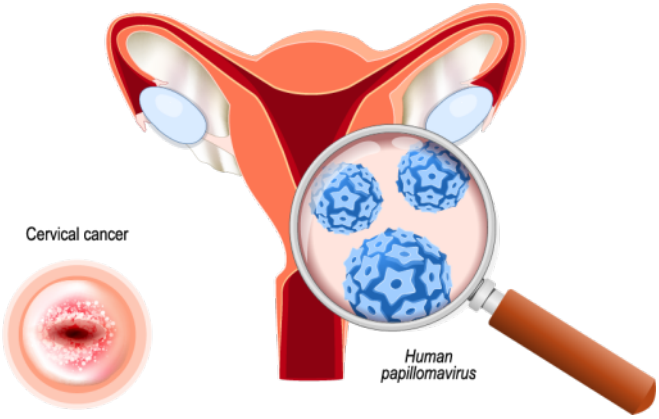
PROJECT NUMBER

21835

Universal HLA-E - targeted HPV immunotherapy platform

This technology comprises antibodies, TCRs, and CAR-T cells targeting HPV-derived peptides presented by the non-polymorphic HLA-E molecule. It enables universal, cell-mediated immunotherapies for treating persistent HPV infection and HPV-driven cancers, independent of patient HLA type.

Applications: Cervical Cancer treatment, HPV-associated solid tumour, persistent HPV infection



Features	Benefits
HLA-E–driven universal targeting	Exploiting the conserved nature of HLA-E overcomes the genetic diversity constraints of classical HLA molecules, enabling consistent therapeutic activity across patients

Features	Benefits
Addresses unmet need in persistent HPV infection	Unlike prophylactic vaccines, this approach targets infected and transformed cells directly. It is specifically designed for patients with established HPV infection or HPV-driven malignancies, where current vaccines are ineffective
Multi-modality therapeutic platform	The IP spans antibodies, soluble receptors, CAR-T cells, and engineered TCRs, as well as nucleic acids, vectors, and cell therapies. This enables multiple product formats and flexible commercialisation pathways
Designed for scalable cell and gene therapy	Compatibility with viral and non-viral vectors supports established CAR-T and TCR-T manufacturing workflows, accelerating clinical translation and industrial scalability
Broad oncology and infectious disease reach	Applicable across HPV-associated cancers, including cervical, head and neck, anal, and other anogenital cancers as well as persistent viral infections, expanding both clinical and commercial impact

Available for

- Co-development
- Consulting
- Licensing

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

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