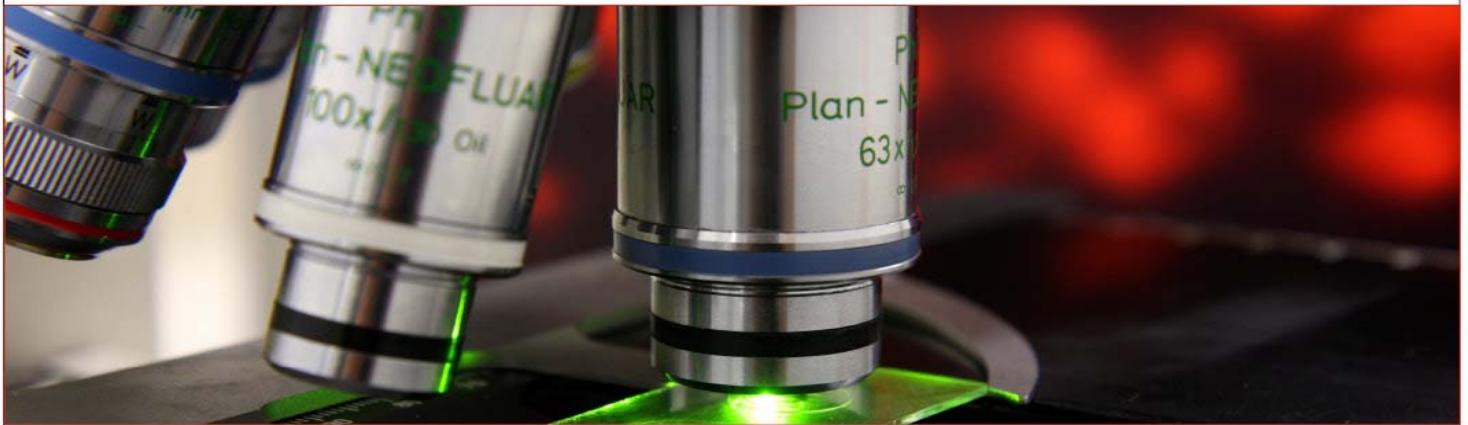


SÉMINAIRES ET CONFÉRENCES



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« RNA-targeting by CRISPR-Cas enzymes »

There is a continuing need to understand how RNA-mediated gene regulation helps to control fundamental biological processes such as cell-fate decision and maintenance, and is dysregulated in diseases such as cancer. Understanding these processes would greatly benefit by access to robust programmable sequence-specific RNA binding molecules. Prokaryotic CRISPR-Cas adaptive immune systems have recently revealed new opportunities to create a versatile range of tools to specifically target RNA to understand these biological processes. My lab has been studying the molecular mechanisms by which CRISPR-Cas proteins such as Cas9 and Cas13 are able to target RNA, and we using these proteins to develop a number of applications including RNA detection, RNA imaging and manipulation of RNA metabolism. I will present some of our work that demonstrates how Cas9 and Cas13 are able to specifically interact with RNA, and how we can exploit these properties to develop applications to image RNA in live cells and detect RNA in complex mixtures for disease diagnostics.



Faculté de médecine
Département de biochimie
et médecine moléculaire

Université 
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Pavillon Roger-Gaudry

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