

Dear Readers,

It is with great pleasure that the editorial board of the Columbia Undergraduate Science Journal presents the 15th edition of our publication. Since 2006, CUSJ has aimed to create a space to highlight the accomplishments of undergraduate scientists and to foster the academic growth of students across all universities. To this end, this cycle saw a record number of submissions, and I am proud to witness the rapidly growing number of undergraduates gaining experience and accessing research opportunities.

This edition of CUSJ features research and review articles that traverse disciplines in their scope. Starting with our featured cover story on epithelial barrier integrity, this issue also explores topics from the microwave imaging of pipes to neural oscillations in second language proficiency. I am ecstatic to see the wide variety among these papers, and hope that you will find them as insightful as our editorial board did. Coming from undergraduates working at universities located around the world, we hope that you appreciate the importance of their diverse voices.

In a year where our organization had to move to a virtual format, producing an issue filled with outstanding research was more difficult than ever, and I would like to show my appreciation to everyone who was involved in the process. This includes but is not limited to the CUSJ editorial board, the CUSJ editorial committee, our Faculty Advisory Board, our advisors at Columbia Libraries, our peer reviewers, research mentors, and all students who submitted their work. In particular, thank you to our published authors, who demonstrated an unwavering commitment to the quality of their papers and who were always a joy to work with despite the lengthy editing process they were subjected to.

It has been an honor and a privilege to serve as the 2020-2021 Editor-in-Chief of CUSJ. I look forward to seeing the direction of the next editorial board and the future achievements of everyone involved.

Thank you for reading CUSJ!

Sincerely, Isabella Leite Editor-in-Chief Columbia Undergraduate Science Journal