The claims defining the invention are as follows:

1. A chimeric antigen receptor including:

an extracellular domain including a binding domain which recognises Lgr5;

a transmembrane domain; and

an intracellular signalling domain that activates a cellular function.

2. The chimeric antigen receptor claim 1, wherein the binding domain includes the variable heavy chain of an antibody that binds to Lgr5, or a functional variant of the variable heavy chain, or includes the variable light chain of an antibody that binds to Lgr5, or a functional variant of the variable light chain.

3. The chimeric antigen receptor of claim 1 or claim 2, wherein the binding domain includes:

a heavy chain CDR1 having an amino acid sequence as set forth in SEQ ID No. 37 or having an amino acid sequence as set forth in SEQ ID No. 37 with up to 2 amino acid modifications,

a heavy chain CDR2 having an amino acid sequence as set forth in SEQ ID No. 38, or having an amino acid sequence as set forth in SEQ ID No. 38 with up to 2 amino acid modifications, and

a heavy chain CDR3 having an amino acid sequence as set forth in SEQ ID No. 39, or having an amino acid sequence as set forth in SEQ ID No. 39 with up to 2 amino acid modifications; and/or

a light chain CDR1 having an amino acid sequence set forth in SEQ ID No. 40 or having an amino acid sequence as set forth in SEQ ID No. 40 with up to 2 amino acid modifications,

a light chain CDR2 having an amino acid sequence set forth in SEQ ID No. 41 or having an amino acid sequence as set forth in SEQ ID No. 41 with up to 2 amino acid modifications, and

a light chain CDR3 having an amino acid sequence set forth in SEQ ID No. 42 or having an amino acid sequence as set forth in SEQ ID No. 42 with up to 2 amino acid modifications.

4. The chimeric antigen receptor of any one of claims 1 to 3, wherein the binding domain includes the C-terminus of a variable heavy (VH) chain linked to the N-terminus of a variable light (VL) chain, or wherein the single-chain variable fragment includes the C-terminus of the variable light (VL) chain linked to the N-terminus of the variable light (VH) chain.

5. The chimeric antigen receptor of any one of claims 1 to 3, wherein the binding domain includes SEQ ID No. 49 and/or SEQ ID No. 50, or variants thereof having at least 90% sequence identity to SEQ ID No. 49 or 50 or wherein the binding domain includes SEQ ID No. 53 or SEQ ID No. 54 or variants thereof having at least 90% sequence identity to SEQ ID No. 53 or 54.

6. The chimeric antigen receptor of any one of claims 1 to 5, wherein the extracellular domain includes a linker domain which links the binding domain to the transmembrane domain.

7. The chimeric antigen receptor of claim 6, wherein the linker domain is at least 12 amino acids in length, or is at least about 12 amino acids in length, or is at least 119 amino acids in length, or is at least about 119 amino acids in length, or is at least 229 amino acids in length, or is at least about 229 amino acids in length.

8. The chimeric antigen receptor of claim 6, wherein the linker domain is up to 119 amino acids in length, or up to about 119 amino acids in length, or is up to 229 amino acids in length, or up to about 229 amino acids in length.

9. The chimeric antigen receptor of claim 6, wherein the linker domain includes, or consists of, a sequence selected from SEQ ID No. 55, SEQ ID No. 56 or SEQ ID No. 57, or functional variants thereof.

10. The chimeric antigen receptor of any one of claims 1 to 9, wherein the intracellular domain includes SEQ ID No. 58 and/or SEQ ID No. 59.

11. A chimeric antigen receptor comprising, or consisting of, an amino acid sequence selected from the group consisting of: SEQ ID No. 60, 61, 62, 63, 64 and 65, or functional variants thereof.

12. A nucleic acid molecule including a nucleotide sequence encoding the chimeric antigen receptor of any one of claims 1 to 11.

13. A viral vector including the nucleic acid molecule of claim 12.

14. Use of the viral vector of claim 13 in a method of preparing a genetically modified cell.

15. A genetically modified cell, the cell including the nucleic acid molecule of claim 12, or a genomically integrated form of the nucleic acid molecule.

16. The genetically modified cell of claim 15, wherein the cell is a leukocyte, a peripheral blood mononuclear cell (PBMC), a lymphocyte, a T cell, a natural killer cell or a natural killer T cell.

17. Use of a cell including a chimeric antigen receptor of any one of claims 1 to 11 in the manufacture of a medicament for killing a target cell expressing or aberrantly-expressing Lgr5.

18. The use of claim 17, wherein the target cell is a cancer cell.

19. Use of a cell expressing a chimeric antigen receptor of any one of claims 1 to 11 in the manufacture of a medicament for preventing or treating cancer associated with Lgr5 expression in a patient.

20. The use of claim 18 or claim 19, wherein the cancer is selected from one or more of; breast, pancreatic, prostate, colon, colorectal, gastrointestinal, lung (NSCLC), lymphoma, ovarian or B-cell lymphoma.

21. A pharmaceutical composition including a nucleic acid molecule according to claim 12, a viral vector of claim 13 or the genetically modified cell of claim 15 or claim 16 and further including a pharmaceutically acceptable carrier, excipient or diluent.