

Anita T Layton

Department of Applied Mathematics, University of Waterloo, Waterloo, ON, Canada



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Biosketch:

Anita Layton is the distinguished University Professor and Professor of Applied Mathematics, Computer Science, Pharmacy and Biology at the University of Waterloo. Her research focuses on the development and application of mathematical models to gain insights into human and mammalian physiology and pathophysiology. In particular, she is interested in the effect of sex and circadian clock in kidney function, kidney disease, diabetes, and cardiovascular disease. She is the Editor of SIAM Review Book Section, a section editor of the SIAM journal on Life Sciences, an associate editor of SIAM Journal on Applied Dynamical Systems, Mathematical Medicine and Biology, Frontier in Physiology, Maple Transactions, and an AI/ Machine Learning Section Editor for Hypertension. She is a Fellow of the Royal Society of Canada, the American Physiological Society, the Canada Mathematical Society, and the Association of Women in Mathematics. She is also the 2021 winner of the Krieger–Nelson Prize of the Canadian Mathematical Society, a 2021 winner of the Top 100 Most Powerful Women in Canada by the Women’s Executive Network, the 2023 winner of the Award of Merit by the Federation of Chinese Canadian Professionals, the 2023 winner of the John L. Synge Award by the Royal Society of Canada, the 2025 winner of the CAIMS Research Prize, and the 2026 winner of the Ernest H. Starling Distinguished Lecture Award, American Physiological Society Water & Electrolyte Homeostasis Section.

E-mail: anita.layton@uwaterloo.ca