From: **UBC Immunotherapeutics Research Excellence Cluster** 000099bf29884666-dmarc-request@LISTS.UBC.CA
Subject: ImmunoT & ImmunoE Newsletter
Date: June 19, 2025 at 11:49 AM
To: SUB-IMMUNOT@lists.ubc.ca SUB-IMMUNOT@LISTS.UBC.CA

Dear ImmunoT and ImmunoE Community,

Welcome to our bi-weekly newsletter. All are welcome to the upcoming events.

TABLE OF CONTENTS

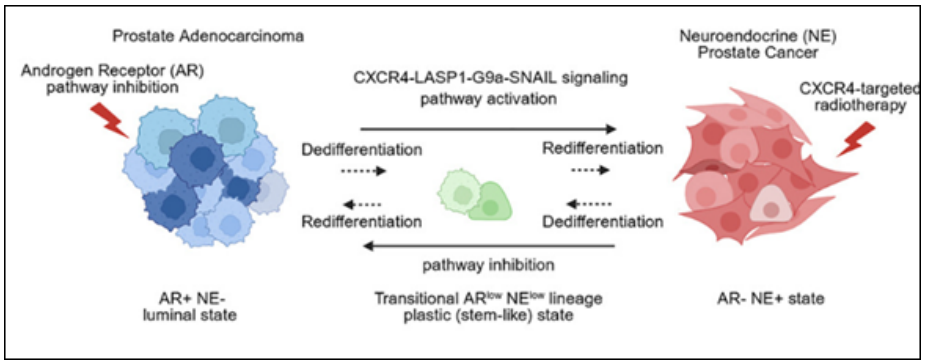
NEWS

Dr. Laura Evgin's Interview with the AACR

Check out Dr. Laura Evgin's interview with the American Association for Cancer Research here on LinkedIn or in the attached document! Her work focuses on understanding the role of CAR T-cells in cancer and autoimmunity.

Recent publications

Congratulations to **Dr. Chris Ong** and his team for their recent paper in Cell Genomics describing the role of the chemokine CXCR4 in prostate cancer neurodifferentation.



UPCOMING EVENTS

(All dates and times in PST)

DATE	EVENT	LINK	Fulfills ImmunoE requirement*
June 25 1:00-2:00 pm	**Career Coaching Webinar: Prioritization & Time Management – Ask the Coach!**	Register here	PS1

*Participation in this event counts towards the listed ImmunoE Trainee Certificate requirement

Career Coaching Webinar: Prioritization, Time Management & Ask the Coach!

Date & time: Wed, June 25 | 1:00 – 2:00 pm
Location: Virtual (Zoom)

RSVP: Register here
ImmunoE Certificate Requirement: PS1

The next and final webinar in the **ImmunoE coaching series** with Robyn Roscoe is on prioritization and time management! In addition, ask the coach anything, from career path options and experience to addressing management and leadership challenges.

For more information on Robyn's career coaching program, please visit Lyric Management

Join us!

For **trainees** interested in contributing to ImmunoT, please e-mail immuno.therapeutics@ubc.ca.
We are currently recruiting trainee committee members and co-chairs for September 2025.

For **trainees** interested in joining the NSERC CREATE ImmunoEngineering training program, our 2025 intake will be announced soon – stay tuned!

Faculty and **industry** members wanting to contribute to ImmunoE, please email immunoengineering.create@ubc.ca.
Please send **items for the newsletter**, such as papers published, to immuno.therapeutics@ubc.ca

Thank you!

Best,
ImmunoT & ImmunoE Team

If you no longer wish to receive these notifications, please let us know via email, and you will be removed from the ImmunoT email list
--
ImmunoTherapeutics Research Excellence Cluster
immuno.therapeutics@ubc.ca | @ImmunoT
https://immunot.ca/
The University of British Columbia | Simon Fraser University | University of Victoria | Musqueam, Squamish & Tsleil-Waututh Traditional Territory

Dr. Laura Evgin is an Assistant Professor at the University of British Columbia and a Scientist at the BC Cancer Research Institute in Vancouver, Canada. She earned her PhD in Biochemistry from the University of Ottawa under the guidance of Dr. John Bell and completed a postdoctoral fellowship at Mayo Clinic in Rochester, Minnesota, with Dr. Richard Vile. In 2020, Dr. Evgin established her independent research group focusing on enhancing the efficacy and accessibility of T cell therapies for cancer treatment. Her lab leverages diverse tools and model systems to design novel chimeric antigen receptors (CARs), develop CAR T cell engineering strategies both ex vivo and in vivo, and evaluate CAR T cell function in immune-competent models of cancer and autoimmune disease. Dr. Evgin holds a Tier 2 Canada Research Chair in Cancer Immunotherapy and has been recognized with a Michael Smith Health Research BC Scholar Award and a Gairdner New Investigator Award.

Laura Evgin, PhD

Let's focus on cancer immunology. Could you please tell us:

1. What are you most excited about with respect to your research?
Laura Evgin (L.E.): Alongside human model systems, I believe that immunocompetent mouse models offer valuable insights into the biology of T cells redirected with synthetic chimeric antigen receptors (CARs). Using mouse models that closely represent human lymphoma, we are modeling clinical correlates of CD19 CAR T cell treatment failure, such as the degree and nature of extranodal disease. This approach helps us understand how immune and stromal cross-talk regulates CAR T cell therapeutic function and implement engineering solutions. While the introduction of a CAR confers new specificity to a T cell, the native T cell receptor (TCR) remains intact in all approved autologous cell products, resulting in CAR T cells with dual specificity. These models also enable us to investigate how vaccines can stimulate CAR T cells through their native T cell receptors to enhance engraftment, alter differentiation trajectories, and improve overall tumour control.

2. What are the main challenges that remain to be addressed in the area of your research? How will your research address them?
L.E.: The modularity of the CAR molecule enables this technology to be applied beyond cancer to diverse indications, including autoimmunity and infectious disease. However, the number of patients who could benefit from T cell engineering far exceeds the current logistical and financial capacity for personalized ex vivo cell manufacturing. *In vivo* engineering represents a particularly exciting avenue to meet this demand. These include lipid nanoparticle (LNP) formulated RNA, redirected lentivirus, and virus-like particles (VLPs) equipped with genome editors combined with adeno-associated virus (AAV) delivered templates. Moving forward, it will be important to assess the safety and efficacy of these approaches across diverse indications, identifying when ex vivo or in vivo engineered cells should be prioritized based on disease characteristics, lymphodepletion acceptability, and other clinical factors. We are collaboratively working to combine innovative LNP formulations with novel mRNA cassette designs, circRNA, and saRNA to transiently redirect T cells with a CAR in vivo.

3. What might be the next opportunities in the area of your research that your lab would explore?
L.E.: I am excited about new collaborative projects that leverage our expertise in synthetic biology and cellular engineering to apply CAR T cell therapy to autoimmune diseases, including systemic lupus erythematosus (SLE) and multiple sclerosis (MS).

4. What are 3 papers on the area of your research that you would recommend AACR-CIMM scientists read?
a) Iacoboni G et al. Site-specific analysis of extranodal involvement in large B-cell lymphoma reveals distinct efficacy with chimeric antigen receptor T-cell therapy. Leukemia. 2025 Apr 1. PMID: 40169762
b) Li CH, et al. Long-term outcomes of GD2-directed CAR-T cell therapy in patients with neuroblastoma. Nat Med. 2025;31(4):1125-1129. PMID: 39962287. (Original paper: Pule MA, et al. Virus-specific T cells engineered to coexpress tumor-specific receptors: persistence and antitumor activity in individuals with neuroblastoma. Nat Med. 2008;14(11):1264-70. PMID: 18978797)
c) Rurik JG, et al. CAR T cells produced in vivo to treat cardiac injury. Science. 2022;375(6576):91-96. PMID: 34990237

5. What are your favorite things to do when you are not in the lab?
L.E.: I am privileged to lead a fantastic team of trainees, but when not at work, I am spending time with my two kids and husband. We are lucky to live in beautiful Vancouver with beaches, parks, and mountains nearby.