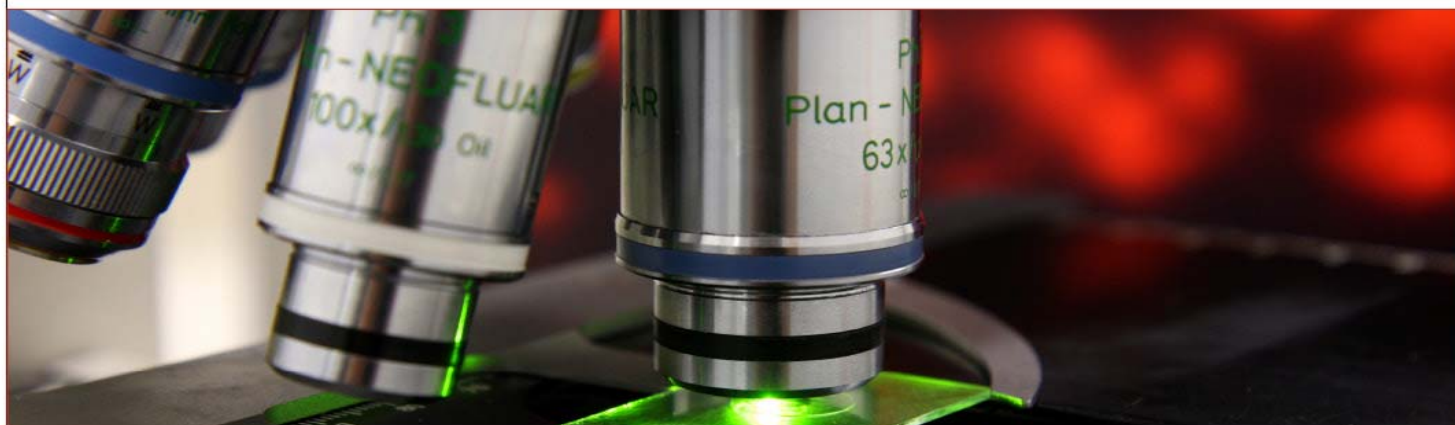


# SÉMINAIRES ET CONFÉRENCES



**Yuh Min Chook**

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## **«Signals and Blockers in Nuclear-Cytoplasmic Transport»**

The Chook Lab studies physical and cellular mechanisms of Karyopherin- $\beta$  proteins (Kaps, also known as Importins or Exportins) that transport macromolecules in and out of the nucleus. There are 20 different Kaps in human cells, each recognizing distinct nuclear localization or export signals (NLSs or NESs) in their protein cargos. Kaps are critically involved in cellular processes such as gene expression, signal transduction, immune response, oncogenesis and viral propagation, all of which require proper nucleocytoplasmic targeting. Our long-term goals are to understand how the macromolecular nuclear traffic patterns coordinated by the 20 human Kaps contribute to overall cellular organization. Two questions that we ask are 1) what are the signals that are recognized by each of the 20 Kaps and 2) do Kaps only transport macromolecules or do they also have other cellular functions? Our research aims to answer these fundamental questions. Our recent work has shed light on nuclear import by the importins Kap $\beta$ 2 (also known as Transportin-1) and Importin-9, and on nuclear export by the exportin CRM1 (or XPO1).



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**Le Mardi 4 juin 2019, 11h30**

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