Bio Phys TO

Lunchtime Seminar Series

WHEN?
December 5th, 2024
12:00-1:00PM

WHERE?
McLennan Physical Laboratories
255 Huron Street
Rm. 606

WHY?
Join us for pizza and an opportunity to learn and engage with members of the UofT Biophysics community!

SPEAKER

Sumaiyah Rehman

Scientific Associate at the Princess Margaret Cancer Center, University Health Network.

Understanding Minimal Residual Disease

Despite significant advancements in cancer research, the 5-year survival rate for colorectal cancer (CRC) patients has seen only marginal improvement over the past two decades, remaining at 67.8%. CRC is the third leading cause of cancer mortality, with patient deaths primarily driven by tumor recurrence and distal metastasis. A critical factor in this process is the emergence of drug-tolerant persisters (DTPs)—a transient state enabling cancer cells to evade chemotherapy and targeted therapies. While DTPs are recognized as important contributors to minimal residual disease (MRD) and mediators of tumor relapse, the underlying heterogeneity within MRD remains poorly understood. My research focuses on uncovering the mechanisms that support tumor cell survival in MRD, leveraging advanced tumor models that closely replicate patient outcomes.

By identifying reliable diagnostic and prognostic markers of relapse-prone patients, we aim to guide the development of strategic therapeutic interventions with the potential to prevent tumor recurrence and improve survival outcomes for CRC patients.

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