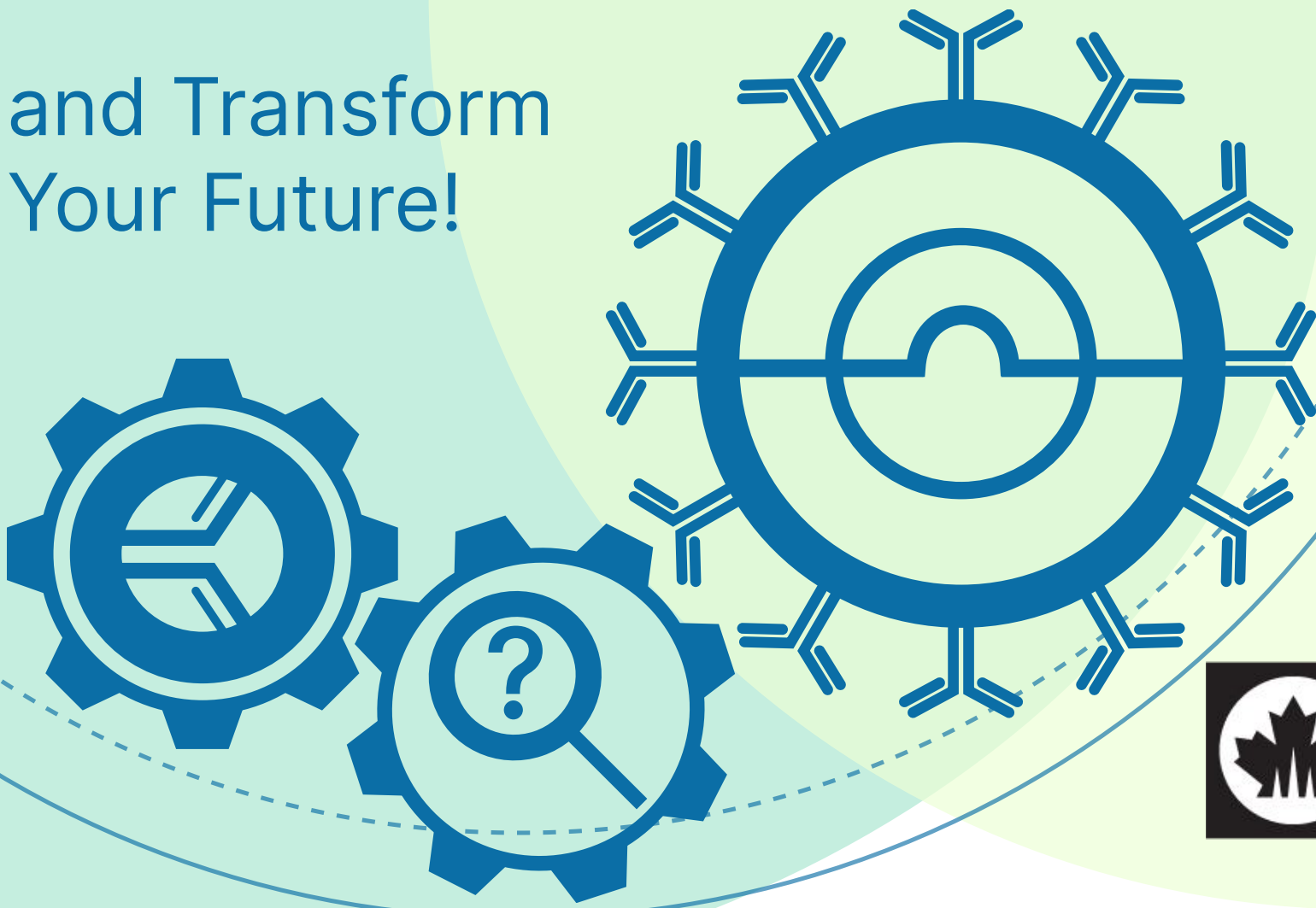


Join the  
**ImmunoEngineering**  
**NSERC CREATE** Program

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.
- ✓ **Professional Development**  
Gain expertise in key areas such as communication, teamwork, leadership, and entrepreneurship.
- ✓ **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.
- ✓ **Interdisciplinary Collaboration**  
Learn from and work alongside experts from various sectors to accelerate the pipeline from discovery science to bio-product.
- ✓ **Translational Research Continuum**  
Enhance your understanding of how academia and industry collaborate to bring scientific discoveries to practical applications.

## 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 who have a Natural Sciences and Engineering (NSE) project, and/or have a supervisor and a co-supervisor from different disciplines will be given preference.

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 courses/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*

**TS1: Take the Foundational course: BMEG 591j Immunoengineering course** (3 credits, Term 2) All 1st-year graduate students should take this course. Upper-year students must demonstrate competency in this field.

**TS2: Take 2 Mini-technical/research skills-based courses**

Examples include 1.5 credit courses (others possible with permission):

- MICB 520c: (Term 1) Pre-clinical mouse models: approaches, ethics and training – (Includes animal ethics and handling modules run by UBC Animal Care)
- MICB 520d: (Term 1) Data science – asynchronous plus office hours
- MICB 520a: (Term 2) Flow cytometry – experiential learning
- MICB 520b: (Term 2) Teaching and Learning in Microbiology & Immunology – useful if planning a teaching assistantship or interested in education & pedagogy

**TS3: Take 2 Micro courses/workshops** (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 6 credits from TS1 and TS2 can be applied to your departmental graduate student requirements. That is, these courses can be a part of, not in addition to, your departmental graduate program requirements.
- Other 1.5 credit courses from SBME, CELL, and BMB are available subject to space.
- Additional topics and courses will become available in subsequent years.
- Students can receive credit for courses completed before entering the program.



## 3. *Professional skills*

**PS1:** Take **3 Creative Destruction Labs (CDL) & SBME Propels seminars/workshops** (1-4 hrs each). Examples include: career paths in biotechnology, innovation & entrepreneurship, professional and business skills, paths to commercialization, etc.

**PS2:** Participate in **Interdisciplinary mentoring** group meetings (minimum of 2/yr)

**PS3:** Take **1 talk about Careers/Insights into Industry**

**PS4: Mandatory Equity Diversity and Inclusion training**

EDI course or workshop upon entering the program and participation in at least one cultural experience

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

**PS6:** Participate in **Annual ImmunoHackathon** (1/yr)

## For Post-doctoral Fellows

**Post-docs** can apply to the program for a one or two-year term. Two post-docs/year will be selected for 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 will demonstrate competency in ImmunoEngineering knowledge and technical skills (TS1-2) and learn emerging new technologies (TS3). They will tailor their portfolio to include professional skills (PS1-6), active mentoring of junior trainees, and leadership roles in ImmunoE events/courses. Post-docs completing the program will receive an **ImmunoE PDF training certificate** and be eligible for an industry internship.

**Applications for fellowships 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 and their project's potential relevance to immunoEngineering/immunotherapy.

**Questions?** Please e-mail us at [immunoengineering.create@ubc.ca](mailto:immunoengineering.create@ubc.ca)