

Robin Hamilton

Dark Matter Materials, Inc.
Alberta

Date: Friday 20 March 2026

Time: 11:30 AM (ADT)

Location: Atrium AT101

Strategy, Skills, and Innovation in the Chemical Industry**Abstract:**

What does it mean to be a "scientist" in 2026? For many undergraduate students, the path after graduation feels like a choice between two divergent paths: academia or industry. In this seminar, we will explore the relationship between these two worlds. We'll examine how the key skills of academic chemists, problem solving and basic inquiry, form the foundation of a successful industrial career, and how the analytical mindset cultivated in undergraduate labs is the ultimate "transferable skill."

We will examine the essential business methodologies that dictate the pace of industrial innovation, such as identifying pain points and navigating obstacles, and discuss how students can apply an "Industrial Toolkit" to their current studies. The final portion of the talk will provide a technical introduction to transition metal catalysis and battery chemistry. This technical overview will serve as a primer for those new to these fields, demonstrating that the forefront of chemical innovation is not confined to the university lab, but is actively driving the future of global energy and sustainability.

Biography:

Dr. Hamilton obtained his B.Sc. and M.Sc. degrees from Lakehead University, and a Ph.D. from Prof. Steve Bergens at the University of Alberta investigating asymmetric olefin and ketone hydrogenation. After an NSERC Postdoctoral Fellowship, he became a Senior Research Associate and Co-director of the Stryker group at the University of Alberta managing the bitumen upcycling programs. Dr. Hamilton was the creative center for work in electro-catalytic conversion of bitumen asphaltene and lignin biomass to value added carbon materials. He joined DMM in September 2023 and has been innovation nucleus for the company's breakthrough technologies. Dr. Hamilton's expertise extends over a range of subdisciplines: inorganic, organometallic, synthesis and mechanism, homogeneous, heterogeneous, and electrochemical catalysis.