



Postgraduate Medical Education
UNIVERSITY OF TORONTO

2025 Postgraduate Medical Education

GLOBAL HEALTH RESIDENT RESEARCH SHOWCASE

*An opportunity to share global health research during
postgraduate training*

THURSDAY, JANUARY 30, 2025

6:00 PM - 8PM via ZOOM

PROGRAM

- 6:10pm** *Opening comment by Prof. Jerome Singh,
Principal Investigator, Scientific Advisory Group on Emergencies Academy of Sciences of South Africa;
Honorary Research Fellow, Howard College School of Law, University of KwaZulu-Natal, Durban
New US Policies and challenges for 'global health'
Moderated by Dr. Anudari Zorigbaatar, PGY3, General Surgery*
- 6:30pm** 1. Characterizing the Experiences of Surgical Trainees with Advocacy During Residency Training Anisa Nazir, Institute of Medical Science, PhD Candidate, St. Michaels Hospital, Toronto
- 6:45pm** 2. The Effect of Amubarvimab-Romlusevimab on Clinical Outcomes in Patients with COVID-19: A Meta-Analysis
Toni Li, Emergency Medicine, PGY2, University Health Network, Toronto
- 7:00pm** 3. Reflecting on the University of Toronto Hematology Toronto Addis Ababa Academic Collaborative (TAAAC) Experience
Danyal Ladha, Hematology Fellow
Michael Scott, Hematology, Staff MD, St. Michael's Hospital, Toronto
- 7:15pm** 4. Socioeconomic Impact of Cardiovascular Surgical Disease: A Value of Lost Welfare Approach
Dominique Vervoort, Cardiac Surgery Fellow; PhD Candidate,
Institute of Health Policy, Management and Evaluation; Sunnybrook Health Sciences Centre,
University of Toronto
- 7:30pm** *Closing Comments by Dr. Peter Singer,
Past Special Advisor to the Director General of the World Health
Organization **New US Policies and the future of 'global health.'**
Moderated by Dr. Anudari Zorigbaatar, PGY3, General Surgery*
- 8:00pm** END

Professor Jerome Amir Singh is Adjunct Professor of Clinical Public Health, Dalla Lana School of Public Health, University of Toronto, Canada. He serves as the Principal Investigator of the Scientific Advisory Group on Emergencies (SAGE), which operates under the auspices of the Academy of Sciences of South Africa (ASSAf), and Honorary Research Fellow at the Howard College School of Law, University of KwaZulu-Natal, Durban, South Africa.

In his role as the Director of the Ethical, Legal, and Social Issues (ELSI) Advisory Services on Global Health Research and Development, Dr Singh serves as an ad hoc Consultant to several United Nation entities, including the World Health Organisation (WHO), UNAIDS, and UNICEF.

He currently serves on several advisory and oversight bodies related to humanitarian and emergency issues, including the International Ethics Review Board of Médecins Sans Frontières (MSF). He has served as a consultant to the WHO on a range of issues, including H5N1, XDR-TB, HIV, COVID-19, vector borne diseases, Artificial Intelligence. He has also advised the WHO on identifying and connecting known, new or emerging issues that could significantly impact global health as part of the organisation's Global Health Foresight exercise.

In 2017, Dr Singh was appointed by the WHO Director-General (DG) to serve as a member of WHO's International Health Regulations 'Public Health Emergency of International Concern' Expert Roster. In 2020, he was appointed by the WHO DG to serve as a member of the WHO's Ad Hoc Research Ethics Review Committee (ERC) for COVID-19. He also serves on the WHO COVID-19 Ethics & Governance Working Group, and the WHO Technical Advisory Group (TAG) for Emergency Use Listing of COVID-19 vaccines.

Dr Singh serves as a member of the South African National AIDS Council (SANAC) Legal and Human Rights Technical Task Team, the Bioethics Advisory Panel of the South African Medical Research Council (SA MRC), and co-chairs the US NIH-funded Ethics Working Group of the HIV Prevention Trial Network (HPTN). He has previously co-directed the Ethical, Social, and Cultural Issues Advisory Services of the Bill and Melinda Gates Foundation's Grand Challenges in Global Health Initiatives.

ABSTRACTS

1. Characterizing the Experiences of Surgical Trainees with Advocacy During Residency Training

Author 1. Rhea Jangra, CC4, Queen's University, Kingston

Author 2. Haniya Khan, Gynaecology, PGY5, University of Toronto, Toronto

Author 3. Amanpreet Brar, Surgery, University of Toronto, Toronto

Author 4. Anna Dare, Surgery, University of Toronto, Toronto

Author 5. Rachel Spitzer, Obstetrics and Gynaecology, Mount Sinai Hospital, Toronto

Background: Equipping surgical residents with advocacy skills is crucial to addressing individual and systemic inequities. Although health advocacy is a core competency in CanMEDS, teaching and evaluating has been challenging in surgical residency programs. This study characterizes attitudes towards and barriers to engaging in advocacy at both a patient and systems level among surgical residents at the University of Toronto.

Methods: First-year surgical residents participated in this mixed-methods study during a physician advocacy seminar. Residents completed surveys on prior and current advocacy experiences, with interested participants engaging in 20-minute semi-structured interviews. Interview transcripts were analyzed qualitatively using semantic and conceptual coding, ensuring interrater agreement.

Results: Of 36 attendees, 27 (75%) completed surveys, and 13 (48%) were interviewed. Among survey respondents, 59% reported prior advocacy experience, while only 41% had exposure to advocacy education. Only 22% felt that pursuing advocacy during residency was "very feasible." Additionally, 47% were "slightly likely" to pursue advocacy during residency, and 37% were "moderately likely" to incorporate advocacy into future practice. A lack of mentorship for advocacy development was reported by 33%. Barriers included limited time (89%), lack of career tracks (56%), and insufficient mentorship (56%). Recommendations for enhancing advocacy support included integrating advocacy into curricula (62%), allocating protected time (46%), improving recognition (46%), and fostering an academic culture prioritizing advocacy (38%).

Conclusions/Findings: Surgical residents recognize the importance of health advocacy but face significant barriers to engagement during training. These findings highlight the need for formal advocacy curricula to prepare residents as medical experts and effective advocates.

2. The Effect of Amubarvimab-Romlusevimab on Clinical Outcomes in Patients with COVID-19: A Meta-Analysis

Author 1. Toni Li, Emergency Medicine, PGY2, University Health Network, Toronto

Author 2. Yushu Wang, Cardiology, Staff

Author 3. Nathan Balzer, Emergency Medicine, Staff

Author 4. Guangyu Ao, Nephrology, Staff

Background: The COVID-19 pandemic presented significant challenges to healthcare systems globally, with emergency departments playing a pivotal role in managing the frontline influx of patients. While the World Health Organization (WHO) indicated that COVID-19 no longer met the definition of a public health emergency of international concern, it remains an established and ongoing health issue. The continued emergence of new variants and the phenomenon of post-COVID-19 condition (commonly referred to as long COVID) have a disproportionate burden on under-resourced healthcare systems and marginalized populations, highlighting an ongoing need for innovative and accessible treatment modalities. Amubarvimab-romlusevimab (BR11-196/198), a combination of two neutralizing monoclonal antibodies, has emerged as a promising therapeutic option by demonstrating early antiviral activity against SARS-CoV-2.

Objectives/Purpose: While there have been case reports describing the mortality and morbidity benefits of amubarvimab-romlusevimab in the treatment of COVID-19, there has been no meta-analysis exploring its therapeutic potential. We present here the first meta-analysis in the literature that evaluates the efficacy and safety of amubarvimab-romlusevimab in the treatment of COVID-19.

Methods: A systematic search of PubMed/MEDLINE, Embase, Cochrane Library, Scopus, Web of Science, and ClinicalTrials.gov was performed from January 1, 2020 to January 1, 2025 for studies comparing outcomes between amubarvimab-romlusevimab treatment and no amubarvimab-romlusevimab treatment in COVID-19 patients. Mortality and disease severity were extracted for meta-analysis. Seven studies involving 1,752 patients were included. A P value of <0.05 was considered statistically significant.

Results: There was no significant difference in mortality (OR=0.90, 95%CI: 0.45-1.79, P=0.76) or disease severity (OR=1.13, 95%CI: 0.82-1.55, P=0.47) between groups.

Conclusions/Findings: Amubarvimab-romlusevimab does not improve mortality or morbidity in hospitalized COVID-19 patients compared to no amubarvimab-romlusevimab treatment. Further research is needed with varying therapeutic modalities in different COVID-19 populations.

3. Reflecting on the University of Toronto HematologyToronto Addis Ababa Academic Collaborative (TAAAC) Experience

Author 1. Michael Scott, Hematology, Staff MD, St. Michael's Hospital, Toronto

Author 2. Danyal Ladha, Hematology, Fellow, Princess Margaret Hospital, Toronto

Author 3. Eric Tseng, Hematology, Staff MD, St. Michael's Hospital, Toronto

Author 4. Nazik Hammad, Oncology, Staff MD, St. Michael's Hospital, Toronto

Background: The Toronto Addis Ababa Academic Collaborative (TAAAC), founded in 2008, expanded the Toronto Addis Ababa Psychiatry Program (TAAPP), started in 2003, to currently involving multiple (>30) departments and divisions across the Temerty Faculty of Medicine at the University of Toronto (UofT) and Addis Ababa University (AAU). Hematology TAAAC stands out as a particularly successful and enduring partnership, resulting in the creation of a successful hematology residency training program at AAU. Previously, bidirectional exchanges of learners between AAU and UofT were the keystone of this collaboration. However, the COVID-19 pandemic put a halt to these, prompting innovative solutions to maintain the exchange.

Objectives/Purpose: This study aims to understand the bidirectional exchange of knowledge and meaningful training experiences for both AAU and Toronto hematology trainees and educational and hematology clinical capacity at AAU; while identifying challenges because of the COVID pandemic.

Methods: This study will describe the use and pedagogical impact of virtual experience and tools to continue bidirectional hematology education involving hematology trainees at UofT and AAU and transition to re-initiative in-person exchanges.

Results/Conclusion: Research methods for this study in progress, will include interviews and surveys of hematology learners and faculty from University of Toronto and Addis Ababa University and evaluation of learning objectives met and/or not sustained during the COVID-19 pandemic and implementation of virtual education tools. The study results will guide the process for advancing the TAAAC – Hematology academic, clinical and research partnership.

4. Socioeconomic Impact of Cardiovascular Surgical Disease: A Value of Lost Welfare Approach

Author 1. Dominique Vervoort, Cardiac Surgery & IHPME, Toronto General Hospital & Sunnybrook, Toronto

Author 2. Derrick Y. Tam, Cardiac Surgery, Staff MD, Sunnybrook, Toronto

Author 3. Beverley Essue, Associate Professor, IHPME, University of Toronto, Toronto

Author 4. Stephen E. Fremes, Cardiac Surgeon, Staff MD, Sunnybrook, Toronto

Background/Objective: Cardiovascular diseases are the leading cause of morbidity and mortality worldwide, yet six billion people lack access to safe, timely, and affordable cardiac surgical care. Little is known about the socioeconomic burden of cardiovascular surgical disease and lack of access to cardiac surgical care. Here, a value of lost welfare (VLW) approach is used to quantify the socioeconomic impact of cardiovascular surgical diseases globally.

Methods: Data on the global burden of cardiovascular diseases were obtained from the Global Burden of Disease Results Tool for 2019. One-third of the burden, measured by disability-adjusted life-years, was assumed to be surgical consistent with the literature and survey findings. A human capital approach was used with the VLW to quantify total economic welfare losses for each World Bank-defined country income group as the value of statistical life year (VSLY) relative to the identified morbidity with undiscounted future life expectancy. Sensitivity analyses examined the expected life years discounted at a 3% discount rate.

Results: Cardiovascular surgical diseases impose total economic welfare losses of \$2.5 trillion globally and \$1.0 trillion in low- and middle-income countries (LMICs) per year. This represents 1.9% of total gross national income (GNI) globally or 1.4% of total GNI in LMICs each year. When discounting, total VLW equals \$4.3 trillion globally and \$1.6 trillion in LMICs each year.

Conclusion: The socioeconomic burden due to cardiovascular surgical diseases is large, resulting in trillions in economic welfare losses, and requiring substantial investments to address the significant unmet cardiovascular needs of the world's population.

2025 POST GRADUATE MEDICAL EDUCATION

Dr. Peter Singer is a leader in global health and innovation, with over 35 years of experience in building innovative institutions with high social impact. He is currently a board member of Grand Challenges and the Azrieli Foundation, and Professor Emeritus at University of Toronto. He is co-founder of the University of Toronto joint Centre for Bioethics and Grand Challenges. From 2017 to 2023, he served as the Special Advisor to the Director General of the World Health Organization. Dr Singer is an Officer of the Order of Canada, a Fellow of the Royal Society of Canada, the U.S. National Academy of Medicine and the Academy of Sciences for the Developing World (TWAS) and was awarded the Michael Smith Prize as Canada's Health Researcher of the Year.

He has published over 300 articles, received over \$50 million in research grants, and mentored hundreds of students. He holds a MD from the University of Toronto, a MPH from Yale University, a Fellowship in Bioethics from the University of Chicago, and an AMP certificate from Harvard Business School.



With thanks to.....

Postgraduate Education Global Health Research Showcase Committee

Dr. Serena Roviola, Fellow Critical Care
Dr. Liron Talmi, Fellow Acute Transplant Team
Dr. Angela Tsai, PGY2 Internal Medicine
Dr. Anudari Zorigtbaatar, PGY3 General Surgery

From Postgraduate Medical Education Global Health

Alex Aguilera, Assistant, Global Health Education Initiative
Judy Kopelow, Manager, Global Health Programming and Strategic Initiatives
Dr. Barry Pakes, PGME Global Health Academic Lead

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Dr. Meredith Giuliani, Associate Dean, Postgraduate Medical Education
Dr. Patricia Houston, Vice Dean, Medical Education, Temerty Faculty of Medicine
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Temerty Faculty of Medicine, University of Toronto