

WHAT IS CLAIMED IS:

1. A pharmaceutical composition comprising an extracellular vesicle comprising an antisense oligonucleotide (ASO), wherein the ASO comprises a contiguous nucleotide sequence of 10 to 30 nucleotides in length that is complementary to a nucleic acid sequence within a *STAT6* transcript;

wherein the composition has an osmolarity of lower than about 450 mOsm/kg.
2. The composition of claim 1, wherein the composition has a pH of 7.0, 7.1, 7.2, 7.3, or 7.4 and/or wherein the pI is in the range of about 1 to about 6.5.
3. The composition of claim 1 or 2, wherein the composition has (i) reduced aggregates, (ii) improved stability of the EV, (iii) improved integrity of the EV architecture, (iv) improved stability of engineered proteins contained on or in EVs, (v) improved filterability, and (vi) reduced dissociation of the ASO.
4. The composition of any one of claims 1 to 3, which further comprises (i) a saccharide, (ii) a sodium chloride, (iii) a potassium phosphate, (iv) a sodium phosphate, or (v) any combination thereof.
5. The composition of claim 4, wherein the saccharide is a sucrose or a trehalose.
6. The composition of any one of claims 1 to 5, wherein the composition has a conductivity between about 6 mS/cm +/- 10% and about 10 mS/cm +/- 10%.
7. The composition of any one of claims 1 to 6, wherein the composition (i) is not lyophilized, (ii) does not comprise a chelating agent, and/or (iii) does not comprise albumin.
8. The composition of any one of claims 1 to 7, comprising
 - a. a sucrose at a concentration of about 5% w/v or 146 mM,
 - b. sodium chloride at a concentration of about 100 mM;
 - c. a potassium phosphate monobasic at a concentration of about 5 mM;

d. a sodium phosphate dibasic heptahydrate at a concentration of about 15mM;

wherein the composition is in a solution at a pH of 7.2; and

wherein the composition comprises an osmolarity of about 365 to about 425 mOsm/kg.

9. The composition of any one of claims 1 to 8, wherein the extracellular vesicle further comprises a scaffold protein.
10. The composition of claim 9, wherein a payload is linked to the scaffold protein by a linker.
11. The composition of claim 9 or 10, wherein the scaffold protein comprises prostaglandin F2 receptor negative regulator (the PTGFRN protein) or a fragment thereof.
12. The composition of any one of claims 9 to 11, wherein the scaffold protein comprises an amino acid sequence at least 50%, at least 60%, at least 70%, at least 80%, at least 85%, at least 90%, at least 95%, at least 96%, at least 97%, at least 98%, at least 99%, or about 100% identical to any one of SEQ ID NOs: 1 and 6-12.
13. The composition of any one of claims 1 to 12, wherein the ASO comprises a nucleic acid sequence selected from SEQ ID NOs: 91-193
14. The composition of any one of claims 1 to 13, comprising:
 - (a) An extracellular vesicle comprising an ASO, wherein the ASO comprises a nucleic acid sequence selected from SEQ ID NOs: 91-193;
 - (b) Sucrose at a concentration of about 4% to about 6%;
 - (c) Sodium chloride at a concentration of about 50 mM to about 150 mM;
 - (d) Potassium phosphate monobasic at a concentration of about 5 mM;
 - (e) Sodium phosphate dibasic at a concentration of about 15 mM,

wherein the pH of the composition is about 7.2; and

wherein the composition comprises an osmolarity of at least about 365 to about 425 mOsm/kg.

15. The composition of any one of claims 1 to 14, wherein the extracellular vesicle is an exosome.
16. The composition of any one of claims 1 to 15, wherein the ASO is associated with the extracellular vesicles by a linker.
17. Use of the composition of any one of claims 1 to 16 in the manufacture of a medicament for treating a disease or a condition.
18. A method of preparing the pharmaceutical composition of any one of claims 1 to 16 comprising combining (i) an extracellular vesicle comprising an ASO and (ii) a salt or a saccharide; wherein the ASO comprises a contiguous nucleotide sequence of 10 to 30 nucleotides in length that is complementary to a nucleic acid sequence within a *STAT6* transcript; and wherein the composition comprises an osmolarity lower than about 450 mOsm/kg.
19. The method of claim 18, wherein the salt comprises
 - a. a sodium chloride;
 - b. a potassium phosphate;
 - c. a sodium phosphate, or
 - d. any combination thereof.