of 2024 to apply to our summer research program.

Students will join a lab that matches their interests where they will complete real-life research at the cutting edge of molecular biochemistry and biophysics. Research areas in the department range from single-molecule spectroscopy to molecular simulations to mitochondrial biochemistry. As well as conducting research, students will also attend workshops that cover various important areas in science, including how to design experiments, how to read papers, scientific communication, and guidance on graduate school applications, etc.

No prior research experience is required, and we strongly encourage applicants from diverse backgrounds to apply. Local travel, housing, and an additional monthly stipend of \$3000 will be provided (total of \$6000 for the 8-week program). The program will run **June 6th – August 4th, 2024**. Applicants are strongly encouraged to have completed their sophomore year by June 2024 (but may still apply as a sophomore), and the ideal candidates will be considering applications to graduate school following graduation.

To apply, please submit an application that includes the following information:

1. A full CV/resume ([sample template here](#))
2. A statement of purpose (up to two pages; 11pt font) with the following headed sections:
 - What motivates and excites you about science?
 - Tell us about a time you have faced a challenge and how you overcame it (or are planning/working to overcome it)?
 - Why are you interested in this program?
 - What do you hope to get out of the program?
 - Describe the type of research you think you would (or would not) enjoy along with up to three labs within the Biochemistry & Molecular Biophysics department that interests you ([see attached form](#)).
3. Unofficial academic transcript
4. A letter of recommendation that can speak to why you would be a good applicant for the program

Application instructions: Please email application documents to bmbsummerprogram@wustl.edu. Combine sections 1 and 2 as one .pdf or .docx file, titled: 'last name, first name'. Have your letter-writer send their recommendation letter to the same address with your full name in the subject line.

The application deadline is **Friday, February 16th**. Applicants will be notified of success within 4-5 weeks of the submission deadline. All materials are required at the time of deadline.

FAQs:

I don't live in Missouri, do I need to cover travel expenses to Saint Louis?

No, we will cover one round trip flight expense to Saint Louis, MO.

I don't really know what 'doing research' means?

Then this program might be for you! One of our goals is to help students with limited opportunities to engage in academic research to get that experience at a world-class scientific institution in a supportive environment to see if they think scientific research might be of interest to them after college.

Are there specific courses you expect students to have taken?

No, but we will use your unofficial transcript to ensure your well-matched in terms of the project or lab you end up perusing.

Does it matter where I am currently a student?

No. We require you to be enrolled in a tertiary education institution located within the US or US territory, be that a four-year college or two-year community college, but the perceived prestige of your current institution and its geographical location will not be used in selection.

How will applicants be selected?

Selection will be based on identifying students where we feel that the program could be most impactful to a student's career. Therefore, selected students do not necessarily have the most experience, the most rigorous course load, or come from the most prestigious schools. Instead, we want to identify students where this experience could be transformative in their academic trajectory. In addition, GPA will *not* be a major determinant of selection.

Where will the research take place?

All research experiences will take place in the Department of Biochemistry and Molecular Biophysics at Washington University School of Medicine in St. Louis.

Where will I stay during the research experience?

All students will live in dorms at Washington University in St. Louis. The dorms are a short ride via the Metrolink (over-ground train system) away from the medical school, and all students will have free public transit provided for the duration of their stay. Students have their own furnished bedroom with access to a shared bathroom and kitchen. In addition to a kitchen, the program will provide a higher stipend amount (\$6000) which may be used for discretionary meals and local dining around campus (as well as off-campus locations).

How many students do you expect to enroll?

We plan to enroll 6 students for the summer.

Who should write my letter of recommendation?

We suggest having a faculty member who can speak to on your drive to succeed, your strengths in scientific areas, or provide a compelling narrative for why this would be a good opportunity for you.

I'm not the strongest in math, but biochemistry & biophysics sounds like a lot of math...?

Yes and no - this depends a lot on where you focus to do research; don't be put off because these areas sound hard! You will receive all the support and training you need to succeed in your research program.

Can first-year undergraduate students apply?

Sadly, not right now. We strongly encourage students to have completed their sophomore year of their undergraduate degree.

I will finish my undergraduate degree in June 2024, can I apply?

No, unfortunately this opportunity is limited to students who will be enrolled in an undergraduate degree over the summer of 2024.

I am an international student, can I apply?

Only if you are currently attending a four-year degree program at a university or college in the USA. We cannot provide support for visas, so international students must already be enrolled in a four-year degree program from a recognized institution of higher education in the USA.

I want to go to medical school, should I apply?

This program is designed to serve students who are planning to apply for graduate school in the biomedical sciences (broadly), or for students who are interested in learning about academic research to guide that decision.

How are lab placements made?

Decisions are based on the students' research interests, background, and submitted labs of interest.

Does my list of faculty research interest guarantee me placement within that lab?

No, your list of faculty/labs is merely to gauge interest. Not all faculty listed will be participating in the summer program, and no lab placement is specifically guaranteed. If accepted to the program, our faculty will attempt to place you in a lab that best suits your overall profile.

What is the time commitment?

This is a full-time (40/week) rigorous research experience. Students are unable to take summer classes, nor work additional jobs during the summer.

Can I come for part of the program?

No. Eight weeks is a short period of time for research, and reducing that further would make achieving the goals of the program impossible. Students must commit to being in St. Louis between June 6th and August 4th. We will fly all students in on June 6th to attend orientation on Friday, June 7th.

I have never been to Saint Louis, what is there to do during our off time?

There are many activities to do in Saint Louis! Please visit this webpage of Washington University School of Medicine's favorite activities in STL. <https://sites.wustl.edu/diso2023-24/life-in-st-louis/>