

A Canadian Moment in Medical History

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As part of our summer Second Opinion series, we're featuring great Canadian moments in medical history. This week ... meet [Maud Menten](#).



University of Toronto graduate Maud Menten, along with her German collaborator Leonor Michaelis, discovered an equation that is still a staple of biochemistry today. (Archives Service Center, University of Pittsburgh)

She has one of the most famous names in biochemistry, yet most Canadians have never heard of her. At the beginning of the last century, Maud Menten earned a medical degree at the University of Toronto, but she chose the science bench over the bedside. And that's where she helped discover something that every biochemistry student in the world still learns today — the Michaelis-Menten equation.

"She's really very famous and she deserves more attention," said University of Toronto Prof. Laurence Moran, who put a picture of Menten in the biochemistry textbook he wrote so the world would know about this prominent Canadian scientist. "All of the textbooks mention her, but I just put in a little extra detail, because I'm so proud of her as a Canadian."

The equation, named for Menten and her German collaborator Leonor Michaelis, is one of the first concepts taught in biochemistry. And it's critical to understanding how enzymes work.

$$V_0 = V_{\max} \left(\frac{[\text{Substrate}]}{[\text{Substrate}] + K_m} \right)$$

Menten's equation helped scientists discover methods to block enzyme reactions, which led to drugs like statins that inhibit the activity of enzymes that make cholesterol, Moran said.

Still, there was one niggling part of the history that Moran had to correct.

"All the sites are saying she was one of the first women to graduate in medicine from the University of Toronto, but I knew that wasn't true."

That's because there are photographs of all of the graduating classes lining the halls of U of T's medical sciences building. And Moran could see there were many faces of women in those class pictures dating back to 1896.

He [tracked](#) down the mystery and discovered that Menten was, in fact, one of the first women to get an advanced degree in medical science. In today's language it's called a PhD, making her a rare female presence in the masculine laboratories of the day. In addition to the famous equation that bears her name, she made a series of other contributions to biochemical research.

"She was a radical feminist 1920s flapper. She would have been a really interesting person to meet," Moran said.

These fascinating stories of discovery were selected from the [Canadian Medical Hall of Fame](#), a medical history museum that began in 1993. Every year seven Canadians are inducted. There is a small, physical museum in London, Ont., but executive director Lissa Foster told us the real museum lives [online](#), with video features for all 125 laureates.

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