I am a driven, adaptable and motivated self-starter seeking an opportunity to apply and develop my skills with a focus on teamwork, project management and environmental engineering.

#### Education

Queen's University, Kingston, ON, Canada, B.A.Sc. Chemical Engineering

Graduated June 2019

Queen's University B.A. World Languages (Spanish, French, German)

Graduated June 2019

University of Strathclyde, Glasgow, Scotland, Biomedical Engineering

Semester Exchange 2018

# Professional Experience

#### Merck & Co. Associate Intern Pharmaceutical Sciences - West Point, PA, USA

June 2018-August 2018

- o Established procedures to study the effects of stability of tablets mixed in soft food for pediatric dosing
- Evaluated models for recovery and degradation for 5 foods based on several factors including time, temperature, pH, compositions, viscosity
- Applied Good Manufacturing Practices to scientific processes and problem solving
- o Exposure to GMP and SOP lab practices

# Nanogenecs Research Intern – Montréal, QC, Canada

May 2017-August 2017

- o Collaborated with global team for experimental design and problem solving around at home diagnostic testing for kidney disease
- Conducted statistical evaluation in excel, which was presented in weekly technical reports and presentations to inform decision making
- o Conducted research on new technologies for diagnostics and analyzed findings
- o Communicated within group in French

#### Merck & Co. Associate Intern - West Point, PA, USA

May 2016-August 2016

- o Strategized with Lead Molecular Design to improve software used to investigate peptide metabolism data
- Initiated and optimized workflow procedures to streamline processes, thereby increasing sample throughput 3-fold
- Generated validation data to be used in a software algorithm that led to first in industry analysis of peptide metabolites published in PLOS one 2017 (see publications and presentations)

## Pharmacadence Analytical Services Intern— Hatfield, PA, USA

May 2015-August 2015

- Performed design of experiment processes to test a multi-parameter system
- Communicated findings with a team through collaborative meetings and presentations
- Assessed and evaluated designs to implement experiments for data collection using Minitab software

### Leadership and Communication

## Technology, Engineering and Management Capstone Project (TEAM)

September 2018-Present

- o Multidisciplinary consulting project for BASF, a global chemical company
- Conducting market analysis on profitability of technology used for containment of contamination in water
- o Primary contact for clients and advisors, maintained and developed professional relationships
- o Traveled to the US to present final project to project executive team

## Applied Science Design Courses

2014-Present

o Engaged in team projects with clients to create products from end-to-end touching on materials, design, finances for products such as medical devices and process production sites

- o Project team lead in designing, budgeting and presenting product to client, made final decisions and kept the team on track to meeting the project goals
- o Monitored project performance and timeline using Microsoft Project and worked as a liaison between team and client
- Conducted technical analyses to select equipment for designs based on cost, energy performance and efficiency
- o Gained beginner knowledge of MATLAB
- o Conducted environmental analysis for each project and assessed impact versus cost
- o Became efficient in Microsoft Word, PowerPoint, Office and Excel, Microsoft Project

#### ❖ Women in Science and Engineering Coordinator

May 2018-Present

- o Lead of planning networking event for female students to connect with women in industry and academia
- Worked with a variety of teams from brands to sponsor the event, professionals speaking at the event, finances,
  marketing
- o Promoting STEM to female students while attending networking events with women in science and engineering

#### Co-Chair Alumni Networking Summit

2016/2017

- o Initiated and organized the first Queen's 150-person summit in Toronto to connect students and alumni
- o Managed budget of \$30,000, organized day logistics, networked with alumni
- o Supervised 5 committee members and collaborated with faculty

## Queen's University Engineering Student Ambassador and Tour Guide

October 2016-Present

- o Represented Queen's University at Ontario University Fair in Toronto
- o Encourage students to join STEM programs at Queen's University during tours and university open house events

# ❖ Orientation Leader 2015/2016

o Senior mentor to 30 first year engineering students throughout the academic year

Awards

## Queen's University Centennial International Exchange Endowment Fund

March 2017

 Awarded to students with good academic standing in Chemical Engineering or Engineering Chemistry to enable them to participate in an academic exchange

#### PROTEO Summer Studentship

May 2017

 Awarded to students pursuing research in the lab of a member of PROTEO (group focused on engineering functions of proteins)

## Scientific Publications and Presentations

Tatiana Radchenko, Andreas Brink, Yves Siegrist, Christopher Kochansky, <u>Alison Bateman</u>, Fabien Fontaine, Luca Morettoni, Ismael Zamora, Software aided approach to investigate peptide structure and metabolic susceptibility of amide bonds in peptide drugs based on high resolution mass spectrometry, PLOS One, Published November 1<sup>st</sup>, 2017. https://doi.org/10.1371/journal.pone.0186461

Ismael Zamora, Tatiana Radchenko, Christopher Kochansky, <u>Alison Bateman</u>, Andreas Brink, Fabien Fontaine, Luca Morettoni; Mass-MetaSite And WebMetabase: Tools For The Identification And Prediction Of Protease Cleavage Sites In Peptide Drugs, ASMS Annual Meeting, Indianapolis, June 2017.

Tatiana Radchenko, Christopher Kochansky, <u>Alison Bateman</u>, Fabien Fontaine, Luca Morettoni, Ismael Zamora; WebMetabase: High Resolution Mass Spectrometry Tool To Investigate Peptide Metabolism And Investigate Peptides Cleavage Site Based On Frequency, ASMS Annual Meeting, Indianapolis, June 2017.