Colloquium

Learning from Outliers – Biomarkers for Immune Checkpoint Therapy

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Traditional methods of cancer treatment, based on tumor histology/morphology are transitioning to personalised treatment protocols, using patient specific tumor profiling. A recent major advance in cancer treatment was Immune Checkpoint Therapy (ICT), based on discoveries by James P Allison and Tasuku Honjo, for which they were awarded the 2018 Nobel Prize in Physiology or Medicine. Since ICT amplifies the immune response, it has significant side effects. Consequently, a major research focus has been the search for biomarkers to identify likely responders. I will describe several case studies where patients had unusual response to ICT and how analysis of their tumors and public datasets led to the identification of mechanisms of response and biomarkers, such as mutational thresholds in eight solid tumors, EBV infection in gastric adenocarcinoma and endogenous viral signatures in four cancer types. These discoveries are now used in clinical practice.

Friday, Jan 27th 2023

4:00 PM (Tea/Coffee At 3:45 PM)

Auditorium, TIFR-H