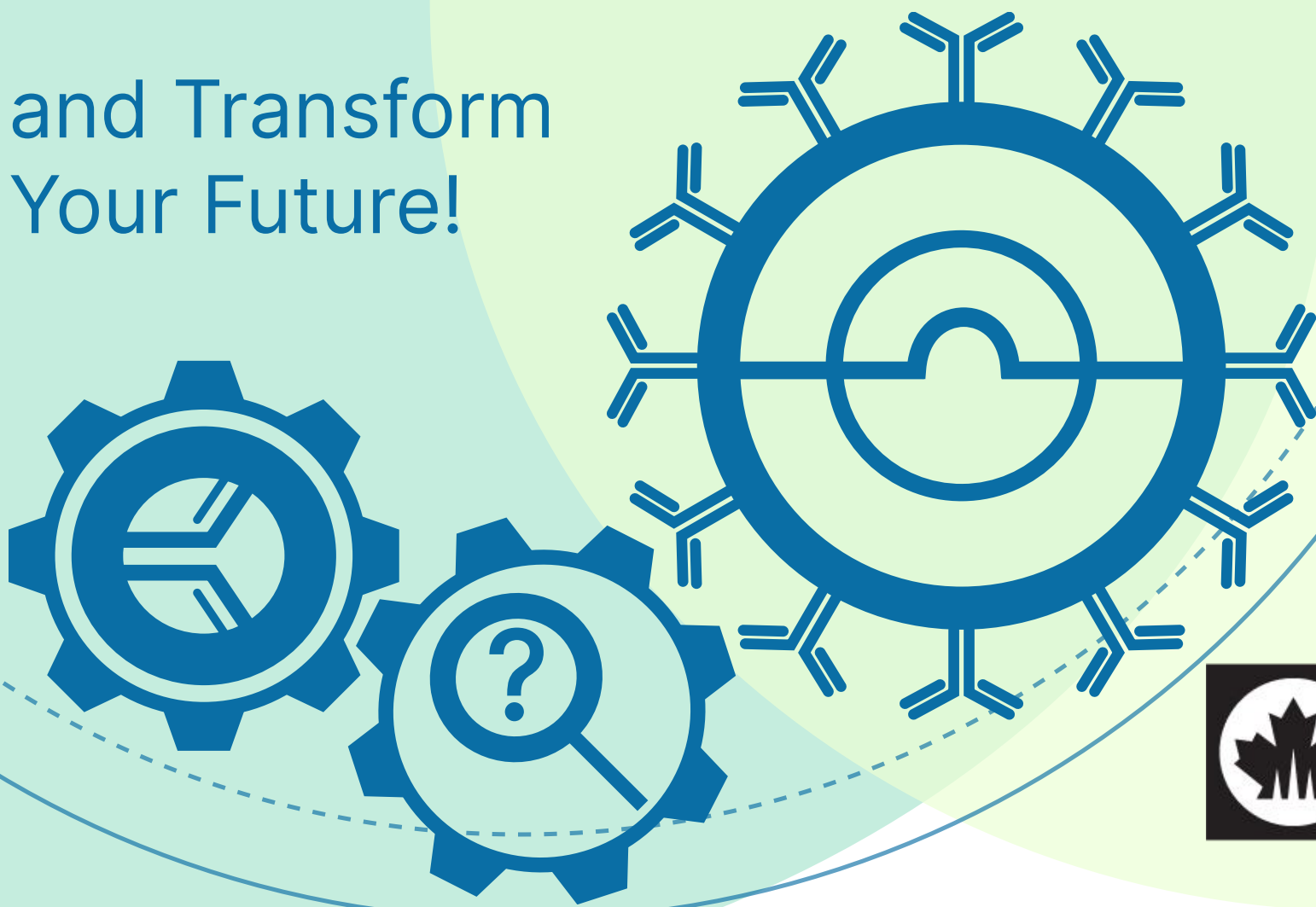


Join the

ImmunoEngineering

NSERC CREATE Program

and Transform
Your Future!



Funded by



**Are you passionate about
making a difference in healthcare through
innovative research and cutting-edge technology?**

The ImmunoE CREATE Program is designed for ambitious graduates seeking to enhance their career prospects, develop essential professional skills, and contribute to the advancement of new immune engineering-based technologies and immune-based therapeutics.

**Each year you can apply
to win a 10K scholarship!**

For more information check out the QR code or this link:
<https://immunot.ca/immunoe-create/>



PROGRAM HIGHLIGHTS

ImmunoE
NSERC CREATE

Fulfill the minimum requirements of a two-year program and receive a prestigious **ImmunoEngineering CREATE Training Program Certificate**. Exceed the minimum requirements and obtain silver or gold status.

Valued by our biotechnology industry partners, these certificates will become your passport to industry internships and future careers in the biotechnology industry. Be part of a program that advances your career and contributes to the growth of Canada's bio-economy.

Professional & Personal Development

- ✓ **Career Advancement**
Equip yourself with the skills needed for seamless entry into the biotech sector, with a focus on meaningful and impactful jobs.
- ✓ **Interdisciplinary Collaboration**
Learn from and work alongside experts from various sectors to accelerate the pipeline from discovery science to bio-product.
- ✓ **Professional Development**
Gain expertise in key areas such as communication, teamwork, leadership, and entrepreneurship.
- ✓ **Translational Research Continuum**
Enhance your understanding of how academia and industry collaborate to bring scientific discoveries to practical applications.
- ✓ **Innovative Research**
Contribute to the development of new therapeutics by leveraging lessons learned from the rapid development and implementation of the COVID-19 mRNA vaccine.

Opportunities & Benefits

All ImmunoE trainees will

- 1 Develop a **personalized certified portfolio** and obtain an **ImmunoE training certificate** useful for future employment with industry
- 2 Be eligible for **travel awards** to conferences
- 3 Be eligible for **industry internships** with ImmunoE partner companies

PROGRAM INFORMATION

ImmunoE
NSERC CREATE

For Graduate Student Trainees

Graduate Student Trainees can apply for entry into the ImmunoE NSERC CREATE program for a minimum **2-year term** (see pp. 3 & 4). Each year, applicants will be considered for a scholarship (10K/yr), renewable 1x. Applications will be reviewed for scholarships each summer. Graduate students at all stages of their degree are encouraged to apply. 1st-year graduate students with a Natural Sciences and Engineering (NSE) project will be given preference. Having a supervisor and a co-supervisor from different disciplines will also be considered an asset.

The program provides added value to the student's home graduate program, and upon successful completion of the program, students will earn an **ImmunoE CREATE Training Program Certificate**. Continued participation beyond the minimum requirements, for example, additional events/workshops/seminars; leadership activities in ImmunoE (mentoring, volunteering, outreach); and research success (presentations, first author publications) will earn trainees silver or gold status on their certificate.

Eligibility:

Students must be enrolled in a UBC graduate program with a research project relevant to immunoEngineering or immunotherapy

Research areas in ImmunoEngineering include:

- immune and stem-cell bioengineering
- nucleic acid engineering and immune targeting
- target identification and technology validation
- microbiome-engineered immune modulation
- engineering vaccines, *and more!*

University faculty members & Industry professionals

Are you interested in participating in ImmunoE activities as a mentor, committee member, guest lecturer, mini-course developer, or in another role? Please sign up as an ImmunoE member and let us know how you can contribute!

[Faculty & Industry click here!](#)



Program Requirements

1. *Build an ImmunoE Portfolio*

Students will build a professional portfolio, highlighting their progress in the program, skills attained, courses taken, conferences attended, posters presented, papers produced, and community/industry engagement activities.

2. *Gain Knowledge and Technical skills*

Students will take the following courses:

TS1: The Foundational course: BMEG 591j Immunoengineering course (3-credit UBC course, Term 2) All 1st-year graduate students should take this course. Upper-year students can demonstrate competency in this field.

TS2: 2 Mini-technical/research skills-based modules (~2-3 hrs, asynchronous)

Examples include:

- Immunophenotyping: Flow Cytometry
- Disease models:
 - in vivo models: mouse
 - in vitro models: human iPSC cells, cell culture & organoids
- ImmunoEngineering:
 - Protein Engineering

TS3: 2 Microcourses (1-2 hrs each) focused on current topics, emerging new research and technologies in ImmunoEngineering & ImmunoTherapeutics. Taught by experts in the field. For example, immunometabolism, stem cell therapies, tissue engineering, mRNA vaccines etc.

Notes:

- The 3 credits from TS1 can be applied to your departmental graduate student requirements. That is, this course can be a part of, not in addition to, your departmental graduate program requirements.
- Additional modules will be added as they become available.



3. *Professional skills*

PS1: Take at least **3 seminars/workshops from SBME Propels or Creative Destruction Labs (CDL)** (1-2 hrs each) to develop your professional/business skills. These include: transitioning from research to industry; innovation & entrepreneurship, paths to commercialization, leadership and communication etc.

PS2: Participate in **Interdisciplinary mentoring** group meetings (3/yr)

PS3: Take **1 seminar or SBME propels panel discussion about Career Paths in Academia and the Biotech Industry**

PS4: Equity, Diversity and Inclusion training

Complete the on-line ImmunoE EDI review module upon entering the program, promote EDI and participate in at least one one cultural experience

PS5: Participate in the **Annual Networking event** with industry partners (1/yr)

PS6: Participate in an **ImmunoHackathon**

For Post-doctoral Fellows

Post-docs may apply to the program for a one-year term, with the opportunity to be awarded an ImmunoE fellowship of 15K/yr. To be eligible for the fellowship, the post-doc must be within 5 years of completion of their PhD. Post-docs with ImmunoEngineering knowledge and expertise will benefit from professional development opportunities and workshops, participate in the active mentoring of junior trainees, and have the opportunity to lead the development of new modules, contribute to seminars or networking events, and be eligible for an industry internship. Post-docs completing the program will receive an **ImmunoE Post-doctoral fellow training certificate**.

**Applications are reviewed
every year in July**

Don't miss the opportunity to be part of a transformative program to bridge the gap between academia and industry! Scholarships are available for the highest-ranked candidates.

Questions? Please e-mail us at immunoengineering.create@ubc.ca