

Assignment 4:2- Application Package

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JOB POSTING INFORMATION	
Placement Term:	2022 - Summer
Job Title :	S22 Formulation Screening Associate (Co-op) 139162B
Position Type:	Co-op Position
Job Location:	Vancouver, BC
Country:	Canada
Duration:	4 or 8 months
Job Description:	<p>Located on the University of British Columbia campus, NanoVation is focused on design and testing of novel lipid nanoparticle (LNP) formulations for the delivery of nucleic acids. LNP technology plays an essential role in the COVID-19 mRNA vaccines and is the enabling technology in the FDA-approved formulation Onpattro. While this technology has been optimised for delivery to the cells within the liver, other tissues are poorly targeted. NanoVation has developed new technology to overcome this limitation. Responsibilities include but not limited to the following:</p> <ul style="list-style-type: none"> •Assist in the formulation, concentration, and characterisation of lipid nanoparticles •Cell culture media preparation •Assist in LNP transfection in human primary and secondary cell cultures, protein extraction and sample analyses using bioluminescence and fluorescence assays •Cell passaging, freezing, banking, and documentation •Compile data to be used for the preparation of reports and meeting presentations •Maintenance of tissue culture room, ordering lab supplies, replacing lab inventories, making chemical stock solutions, and the like.
	<p>A background in biochemistry, biology, chemistry and/or related life sciences discipline preferred.</p> <p>Strong analytical, problem solving and communication skills Ability to learn quickly and work independently with minimal direct supervision Candidate must be available to work full-time (40 hours/week) during the co-op term</p> <p>Requires training for chemical and biological safety prior to start Chemical Safety - Research Safety (ubc.ca), Biosafety for Study Team Members - Research Safety (ubc.ca); will be provided.</p>
Job Requirements:	<p>A background in biochemistry, biology, chemistry and/or related life sciences discipline preferred.</p> <p>Strong analytical, problem solving and communication skills Ability to learn quickly and work independently with minimal direct supervision Candidate must be available to work full-time (40 hours/week) during the co-op term</p>

	Requires training for chemical and biological safety prior to start Chemical Safety - Research Safety (ubc.ca), Biosafety for Study Team Members - Research Safety (ubc.ca); will be provided.
Citizenship Requirement:	N/A
Targeted Co-op Programs:	View Targeted Programs

APPLICATION INFORMATION	
Application Deadline:	January 17, 2022 09:00 AM
Application Procedure:	Through UBC Science Co-op
Cover Letter Required?:	Yes
Address Cover Letter to:	Dr. Jayesh A Kulkarni
Application Documents Required:	Job Application Summary Sheet,Cover Letter on Co-op Header,Resume on Co-op Header,UBC Transcript (Do not upload your own UBC transcript))

ORGANIZATION INFORMATION	
Organization:	NanoVation Therapeutics
Address Line 1:	2405 Wesbrook Mall 4th floor
City:	Vancouver
Postal Code / Zip Code:	V6T 1Z3
Province / State:	BC
Country:	Canada

Works Cited

UBC Science - MyAccount - Science Co-Op - Job Postings.

www.scope.sciencecoop.ubc.ca/myAccount/co-op/postings.htm. Accessed 1 Dec. 2021.

3148 East 49th Avenue
Vancouver, BC, V5Y 2PV

December 1, 2021

Dr. Jayesh A Kulkarni
NanoVation Therapeutics
c/o UBC Science Co-op Office

Dear Dr. Jayesh A Kulkarni,

Please consider my application for the role of Formulation Screening Associate as advertised on December 1, 2021 on the UBC Science Co-op website. I am a fourth-year Microbiology & Immunology student with a strong interest in pursuing a career in biomedical and translational research. My areas of study and interest in research and innovation in the biotechnology industry aligns perfectly with your position involving the formulation of novel lipid nanoparticles. With my previous lab experience and thorough understanding of chemistry and microbiology, and experience with data collection and analysis, I believe I would be a suitable candidate for the Formulation Screening Associate position.

Through my previous co-op work experience as a research assistant at the Vancouver Prostate Centre and Microbiology classes, I have developed an array of technical lab skills and knowledge of molecular biology techniques. I have experience with bacterial and mammalian cell culturing, solution and buffer preparation, fluorescence assays, protein purification, PCR, plasmid isolation, recrystallization and electrophoresis gels. I am well practiced in following safety and lab protocols as well as recording all experimental data with care and precision. Through these experiences, I believe I have the appropriate technical knowledge and skills required for your position.

As a fourth-year university student, I have developed valuable detail-oriented qualities and data collection skills. An excellent illustration of these abilities is a 4th year microbiology project where I developed an assay to screen a promoter library for phenylalanine-interacting promoters. I accurately collected experimental data, summarized the findings in a scientific report using Microsoft® Word, produced graphs and performed basic statistical analyses using Microsoft® Excel, and presented findings to a class of 30. I have had many similar lab experiences, both individually and in a team, where I utilized these data collection and analytical skills to produce accurate results and explain experimental findings.

Thank you for reviewing my application for the Formulation Screening Associate position. I would love the opportunity to contribute to your team and your research and I look forward to speaking with you further on how I can fit in your research group. I have attached my resume and can be contacted at (604)-429-8440 or via email at catherineyu5466@gmail.com.

Sincerely,



Catherine Yu

Enclosed: Resume

CATHERINE YU

3148 East 49th Avenue, Vancouver, BC, V5Y 2PV
catherineyu5466@gmail.com • 604-429-8440

SUMMARY

- Reliable and hard-working student excellent at collaborating with others and individualistic tasks.
- Self-motivated learner who can adapt and apply new concepts quickly.
- Excellent communicator in oral, written, and technological settings with experience communicating with individuals of varying technical backgrounds.

EDUCATION

University of British Columbia

Bachelor of Science, Microbiology & Immunology, 4th Year

Sept 2018 - present

92% sessional GPA (2019W)

- Science Scholar (2019), Dean's Honour List (2018, 2019), Fred Muir Memorial Scholarship in Science (2019)

TECHNICAL PROJECTS

Development of a Fluorescence Assay for the Screening of a Promoter Library

Sept-Dec 2021

- Designed a fluorescence assay to screen a promoter library for phenylalanine-interacting promoters. Generated growth curve data and normalized fluorescence data to support the induction of GFP in *E. coli* K12-MG1655 in response to environmental stimuli. Kept organized records of lab observations and experimental data and summarized findings in a scientific report to be published in The Undergraduate Journal of Experimental Microbiology and Immunology (UJEMI).

Separation and Identification of Unknown Neutral and Acidic Compounds

Oct-Nov 2019

- Designed and conducted an experiment using liquid-liquid extraction, rotary evaporation, solubility testing, recrystallization, vacuum filtration and melting point analysis to separate and identify one neutral and one acidic organic compound from an unknown sample. Kept organized records of lab observations and experimental data, and summarized findings in a scientific report prepared using Microsoft® Word. Accurately identified the compounds and received a grade of 94% on this project.

PROFESSIONAL EXPERIENCE

Lack Lab, Vancouver Prostate Centre

Jan 2021- Aug 2021

Research Assistant

- Characterized novel drug targets to treat aggressive late-stage prostate cancer
- Performed protein purification and crystallization studies to assess structure and interaction of novel transcription factor HOXB13
- Assisted in the development of a luciferase assay to assess interaction of HOXB13 in HEK293t cells
- Generated 50+ bacterial clones to be used for bacterial and mammalian protein studies

APASS Education Group, Vancouver

Nov 2018- Dec 2019

Mathematics Tutor

- Provided individual math support for students ranging from grades 5 to 12
- Continuously motivated and assisted students with schoolwork, assigned weekly homework assignments, and prepared students for standardized exams including the SSAT
- Developed tutoring resources and detailed lesson plans tailored for each individual student

SKILLS AND ABILITIES

Technical: Proficient: Microsoft Word, Excel and PowerPoint | Familiar: R and R Suite

REFERENCES: Available on request.

To: Dr. Nathan Lack (nlack@prostatecentre.com)
From: Catherine Yu (catherineyu5466@gmail.com)
Date: December 1, 2021
Subject: Request for Reference – Catherine Yu

Dear Dr. Lack, I hope you have been well since we last spoke. I am writing to request a letter of reference for a formulation screening associate position.

As you may know, I will be beginning my co-op placement work term at the end of April. As such, I am beginning my job search for a new position in the healthcare and biotechnology field. During the time that I worked for you at the Vancouver Prostate Centre, your mentorship has helped me build essential laboratory skills and taught me how to approach problems like an experienced scientist. I developed skills working in the laboratory environment that I hope to refine and develop through positions in an industry setting. As a senior research scientist and experienced team leader, your reference would be an excellent addition to my application.

If you comfortable with providing a positive reference for me, please let me know by December 3rd, 2021, as I will need to have my references ready by then. If you have any further questions or comments, please do not hesitate to contact me at (604)-429-8440 or via email at catherineyu5466@gmail.com

Thank you for your time and consideration, I look forward to hearing from you.

Sincerely,



Catherine Yu

Encl. Résumé and Cover Letter

To: Dr. David Oliver (dcoliver@mail.ubc.ca)
From: Catherine Yu (catherineyu5466@gmail.com)
Date: December 1, 2021
Subject: Request for Reference – Catherine Yu

Dear Dr. Oliver, I hope you have been well since we last spoke. I was enrolled in your MICB 407 class this semester and have communicated with you via both Zoom and in-person discussions throughout the term. I am writing to request a letter of reference for a formulation screening associate position.

Your class has taught me the fundamentals of laboratory work in the field of molecular microbiology and has strengthened my desire to pursue a career in the biomedical research and biotechnology field. As such, I am beginning my job search for a new position in an industry laboratory setting. During the time that I was enrolled in your class at the University of British Columbia, your mentorship has helped me build essential laboratory skills and facilitated the success of my teammates and I in developing a fluorescence assay to screen a promoter library. As a senior instructor and experienced scientist in academia and industry, your reference would be an excellent addition to my application.

If you comfortable with providing a positive reference for me, please let me know by December 3rd, 2021, as I will need to have my references ready by then. If you have any further questions or comments, please do not hesitate to contact me at (604)-429-8440 or via email at catherineyu5466@gmail.com

Thank you for your time and consideration, I look forward to hearing from you.

Sincerely,



Catherine Yu

Encl. Résumé and Cover Letter

To: Dr. Elaine Qin (eqin@apass.ca)
From: Catherine Yu (catherineyu5466@gmail.com)
Date: December 1, 2021
Subject: Request for Reference – Catherine Yu

Dear Dr. Qin, I hope you have been well since we last spoke. I am writing to request a letter of reference for a formulation screening associate position.

I will be beginning my co-op placement work term at the end of April. As such, I am beginning my job search for a new position in the healthcare and biotechnology field. During the time that I worked for you at APASS Education Group, your mentorship has taught me how to effectively communicate with individuals of diverse backgrounds and to become a better educator. I developed skills working under your guidance that I hope to translate to my professional development in the healthcare field. As an experienced manager and team lead, your reference would be an excellent addition to my application.

If you comfortable with providing a positive reference for me, please let me know by December 3rd, 2021, as I will need to have my references ready by then. If you have any further questions or comments, please do not hesitate to contact me at (604)-429-8440 or via email at catherineyu5466@gmail.com

Thank you for your time and consideration, I look forward to hearing from you.

Sincerely,



Catherine Yu

Encl. Résumé and Cover Letter