CLAIMS

1. A recombinant adenovirus comprising at least one polynucleotide selected from the group consisting of:
    (a) a polynucleotide which encodes a polypeptide having the amino acid sequence according to SEQ ID NO: 1, or
    (b) a polynucleotide which encodes a functional derivative of a polypeptide having the amino acid sequence according to SEQ ID NO: 1, wherein the functional derivative has an amino acid sequence which is at least 99.8% identical over its entire length to the amino acid sequence of SEQ ID NO: 1.

2. The recombinant adenovirus according to claim 1, wherein the polynucleotide has a sequence according to SEQ ID NO: 2.

3. The recombinant adenovirus according to claim 1 or claim 2, the at least one polynucleotide further comprising a polynucleotide encoding:
    (a) a polypeptide having the amino acid sequence according to SEQ ID NO: 3; or
    (b) a functional derivative of a polypeptide having the amino acid sequence according to SEQ ID NO: 3, wherein the functional derivative has an amino acid sequence which is at least 60% identical over its entire length to the amino acid sequence of SEQ ID NO: 3,

    and/or

    (a) a polypeptide having the amino acid sequence according to SEQ ID NO: 5; or
    (b) a functional derivative of a polypeptide having the amino acid sequence according to SEQ ID NO: 5, wherein the functional derivative has an amino acid sequence which is at least 60% identical over its entire length to the amino acid sequence of SEQ ID NO: 5.

4. The recombinant adenovirus according to claim 3, wherein the at least one polynucleotide comprises a sequence according to SEQ ID NO: 4 and/or SEQ ID NO: 6.

5. The recombinant adenovirus according to any one of claims 1 to 4, wherein the at least one polynucleotide comprises at least one of the following:
    (a) an adenoviral 5’ inverted terminal repeat;
    (b) an adenoviral E1A region, or a fragment thereof selected from among the E1A_280R and E1A_243R regions;

(c) an adenoviral E1B or IX region, or a fragment thereof selected from among the group consisting of the E1B_19K, E1B_55K or IX regions;
(d) an adenoviral E2b region; or a fragment thereof selected from among the group consisting of the E2B_pTP, E2B_Polymerase and E2B_IVa2 regions;
(e) an adenoviral L1 region, or a fragment thereof, said fragment encoding an adenoviral protein selected from the group consisting of the L1_13.6k protein, L1_52k and L1_IIIa protein;
(f) an adenoviral L2 region, or a fragment thereof, said fragment encoding an adenoviral protein selected from the group consisting of the L2_penton protein according to claim 3, L2_pVII, L2_V, and L2_pX protein;
(g) an adenoviral L3 region, or a fragment thereof, said fragment encoding an adenoviral protein selected from the group consisting of the L3_pVI protein, L3_hexon protein according to claim 3 and L3_protease;
(h) an adenoviral E2A region;
(i) an adenoviral L4 region, or a fragment thereof said fragment encoding an adenoviral protein selected from the group consisting of the L4_100k protein, the L4_33k protein and protein L4_VIII;
(j) an adenoviral E3 region, or a fragment thereof selected from the group consisting of E3 ORF1, E3 ORF2, E3 ORF3, E3 ORF4, E3 ORF5, E3 ORF6, E3 ORF7, E3 ORF8, and E3 ORF9;
(k) an adenoviral L5 region, or a fragment thereof said fragment encoding the L5_fiber fiber protein according to claim 1;
(l) an adenoviral E4 region, or a fragment thereof selected from the group consisting of E4 ORF7, E4 ORF6, E4 ORF4, E4 ORF3, E4 ORF2, and E4 ORF1;
(m) an adenoviral 3'-end, preferably an adenoviral 3’ inverted terminal repeat; and/or
(n) an adenoviral VAI or VAII RNA region, preferably an adenoviral VAI or VAII RNA region from an adenovirus other than ChAd157.

6. The recombinant adenovirus according to any one of claims 1 to 5, wherein the polynucleotide comprises a polynucleotide which is at least 95% identical over its entire length to a reference sequence of SEQ ID NO: 15 or SEQ ID NO: 22.

7. The recombinant adenovirus according to claim 6, wherein the polynucleotide comprises a polynucleotide which is at least 99.5% identical over its entire length to the reference sequence.

8. The recombinant adenovirus according to any one of claims 1 to 7, wherein the recombinant adenovirus is replication-competent.

9. The recombinant adenovirus according to any one of claims 1 to 7, wherein the recombinant adenovirus is replication-incompetent.

10. The recombinant adenovirus according to any one of claims 1 to 9, wherein the recombinant adenovirus comprises a functional deletion, wherein said functional deletion is optionally a mutation or deletion which renders non-functional at least one gene of a genomic region selected from the group consisting of E1A, E1B, E2A, E2B, E3 and E4.

11. The recombinant adenovirus according to any one of claims 1 to 10, wherein the recombinant adenovirus comprises a nucleic acid sequence encoding a heterologous protein or fragment thereof, wherein the nucleic acid sequence is operatively linked to one or more sequences which direct expression of said protein in a host cell, wherein the protein is optionally an antigenic protein or a fragment thereof.

12. The recombinant adenovirus according to claim 11, wherein the one or more sequences which direct expression of said product in a host cell includes a sequence selected from one or more of the group consisting of: transcription initiation, transcription termination, promoter and enhancer sequences.

13. A composition comprising the recombinant adenovirus according to any one of claims 1 to 12 and a pharmaceutically acceptable excipient.

14. The composition according to claim 13, further comprising an adjuvant selected from the list consisting of: inorganic adjuvants (e.g. inorganic metal salts such as aluminium phosphate or aluminium hydroxide), organic adjuvants (e.g. saponins, such as QS21, or squalene), oil-based adjuvants (e.g. Freund's complete adjuvant and Freund's incomplete adjuvant), cytokines (e.g. IL-1β, IL-2, IL-7, IL-12, IL-18, GM-CFS, and INF-γ) particulate adjuvants (e.g. immuno-stimulatory complexes (ISCOMS), liposomes, or biodegradable microspheres), virosomes, bacterial adjuvants (e.g. monophosphoryl lipid A, such as 3-de-O-acylated monophosphoryl lipid A (3D-MPL), or muramyl peptides), synthetic adjuvants (e.g. non-ionic block copolymers, muramyl peptide analogues, or synthetic lipid A), synthetic polynucleotides adjuvants (e.g polyarginine or polylysine) and immunostimulatory oligonucleotides containing unmethylated CpG dinucleotides ("CpG").

15. A cell comprising the recombinant adenovirus according to any one of claims 1 to 12.

16. The cell according to claim 15, wherein the cell is a host cell that expresses at least one adenoviral gene selected from the group consisting of E1A, E1B, E2A, E2B, E3, E4, L1, L2, L3, L4 and L5.

17. The recombinant adenovirus according to any one of claims 1 to 12 for use as a medicament.

18. A recombinant adenovirus according to any one of claims 1 to 12 encoding a first transgene, for use in eliciting a protective immune response to a pathogen in a subject, wherein:
    a) the subject is to be administered the recombinant adenovirus encoding the first transgene; and
    b) the subject is to be administered a recombinant adenoviral vector which does not comprise a ChAd157 fiber, the vector encoding a second transgene;

    wherein steps (a) and (b) may be undertaken in either order and the first and second transgenes may be the same or different.

19. Use of a recombinant adenovirus according to any one of claims 1 to 12 encoding a first transgene, in the manufacture of a medicament for eliciting a protective immune response to a pathogen in a subject, wherein:
    a) the subject is to be administered the recombinant adenovirus encoding the first transgene; and
    b) the subject is to be administered a recombinant adenoviral vector which does not comprise a ChAd157 fiber, the vector encoding a second transgene;

    wherein steps (a) and (b) may be undertaken in either order and the first and second transgenes may be the same or different.

20. The recombinant adenovirus according to claim 18 or the use according to claim 19, wherein the subject has previously been exposed to a recombinant adenoviral vector which does not comprise a ChAd157 fiber; wherein optionally the recombinant adenoviral vector which does not comprise a ChAd157 fiber comprises a ChAd155 fiber, hexon and/or penton.