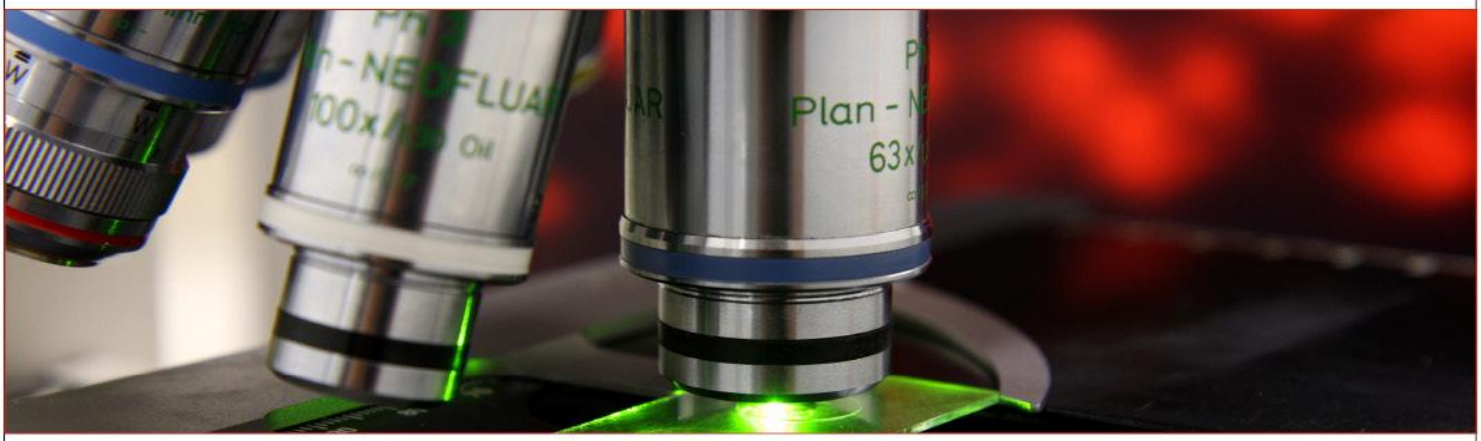
SÉMINAIRES ET CONFÉRENCES



Sachdev S Sidhu, Ph.D.

Simisco Biosciences and The Anvil Institute for Systems Biologics

" Systems Biologics and Multivalent Antibodies: A Pipeline for Next Generation Therapeutics "

In recent years, genomics technologies have revolutionized basic research and are also having a significant impact on understanding, predicting, and diagnosing disease. Over the same period, the biologics revolution, led by therapeutic antibodies, has greatly expanded our ability to target proteins that drive cancer and other diseases. To date, however, the academic genomics revolution and the industrial biologics revolution have not been combined, so that the vast amounts of data generated by genomics technology have not been effectively translated to drug development, which remains a slow, case-by-case process. We have developed an approach that we call "systems biologics", which combines large-scale systems biology with the development of new antibody drugs. The efficient pipeline extends from basic research through translational science, and it constitutes a new model for research and drug development. A significant general finding of the systems biologics approach has been that many diseases that cannot be treated with conventional monospecific, bivalent antibodies may be treatable with multispecific, multivalent antibodies. Thus, in parallel with the systems biologics research platform, we have developed a robust platform for the modular assembly of multivalent antibodies in high-throughput. Through this model, cutting-edge systems biology basic research can be seamlessly translated into systems biologics, and then, drug-grade multivalent antibodies can be manufactured to take advantage of the complexities of human biology revealed by genomics data.

GE MERCK Vivre mieux VWR Boehringer Ingelheim AstraZeneca

Faculté de médecine
Département de biochimie et médecine moléculaire
Université de Montréal

Le vendredi 12 juin, 12h30

Pavillon Joseph-Armand-Bombardier, Salle : 1035
et
Zoom

invité de Stephen Michnick
stephen.michnick@umontreal.ca