

Suraj Bansal

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EDUCATION

University of Ottawa, Medical Doctor (M.D.) Candidate

Ottawa, ON | **Expected Graduation May 2028**

Professional Development: ASE 5909 Applied Point-of-Care Ultrasound (POCUS) and Anatomy, Stop the Bleed

Select Preclinical Electives (5 /13): Cardiac Anesthesia, Cardiac CCU, Pediatric Heme-Onc, Adult Hematology, Emergency Medicine

McMaster University, Bachelor of Health Sciences (BHSc) 3.96/4.00 GPA

Hamilton, ON | Class of 2024

Coursework: Clinical Biochemistry, Epigenetics, Statistics for Biomedical Engineering, Bioinformatics, Biotech and Drug Discovery

PROFESSIONAL EXPERIENCE

Autonomy Bio, Computational Biology Consultant

San Francisco, CA | December 2025 – Present

- Applied multi-omics analyses to produce data-driven feasibility assessments and pressure tests for new longevity hypotheses

John Dick Lab, Princess Margaret Cancer Centre, UHN, Research Student

Toronto, ON | September 2020 – Present

- Architected ATLAS-AML, a cloud-powered bioinformatics pipeline for automated transcriptomic meta-analysis of 30 normal and leukemic transcriptomic datasets to inform preclinical drug development; currently used in 11 collaborations in 9 labs
- Re-analyzed 95 preclinical studies with gene expression deconvolution to quantify drug-induced changes in leukemic cell-state composition and establish a functional roadmap for prioritizing candidate therapies in preclinical decision-making
- Performed single-cell transcriptomic analysis of the tumor microenvironment in MC38 mouse models of colorectal cancer treated with immune checkpoint blockade, in collaboration with clinician-scientists at the German Cancer Research Centre
- Major Conference Presentations:
 - 2023 ISEH Annual Scientific Meeting (New York, USA): Poster Presentation
 - 2023 ISMB/ECCB Student Council Symposium (Lyon, France): Oral Presentation
 - 2023 Till & McCulloch Meeting (Toronto, Canada): Poster Presentation
 - 2024 ASH Annual Meeting and Exposition (San Diego, USA): Poster Presentation, Abstract Achievement Award

Hamilton Social Medicine Response Team (HAMsMART), Research Student

Hamilton, ON | September 2022 – Present

- Led a mixed-methods study examining emergency shelter service restrictions; presented findings to shelter operators and municipal stakeholders, informing policy discussions and modifications of shelter service restriction practices in Hamilton
- Conducted patient recruitment, chart review, and reflexive thematic analysis for a primary-care embedded safe supply program prescribing pharmaceutical-grade opioid alternatives for individuals with treatment-refractory opioid use disorder
- Major Conference Presentations:
 - 2024 The Ontario Public Health Convention (Canada): Oral Presentation
 - 2025 CSAM-SMCA Scientific Conference (Montreal, Canada): Poster Presentation, Abstract Achievement Award

Center for Addiction and Mental Health (CAMH), Youth Consultant

Toronto, ON | September 2022 – Present

- Longitudinally advised the development of 22 national mental health and substance use policies and services
- Co-developed a trauma-informed tool to evaluate patient and public engagement in health sciences research in Canada

LEADERSHIP AND VOLUNTEERING EXPERIENCE

Ontario Medical Student Association, Chair of Policy, Response, and Implementation

Ontario | August 2025 – Present

- Steered the submission and editorial process for student-led, evidence-informed policy briefs to promote stakeholder outreach
- Coordinated a rapid-response advocacy team to translate policy recommendations into student-led action (e.g. open letters)
- Led a storytelling project to amplify lived experiences of incarcerated people and facilitate correctional health policy reform

University of Ottawa AI in Medicine Interest Group, Founding Co-Chair

Ottawa, ON | September 2025 – Present

- Launched an educational curricula to build foundational AI literacy for medical students (speaker series, hands-on workshop)
- Partnered with 6 hospital departments to deliver tailored introductory AI workshops for resident and staff physicians
- Spearheaded HackRx, an innovation sprint for medical students to apply AI frameworks to case-based clinical problems

ACP-ON Provincial Internal Medicine Committee, University of Ottawa Representative

Ontario | June 2025 – Present

- Represented the perspectives of 3,500+ medical students in provincial discussions on internal medicine education
- Coordinated province-wide professional development events (internal medicine program director panel, clerkship tutorials)

The Hamilton Homelessness Mortality Project, Project Co-Lead

Hamilton, ON | September 2022 – Present

- Co-led a mortality surveillance project to characterize deaths of people experiencing homelessness in Hamilton via quarterly statistical analysis of data collected from community reporting surveys and local hospital EMRs (featured in Globe and Mail)

The Meducator Undergraduate Health Sciences Journal, *Editor-in-Chief* Hamilton, ON | September 2021 – May 2024

- Managed a \$10,000 budget and oversaw 7 subteams (90 members) to lead bi-annual publication efforts (≈ 1,000 print copies)
- Steered a council of 15+ student-led Canadian journals, establishing inter-journal collaboration and shared editorial workflow
- Grew an academic writing mentorship program for 50 students with professor-run workshops and end-stage publication

RESEARCH PUBLICATIONS

Published Manuscripts (* indicates equal contribution)

Suraj Bansal, Stephanie Di Pelino, ... Claire Bodkin. Nowhere to Go: a qualitative study examining the health of people who experience emergency shelter service restrictions. *BMJ Public Health*. DOI: 10.1136/bmjph-2025-002639.

Andy G.X. Zeng, **Suraj Bansal (2nd)**, ... John E. Dick. A cellular hierarchy framework for understanding heterogeneity and predicting drug response in Acute Myeloid Leukemia. *Nature Medicine*. DOI: 10.1038/s41591-022-01819-x.

- 2023 Till and McCulloch Paper of the Year Award (Translational Research).

Jessie JF Medeiros*, Andy G.X. Zeng*, **Suraj Bansal (2nd)**, ... Vikas Gupta. A Stem and Progenitor Cell-Derived Gene Expression Signature is Prognostic for Survival in Myelofibrosis. *Blood*. DOI: 10.1182/blood.2025030094.

Vincent Rondeau, **Suraj Bansal (2nd)**, ... Robert J. Vanner. Response to Immune Checkpoint Blockade Is Enhanced in the Presence of Hematopoietic TET2 Inactivation. *Cancer Research*. DOI: 10.1158/0008-5472.CAN-24-3329.

David Kealy*, Ruth Ellerington*, **Suraj Bansal (2nd)**, ... Katherine S. Bridge. JAK2V617F reprograms Hypoxia Inducible Factor-1 to induce a non-canonical hypoxia regulon in myeloproliferative neoplasms. *Leukemia*. DOI: 10.1038/s41375-025-02843-9.

Helena Boutzen, ... **Suraj Bansal (4th)**, ... John E. Dick. Identification of leukemia stem cell subsets with distinct transcriptional, epigenetic and functional properties. *Leukemia*. DOI: 10.1038/s41375-024-02358-9.

Andy G.X. Zeng, ... **Suraj Bansal (5th)**, ... John E. Dick. Single-cell transcriptional atlas of human hematopoiesis reveals genetic and hierarchy-based determinants of aberrant AML differentiation. *Blood Cancer Discovery*. DOI: 10.1158/2643-3230.BCD-24-0342.

- 2024-2025 Blood Cancer Discovery Outstanding Journal Award.

Joana Araújo, ... **Suraj Bansal (6th)**, ... John E. Dick. FLT3 is genetically essential for ITD-mutated leukemic stem cells but dispensable for human HSCs. *Blood*. DOI: 10.1182/blood.2024025886.

Stefano Comazzetto, ... **Suraj Bansal (8th)**, ... Sean J Morrison. Ascorbate deficiency increases quiescence and self-renewal in hematopoietic stem cells and multipotent progenitors. *Blood*. DOI: 10.1182/blood.2024024769.

Tianyi Ling, ... **Suraj Bansal (11th)**, ... Courtney L. Jones. Glutaredoxin 2 mediated protein deglutathionylation is essential for leukemia survival through mitochondrial permeability transition pore regulation. *Blood*. DOI: 10.1182/blood.2025028933.

Manuscripts Under Review

Grace Egan, ... **Suraj Bansal (12th)**, ... Aaron D. Schimmer. Ribosome biogenesis and its regulation by the exportin, CSE1L, are targetable vulnerabilities in childhood and young adult acute myeloid leukemia. *Nature Cancer*. (preprint on bioRxiv).

Amanda Tajik, ... **Suraj Bansal (17th)**, ... Kristin Hope. Stress Granules Underlie Acute Myeloid Leukemia Stem Cell Survival and Stress Adaptation. *Cancer Discovery*. (preprint on bioRxiv).

MAJOR HONOURS AND AWARDS

Recipient (1 of 1) , Dr. Jan Bormanis Award for Residents in Hematology and Transfusion Medicine (\$1,600), Ottawa, ON	2026
Recipient (1 of 15) , American Society of Hematology HONORS Award (\$7,000), USA	2025
Recipient (1 of 1) , McMaster Chancellor's Gold Medal, Hamilton, ON	2024
Recipient , McMaster Partnered in Teaching and Learning Digital Seed Grant (\$4,000), Hamilton, ON	2024
Recipient (1 of 16) , UofT Molecular Genetics Undergraduate Research Opportunity Program (\$5,625), Toronto, ON	2024
2x Recipient (1 of 1) , The Bachelor of Health Sciences Program Scholarship (\$2,500), Hamilton, ON	2023, 2024
Recipient (1 of 20) , UofT T-CAIREM AI in Medicine Summer Research Studentship (\$7,200), Toronto, ON	2022
Recipient (1 of 1) , York Region Portraits of Giving Young Adult Honoree (\$2,500), York Region, ON	2022
Recipient (1 of 1) , Ontario Public Schools' Association Jack A. MacDonald Award of Merit (\$500), ON	2021
Recipient (1 of 1) , Ontario Student Voice Award: Entrepreneurship Category (\$1,000), ON	2021
Recipient (1 of 1) , Richmond Hill Youth Volunteer Achievement Award, Richmond Hill, ON	2021

SKILLS & INTERESTS

Languages and Libraries: Python, R, JavaScript, SQL, React, Keras, TensorFlow, ScanPy, Seurat, Shiny, Pandas, Scikit-learn

Interests: Specialty Coffee, Ice Hockey, Squash, Food Culture, Self-Driving Cars, Acoustic Guitar, Alpine Skiing, Interior Design