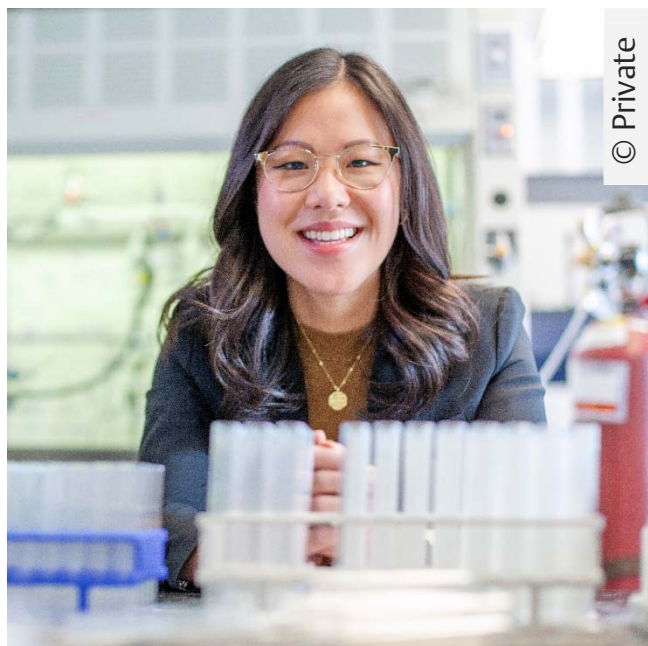


Meet Prof. Christine M. Le, Thieme Chemistry Journals Awardee 2024!



Prof. Christine M. Le is an Assistant Professor in the Department of Chemistry at York University (Canada). She obtained her Master's degree (2012) and PhD (2016) from the University of Toronto (Canada) before becoming a postdoctoral fellow at the University of California, Berkeley (2017–2019). In 2020, she began her independent career at York University.

Thieme: Which field of organic chemistry are you interested in the most and why?

Prof. Le: I am most interested in how catalysts or reagents are designed to enable challenging or previously undocumented chemical transformations. I am particularly intrigued by approaches that combine data science and mechanistic studies as a foundation for reaction discovery. In my opinion, understanding how reactions work, or more importantly, why they don't work, is key to solving the remaining challenges in our field.

Thieme: Following that, what is the focus of your current research activity?

Prof. Le: My research program seeks to broaden and diversify the reactivity and chemical space of fluorinated organic molecules, with the overarching goal of advancing synthetic methods to access these compounds. We have a keen interest in developing the chemistry of readily accessible fluorine-containing building blocks, such as carbamoyl fluorides and related acyl fluoride derivatives.

Thieme: What do you think about the modern role and prospects of organic chemistry?

Prof. Le: I see great potential in bringing high throughput experimentation (HTE) techniques into academic labs. Much of the knowledge around HTE remains in industrial labs or in academic groups that have industrial connections. As these tools become more accessible and affordable, academic chemists will greatly benefit from the power of this approach for reaction discovery and optimization.

Thieme: Which difficulties are there for young upcoming chemists in your field? Do you have any tips?

Prof. Le: Young upcoming chemists, specifically early career academics, face challenges associated with securing competitive research grants. My suggestion is for them to capitalize on collaborative grants whenever feasible. By doing so, they can tap into diverse funding channels, while having the opportunity to work within interdisciplinary teams. This approach not only optimizes opportunities for research funding but also facilitates the exploration of novel, multidimensional research endeavors.

Thieme: What is your most important scientific achievement to date and why?

Prof. Le: We recently developed a simple protocol to synthesize carbamoyl fluorides using a difluorophosgene surrogate, and we were honoured to receive the 2023 JOC Outstanding Publication of the Year Award for this work. This publication was my first independent paper, so it feels incredibly rewarding to have our chemistry already recognized for its impact on the community.

Thieme: Could you tell us something about yourself outside the lab, such as your hobbies or extra-work interests?

Prof. Le: I would consider myself a foodie. I love trying new restaurants, experimenting with unique recipes, and binging on food competition shows.
