

MONDAY

COLLOQUIUM

Phase separation in DNA damage responses and gene expression

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11 Aug 2025 (Monday) | 16:00 Hrs (Tea / Coffee 17:15 Hrs) | Venue: TIFRH Auditorium

Liquid Liquid Phase Separation (LLPS) had become all the rage in Cell Biology in the past few years. The term became somewhat overused indicating a greater need for caution in invoking this phenomenon, especially inside cells. Our group works on the Cell Biology of DNA damage responses (DDR) and gene expression in the context of chromatin. Even without the intent of jumping on the LLPS bandwagon, we have been seeing hints of it in our studies. I will highlight some instances of this – in the contexts of the roles of HP1 isoforms in DDR, steroid hormone signalling, and nucleolar reorganisation upon stress. These studies are recent and ongoing, but overall, we are finding instances of condensate formation in the regulation of transcription and DNA repair. In this talk, I will describe our initial forays into these phenomena.