

THE PURDUE LECTURE HALL SERIES

Thursday, April 8, 2021 @ 2:30

Zoom link: <https://purdue-edu.zoom.us/j/91240340247?pwd=emoyQVRUYmk0elZXRHFxcnJqVDB4Zz09&from=addon>

Topic: Host-pathogen interaction in Viral cancers; How do viruses evade the host immune response?

Guest Speaker: Srishti Chakravorty, PhD candidate, Purdue University Center for Cancer Research.

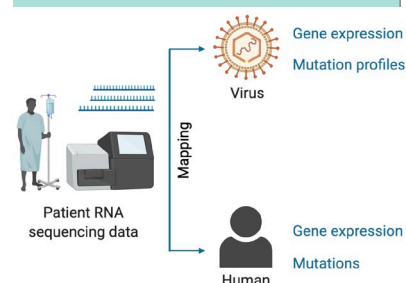
Epstein-Barr Virus (EBV) is transmitted orally and can cause acute Infectious Mononucleosis (IM), commonly called 'Mono' in a subset of adult human population. Upon infection, this virus typically persists as a life-long asymptomatic infection. However, in certain individuals, episodic reactivation of the virus increases the risk of transforming healthy cells to cancer cells that can escape our immune surveillance. Cancers caused by EBV (i.e. EBV⁺ cancers) display distinct molecular behaviors, with many having worse survival outcomes, compared to cancers of the same tissue type that are not caused by EBV (i.e. EBV⁻ cancers). Unfortunately, current therapeutics do not typically distinguish them apart, resulting in EBV⁺ and EBV⁻ cancer patients receiving the same treatments which are often toxic to patients with EBV⁺ cancers.

My research is focused on understanding and elucidating the host pathogen interactions in EBV-associated Cancers. In our lab we utilize a combination of computational (such as high-throughput sequencing technologies) and experimental (such as Quantitative PCR and Flow Cytometry) approaches to answer some complex but interesting questions, such as, how do certain viral genes help EBV infected cancer cells escape killing by the host's immune cells? How can we target EBV specific molecular pathways, in a way, that might improve treatment options for patients with EBV⁺ cancers?

Background: Srishti is currently a fourth year PhD Candidate in Dr. Majid Kazemian's Lab in the Department of Biochemistry at Purdue University, West Lafayette. She is originally from New Delhi, India where she completed her Bachelor's and Master's in Biomedical Science from University of Delhi, India.



Srishti Chakravorty
PhD Candidate



Strategy to study Host-pathogen interactions

