

M.Sc. in Interdisciplinary Oncology

- [Need Help?](#)

Program start date

September 01, 2017

Domestic deadline

April 28, 2017

International deadline

April 28, 2017

Campus

Vancouver

- [Use of Information](#)
- [Introduction](#)
- [Personal & Contact Details](#)
- [Academic History](#)
- [Test Scores](#)
- [Funding](#)
- [Experience & Interests](#)
- [Additional Questions](#)
- [References](#)
- [Application Summary](#)

Experience and Interests

In this section, we ask for information about academic, professional and other experiences that are relevant to this graduate program, as well as your goals and interests in pursuing this program. Some programs have character or word limits on the responses you provide in this section. Please carefully read the below instructions to ensure you provide what is required.

Please note that confirmation of acceptance from a Research Supervisor must be received in order for your application to be accepted.

- Please identify a prospective research supervisor. If the faculty member you are interested in working with is not listed in the dropdown menu, contact the graduate program directly to determine the appropriate name to include in the in the free text field.

- Please provide a brief statement of your academic and/or professional goals and how these align with this graduate program (Free Text) Alternatively you may upload your statement below.

• Please attach a **brief statement** of your academic and/or professional goals and how these align with this graduate program (Statement of Intent). See *Need Help?* above for Document Upload Guidelines.

File size cannot exceed 10MB. Preferred file format: PDF but can upload: BMP, DOC, DOCX, GIF, JPEG, JPG, RTF, TXT. To allow our system to process your documents, please ensure that your files are not locked via a password or PDF Document Assembly restrictions.

- Please describe any research and/or work experience (including publications, etc.) you've undertaken that is relevant to your proposed field of study.

- Please provide an up-to-date **curriculum vitae or resume** detailing your academic and work history, and noting any additional relevant experiences such as courses, presentations, publication and volunteer work. See *Need Help?* above for Document Upload Guidelines. File size cannot exceed 10MB. Preferred file format: PDF but can upload: BMP, DOC, DOCX, GIF, JPEG, JPG, RTF, TXT. To allow our system to process your documents, please ensure that your files are not locked via a password or PDF Document Assembly restrictions.

Works Cited:

“MSc. In Interdisciplinary Oncology – Experiences and Interests”. *Graduate Studies Application Form, The University of British Columbia*, https://evision.as.it.ubc.ca/urd/sits.urd/run/siw_ipp_cgi.start?. Accessed 27 March 2017.

JENNIFER LUU
XXXXX Street
Vancouver, BC 123 456
Phone: (XXX) XXX - XXXX
Email: jennifer.luu@my_email.com

University of British Columbia
Interdisciplinary Oncology Program
Cancer Research Centre
100-570 West 7th Avenue
Vancouver, BC V5Z 4S6

March 27, 2017

Dear Graduate Admissions Committee:

I am writing to express my interest in the Master of Science in Interdisciplinary Oncology. The program's multidisciplinary nature resonates with my research interests in cancer immunology and genetics. The projects of Dr. Kevin Bennewith and Dr. William Lockwood, which combine approaches like cancer immunology and genomics, exemplify intriguing ways to study cancer. As a potential candidate, I hope to combine approaches in immunology and genetics to become a cancer immunology researcher. Long term, I seek to apply multidisciplinary approaches from the program in a science policy career. Overall, the Interdisciplinary Oncology program is ideal for my graduate training. Given my research experience and coursework, I believe I will be a strong program candidate.

I have considerable research experience from an independent research course and co-op terms. In the course "BIOL 448: Directed Studies in Biology", I characterized properties of the *Mycobacterium paratuberculosis* protein LipU. My role involved performing enzymatic assays, site-directed mutagenesis, and *in silico* analysis to determine functional characteristics. I then received the Singapore International Pre-Graduate Award, a 9000 SGD scholarship, to intern under the national research body. As an intern, I assessed binding affinities of select Rab proteins to the cytotoxic drug Apratoxin. As part of my analysis, I performed thermal shift assays, isothermal calorimetry, and SILAC pulldown. Throughout my experiences, I also developed strong skills in experimental design, data analysis, as well as oral and written communication.

During my degree, I have undertaken courses relevant to research. In "ENGL 301: Technical Writing", I refined my written communication skills by writing a formal report for the UBC Debate Society. I additionally took the course "MICB 302: Immunology". The intensive nature of the course strongly developed my critical thinking skills and immunological knowledge. Overall, my coursework has given me a strong foundation to devise questions, assess them, and communicate findings effectively.

In sum, the Integrative Oncology program offers a unique training experience that matches my research interests. The extensive research network ensures that I will constantly learn new theories and approaches. Both aspects are integral to becoming a successful researcher; thus, the program is the ideal environment for my training. Overall, I believe my undergraduate experiences will help me excel as a future candidate and researcher. Thank you for your consideration and I look forward to hearing from you.

Regards,
[Signature]
Jennifer Luu

JENNIFER LUU
XXXXX Street
Vancouver, BC 123 456
Phone: (XXX) XXX - XXXX
Email: jennifer.luu@my_email.com

OBJECTIVE:

A science researcher position, with the long-term goal of federal science policy

EDUCATION

The University of British Columbia (anticipated) 2011 – 2017
B.Sc., Biology

RESEARCH EXPERIENCE

Assessing the Rab Protein Family as a Target for Apratoxin 2015 – 2016

Institute of Molecular and Cellular Biology, supervised by Dr. Robert Robinson
Singapore International Pre-Graduate Award Intern

- Assessed the binding affinity of Rab proteins Rab1b, Rab6b, and Rab11b to the drug Apratoxin, using thermal shift assay and isothermal titration calorimetry. Project done in collaboration with Dr. Hendrik Luesch
- Predicted additional binding targets for Apratoxin *in vitro* with SILAC pulldown experiments

Characterizing LipU in *Mycobacterium paratuberculosis* 2014 – 2015

University of British Columbia, supervised by Dr. Horacio Bach
Directed Studies Student

- Performed *in silico* and *in vitro* analysis of the esterase LipU. Utilized protein purification, enzymatic assays, and site-directed mutagenesis to determine functional conditions and enzyme catalytic site

Analyzing the Microbial and Antifungal Properties of Copper Oxide, Zinc Oxide, and Copper Zinc 2014

University of British Columbia, supervised by Dr. Horacio Bach
Directed Studies Student

- Evaluated antimicrobial and antifungal attributes of different nanoparticle mixtures *in vitro* against common pathogenic strains of bacteria and fungi
- Investigated cytotoxic effects of nanoparticles with MTT assays

Constructing Plasmids to Assess the Oncogenic Effect of lin28 2014

University of Calgary, supervised by Dr. Jennifer Chan

Co-op Student

- Produced plasmids with molecular cloning to overexpress or underexpress lin28. Transfected plasmids into HEK 293 cells to assess microregulator gene lin28 effects *in vitro* in oncogenesis

Constructing Plasmids for Glioma Subtype Determinant Evaluation 2014

University of Calgary, supervised by Dr. Samuel Lawn and Dr. Jennifer Chan

Co-op Student

- Generated plasmids with molecular cloning to express common tumor suppressor genes, including p53, cdkn2a, and mdm2
- Performed PCR genotyping of mice containing recombinant plasmids

SKILLS

MOLECULAR BIOLOGY

PCR, RT-PCR, QRT-PCR, molecular cloning, site-directed mutagenesis, SDS-PAGE, 2D protein gel electrophoresis

BIOCHEMISTRY

Protein purification, Western blot, thermal shift assay, SILAC pulldown, isothermal titration calorimetry, MTT assay

CELLULAR BIOLOGY

Light microscopy, fluorescence microscopy, haemocytometry, flow cytometry, mammalian cell culture, bacterial cell culture

SOFTWARE

Python, BLAST, COBALT, Prism, FinchTV, SWISS-MODEL, AxioVision, ApE plasmid editor, MS Office, Adobe Photoshop

LANGUAGES

English, French

RELEVANT COURSES

ENGL 301 – Technical Writing 2017

- Developed professional writing skills

MICB 302 – Immunology 2016

- Learned about cells, molecules, and mechanisms underlying innate and adaptive immunity

376 Orchid Boulevard
Vancouver, BC V89 AT7
March 27, 2017

Dr. Daniel Brodeau
Professor
Michael Smith Laboratories
The University of British Columbia
301 – 2185 East Mall
Vancouver, BC V6T 1Z4

Subject: Reference Letter Request – Jennifer Luu

Dear Dr. Brodeau:

I hope this letter finds you well. I am writing to ask if you would consider writing a reference letter, as part of my graduate application in Interdisciplinary Oncology at UBC. As my professor for “BIOL 436: Cell Biology Laboratory” course, I feel that your insight and judgement make you an ideal person to act as a reference.

During your course, I had the opportunity to hone my critical thinking and written communication skills. Your laboratory sessions exposed me to diverse research approaches and troubleshooting methods, reflected in my laboratory book and fake research paper assignment. In addition, you also observed my written communication skills in my science communication assignment. Since you regularly supervised me, you would be able to attest to my critical thinking and written communication skills.

If you feel uncomfortable writing a letter on my behalf, I understand. If you are willing, I have attached my current resume for your reference. If you need additional information in writing your reference letter, please contact me via jennifer.luu@my_email.com.

Regards,
[Signature]
Jennifer Luu

Enclosure: Resume (Jennifer Luu)

376 Orchid Boulevard
Vancouver, BC V89 AT7
March 27, 2017

Dr. Raphael Adriano
Research Director
Institute of Molecular and Cell Biology
Agency for Science and Technology Research
61 Biopolis Drive
Singapore 138673

Subject: Reference Letter Request – Jennifer Luu

Dear Dr. Adriano:

I hope this letter finds you well. I am writing to ask if you would consider writing a reference letter, as part of my graduate application in Interdisciplinary Oncology at UBC. As my supervisor for the Singapore International Pre-Graduate Award (SIPGA) internship, I feel that your perspective and judgement make you an ideal reference.

Under your supervision, I have had the opportunity to refine my experimental design and analytical skills. During my Apratoxin protein project, you directly observed my progress, critical thinking, and work ethic in weekly meetings. As my supervisor, I feel that you could accurately attest to my research capabilities, work ethic, and interpersonal skills.

If you feel uncomfortable writing a letter on my behalf, I understand. If you are willing, I have attached my current resume for your reference. If you need additional information in writing your reference letter, please contact me via jennifer.luu@my_email.com.

Regards,
[Signature]
Jennifer Luu

Enclosure: Resume (Jennifer Luu)

376 Orchid Boulevard
Vancouver, BC V89 AT7
March 27, 2017

Dr. Hector Brario
Associate Professor
Jack Bell Research Centre
2660 Oak Street
Vancouver, BC V6H 3Z6

Subject: Reference Letter Request – Jennifer Luu

Dear Dr. Brario:

I hope this letter finds you well. I am writing to ask if you would consider writing a reference letter, as part of my graduate application in Interdisciplinary Oncology at UBC. As my supervisor for the course “BIOL 448: Directed Studies in Biology”, I feel that your perspective and judgement make you an ideal reference.

During your course, I had the opportunity to hone skills in experimental design, data analysis, and molecular biology techniques. In my LipU project, you regularly observed my progress during meetings. This included checking my experiments, findings, and data analysis. As my supervisor, I feel you can attest to my research capabilities, work ethic, and interpersonal skills.

If you feel uncomfortable writing a letter on my behalf, I understand. If you are willing, I have attached my current resume for your reference. If you need additional information in writing your reference letter, please contact me via jennifer.luu@my_email.com.

Regards,
[Signature]
Jennifer Luu

Enclosure: Resume (Jennifer Luu)