

Mount Doug Science Opportunities

Xavier Pelletier High School Internship Program (Grade 11 – School nominated)

The High School Internship Program (HSIP) is an 8-week summer program that runs from July-August each summer at the BC Cancer Agency's Trev and Joyce Deeley Research Center. A research facility of this caliber offers many opportunities to the surrounding community, one of which is the High School Internship Program. This program has been designed to offer students the opportunity to explore cancer research from the front lines, learning the latest techniques in the fight against cancer today and setting the ground for the future. Each student will each be responsible for a research project, which they will develop and implement from start to finish with continual support from a designated supervisor and a team of research scientists. All Secondary schools on Vancouver Island are eligible to nominate (2) Grade 11 students. Students must take Biology 11 or 12 in grade 11 to be eligible.

Mount Doug selects its 2 nominees in February. Interested students are asked to submit to Ms. Kucher by **Friday, January 29, 2016** the following:

- a resume
- names of 2 science teachers as references (they should be willing to write a reference letter if you are nominated)
- completion of the following questions from the Application:
 - **Describe any ideas you may have on how you would cure cancer:**
 - **Please give an example of an initiative or idea you have led to completion yourself:**

The 2 selected students will then complete the application process before **March 1**. The students will attend a Saturday workshop that reviews the Cancer Research done at the center. Selected students are interviewed and the final selections are made by May 1.

A \$3,000 bursary toward post-secondary education will be awarded to each student who successfully completes the 8-week program.

More information on the program as well as the complete application form is available on-line:

<http://www.bccrc.ca/dept/drc/hsp>

Gene Cure (Grade 11 or 12 – Self Nominated)

The Canadian Gene Cure Foundation offers a week long look into the life of a genetic clinician-scientist. Grade 11 and 12 students from across Canada are selected upon application to participate in a hands-on, in the lab experience researching cures for genetic disease. The Canadian Gene Cure Foundation is looking for mature, capable high school students age 16 and over who are passionate about science and intrigued by genetics. If you have an overall average of at least 85%, can write a brilliant essay to demonstrate your excitement about science and your advanced communication skills, and you can convince a teacher to write a stunning reference for you, please apply!

The Canadian Gene Cure Foundation is pleased to announce that applications will be accepted for the 2016 Gene Researcher for a Week Program November 1, 2015 through December 31, 2015. Funded in part by the Canadian Institute Health Research Institute of Genetics, the Foundation selects motivated and ambitious students in grades 11 and 12 who have an innate curiosity for science, human genetics, and human genetics research. This year we anticipate being able to place 50 plus students in this program.

The program offers high school students:

1. The opportunity for a hands-on learning experience in the field of genetic research. Students gain insight into the world of genetic diseases by observation and are often provided the opportunity of conducting real, hands-on scientific experiments (i.e. DNA isolation, PCTR, gel electrophoresis, SDS-PAGE, Western blotting, cell culture and ELISA assays).

Participants may also learn how genes cause human genetic disorders and how top scientists translate these findings into treatments and cures for genetic diseases.

2. The opportunity to work in one of Canada's top genetic research laboratories. These students are placed in labs of influential Canadian scientists for one week over Spring Break. This experience gives young students what many have called "a life changing experience". The GRFAW mentoring program is a great opportunity for young scientists to learn about human genetics research and connect with some Canada's best researchers.

3. The opportunity develop a network of high potential peers. Student gene researchers are bright, talented and highly motivated individuals. By participating in the program, they will have an opportunity to meet people in their host lab and institution. Some labs will host more than one student, providing a further opportunity to network with other students.

4. The unique opportunity to learn about the many exciting career paths in science and genetics

All submissions must be completed by December 31, 2015. Program runs during spring break, 2016

<http://genecure.ca/en/programs/gene-researcher-for-a-week/>

TRIUMF's High School Fellowship Program (Grade 12 – School nominated)

TRIUMF's high school fellowship program offers fellowships each year to graduating secondary students entering their first undergraduate year at a recognized post-secondary institution.

The fellowship includes an award of \$3,000 and a six-week summer research experience at TRIUMF.

TRIUMF offers three or more fellowships annually to students graduating from a BC secondary school and entering the first undergraduate year in the year of nomination, within the sciences, engineering or mathematics at a recognized post-secondary institution anywhere in the world.

The intent of TRIUMF's high school fellowship program is to motivate graduating students with a passionate interest in science to pursue a career in the sciences, especially physics, by offering them the opportunity to experience a real life research environment.

Each secondary school is eligible to nominate a maximum of two students.

The student must have completed both Physics 11 and 12 (or Physics B Advanced Placement) upon graduation; and chemistry is also recommended.

The student must be nominated by their school and they require a minimum of two personal references.

Mount Doug selects its 2 nominees in February. Interested students are asked to submit to Ms. Kucher by **Friday, January 29, 2016** the following:

- a resume
- names of 2 teachers as references (they should be willing to write a reference letter if you are nominated)
- completion of the personal essay from the Application

Forms are available now and are due March 12, 2016.

<http://www.triumf.ca/home/for-students/high-school-programs/high-school-fellowship>

Waterloo Unlimited Grade 11 Program: Design Theme (Self Nominated)

From engineering and the environment to science fiction and virtual reality, students will spend a week exploring the theme of design with a community of like-minded peers. **Monday, March 14 - Friday, March 18, 2016**

Application deadline: postmarked Monday, December 16, 2015

Details: <http://uwaterloo.ca/unlimited/programs/grade-11>

Program fee: \$500

Supervised overnight shared hotel accommodation: \$300

(All supervision provided by the University of Waterloo.)

Limited bursary support is available for students in financial need.

Waterloo Unlimited offers many Science programs so check it out!

Science Fair

The fair will be next held at the University of Victoria probably in April, 2016

Mr. Newell is interested in assisting students get their projects going. Please speak with him in room 227 if you would like to take advantage of the excellent opportunities that doing a Science Fair Projects provides.

There is more info at: <http://web.uvic.ca/~virsf/index.html>

Other Volunteer opportunities:

Shaw Ocean Discovery Center-local Marine center in Sidney

<http://www.oceandiscovery.ca/volunteer/volunteer-application>

Swan Lake Christmas Hill Nature Sanctuary- Great nature house and education programs.

<http://www.swanlake.bc.ca/volunteer.php>

Victoria Natural History Society- This group has many naturalist led walks and lectures of interest in biology both locally and globally.

<http://vicnhs.bc.ca/>

Science Websites:

Lets Talk Science

<http://www.letstalkscience.ca/>

