**CSB 497H1F/S and 498Y1Y — INDEPENDENT RESEARCH IN CELL AND SYSTEMS BIOLOGY I**

**CSB497H1F/S has a lab fee of $25 each. CSB498Y1Y has a lab fee of $50.**

**Not eligible for CR/NCR option.**

**Instructors:**

Faculty of the Department of Cell and Systems Biology

**Fourth Year Workshop Leader**: Prof T. Harris

For further information, email tony,harris@utoronto.ca and include course code (CSB497H1F/S or CSB498Y1Y) in the subject line.

This course is designed for students with a considerable background in cell and molecular biology, physiology and bioinformatics who wish to do an original research project with a professor. The nature of the project must be worked out by the student and professor concerned; however, a literature review alone is not sufficient. The normal expectations of a project course are that the student, aided and advised by the supervisor, will read relevant literature, and plan, execute, analyze and report on experimental or descriptive investigations on an appropriate topic. Normally, the work will be done in the professor’s labs with the professor’s equipment and supplies.

At the end of the Fall/Winter academic year, students are required to present the results of their work to other students, their advisors, and members of the department in the form of a poster. Students must also prepare a final written report of the work and submit a copy to the CSB Undergraduate Office.

All students are strongly encouraged to attend workshops at the Friday 2-3:30 time slot offered by the fourth year workshop leader that are designed to offer timely advice in a variety of areas related to laboratory based research projects, including: lab etiquette, project design, writing a formal lab report and preparing a poster.

For the Summer Session and for students taking CSB 497H1F in the Fall, the course is the same except that there is no formal poster session at the end. Instead, each student is expected to make a formal presentation to their lab in lieu of the poster. A final written report is required. Workshops will be offered to these students on an as needed basis.

If you plan to take CSB 497H1/498Y1, you are urged to make arrangements early with the professor with whom you wish to work. The work must be done under the supervision of a professor in the Department of Cell and Systems Biology. Please check the CSB website for the staff list under Faculty, then click on St. George campus.

Students interested in taking an independent project course need to do the following:

1. **Find a Supervising Professor Within Cell and Systems Biology**

If you are unsure about who to approach, it is best to look at "[Faculty & Research](https://csb.utoronto.ca/research-overview/)" on the CSB website for possibilities. Be sure to look only at the St. George (downtown) campus. Potential supervisors can come from the CSB Faculty list or the Cross Appointed Faculty list. Decide whose work interests you and then contact those people to see if they have space in their lab and if they are willing to meet with you to discuss the possibility of you doing a project with them.

1. **Complete a contract form with your supervisor**

Once you have found a supervisor, you need to download the appropriate [contract form](http://www.csb.utoronto.ca/undergraduate/forms) and complete it with your supervisor.

1. **Submit the contract to the CSB Undergraduate Office**

The completed form has to be submitted to the CSB Undergraduate Office, RW 424.  The deadlines to do this are listed with the [contract forms](https://csb.utoronto.ca/undergraduate-studies/forms/). When the contract has been approved, you will be enrolled into the course by the CSB Undergraduate Office.

**Evaluation:** The grade in the course will be based primarily on the research report that is submitted to the supervising professor (the format of the final paper is usually determined by the supervisor). The poster may also be taken into account as well as the student’s work in the lab; details must be worked out individually.