

## dear reader,

Welcome to Issue 36 of *The Meducator*! The vast, interdisciplinary field of health sciences has evolved closely alongside other branches of knowledge such as engineering, and more recently, biotechnology. As displayed in Peri Ren's cover illustration of an artificially enhanced human in fetal development, we are witnessing the birth of an era where technology is not simply a tool for health care provision, but rather a vital component of our well-being. As precision medicine is enabling increasingly personalized treatment and 3D printing is revolutionizing surgical possibilities, how can we leverage their potential while taking ethical considerations into account? How can healthcare professionals adopt new innovations to improve quality of care and prevent harm to patients? How can society at large employ technology to elevate the health and well-being of all citizens? As you explore this issue, we invite you to grapple with similar questions and contemplate technology's growing implications for the health sciences.

Our mandate of facilitating critical discourse within the health sciences remains front and centre in Issue 36, which showcases an exciting array of student exploration, debate, and inquiry. Kashyap Patel provides a critical overview of mitapivat, a novel therapy for pyruvate kinase deficiency, calling for higher quality evidence on the safety and efficacy of mitapivat. Dr. Gordon Guyatt, a Professor in the Department of Health Research Methods, Evidence, and Impact at McMaster University, recounts his role in establishing the current paradigm of evidence-based medicine and discusses its future. Rohan Aananth, Milena Cioana, and Nuri Song deliberate whether medical malpractice insurance enhances quality of care, providing viewpoints on both benefits and harms to patients. Through comparison of the most common and most lethal forms of tick-borne diseases, Jerry Chang identifies primary prevention as the most effective measure against the spread of disease. Finally, Aaron Wen discusses how the optimization of a chemotaxis-detecting assay may help to elucidate the impact of bacteriophage vicinity on bacterial movement.

In line with this issue's focus on the intersection of technology and health sciences, we are excited to introduce an all-new article, Biotech Blueprint. Biotech Blueprint shines a spotlight on a recent biotechnological advancement that has the potential to reshape the health sciences landscape. Adrian Wong and Albert Stancescu provide a brief history of 3D printing before delving into its application to human surgery. To parallel the increasing clinical accessibility of 3D printing, Adrian and Albert suggest that regulations and protocols be established for related technologies.

We are incredibly grateful for the opportunity to work alongside such talented and passionate individuals for the 36<sup>th</sup> publication cycle. The dedication and resilience of our staff, authors, and post-graduate partners are integral to the continued excellence of this journal. In particular, we would like to thank our Managing Editors, Kevin and Saba; Creative Directors, Suffia and Karishma; Video Manager, Adrian; MeduCollab Directors, Daniel and Annisa; and MeduPromo Director, Zahra, for their leadership and initiative. Finally, we would also like to express our gratitude to you, our reader, for your continued support of our publication. We hope something in this issue piques your interest, sparks a question, and inspires innovation of your own.

Sincerely,



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