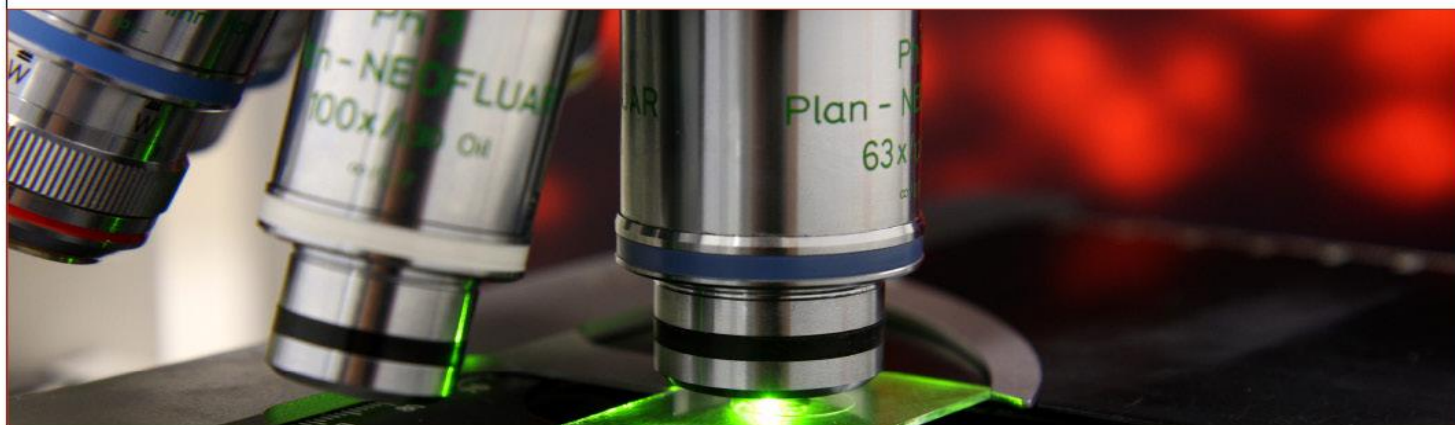


SÉMINAIRES ET CONFÉRENCES



Gosia Trynka, Ph.D.

**Science Director of Open Targets Group
Wellcome Sanger Institute**

“ Dissecting complex immune disease mechanisms through context-specific gene regulation and T cell morphodynamics ”

Revealing the cellular impact of immune-mediated disease-associated (IMD) variants requires measuring their effects within the dynamic gene expression and phenotypic programmes that shape immune cell function. In this seminar, I will present our recent work, which resolves context-specific eQTLs across T cell activation states and reveals how polygenic IMD risk converges on discrete, activation-dependent gene programmes. These analyses uncover regulatory axes that link genetic architecture to effector function and disentangle proliferation, differentiation, and metabolic rewiring to pinpoint key contexts in which disease variants exert their impact.

I will then introduce TGlows, our high-content imaging platform that profiles T cell morphology at scale, enabling us to capture phenotypes beyond transcript abundance. By quantifying morphodynamic trajectories during activation and exhaustion, TGlows provides an orthogonal layer for studying variant-relevant biology, allowing us to map how genetic- and drug-induced perturbations, reshape T cell states. Together, these approaches outline our strategy for decoding IMD variant effects through large-scale multimodal profiling of gene regulation, cellular programs, and functional phenotypes.



Faculté de médecine
Département de biochimie
et médecine moléculaire

Université 
de Montréal

Le lundi 19 octobre, 11h30

Pavillon Joseph-Armand-Bombardier, Salle : 1035

Et

[Zoom](#)

Invitée de Stephen Michnick
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