

Students Targeted towards Advanced Research Studies (STARS) B.S. to Ph.D.

Scholars can change the world. This is an elite program focused on the best students and it is anticipated that we would admit one to five students per academic year. Students may major in one of four degree programs: Biochemistry with the Molecular Biology option, Genetics and Cell Biology, Microbiology, or Neuroscience. The Doctor of Philosophy Degree is in either the Molecular Biosciences or Neurosciences.

Recruitment

Prospective students should be highly motivated with a long-term interest in a graduate Ph.D. program at Washington State University in either the School of Molecular Biosciences (SMB) or Integrated Physiology and Neuroscience (IPN).

The following groups of students are recruited into the program:

High ability incoming freshmen or transfer students

Current students who begin the program no later than the first semester of their junior year.

- Freshmen and first semester sophomores may self select and apply to the program.
- Second semester sophomores must have a written letter of support from an SMB or IPN faculty member who can speak to their aptitude for research and potential for success in graduate studies.

Application

All students must apply and be accepted to WSU or be current WSU students.

The STARS Steering Committee will evaluate all applications. Typically this committee will consist of the CVM Associate Dean for Undergraduate Education and faculty representatives from both SMB and IPN.

New Students (freshmen and transfer) must meet the following minimum requirements:

- New freshmen must have a competitive GPA. Transfer students must have a minimum GPA of 3.6 in their college basic science and math classes (applied science courses, etc are excluded from the calculation).
- Students must show evidence of a strong interest in science such as four years of high school math and science, honors courses in science, AP courses in science, running start in science, or an AST degree.
- Students must be qualified to take calculus as their first math class, or have already received the equivalent of college credit for a calculus course.
- Students must demonstrate a strong interest in a Ph.D. program at WSU, primarily through an essay describing their long-term career goals, including graduate school and how they see themselves in a research career.

Current students who begin the program no later than the first semester of their junior year Students entering the program at this stage must meet the following minimum requirements:

- They must have a GPA of at least 3.6 in their basic science and math courses taken at WSU (applied science courses, etc are excluded from the calculation).
- The student must be making satisfactory progress in an undergraduate program that is participating in the STARS Ph.D. program.
- Students must have arranged for their first lab experience by the time of their application.
- Students must demonstrate a strong interest in either the SMB or Neuroscience Ph.D. program at WSU, primarily through an essay describing their long term career goals, including graduate school and how they vision themselves in a research career.
- Students must have a written letter of support from an SMB faculty member who can speak to their aptitude for research and potential for success in graduate studies.

Advising and Annual Review

All students will meet at the start of their program with the STARS Coordinator and representatives from SMB and IPN to assure they understand the expectations of the program, the annual review process, research, etc.

All students will be assigned an undergraduate academic advisor who will supervise the student's undergraduate program of studies and assist the student with his/her academic career, including questions concerning the Bachelor of Science (B.S.) to Doctor of Philosophy (Ph.D.) program. The advisor will be an advocate for the student and advise with the student's best interest in mind. In general, this individual will be different than the student's research advisor.

The SMB or IPN Graduate Affairs Committee will supervise laboratory rotations. All students will undergo annual review following the same procedure that is followed for graduate students with minor changes. The Graduate Affairs Committee and the general SMB or IPN faculty will conduct the annual review of the student beginning at the end of the first year that the student is in the program. Students will use a form similar to that used by the graduate students with some modifications. As part of the annual review, the student will answer questions on the annual review form about their ongoing interest in remaining in the STARS program and graduate school at WSU. The student's lab mentor(s) will review the student's laboratory work.

Academic progress will also be reviewed. Students will be expected to 1) maintain a 3.5 GPA in their science classes, 2) make satisfactory research progress in the laboratory, and 3) the student's own self-evaluation must demonstrate a continued interest in the STARS program. If all three criteria are not met, it is expected that the student will not be allowed to continue in the program effective as of the end of spring semester of the academic year.

Annual reviews will occur in the spring. If a student is no longer part of the program following an annual review, they will receive one additional semester of financial support so long as they: 1) have a GPA of 3.0 or higher, and 2) express an interest in obtaining a degree from a unit within the College of Veterinary Medicine. All students will be encouraged to apply for departmental scholarships their sophomore, junior and senior

years. Students who do not continue in the program may still be accepted into the SMB or IPN Ph.D. program through the normal application process.

Laboratory Rotations

All students who are part of the program will work in a research laboratory. Students are expected to have completed three laboratory rotations no later than the summer between their third and fourth year (the third rotation may occur that summer). All rotations must be for a minimum of one semester or 8 to 10 weeks during the summer semester.

All students are expected to work on research projects when in the laboratory. However, for students entering the program as freshmen it is expected that the first year of work will begin with the basics, including attendance at lab meetings, learning to read and access the literature, and basic lab tasks such as making buffers and reagents. The freshman student is expected to devote about six to ten hours a week to these tasks as they settle into college life. As the student learns to manage his/her time successfully in a university environment, laboratory expectations will increase. No later than the beginning of the sophomore year, students will be expected to spend more time in the lab and be working on focused projects. Annual review of the students will reflect the increased expectations of students as they move closer to the start of their graduate program.

Students will rotate through laboratories that are participating in the B.S. to Ph.D. program. The SMB or IPN Graduate Affairs Committee will maintain a list of potential mentors. All mentors must be affiliated with the student's home department and chosen from the list of active graduate trainers. Students will find useful information about faculty research interests on the SMB website (www.smb.wsu.edu) or the IPN website (ipn.vetmed.wsu.edu).

Financial Support

STARS students will receive support for their research activities during both the fall and spring semesters up to the end of their fourth year.

Students will receive research support during their first three summers in the program if they perform research at WSU with an approved faculty member for 8 to 10 weeks.

Starting with the summer after the fourth year, STARS students will be enrolled as graduate students and will be paid the current graduate student assistantship.

Academic Program

The STARS academic program over the first three years of a student's career looks identical to that of a normal undergraduate student. During their first semester, the student will enroll in a one credit introduction to research course (MBioS 499 or Neurosci 138), and they will enroll in research credits (MBioS 498, MBioS 499, Neurosci 499) during subsequent semesters. It is expected that STARS students will be ready for Calculus I their first semester, as well as Freshman Majors Chemistry (Chem 105). An individual student's first year will depend on many factors, including their number of

Running Start/AP/IB credits and courses, and ALEKS Math placement score. Current program of study for CVM majors can be found at the website www.catalog.wsu.edu.

During the fourth year, STARS students will enroll in both undergraduate and graduate courses to accelerate their educational path.