Identification And Characterisation Of T Cell Responses In HPV-driven Cancer

Aims

To identify and characterize T cells in HPV-driven anal cancer in HIV+ and HIV- patient samples

Assess:

→ T cell and Trm characterisation
→ T cell size, localisation, & phenotype
→ T cell infiltration and potential anti-cancer roles

Methods

• Experience with human clinical samples
• Multiplex immunohistochemistry &
• Spectral microscopy analysis
• Spectral Flow Cytometry
• In vitro assays

Background

• 70-90% of cancers are caused by Human papillomavirus (HPV)
• A greater number of T cells, specifically Tissue-resident memory T cells (Trm), are associated with better patient survival in solid tumors such as cervical cancer, oropharyngeal cancer, and melanoma.
• HPV-driven anal cancer is a global burden with a rising incidence. HIV+ individuals can develop cancer despite being on active therapy.
• The major gap in knowledge: Immunity against HPV-driven cancer in HIV+ individuals with a suppressed immune system.

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