

# TORC2-mediated metabolic rewiring in colorectal cancer

RICTOR, a core component of the mTORC2 complex, is frequently overexpressed in cancer, where it supports tumour growth. While traditionally associated with cytoskeletal organisation and AKT signalling, in our study, we reveal a novel function of RICTOR in the regulation of the folate and methionine cycle (Met-C)- an essential metabolic hub that promotes nucleotide synthesis, methylation reactions, and redox homeostasis. In this talk, I will discuss how RICTOR helps cancer cells adapt to the enhanced metabolic requirements by modulating the Met-C and mitochondrial dynamics. This work identifies RICTOR-regulated metabolic pathways as a potential therapeutic target in cancers.

**4:00 PM | THURSDAY | 15 MAY 2025**

●●● **AUDITORIUM, NII**



**Jasleen Kaur**

Molecular Aging Lab



● ● ● GRADUATE STUDENT SEMINAR



## Targeting liver-to-colon inflammatory axis, a novel strategy to limit diabetes-associated inflammatory bowel disease development

Inflammatory bowel disease (IBD) is a non-communicable disease with unknown aetiology. Although consumption of fat-enriched diet is a major risk factor for the increased incidences of IBD, the underlying pathophysiological mechanism remains largely unexplored. Fatty food affects not only the gut but other metabolic organs as well. Since, liver is the metabolic center of the body regulating both metabolic processes and systemic inflammation via plasma-soluble secretory factors, thus, evaluating the role of such liver secretory factors in IBD development is an exciting field of research. We propose to explore the liver-to-gut inflammatory axis and the development of liver-targeted approaches to combat ever-increasing cases of IBD.

4:30 PM | THURSDAY | 15 MAY 2025

● ● ● AUDITORIUM, NII



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