Kirby Institute

Keywords
Cancer
HIV
Human Papillomavirus (HPV)
T Cells
Human clinical samples
Immunology
Flow cytometry
Spectral microscopy

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

Background

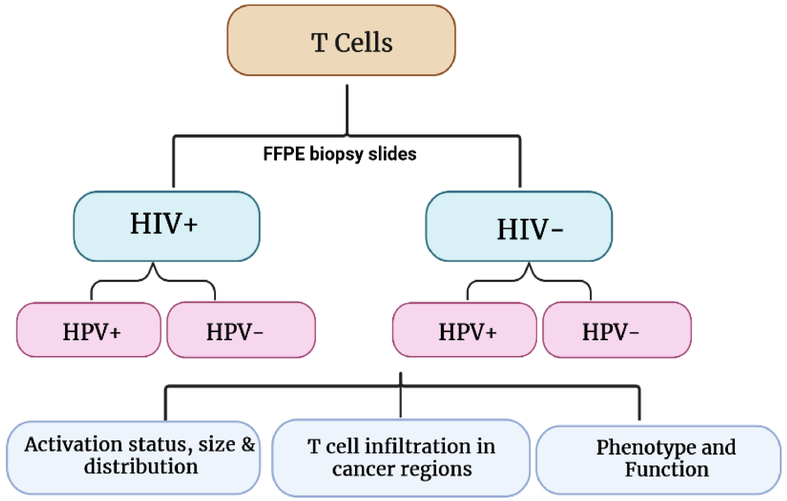
- **70-90% of cancers** are caused by Human papillomavirus **(HPV)**
- A greater number of **T cells**, specifically Tissue-resident memory T cells (Trm)**,** are associated with **better patient survival in solid tumors** such as cervical cancer, oropharyngeal cancer, and melanoma.
- HPV-driven anal 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.

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**

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Questions?
Email or virtual chat: 6th July

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