CLAIMS

1. A composition for treating a deficiency in a functional plasma C1 esterase inhibitor, or treating or preventing any symptom thereof, said composition comprising an adeno-associated virus (AAV) vector comprising a promoter operably linked to a nucleic acid sequence, which encodes human C1 esterase inhibitor (C1EI).

2. The composition according to Claim 1, wherein the mammal has hereditary angioedema.

3. A composition for inhibiting or reducing submucosal or subcutaneous edema in a mammal, said composition comprising an adeno-associated virus (AAV) vector comprising a promoter operably linked to a nucleic acid sequence, which encodes human C1 esterase inhibitor (C1EI).

4. The composition according to Claim 3, wherein the composition is for administration to the mammal once before and/or after onset of the edema.

5. The composition according to Claim 3, wherein the composition is for administration to the mammal two or more times before and/or after an onset of the edema.

6. The composition according to any of the claims 1 through 5, wherein the composition is for administration to the mammal prophylactically.

7. The composition according to any of the claims 1 through 6, wherein the mammal is a human.

8. The composition according to any of the claims 1 through 7, wherein the composition is for administration to the mammal by intraoral, intramuscular, transdermal, intravenous, intra-arterial, subcutaneous, intradermal, or intraperitoneal administration.

9. The composition according to any of the claims 1 through 8, wherein the AAV vector is a nonhuman adeno-associated virus vector.

10. The composition according to Claim 9, wherein the nonhuman adeno-associated virus vector is a rhesus macaque adeno-associated virus vector.

11. The composition according to Claim 10, wherein the rhesus macaque adeno-associated virus vector is the adeno-associated virus serotype rh.10 vector.

12. The composition according to any of the claims 1 through 11, wherein the promoter is a constitutively active promoter, a cell type-specific promoter, or an inducible promoter.

13. The composition according to any of the claims 1 through 12, wherein the promoter is a chicken β-actin promoter.

14. The composition according to any of the claims 1 through 13, wherein the AAV vector further comprises a cytomegalovirus (CMV) enhancer sequence.

15. The composition according to any of the claims 1 through 14, wherein the AAV vector comprises a nucleic acid sequence, which encodes C1EI comprising the sequence number 1.