Claims

1. Use of:

(i) an isolated polypeptide comprising a sequence selected from:

(a) the sequence of SEQ ID NO. 1; and

(b) an immunogenic variant of the sequence of (a) which is at least 90% identical to SEQ ID NO: 1 and elicits a specific immune response to SEQ ID NO: 1; and

(c) an immunogenic fragment of the sequence of (a) comprising at least 9 contiguous amino acids of SEQ ID NO: 1 and elicits a specific immune response to SEQ ID NO: 1,

(ii) a vector comprising an isolated nucleic acid encoding the polypeptide of (i),

(iii) a T-cell population obtainable by a process which comprises (a) obtaining T-cells optionally with antigen-presenting cells from a cancer patient and (b) stimulating and amplifying the T-cell population *ex vivo* with a polypeptide of (i),

(iv) a T-cell which has been stimulated with a polypeptide of (i),

(v) an antigen presenting cell modified by *ex vivo* loading with the polypeptide of (i) or vector of (ii) or genetically engineered to express the polypeptide of (i),

(vi) an exosome loaded with a polypeptide of part (i),

(vii) an isolated antigen-binding polypeptide which is immunospecific for a polypeptide of (i),

(viii) an isolated antigen-binding polypeptide which is immunospecific for an HLA-bound polypeptide having a sequence of (i).

(ix) a cytotoxic cell engineered to express the antigen-binding polypeptide of (viii) on its surface, or

(x) an immunogenic pharmaceutical composition comprising a polypeptide of (i), a vector of (ii), a T-cell population of (iii), a T-cell of (iv), an antigen presenting cell of (v), exosome of (vi), antigen-binding polypeptide of (vii) or cytotoxic cell of (ix) together with a pharmaceutically acceptable carrier;

in the manufacture of a medicament for the treatment or prevention of cancer in a human, wherein the cells of the cancer express a corresponding sequence selected from SEQ ID NO. 1, an immunogenic variant of SEQ ID NO: 1 which is at least 90% identical to SEQ ID NO: 1 and elicits a specific immune response to SEQ ID NO: 1, and an immunogenic fragment of SEQ ID NO: 1 comprising at least 9 contiguous amino acids of SEQ ID NO: 1 and elicits a specific immune response to SEQ ID NO: 1.

2. The use according to claim 1 wherein the polypeptide according to (i) is used in the manufacture of the medicament.

3. The use according to claim 2 wherein the isolated polypeptide comprises or consists of the sequence selected from any one of SEQ ID NOs. 1, 11-14, 55-57 and 73-74.

4. The use according to claim 1 wherein the vector according to (ii) is used in the manufacture of the medicament.

5. The use according to claim 4 wherein the nucleic acid of (ii) is a DNA.

6. The use according to claim 5 wherein the nucleic acid comprises a sequence selected from any one of SEQ ID NOs. 33 and 41.

7. The use according to claim 6 wherein the nucleic acid is codon optimised for expression in a human host cell.

8. The use according to claim 4 wherein the nucleic acid of (ii) is an RNA.

9. The use according to any one of claims 4 to 8 wherein the nucleic acid of (ii)is an artificial nucleic acid sequence.

10. The use according to any one of claims 4 to 9 wherein the vector of (ii) comprises DNA encoding regulatory elements suitable for permitting transcription of a translationally active RNA molecule in a human host cell.

11. The use according to any one of claims 4 to 10 wherein the vector of (ii) is a viral vector.

12. The use according to claim 11 wherein the vector is an adenoviral vector, an adeno-associated virus (AAV), alphavirus, herpes virus, arena virus, measles virus, poxvirus, paramyxovirus, lentivirus or rhabdovirus vector.

13. The use according to claim 1 wherein the immunogenic pharmaceutical composition according to (x) is used in the manufacture of the medicament.

14. The use according to claim 13 wherein the composition of (x) comprises one or more immunostimulants.

15. The use according to claim 14 wherein the immunostimulants are selected from aluminium salts, saponins, immunostimulatory oligonucleotides, oil-in-water emulsions, aminoalkyl glucosaminide 4-phosphates, lipopolysaccharides and derivatives thereof and other TLR4 ligands, TLR7 ligands, TLR8 ligands, TLR9 ligands, IL-12 and interferons.

16. The use according to any one of claims 13 to 15 wherein the composition of (x) is a sterile composition suitable for parenteral administration.

17. The use according to any one of claim 1 wherein the antigen presenting cell of (v) is a dendritic cell.

18. The use according to claim 1 wherein the antigen-binding polypeptide of (vii) is a monoclonal antibody or a fragment thereof.

19. The use according to claim 1 or claim 18 wherein the antigen-binding polypeptide of (vii) is coupled to a cytotoxic moiety.

20. The use according to claim 1 wherein antigen-binding polypeptide of (viii) is a T-cell receptor or a fragment thereof.

21. The use according to claim 1 or claim 20 wherein the antigen-binding polypeptide of (viii) is coupled to another polypeptide that is capable of binding to cytotoxic cells or other immune components in a subject.

22. The use according to claim 1 wherein the cytotoxic cell of (ix) is a T-cell.

23. The use according to any one of claims 1 to 22 wherein the cancer is melanoma e.g. cutaneous melanoma.

24. The use according to any one of claims 1 to 22 wherein the cancer is uveal melanoma.