

# Student Research News e-bulletin

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November 21, 2014

Student Research News contact information:  
[www.med.ubc.ca/srn](http://www.med.ubc.ca/srn)

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## In this issue:

### Funding Opportunities and Awards

Eye Foundation of Canada Student Scholarship Program  
UBC Interstitial Lung Disease (ILD) Summer Studentship  
Funding Reminders

### Upcoming Events

10<sup>th</sup> Annual Michael Smith Distinguished Research Lecture: Machines of Protein Destruction  
UBC Animal Care Committee Drop-in Sessions  
Event Reminders

### Additional Research and Scholarship Opportunities & Resources

MD Student Research Event Recordings  
Reminders

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### Funding Opportunities and Awards

#### [Eye Foundation of Canada Student Scholarship Program](#)

**Deadline: Feb 6, 2015**

The Eye Foundation of Canada Student Scholarship Program will award one or more **medical students**, who have just completed their first or second year of medical school, with an \$8,000.00 scholarship to spend their summer furthering their education in ophthalmic medicine, surgery and research. Preference will be given to applicants who intend to pursue a career in ophthalmology. Eastern and Western programs consisting of education and research experience in the diagnosis and management of eye disease are being offered in 2015 at:

East: Eye Associates and Humber River Hospital (Toronto), with portions at various University of Toronto teaching hospitals.

West: The Universities of Alberta (Edmonton) and Calgary.

The program encompasses all subspecialty areas in ophthalmology. Each student will become involved in at least one research project that is supported by the Foundation. For applications instructions please visit the website (hyperlinked above).

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#### [UBC Interstitial Lung Disease \(ILD\) Summer Studentship](#)

**Deadline: March 15, 2015**

The UBC ILD Summer Studentship is an annual summer research program for **UBC medical students** interested in gaining experience in clinical research. The program is run out of the Pacific Lung Health Centre and the Centre for Heart Lung Innovation at St. Paul's Hospital. The primary responsibility of the successful applicant will be to complete a research project with a topic that is mutually agreed upon by the applicant and supervisor. The specific goal of the research project will be to generate sufficient data for a first- or second-author publication and presentation at a local, national, or international conference.

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## Student Research News e-bulletin

---

November 21, 2014

**Expected time commitment:** 37.5 hours weekly for 9 weeks over June-August 2015

**Funding:** \$6,600 (generously sponsored by InterMune, Inc.)

**Program objectives:** Provide trainees research experience in patients with ILD; Generate new scientific knowledge in the field of ILD; Provide trainees the opportunity to gain clinical exposure in ILD

To apply please submit the following to Dr. Christopher Ryerson ([chris.ryerson@hli.ubc.ca](mailto:chris.ryerson@hli.ubc.ca)) by March 15, 2015:

- Curriculum vitae
  - Two letters of reference
  - A one-page personal statement summarizing your interest in the program and what you hope to accomplish in this position and in your career.
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### Funding Reminders

[CSNS/CNS Medical Student Summer Fellowship in Socioeconomic Research](#) – Dec 1, 2014

[CurePSP Student Fellowships \(for Research on Progressive Supranuclear Palsy\)](#) – Dec 31, 2014

[3M National Student Fellowship](#) – Jan 12, 2015 (to VP of students earlier for approval)

[BTFC Brain Tumour Research Studentship](#) – Jan 16, 2015

[American Pediatric Society & Society for Pediatric Research Student Research Program](#) – Jan 23, 2015

[Canadian Association of Gastroenterology Summer Studentships](#) – Jan 31, 2015

[RHSRN BC Conference Travel Bursary application](#) – ongoing

For additional funding opportunities visit: <http://med.ubc.ca/current-learners/research/funding/>.

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### Upcoming Events

[10<sup>th</sup> Annual Michael Smith Distinguished Research Lecture: Machines of Protein Destruction](#)

**Date: Dec 8, 2014; 4:00 pm**

Location: LSC 1, UBC Life Sciences Centre (2350 Health Sciences Mall)

Speaker: Dr. Robert T. Sauer; Luria Professor of Biology; Massachusetts Institute of Technology

Abstract: During protein degradation by the ClpXP and ClpAP proteases, hexameric AAA+ unfoldases (ClpX or ClpA) use the energy of ATP binding and hydrolysis to power conformational changes necessary for the mechanical denaturation and translocation of protein substrates into the chamber of ClpP, a self-compartmentalized peptidase. Using a combination of single-molecule studies, solution biochemistry and biophysics, protein engineering and mutagenesis, and X-ray crystallography, we are trying to understand how these fascinating molecular machines work at a detailed molecular level. Our experiments support a power-stroke model of denaturation in which successful enzyme-mediated unfolding of stable domains requires coincidence between mechanical pulling by the enzyme and a transient stochastic reduction in protein stability. We find that ClpA is a more powerful unfoldase than ClpX, apparently because the double-ring ClpA enzyme can grip substrates more tightly than the single-ring ClpX protein. In crystal structures, some ClpX subunits adopt nucleotide-loadable conformations, whereas others adopt unloadable conformations. We find that dynamic

## Student Research News e-bulletin

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November 21, 2014

interconversion between loadable and unloadable conformations is required to couple ATP hydrolysis by ClpX to mechanical work, possibly as a failsafe to circumvent machine stalling. Interestingly, ATP hydrolysis by different subunits in the ClpX ring does not occur by an ordered or sequential mechanism, but rather by a probabilistic or stochastic mechanism.

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### [UBC Animal Care Committee Drop-in Sessions](#)

**Date: Dec 11, 2014 & Dec 15, 2014**

Location: UBC Office of Research Services, 102-6190 Agronomy Road

The Animal Care Committee offers regular drop-in hours for those wishing to meet with a member from the Animal Care Committee. These times facilitate dialogue on animal-related matters, such as provisos related to a protocol, assistance and advice on submitting a new protocol, or information on animal procedures.

Please RSVP to Roger Chow ([roger.chow@ors.ubc.ca](mailto:roger.chow@ors.ubc.ca)) if you're interested as space is limited.

For a more current list of dates, please visit the website ([hyperlinked above](#)).

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### Event Reminders

LSI Public Talks: [Drugs, Diet and Genes. Personal Approaches to Treat Diabetes and Obesity](#) – Nov 26, 2014; 6:00-8:00 pm

[Traumatic Brain Injury and Concussion](#) – Nov 27, 2014; 6:00 pm

CONFERENCE: [Quality Forum 2015 - Call for Abstracts](#) – Feb 18-20, 2015

[Clinical Research Ethics Board Office Drop-In Sessions](#) – Every 2nd & 4th Monday of the month

For additional event listing visit: <http://med.ubc.ca/current-learners/research/events/>.

Ongoing Seminar Series: follow this [link](#) for a list of ongoing events and seminar series.

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### Additional Research and Scholarship Opportunities & Resources

#### [MD Student Research Event Recordings](#)

If you missed last week's Clinician Researcher Panel or MD Student Research Skills Workshop (Practical Tips and Tools for Conducting Research Projects) you can review the recordings on MEDICOL under OSA>Research and Scholarship.

#### Reminders

[Opportunity to Pilot Distributed Health Research Methods Course](#) (see Aug. 29<sup>th</sup> edition for details)

[BrowZine: New Journal Browsing App](#)

Additional research and scholarship information and resources are available on the Student Research website:

<http://med.ubc.ca/current-learners/research/>.

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