CLAIMS

1. A polypeptide consisting of any one of the following amino acid sequences:

a. ISAKDIVYIGLRDVDPGEHYILKTLGIKYFSMTEVDRL (SEQ ID NO:1);

b. ISAKDIVYIGLRDVDPGEHYIIKTLGIKYFSMTEVDKL (SEQ ID NO:2);

c. ISAKDIVYIGLRDVDPGEHYILKTLGIKYFSM (SEQ ID NO:3);

d. ISAKDIVYIGLRDVDPGEHYIIKTLGIKYFSM (SEQ ID NO:4);

e. ISAKDIVYIGLRDVDPGEHYILKTLGIKYFSMTEVDRLGIGK (SEQ ID NO:5);

f. ISAKDIVYIGLRDVDPGEHYIIKTLGIKYFSMTEVDKLGIGK (SEQ ID NO:6);

g. a sequence according to any one of a. – f. in which up to three amino acids are replaced by conservative substitution, provided that the said polypeptide does not exhibit significantly reduced immunogenicity to Arginase1 as compared to the polypeptide consisting of the corresponding sequence in which no substitution is made; or

h. a polynucleotide encoding the polypeptide of any one of a. – g., optionally comprised within a vector.

2. The polypeptide of claim 1, which consists of the amino acid sequence of SEQ ID NO: 1.

3. The polypeptide of claim 1 or 2, in which the C terminal amino acid is replaced with the corresponding amide.

4. A composition comprising the polypeptide or polynucleotide of any one of claims 1 to 3 and an adjuvant.

5. A composition according to claim 4, comprising at least one pharmaceutically acceptable diluent, carrier or preservative.

6. A composition according to claim 4 or 5 wherein the adjuvant is selected from the group consisting of bacterial DNA based adjuvants, oil/surfactant based adjuvants, viral dsRNA based adjuvants, imidazochinilines, and a Montanide ISA adjuvant.

7. The polypeptide or polynucleotide of any one of claims 1 to 3 or the composition of any one of claims 4 to 6 for use in a method of treating or preventing a disease or condition in a subject, the method comprising administering to the subject said polypeptide or polynucleotide or said composition.

8. The polypeptide, polynucleotide or composition for use according to claim 7 wherein the disease or condition is characterized at least in part by inappropriate or excessive immune suppressive function of an Arginase, and/or said wherein disease or condition is cancer.

9. The polypeptide, polynucleotide or composition for use according to claim 7 or 8 wherein the disease or condition is cancer and optionally wherein the method further comprises the simultaneous or sequential administration of an additional cancer therapy, preferably an antibody.

10. The polypeptide, polynucleotide or composition for use according to claim 8 or 9 wherein said cancer is breast, lung, colon or prostate cancer, or is a melanoma, or is a leukemia, preferably acute myeloid leukemia (AML).

11. A method of stimulating arginase1-specific T cells, the method comprising contacting the cells with the polypeptide or polynucleotide of any one of claims 1 to 3 or the composition of claim 4 to 6.

12. The method of claim 11, wherein the cells are present in a sample taken from a healthy subject or from a cancer patient, optionally a tumour sample.

13. Use of the polypeptide or polynucleotide of any one of claims 1 to 3 or the composition of any one of claims 4 to 6 in the manufacture of a medicament for the treatment or prevention of a disease or condition in a subject.

14. The use of claim 13, wherein the disease or condition is characterized at least in part by inappropriate or excessive immune suppressive function of an Arginase, and/or said wherein disease or condition is cancer.

15. The use of claim 13 or 14, wherein the disease or condition is cancer and optionally wherein the use further comprises the simultaneous or sequential administration of an additional cancer therapy, preferably an antibody.

16. The use of claim 14 or 15, wherein said cancer is breast, lung, colon or prostate cancer, or is a melanoma, or is a leukemia, preferably acute myeloid leukemia (AML).