234th WPI-IIIS Seminar

Developing next-generation spatial transcriptomics for resolving RNA dynamics in tissues

Spatial transcriptomics offers powerful opportunities to study tissue biology by enabling transcriptome-wide analysis while retaining spatial organization. Over the past decade, high-plex RNA imaging- and next-generation sequencing–based methods have been developed, but current platforms still capture only a limited number of RNA molecules per cell, far below what can be achieved with conventional single-cell RNA sequencing. This limited sensitivity, together with the common 3′ bias of sequencing-based methods, hampers comprehensive analysis of transcriptional dynamics. In this presentation, I introduce our efforts to build a next-generation spatial transcriptomics platform designed to achieve substantially higher sensitivity and to recover full-length transcript information at single-cell resolution in mammalian tissues such as brains.

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Date: **Monday, September 29, 2025**

Time: **13:30 – 14:30**

Venue: **1F Auditorium, IIIS Building**

＊On-site participation only

IIIS
INTERNATIONAL INSTITUTE FOR INTEGRATIVE SLEEP MEDICINE

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