

December 6, 2024 (Fri) 15:00-16:00

Venue: CCII Bristol Myers Squibb Bldg. (Bldg. No.2)
Meeting Room (2F)



Dr. Saumya Agrawal

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“The Role of Chromatin Three-Dimensional Structure in Defining Regulatory Element Targets”

The three-dimensional (3D) structure of human chromatin is essential for regulating cell behavior and function, influencing key biological processes such as transcription, DNA replication, recombination, and DNA damage repair. In my research, I combine Hi-C chromatin conformation data with CAGE transcriptome profiling, a technique that enables the detection and quantification of transcription initiation at single-nucleotide resolution. This integration allows us to link enhancers with their corresponding promoters and assign functions to non-coding RNAs (ncRNA) based on their physical interactions with coding genes. Recently, I have applied these genomic approaches to investigate the targets of long ncRNAs and biomedical issues, including affect of chromosomal rearrangement in AML patients regulatory elements and cellular responses to SARS-CoV-2 infection. Additionally, I will present findings from an ongoing project that utilizes electron microscope tomography (EMT) imaging of the cell nucleus to explore genome function at the biophysical level in 3D genomics.



Admission free.
No advance registration required.
Mark your calendar and join us!

Organized by
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