Structural insights into actin filament recognition

New Delhi, Aug 27: The July bulletin of the DBT-WT India Alliance has featured the recent publication of Dr. Minhaj Sirajuddin of the Cytoskeleton Lab of the Department of Biotechnology’s Institute of Stem Cell and Regenerative Medicine (DBT-InSTEM).

Minhaj is the first EMBO YIP Investigator from India and a recipient of a Wellcome Trust-DBT India Alliance Intermediate Fellowship. Research findings titled ‘Structural insights into actin filament recognition by commonly used cellular actin markers’ was published in EMBO Journal (June 2020).

Actin filaments are an important cytoskeleton component of cells that are involved in motility and transport of materials inside cells. These are also crucial for the maintenance of shape and therefore, integrity of cells. Minhaj Sirajuddin and his research team have determined the structures of actin filament bound to commonly used actin markers by exploiting the power of Cryo-EM facility available on campus. These structures allow for a comparative analysis of three markers bound to actin filament, thus offering valuable insights into their interaction. Read about the structural insights into actin filament recognition by commonly used cellular actin markers and the detailed findings of this research work here.

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