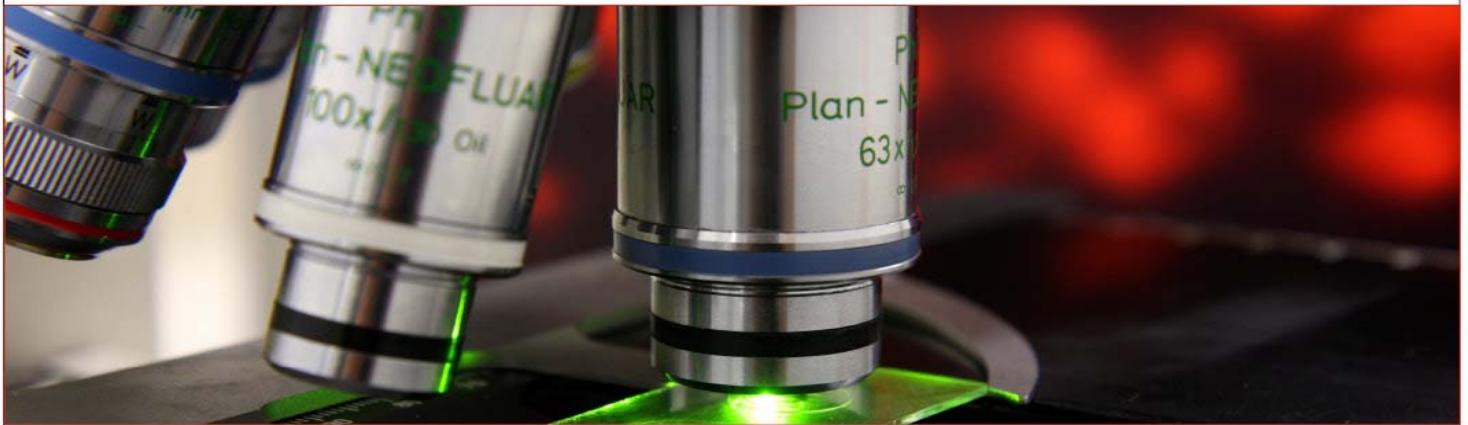


# SÉMINAIRES ET CONFÉRENCES



## Rodrigo Reyes-Lamothe

Department of Biology  
McGill University

### « Tracking single fluorescent molecules to understand DNA replication in live cells »

Our understanding on the biochemical processes in cells is limited by the impossibility to replicate the intracellular conditions in test tubes. Our work in the lab aims to bypass this limitation by generating and using live cell imaging tools to study biochemistry. In my talk, I will discuss recent work using *Escherichia coli* where we studied the multi-component machine that coordinates DNA replication, the replisome. I will show that, in contrast to what was previously believed, most replisome subunits have a high turnover during active synthesis, including the DNA polymerase. This suggests that the synthesis of DNA in both strands occurs discontinuously. This mode of DNA synthesis is particularly unexpected as it potentially exposes DNA structures that are sensitive to degradation. I will discuss the potential advantages of such behaviour and show our initial attempts to test if it is shared with eukaryotes, using budding yeast as our model system.



Faculté de médecine  
Département de biochimie  
et médecine moléculaire

Université   
de Montréal

**Le lundi 12 mars 2018, 11:30**

**Pavillon Roger-Gaudry**

**Salle : G-1015**

**Invité de Daniel Zenklusen**

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