



Centre en chimie verte et catalyse

Center in Green Chemistry and Catalysis

Green Chemistry and Catalysis Seminar: François Lévesque - From the Lab to the Plant: Recent Applications in Flow at Merck
francois.levesque@merck.com



Wednesday, April 13, 2022 11:00 am to 12: 30 pm – Université de Montréal, MIL campus, Pavilion
A, **room: A.2521.1**

Seminar will be in person, but can be accessed

virtually: <https://umontreal.zoom.us/j/85010426705?pwd=Qm5zbTdmN1hCV3Y3RE1ZT0ZRMlV3UT09>

Abstract:

The past decade has seen the emergence of the usage of flow chemistry for the manufacturing of active pharmaceutical ingredients (APIs) and their intermediates. This nascent interest in these technologies has arisen from the opportunity for improved control of key reaction parameters: heat and mass transfer, stoichiometry at the point of mixing and reaction time. Furthermore, flow chemistry considerably expanded the synthetic chemist's toolbox by enabling the use of flash chemistry, photochemistry, electrochemistry and immobilized biocatalysts across scale. To take advantage of these benefits, it is often necessary to develop innovative approaches, tools and platforms to overcome material availability, program timeline and limited data, especially in the cases of non-conventional reaction conditions. This talk will describe how the flow chemistry team at Merck & Co. have recently applied these technologies



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to various applications that were efficiently transferred from lab scale to pilot plant scale. Our discussion will also highlight the use of data-rich experimentation to ensure safe, effective, and timely transition across scale of photochemical, flash chemistry and biocatalytic processes.

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