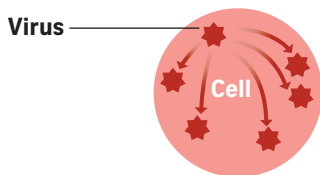


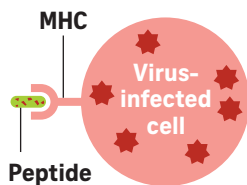
How T cells fight viruses

When the body is under threat, cells are activated to launch a counterattack. Clara Chong looks at the science behind it.

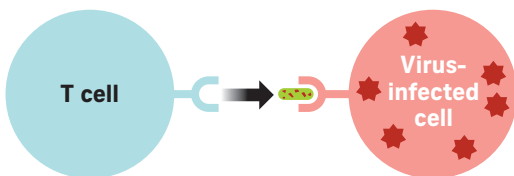
1 When a virus infects a cell, the cell is altered. The virus then replicates inside the affected cell.



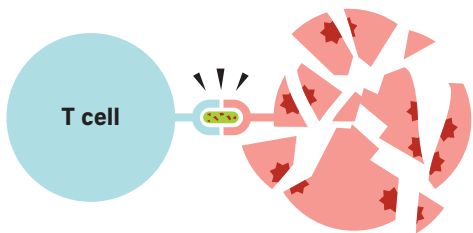
2 Proteins on the surface of the infected cells, known as major histocompatibility complex (MHC), present fragments of the virus proteins (known as peptides) for recognition by circulating T cells. An MHC bound to peptides is called the peptide-MHC complex.



3 When this happens, specific T cells are alerted to prepare for battle. These T cells are able to recognise the infected cells.



4 The specific T cells bind to the peptide-MHC complex and kill the infected cells, therefore limiting virus spread.



What does ImmunoScape's immune profiling technology do?

- It identifies virus-specific T cells by screening for T cells that bind to the virus peptide-MHC complexes
- By doing so, it can identify the specific T cells that are able to target Sars-CoV-2, the virus that causes Covid-19
- Scientists and pharmaceutical companies can then use this information to design effective vaccines and treatments