

**Sarah Spagrud**  
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### **Education**

University of British Columbia, Okanagan 2017 – 2021  
*Bachelor of Science, Zoology*

### **Research Projects**

Mock Research Grant Proposal (BIOL 422, UBCO) Apr 2021

- “Restoration of Amazonian systems and the impacts of tropical wildfires”

### **Term Papers**

Jan – Apr 2021

BIOL 461, UBCO

- Coauthor of “A critical analysis of CDK4/6 inhibitors which target the Rb pathway while bypassing endocrine therapy resistance in the treatment of ER+ breast cancer”

EESC 323, UBCO

- Compare-contrast article: “Plate tectonic boundaries in the Circum-Pacific Belt”

### **Research Interests**

- The study of tumour microenvironments and translational research in order to provide more personalized cancer therapies
- The mechanisms of post-translational modifications and their potential as targets for immunotherapy
- Autoimmune conditions and the role of metabolism in the dysfunction of immune cells

### **Scholarships and Awards**

#### **Scholarships**

June 2017

- Alexander Rutherford Scholarship for academic achievement; Government of Alberta (\$2500)
- RockyView Teacher’s Scholarship; Alberta Teachers’ Association (\$500)

## **Awards**

Canadian Band Association Certificate of Distinction

June 2013

- Recognizing superior musicianship, leadership, dependability, loyalty, and cooperation

## **Skills/Techniques/Programs**

Programs: Maple, R and RStudio, BIOPAC, Excel and other Microsoft software

Skills: critical thinking, communication, teamwork, adaptability

Techniques: PCR, titration, vacuum and gravity chromatography, serial dilutions, muscle and organ system dissection

## **Notable Courses and Training**

Naloxone Training

June 2022

Worksite Safety WHMIS 2015

May 2022

Cell Signalling (BIOL 461, UBCO)

Jan – Apr 2021

- Relationships between signaling transduction/pathways, disease, and therapeutic agents
- Course-related research paper: “A critical analysis of CDK4/6 inhibitors”

Comparative Animal Physiology (BIOL 356, UBCO)

Jan – Apr 2021

- Concerning the evolution and advantage of systems design in a variety of animals
- Underlying theme of homeostasis and maintaining constant internal environments in the cardiovascular, respiratory, osmoregulatory and endocrine systems

Principles of Genetics (BIOL 265, UBCO)

May – June 2019

- Focused on evolution, gene expression and molecular techniques concerning both prokaryotic and eukaryotic systems

Cell Physiology (BIOL 354, UBCO)

Sept – Dec 2019

- Analysis of cellular function with an emphasis on ion transport, signaling via secondary messengers, pH regulation and epithelial transport

Introduction to Biostatistics (BIOL 202, UBCO)

Sep – Dec 2018

- Parametric and non-parametric statistical methods, data management and analysis
- Use of R and RStudio to conduct statistical analyses

## **Service**

### **Peer Note Taker**

Sep – Dec 2020

UBCO Disability Resource Center

- Worked with the DRC to provide class notes for students with learning disabilities/accommodations

### **Member**

UBCO Chemistry Course Union

Sept 2017 – Apr 2019

- Attended and participated as a tutor for first year chemistry students

Women in Science and Engineering (WiSE)

Sept 2020 – Apr 2021

- UBCO sponsored mentorship program designed to help women in STEM network and build meaningful connections for the future

## **Community Involvement/Outreach**

### **Volunteer**

HOPE Outreach

June 2022 – Sept 2022

- Provide nighttime outreach for identified women who experience homelessness, addiction, exploitation or are at risk of exploitation, and working in sex work
- Includes Narcan outreach, community nights, educational opportunities and connections to housing, recovery, and trusted health service providers

Ki-Low-Na Friendship Society

June 2022 – Sept 2022

- Assist with larger scale events such as the Turtle Island Festival (National Indigenous Peoples Day) to share and promote aboriginal cultural distinctiveness

REACH BC

April 2022 - Present

- Provincial platform designed to match research studies with potential participants based on research, health, and clinical interests

Perking Lot Coffee Shop

July 2019 – Sept 2022

- Serve as a frontline volunteer for the KGH Foundation whose goal is to raise funds in order to support world-class health care in the Okanagan region

Okanagan Interventional Pain Clinic

June – Aug 2020

- Worked as an office assistant with primary roles including patient booking and vehicle registration

Will to Ride

Mar 2017 – Aug 2018

- Assisted children with mental and physical disabilities in therapeutic horseback riding and related activities

**Member**

Kelowna Progressive

Dec 2021 – Sept 2022

- Facilitated and attended social, cultural and involvement events to bring like-minded, progressive individuals together to connect