Structural basis for oligoclonal T cell recognition of a shared p53 cancer neoantigen.
Adoptive cell therapy (ACT) with tumor-specific T cells can mediate cancer regression. The main target of tumor-specific T cells is the p53 tumor suppressor, and its neoantigens are recognized by T cells specific for the shared p53 neoantigen. However, the structural basis for the recognition of these shared p53 cancer neoantigens by oligoclonal T cells is not well understood. This study provides a framework for designing T cell receptors (TCRs) to improve potency for ACT without sacrificing specificity.

Grant List
GM126299 / / U.S. Department of Health & Human Services | National Institutes of Health | National Institute of General Medical Sciences
AI129893 / / U.S. Department of Health & Human Services | National Institutes of Health | National Institute of Allergy and Infectious Diseases