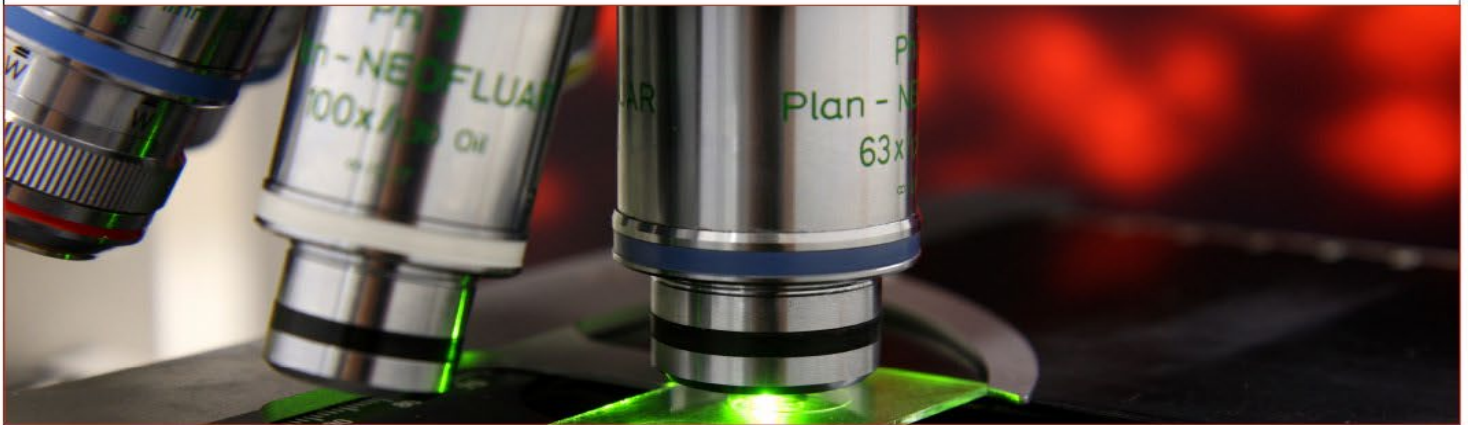


SÉMINAIRES ET CONFÉRENCES



Anne-Ruxandra Carvunis

Department of Computational and Systems Biology

University of Pittsburgh School of Medicine

“Molecular mechanisms of evolutionary innovation”

Where do genes come from? All genomes contain genes whose sequences appear unique to a given species or lineage to the exclusion of all others. These “orphan” genes cannot be related to any known gene family; they are considered evolutionarily novel and are thought to mediate species-specific traits and adaptations. In this seminar, I will present an investigation of the evolutionary origins of orphan genes in eukaryotes. According to our results, most orphan genes may have evolved through an enigmatic process called “*de novo* gene birth”. I will present a series of integrated computational and experimental analyses in budding yeast that begin to shed light on the molecular mechanisms of *de novo* gene birth. Serendipitously, these analyses reveal the existence of thousands of previously unsuspected species-specific translated elements in the yeast genome that appear to mediate beneficial phenotypes yet are evolutionarily transient. I will discuss the implications of these findings for our understanding of molecular innovation in eukaryotes.



Faculté de médecine
Département de biochimie
et médecine moléculaire

Université 
de Montréal

Le lundi 17 avril, 12h00

Pavillon Joseph-Armand-Bombardier, Salle : 1035

ET

[Lien Zoom](#)

Invité de Stephen Michnick
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