

# 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 in Victoria**. 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 **Wednesday, January 30, 2019** 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 on April 20, 2019 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>

## Young Engineers and Scientists Fellowship

### (Grade 12 – School nominated)

The TRIUMF/[Life Sciences BC](#) Young Engineers and Scientists (YES!) Fellowship was known formerly as the TRIUMF High School Fellowship.

TRIUMF ([www.triumf.ca](http://www.triumf.ca)) and Life Sciences British Columbia (LSBC <https://lifesciencesbc.ca>) are proud to announce the formation of the successor to the High School Fellowship program:

**The Young Engineers and Scientists (YES!) Fellowship** (<http://www.triumf.ca/academic-programs/awards-fellowships/yes-fellowship>) offers six-week summer research experiences to graduating secondary students in British Columbia entering their first year at a recognized post-secondary institution. The Fellowship includes an award of \$3,000. The intent of the YES Fellowship is to motivate graduating students with a passionate interest in science to pursue a research career by offering them the opportunity to experience a real life research environment.

**A minimum of three positions will be offered at TRIUMF**, for whom travel and housing allowances will be offered to students from outside Metro Vancouver who need it. These students will have taken Math 12 and Physics 12 (or

equivalents) and are interested in pursuing a degree in the physical sciences or engineering. The C. Gordon Lindsay CSSE Engineering Award will be offered once again.

**A further three or more positions will be offered by the LSBC** for placements at local companies and/or research institutions (e.g. Centre for Drug Research and Development <http://www.cdrd.ca>). In 2018 the positions were limited to students who do not require travel or housing allowances. These students will have taken one of Biology, Chemistry or Physics 12, and are interested in pursuing a degree in the life sciences.

The YES Fellowship program offers six-week summer research experiences to graduating secondary students in British Columbia entering their first year at a recognized post-secondary institution. Every year a minimum of three student placements are offered to each of TRIUMF (physical sciences/engineering) and LSBC (life sciences).

The intent of the YES Fellowship is to motivate graduating students with a passionate interest in science to pursue a research career by offering them the opportunity to experience a real life laboratory environment.

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

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

Mount Doug selects its 2 nominees in early March. Interested students are asked to submit to Ms. Kucher **Friday, March 1, 2019** 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

Please check <https://www.triumf.ca/academic-programs/awards-fellowships/yes-fellowship> for updates.

## Science Fair

The fair will be next held at the University of Victoria from April 7-8, 2019.

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>

## Shad

Welcome to SHAD! Our mission is to empower exceptional youth to make the world a better place. Every July, about 950 of Canada's best and brightest come together to experience SHAD's unique experiential-learning program - rooted in the STEAM disciplines of science, technology, engineering, the arts, and mathematics – while gaining self-confidence, entrepreneurial and workforce skills, internship opportunities, and a network for life. SHAD Fellows are [Change Makers](#) for Canada here at home and around the world.

Submissions were due by November 19, 2018. [www.shad.ca/](http://www.shad.ca/)

You can sign up for updates for 2020 at <https://www.shad.ca/Future-SHADs.htm>

## **Med/Vet Summer Leadership Academy\_(Self Nominated)**

St. George's University Med/Vet Summer Leadership Academy offers the opportunity of a lifetime for high school students (age 15–17) interested in the field of medicine or veterinary medicine. On a campus that covers the beautiful True Blue peninsula overlooking the Caribbean Sea, this exceptional program has balanced a challenging academic program rooted in SGU's 38 year history with extracurricular activities selected to highlight the culture and innate beauty of Grenada.

Now in its 15th year, both the premedical and pre-veterinary Summer Leadership Academy offer courses that combine didactic lectures, small-group problem solving sessions, practical lab work in state-of-the art facilities, and hands-on training through simulated and real-life situations.

The high school student program runs for 10 days in Grenada. Students are advised to arrive the day before the scheduled start date and depart the day after. Housing will be provided.

The Program Fees include accommodations, transportation on the island, all meals, medical instruction, and field trips. (Airfare and the optional scuba dive expenses are not included.) Attendees are greeted at the airport and transported to campus by a University representative.

Plan your summer around one of these educational and cultural experiences by sending in your application while space is still available! Applications are accepted on a first-come, first-served basis, and a completed application with deposit payment is required to reserve your spot. DEADLINE FOR APPLICATION APRIL 1, 2019

More info is on the website:

<http://www.sgu.edu/academic-programs/summer-short-term-programs/med-vet-summer-leadership-academy>

### **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 Ventures:** UVic's Science Venture is a non-profit organization that offers hands-on, minds-on science, engineering and technology learning opportunities for youth entering grades 1 through 12.

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

**Science Websites:**

**Lets Talk Science**

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

## **Gene Cure (Grade 11 or 12 – Self Nominated) – Unfortunately, this program will not be available in 2019.**

The CIHR – Institute of Genetics believes that investing in budding scientists is crucial. If we are to cure genetic diseases in the future, we must start building and networking the scientific community now.

CIHR – Institute of Genetics 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!

### **Important dates:**

Application Deadline	24 December 2017
Teacher recommendation letter due date	12 January 2018
Parental Consent due date	12-January 2018
Review & selection period	8 January–9 February 2018
Anticipated notice of Decision	12–16 February 2018

Applications and more information are on their website: [www.grfaw.ca](http://www.grfaw.ca)

Placements are for one week during Spring Break.

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.

