

Cédric S. TREMBLAY, PhD



Assistant Professor, Department of Immunology, University of Manitoba
Principal Investigator, Paul Albrechtsen Research Institute CancerCare Manitoba
Lead, Pediatric Research in Oncology in Manitoba: Innovation, Science & Excellence (PROMISE), Children's Hospital Research Institute of Manitoba (CHRIM)
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EXECUTIVE SUMMARY CURRENT

Internationally recognized hematology researcher with expertise in stem cell biology, healthy and malignant hematopoiesis, therapy resistance, and translational research aimed at improving outcomes for children, adolescents, and adults with high-risk leukemias. I bring 17+ years of experience leading multi-institutional research programs across Canada, Australia, Europe, and the United States, emphasizing mechanistic biology, innovative therapeutic development, and the integration of advanced single-cell and *in vivo* technologies.

My long-standing contributions to the International Society for Experimental Hematology (ISEH), including service on the New Investigators Committee, organization of scientific sessions and career events, and active participation in annual meetings, reflect my deep commitment to the Society and its mission. I am dedicated to strengthening global collaboration, expanding trainee support, and contributing strategic vision to foster the next generation of leaders in experimental hematology.

ACADEMIC APPOINTMENTS

- 2022-present **Assistant Professor**, Department of Immunology
Max Rady College of Medicine, University of Manitoba, Winnipeg, Canada
Principal Investigator, Paul Albrechtsen Research Institute CCMB
CancerCare Manitoba (CCMB), Winnipeg, Canada
Adjunct Senior Research Fellow, Australian Centre for Blood Diseases (ACBD)
Central Clinical School, Monash University, Melbourne, Australia
- 2023-present **Principal Investigator**, PROMISE Research Theme
Children's Hospital Research Institute of Manitoba (CHRIM), Winnipeg, Canada

EDUCATION & TRAINING

- 2015-2022 **Research Fellow**, Stem Cell Research group
Australian Centre for Blood Diseases (ACBD), Monash University, Australia
- 2011-2014 **Research Officer**, Stem Cell Research group
Australian Centre for Blood Diseases (ACBD), Monash University, Australia
- 2008-2011 **Postdoctoral Fellow**, Hematopoiesis and Leukemia group
Institute for Research in Immunology and Cancer (IRIC), University of Montréal, Canada
- 2004-2008 **PhD, Cellular and Molecular Biology (Medicine)**
CHU de Québec Research Center (CRCHUQ), Laval University, Canada
- 2002-2004 **MSc, Cellular and Molecular Biology (Medicine)**
CHU de Québec Research Center (CRCHUQ), Laval University, Canada
- 1998-2002 **Bachelor of Science in Biochemistry**
Laval University, Canada

RESEARCH INTERESTS

- Hematopoietic stem cell biology and lineage specification
- Leukemia evolution, clonal heterogeneity, and relapse biology
- Therapy resistance and microenvironmental adaptation
- Gene regulation, signaling pathways, and transcriptional networks
- Translational therapeutic development and preclinical modeling
- Single-cell multi-omics and advanced imaging technologies

LEADERSHIP & SERVICE

Professional Society Leadership

- 2026 **Committee Member**, Local Organizing Committee
38th Annual Canadian Society for Immunology (CSI) Meeting, Winnipeg, Canada
- 2023 **Committee Member**, Local Organizing Committee
Prairie Infection & Immunity Network (PIIN) Annual Meeting, Saskatoon, Canada
- 2019 **Committee Member**, Local Organizing Committee
48th ISEH Annual Meeting, Brisbane, Australia

Memberships

- 2023-present **Canadian Pediatric Cancer Consortium (CPCC)**
Prairie Infectious Immunology Network (PIIN)
- 2022-present **Canadian Society for Immunology (CSI)**
- 2015-present **International Society for Stem Cell Research (ISSCR)**
- 2013-present **International Society for Experimental Hematology (ISEH)**

Institutional Leadership

- 2025-present **Chair**, Innovation, Science & Excellence (ISE) Committee
CHROM, Winnipeg, Canada
- Chair**, Advocacy & Community Engagement in Research (ACER) Committee
CHROM, Winnipeg, Canada
- Co-Director**, Rady Faculty of Health Sciences Flow Core
University of Manitoba, Winnipeg, Canada
- 2023-present **Theme Lead**, PROMISE
CHROM, Winnipeg, Canada
- Committee Member**, Local Animal User Committee – Bannatyne Campus
University of Manitoba, Winnipeg, Canada
- 2022-present **Committee Member**, Single-Cell Technology Advisory User Committee
Paul Albrechtsen Research Institute CCMB, Winnipeg, Canada
- 2020-2022 **Invited member**, Community and Researcher Engagement (CaRE) Committee
School of Translational Medicine, Monash University, Australia

Community Engagement & Volunteering

- 2025 **Team Leader**, Ride Inside fundraiser, CancerCare Manitoba Foundation
- Invited Speaker**, Guild Fashion Show & Luncheon, Children's Hospital Guild of Manitoba
- Invited Speaker**, Ice Crystal Gala Fundraiser, Children's Hospital Foundation of Manitoba
- 2022-present **Fundraiser**, Shine a Light, CancerCare Manitoba Foundation
- 2019 **Fundraiser**, Leukaemia Foundation of Australia
- 2014-2015 **Fundraiser**, Light the Night, Leukaemia Foundation of Australia
- 2014 **Fundraiser**, The Movember Foundation

RESEARCH FUNDING (SELECTED)

Principal Investigator / Principal Applicant

2025-2027	New Investigator Grant, Research Manitoba <i>Investigating the role of interferon in T-ALL</i>	CAD 130,000
2025-2026	Operating Grant, Manitoba Medical Service Foundation (MMSF) <i>Uncovering mechanisms of chemotherapy-resistance using avatars of pediatric leukemia</i>	CAD 45,000
2024-2026	Operating Grant, CancerCare Manitoba Foundation <i>Overcoming chemotherapy resistance in T-ALL</i>	CAD 150,000
2022-2027	Start-Up Funds, CCMB/University of Manitoba <i>Novel Strategies to Overcome Therapeutic Resistance in Poor-Prognosis Leukemia</i>	CAD 425,000

Co-Applicant

2024-2027	IGNITE Operating Grant, University of Manitoba <i>An interdisciplinary approach to understanding how mental health, nutrition, multi-omics, and the gut microbiome interact in chronic lymphocytic leukemia</i>	CAD 1,050,000
2023-2026	Multidisciplinary Team Grant, CCMF <i>Development of in vitro and in vivo platforms for humanized leukemia research and pre-clinical CAR-T therapy validation</i>	CAD 450,000
2023-2025	Impact Awards, Stem Cell Network / Réseau de Cellules Souches <i>Cellular engineering to enhance T cell production from pluripotent stem cells</i>	CAD 250,000

HONORS & AWARDS

2025	Immunology Faculty Mentorship Award , University of Manitoba, Winnipeg, Canada
2016	Travel Grant , School of Translational Medicine, Monash University, Australia
2014	Travel Grant , ISEH 43 rd Annual Scientific Meeting, Montréal, Canada Leukaemia Foundation Poster Prize , 5 th NDLR meeting, Noosa, Australia
2010	Travel Grant , ISEH 39 th Annual Scientific Meeting, Melbourne, Australia Scholarship , EHA-ESH Scientific Workshop, Mandelieu, France
2008	Graduate Student Prize, Pediatric Research , 26 th Ball of Stars, Foundation of Stars, Canada

SELECTED PUBLICATIONS (Full list available upon request)

1. Chiu SK, [...] **Tremblay CS**. (2025) LYL1 is critical for adult hematopoietic stem cell-derived B and T lymphopoiesis. *Scientific Reports* (under revision)
2. **Tremblay CS**, et al. (2025) Targeting LMO2-induced autocrine FLT3 signalling to overcome chemoresistance in Early T-cell Precursor acute lymphoblastic leukemia. *Leukemia*
3. O'Connor KW, [...] **Tremblay CS**, Kelliher MA. (2024) The role of quiescent thymic progenitors in TAL/LMO2-induced T-ALL chemotolerance. *Leukemia*
4. **Tremblay CS**, et al. (2023) STAT5 activation promotes progression and chemotherapy-resistance in early T-cell precursor acute lymphoblastic leukemia. *Blood*
5. **Tremblay CS**, et al. (2021) Shutting the gate: targeting endocytosis in acute leukemia. *Exp Hematol*
6. **Tremblay CS**, et al. (2020) Small molecule inhibition of Dynamin-dependent endocytosis targets multiple niche signals and impairs leukemia stem cells. *Nat Commun*
7. Chiu SK, [...] **Tremblay CS** and Curtis DJ. (2019) Shared roles for Scl and Lyl1 in murine platelet production and function. *Blood*
8. Goossens S, Wang J, **Tremblay CS**, et al. (2019) ZEB2 and LMO2 drive immature T-cell lymphoblastic leukemia via distinct oncogenic mechanisms. *Haematologica*

KNOWLEDGE DISSEMINATION

Selected Invited Presentations

2025	Cambridge Stem Cell Institute, University of Cambridge, UK MRC Weatherall Institute of Molecular Medicine, University of Oxford, UK
2024	Peter MacCallum Cancer Centre, Australia Lowy Cancer Research Centre, UNSW, Australia
2023	18 th International Congress of Immunology, Cape Town, South Africa

Session Chair

2025	ISEH 55 th Annual Scientific Meeting, Kumamoto, Japan
2023	Prairie Infectious Immunology Network (PIIN) 2023 Meeting, Hecla, Canada 35 th Annual Canadian Society for Immunology (CSI) Conference, Orford, Canada
2016	ISEH 45 th Annual Scientific Meeting, San Diego, USA

MENTORING & TRAINING

- Supervisor or co-supervisor of **15+ graduate trainees** (MSc/PhD) across Canada, Australia, and Europe
- Supervising trainees supported by competitive scholarships and international research programs

INTERNATIONAL COLLABORATIONS

Australia	Zero Childhood Cancer Program, ProCan – preclinical drug testing and development
Germany	UCT Frankfurt – Collaborative studies for quantitative imaging and microenvironment mapping of relapse-inducing cells in leukemia
Belgium	UGhent – Collaboration studies defining IKAROS-driven leukemia mechanisms
USA	Harvard, UMass – Collaboration on the role of STAT5 mutations in leukemia, and co-investigation of quiescent leukemia stem cell behavior using advanced <i>in vivo</i> lineage tracing

VISION FOR SERVICE ON THE ISEH BOARD OF DIRECTORS

As a long-standing member of ISEH, I am committed to advancing its mission to support excellence in experimental hematology. If elected to the Board, I aim to:

- Strengthen global collaboration and exchange between fundamental, translational, and clinical hematology researchers;
- Expand mentorship and professional development programs for trainees and early-career investigators;
- Enhance the visibility and impact of ISEH scientific meetings, workshops, and educational activities;
- Support initiatives that promote diversity, inclusion, and equitable access within our global community;
- Advocate for innovation through integration of cutting-edge technologies including single-cell multi-omics, advanced imaging, and next-generation preclinical modeling.

I would be honored to contribute my experience, leadership, and commitment to help guide ISEH's strategic growth and ensure continued excellence for the next generation of experimental hematology researchers.

PRESS & MEDIA COVERAGE

- <https://winnipeg.ctvnews.ca/video/c2889192-the-fight-against-child-cancer-in-manitoba>
- <https://www.cancercare.mb.ca/Research/research-news/Introducing-Principal-Investigator-Dr.-Cedric-Tremblay>
- https://www.youtube.com/watch?v=DnT_T3PibZI
- <http://ccsmonash.blogspot.com/2021/03/starving-cancer-cells-to-death.html>
- <https://www.cmrijeansforgenes.org.au/news/world-first-discovery-about-leukaemia>
- <https://www.monash.edu/medicine/news/latest/2018-articles/scientists-take-new-approach-to-tackle-chemo-evading-blood-cancer>