

Seminar

Mitochondrial Regulation of Tumour Immunogenicity

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The development of clinically relevant tumours requires evading detection by the immune system and adaptive metabolic rewiring to support proliferation. Mitochondria are central to these metabolic adaptations and are necessary for tumour growth. However, whether they affect the recognition and elimination of cancer cells has not been investigated. Recently, we have identified a specific manipulation of mitochondrial metabolism that increases cell surface antigen presentation in cancer cells by epigenetically activating the antigen-presentation-related genes in the nucleus. This enhanced antigen presentation prompts the recognition and killing of tumour cells by cytotoxic T lymphocytes, resulting in reduced growth of melanoma tumours. Further understanding of the mitochondrial contributions in the tumour immune responses will be crucial for the successful development of immunotherapeutics against cancer.

Tuesday, Mar 5th 2024

16:00 Hrs (Tea / Coffee 15:45 Hrs)

Auditorium, TIFR-H