CLAIMS

1. A polypeptide which is an immunogenic fragment of human transforming growth factor 1 (TGFb-1) and which comprises or consists of a sequence of at least 8 consecutive amino acids of SEQ ID NO: 5.

2. The polypeptide of claim 1, which does not comprise a cysteine residue.

3. The polypeptide of claim 1 or 2, which has low homology and/or low sequence identity to a corresponding polypeptide sequence of human transforming growth factor 2 (TGFb-2) and/or 3 (TGFb-3), optionally wherein:

(a) TGFb-2 has the amino acid sequence of SEQ ID NO: 2 and/or TGFb-3 has the amino acid sequence of SEQ ID NO: 3; and/or

(b) the polypeptide fragment has less than about 80%, 70%, 60%, 50%, 40%, 30%, 25%, or 20% sequence identity to a corresponding polypeptide sequence of TGFb-2 and/or TGFb-3, preferably wherein the polypeptide has less than about 40% sequence identity to a corresponding polypeptide sequence of TGFb-2 and/or TGFb-3.

4. The polypeptide of any one of claims 1-3, which comprises or consists of:

(a) up to 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, or 40 consecutive amino acids of SEQ ID NO: 5; or

(b) at least 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 35, or 40 consecutive amino acids of SEQ ID NO: 5, preferably wherein the polypeptide comprises or consists of at least 25, 26, 27, 28, 29, or 30 consecutive amino acids of SEQ ID NO: 5, more preferably wherein the polypeptide comprises or consists of at least 30 consecutive amino acids of SEQ ID NO: 5.

5. The polypeptide of any one of claims 1-4, wherein:

(a) the polypeptide comprises the amino acid sequence of SEQ ID NO: 32, optionally wherein the polypeptide comprises the amino acid sequence of any one of SEQ ID NOs: 7, 10, or 11; and/or

(b) the polypeptide comprises or consists of the amino acid sequence of any one of SEQ ID NOs: 7, 10, 32, 11, 14, or 15, preferably SEQ ID NO: 7 or SEQ ID NO: 10; and/or

(c) the polypeptide is capable of stimulating TGFb-1 selective T cells, optionally wherein the TGFb-1 selective T cells have low cross reactivity towards cells expressing and/or presenting polypeptides of TGFb-2 and/or TGFb-3, further optionally wherein measurement of cross reactivity comprises comparing the reactivity of the TGFb-1 selective T cells to cells expressing and/or presenting a polypeptide of TGFb-1 with the reactivity of the TGFb-1 selective T cells to cells expressing and/or presenting a corresponding polypeptide from TGFb-2 or TGFb-3, optionally wherein:

(i) the reactivity of the TGFb-1 selective T cells towards cells expressing and/or presenting the corresponding polypeptide from TGFb-2 or TGFb-3 is less than about 50%, 40%, 30%, 20%, 10%, 5%, 1%, or 0.1% of the reactivity of the TGFb-1 selective T cells to the polypeptide of TGFb-1; and/or

(ii) cross reactivity is measured by IFNγ ELISPOT assay.

6. A polynucleotide encoding a polypeptide according to any one of claims 1-5, which is optionally comprised within a vector, optionally wherein the polynucleotide is an mRNA comprising:

(a) an open reading frame (ORF) encoding at least one polypeptide according to any one of claims 1-5;

(b) a 5' terminal cap at the 5' end;

(c) a 5' untranslated region (UTR) which is included 5' of the ORF;

(d) a 3' UTR which is included 3' of the ORF; and

(e) a 3' tailing sequence at the 3' end.

7. A composition comprising a polypeptide according to any one of claims 1-5; and/or a polynucleotide according to claim 6; and optionally an adjuvant, further optionally wherein the composition further comprises at least one different polypeptide according to any one of claims 1-5; at least one different polynucleotide according to claim 6; and/or at least one pharmaceutically acceptable diluent, carrier or preservative.

8. The composition of claim 7, wherein:

(a) the composition comprises an adjuvant selected from the group consisting of bacterial DNA based adjuvants, oil/surfactant based adjuvants, viral dsRNA based adjuvants, imidazoquinolines, and a Montanide ISA adjuvant, or

(b) the composition is formulated in a lipid nanoparticle composition, wherein the composition comprises a polynucleotide and the polynucleotide is an mRNA, optionally wherein the lipid nanoparticle has a mean diameter of 50-200 nm.

9. The composition of claim 7 or 8, which is a TGFb-1 selective vaccine composition.

10. A polypeptide as defined in any one of claims 1-5, a polynucleotide as defined in claim 6, and/or a composition as defined in any one of claims 7-9, for use in the treatment or prevention of a disease or condition in a subject.

11. The polypeptide, polynucleotide and/or composition for use according to claim 10, wherein the disease or condition is:

(a) a cancer, optionally selected from the group consisting of esophageal cancer and urothelial cancer, further optionally selected from the group consisting of colorectal carcinoma, gastric cancer, head and neck cancer, melanoma, non-small-cell lung carcinoma (NSCLC) or ovarian cancer; and/or

(b) characterized at least in part by inappropriate or excessive immune suppressive function of TGFb-1-expressing cells.

12. The polypeptide, polynucleotide and/or composition for use according to claim 10 or 11, wherein the disease or condition is cancer and an additional cancer therapy, preferably an antibody, is further to be simultaneously or sequentially administered.

13. The polypeptide, polynucleotide and/or composition for use according to any one of claims 10-12, wherein the disease or condition is cancer and wherein the administration of the polypeptide, the polynucleotide and/or the composition stimulates a selective immune response to TGFb-1-expressing cancer cells.

14. The polypeptide, polynucleotide and/or composition for use according to any one of claims 10-13, wherein the disease or condition is a tumor and wherein:

(a) the polypeptide, polynucleotide, and/or the composition is capable of modulating the tumor microenvironment (TME), optionally wherein the modulating

comprises enhancing infiltration of the TME by T cells, preferably wherein the T cells are $CD4^+$ T cells;

(b) the use comprises modulating the TME, optionally wherein the modulating comprises enhancing infiltration of the TME by T cells, preferably wherein the T cells are $CD4^+$ T cells; and/or

(c) the polypeptide, the polynucleotide and/or the composition is to be administered to stimulate a selective immune response to TGFb-1-expressing cells in the TME.

15. A method of stimulating TGFb-1 selective T cells, the method comprising contacting the T cells with a polypeptide as defined in any one of claims 1-5, a polynucleotide as defined in claim 6, and/or a composition as defined in any one of claims 7-9, optionally wherein the TGFb-1 selective T cells have low cross reactivity towards cells expressing and/or presenting polypeptides of TGFb-2 and/or TGFb-3, optionally wherein measurement of cross reactivity comprises comparing the reactivity of the TGFb-1 selective T cells to cells expressing and/or presenting a polypeptide of TGFb-1 with the reactivity of the TGFb-1 selective T cells to cells expressing and/or presenting a corresponding polypeptide from TGFb-2 or TGFb-3, further optionally wherein:

(a) the reactivity of the TGFb-1 selective T cells towards cells expressing and/or presenting the corresponding polypeptide from TGFb-2 or TGFb-3 is less than about 50%, 40%, 30%, 20%, 10%, 5%, 1%, or 0.1% of the reactivity of the TGFb-1 selective T cells to the polypeptide of TGFb-1; and/or

(b) cross reactivity is measured by IFNγ ELISPOT assay.

16. Use of a polypeptide as defined in any one of claims 1-5, a polynucleotide as defined in claim 6, and/or a composition as defined in any one of claims 7-9, in the manufacture of a medicament for the treatment or prevention of a disease or condition in a subject.

17. The use according to claim 16, wherein the disease or condition is:

(a) a cancer, optionally selected from the group consisting of esophageal cancer and urothelial cancer, further optionally selected from the group consisting of colorectal carcinoma, gastric cancer, head and neck cancer, melanoma, non-small-cell lung carcinoma (NSCLC) or ovarian cancer; and/or

(b) characterized at least in part by inappropriate or excessive immune suppressive function of TGFb-1-expressing cells.

18. The use according to claim 16 or 17, wherein the disease or condition is cancer and an additional cancer therapy, preferably an antibody, is further to be simultaneously or sequentially administered.

19. The use according to any one of claims 16 to 18, wherein the disease or condition is cancer and wherein the administration of the polypeptide, the polynucleotide and/or the composition stimulates a selective immune response to TGFb-1-expressing cancer cells.

20. The use according to any one of claims 16 to 19, wherein the disease or condition is a tumor and wherein:

(a) the polypeptide, polynucleotide, and/or the composition is capable of modulating the tumor microenvironment (TME), optionally wherein the modulating comprises enhancing infiltration of the TME by T cells, preferably wherein the T cells are $CD4^+$ T cells;

(b) the use comprises modulating the TME, optionally wherein the modulating comprises enhancing infiltration of the TME by T cells, preferably wherein the T cells are $CD4^+$ T cells; and/or

(c) the polypeptide, the polynucleotide and/or the composition is to be administered to stimulate a selective immune response to TGFb-1-expressing cells in the TME.