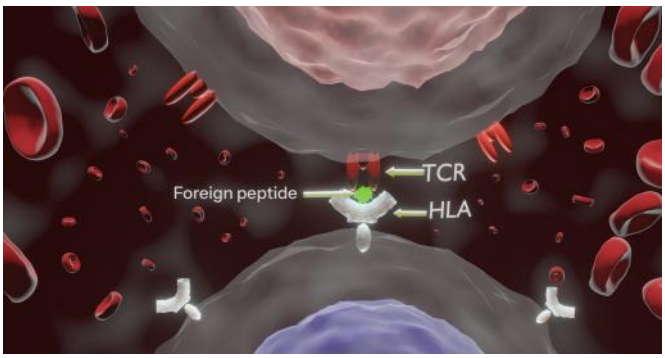
PROJECT NUMBER

24279, 17809

Universal HLA-E - restricted HIV TCR platform

This technology comprises a portfolio of HLA-E–restricted T cell receptors targeting HIV-1 peptides (including Rev and Gag epitopes), alongside encoding nucleic acids, vectors, and engineered cells.It enables universal immunotherapies capable of recognising and eliminating HIV-infected cells independent of HLA polymorphism.

Applications: HIV therapies, universal HIV immunotherapy, soluble and bispecific TCR therapeutics



Features	Benefits
Universal targeting across all patients	By leveraging HLA-E - effectively non-polymorphic across humans - these TCRs overcome a fundamental limitation of conventional HLA-A/B/C-restricted therapies, enabling broad patient applicability without matching
Novel HIV epitope targeting via HLA-E	The invention identifies HIV-1 peptides (e.g. Rev IL9 and Gag KF11 variants) capable of binding HLA-E and being recognised by TCRs - expanding the known antigen landscape for HIV immunotherapy

Features	Benefits
Functionally validated viral suppression	TCR-engineered T cells derived from these sequences demonstrate the ability to suppress HIV replication in vitro, supporting strong translational potential for therapeutic development
Broad IP coverage across modalities	Claims encompass TCR sequences, variants (≥90% identity), nucleic acids, vectors (including viral delivery systems), engineered immune cells, and pharmaceutical compositions - supporting multiple product formats and licensing strategies
Designed for cell therapy and biologic format	The platform supports both adoptive T cell therapies (e.g. TCR-T) and soluble or bispecific TCR constructs, enabling flexibility across high-value therapeutic modalities

Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

The above information is provided ‘as is’ without conditions or warranties. Oxford University Innovation makes no representation and gives no warranty that it is the owner of the intellectual property rights in the technology described. © Oxford University Innovation Ltd 2026, Buxton Court, 3 West Way, Oxford, OX2 0JB.