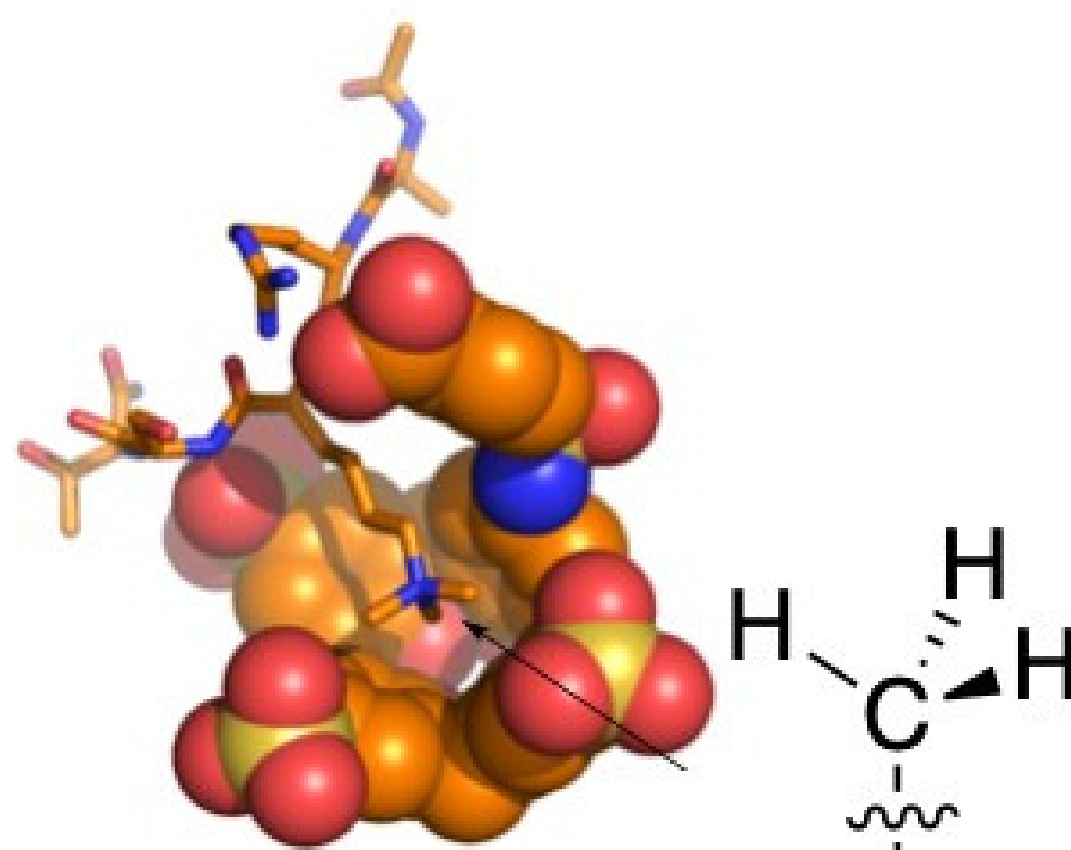




## Dr. Fraser Hof

Department of Chemistry  
University of Victoria

**Small things amuse small minds:  
the many roles of methyl groups in cancer, craft  
brewing, and illicit drugs.**



Methylation occurs throughout Nature. Methylation is the smallest possible change that can be made to a protein, but the addition of methyl to a single protein can have large impacts on cell growth, development, and human disease. Even though the impacts are large, the subtle nature of the addition makes it particularly hard to study.

This talk will describe the development of new approaches to inhibiting methylation pathways. It will also show how we develop new materials that can help to enrich and measure methylated species in various settings. Finally, we'll discuss how an accidental discovery led to the development of new fluorescent sensors that can discriminate between illicit drugs down to the level of individual methyl groups.