

# Join our team! MSc Graduate Student Opportunity in Virology (2026–2027)

University of Calgary – Faculty of Veterinary Medicine



**Alfajaro Lab: Virology & Emerging Infectious Diseases**

Visit our website: <https://sites.google.com/view/alfajarolab-com/home>

Are you curious about how viruses jump between species and cause disease? Do you want to learn hands-on lab techniques while contributing to important research on emerging pathogens?

The Alfajaro Lab at the University of Calgary is looking for an enthusiastic **MSc student** to join our team. We are a new and growing group that values curiosity, collaboration, and creativity. You won't just be “thrown into the deep end” — I (Dr. Mia Alfajaro) will personally mentor you in lab techniques and experiments, and you'll be supported every step of the way as you grow into an independent researcher. If you're excited about science, eager to learn, and ready to have fun while doing meaningful research, we'd love to hear from you!

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## Project Overview

Our lab focuses on understanding how viruses enter cells and cross species barriers. We study a diverse range of pathogens including:

- **Coronaviruses** including SARS-CoV-2–related and bat coronaviruses; for safety, we use pseudoviruses that can be handled in a CL2 laboratory setting)
- **Rotaviruses and Noroviruses** (leading causes of gastroenteritis worldwide)

Using cutting-edge methods such as **synthetic receptor panels**, **pseudovirus entry assays**, and **structure-guided mutagenesis**, our projects aim to:

- Map how viruses recognize and use host receptors.
- Identify determinants of viral host range and zoonotic potential.
- Understand enteric virus–host interactions and pathogenesis in the gut.
- Generate insights that support pandemic preparedness and antiviral strategies.

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## What We Offer

As an MSc student, you will benefit from:

- **Direct mentorship and training:** I will personally teach you core molecular virology and cell biology techniques (e.g., cloning, pseudovirus assays, CRISPR screens, organoid culture).
  - **Access to advanced tools:** Synthetic receptor panel platform, high-containment virology expertise, and collaborative networks across UCalgary and beyond.
  - **Professional development:** Opportunities to present at national and international conferences.
  - **Collaborative environment:** Work alongside supportive colleagues in a new, growing, and interdisciplinary research group.
  - **Career preparation:** Guidance on scientific writing, publishing, networking, and next steps (PhD, industry, public health).
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## Key Responsibilities

- Learn and perform experiments in molecular virology, cell culture, and receptor–virus interactions.
  - Collect, analyze, and interpret data with guidance and mentorship.
  - Present findings in lab meetings, seminars, and conferences.
  - Contribute to a positive, inclusive lab culture.
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## Application Process

To apply, please prepare a single PDF file that includes:

1. **A brief cover letter** (1 page) describing your interests, what excites you about virology, and why you'd like to join our lab.
2. **Your CV** highlighting coursework, lab experience (if any), and relevant skills.
3. **Contact information for 2 references** (letters not needed yet).

Send applications to: **[mia.alfajaro@ucalgary.ca](mailto:mia.alfajaro@ucalgary.ca)**

Applications will be reviewed on a rolling basis until the position is filled.

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✨ *We welcome and encourage students from all backgrounds to apply. The Alfajaro Lab is committed to creating an inclusive and supportive training environment where curiosity and creativity thrive.*