

## dear reader,

On behalf of the team, it is our pleasure to introduce the 31st issue of The Meducator. We are incredibly proud of our staff members and all they have accomplished this year. From holding scientific literacy workshops in collaboration with the Hamilton-Wentworth District School Board, to on-campus partnerships with NeuroXChange, Descipher, and the McMaster Undergraduate Research Association, to our first-ever issue launch event, our team's enthusiasm has allowed The Meducator's impact to grow even further beyond our print journal. Our final issue this year serves as a reminder of all that undergraduate research is able to achieve.

This issue begins with a beautiful cover by Bob Yang that highlights the symmetry and mathematical beauty that can be found in the sciences. We then explore global breakthroughs within the health sciences through our Medpulse piece by staff members Jessica Chee and Tony Chen. Editors Sabrina Lin, Anna Goshua, Sama Anvari, and Kevin Ren take a critical look at news in our Medbulletin piece to explore stem cells, the opioid crisis, ketamine, and novel surgical treatments, respectively. Exploring the effects of poverty on health, the McMaster Health Forum continues our longstanding collaboration through our Forumspace piece with Malcolm Hartman, Alena Lukich, Janice Mok, and Padmaja Sreeram. Next, we feature four abstracts by Omar Shawaf, Aaron Edward, Daiana Pogacean, and Elsie Amoako to highlight original undergraduate research.

Through our arts-based Pathoprofile piece, we elucidate the FKBP5-mediated pathway of stress with collaboration between staff members Tahkliq Amir, Owen Luo, and Cathy Lu. Our two Opinion pieces then evaluate the ethical implications of newborn screening as well as nonfinancial organ donor compensation, through articles from Adam Wade-Vallance and Edward Li, respectively. Two critical reviews have been selected for this issue of the Meducator. Mobeen Mubasher details the role of regulatory T cells in allergic asthma, while documenting current and future immunotherapies for the condition. Sarah Ge, Parsa Mehraban Far, and Devin Roshan writes about an emerging HIV treatment that employs latency reversing agents to "shock and kill" the virus.

In addition, we have had the privilege of hosting former history of health and medicine librarian, Anne McKeage. Ashley Lam and Kevin Chen's interview with Anne spans a range of topics including McMaster's Rare Book Room, undergraduate involvement in the history of medicine, and her personal experiences as an archivist. The Meducator also hosted its inaugural Biomedical Graphics Contest, in which the winning submission from a McMaster wide contest has been published.

The Meducator's 31st publication would not have been possible without each and every one of the 40 members of our editorial, graphics, and video teams. Special thanks to Creative Directors Maine Bing and Michael Sun, Managing Editors Ishan Aditya and Arshia Javidan, and Video Manager Faizan Bhatia for their amazing work. We look forward to welcoming incoming Editors-in-Chiefs, Sarah Ge and Sabrina Lin. We are confident that they will do a superb job of maintaining The Meducator's mission of sharing undergraduate research to the McMaster community.





**MATTHEW YAU**  
Bachelor of Health Sciences  
(Honours) Class of 2018





**ABIRAMI KIRUBARAJAN**  
Bachelor of Health Sciences  
(Honours) Class of 2018