WHAT IS CLAIMED IS:

1. A mixed carrier, multivalent pneumococcal conjugate composition, comprising ~~21~~ different pneumococcal capsular polysaccharide-protein conjugates, wherein each pneumococcal capsular polysaccharide-protein conjugate comprises a protein carrier conjugated to a capsular polysaccharide from a different serotype of *Streptococcus pneumoniae*, wherein the *Streptococcus pneumoniae* serotypes are selected from 1, 3, 4, 5, 6A, 6B, 7F, 8, 9N, 9V, 10A, 11 A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, and 33F,

wherein the protein carrier is CRM_{197} or tetanus toxoid, and

wherein two of the capsular polysaccharides are conjugated to tetanus toxoid and the remaining capsular polysaccharides are conjugated to CRM_{197}, wherein the two capsular polysaccharides that are conjugated to tetanus toxoid are selected from the group consisting of serotypes 1, 3, and 5.

2. The mixed carrier, multivalent pneumococcal conjugate composition of claim 1, wherein the capsular polysaccharides from serotypes 1 and 5 are conjugated to the tetanus toxoid, and the capsular polysaccharides from serotypes 3, 4, 6A, 6B, 7F, 8, 9N, 9V, 10A, 11 A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, and 33F are conjugated to CRM_{197}.

3. The mixed carrier, multivalent pneumococcal conjugate composition of claim 1, wherein the capsular polysaccharides from serotypes 1 and 3 are conjugated to the tetanus toxoid, and the capsular polysaccharides from serotypes 4, 5, 6A, 6B, 7F, 8, 9N, 9V, 10A, 11 A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, and 33F are conjugated to CRM_{197}.

4. The mixed carrier, multivalent pneumococcal conjugate composition of claim 1, wherein the capsular polysaccharides from serotypes 3 and 5 are conjugated to the tetanus toxoid, and the capsular polysaccharides from serotypes 1, 4, 6A, 6B, 7F, 8, 9N, 9V, 10A, 11 A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, and 33F are conjugated to CRM_{197}.

5. The mixed carrier, multivalent pneumococcal conjugate composition of any one of the preceding claims, further comprising an adjuvant.

6. The mixed carrier, multivalent pneumococcal conjugate composition of claim 5, wherein the adjuvant is an aluminum-based adjuvant.

7. The mixed carrier, multivalent pneumococcal conjugate composition of claim 6, wherein the adjuvant is selected from the group consisting of aluminum phosphate, aluminum sulfate, and aluminum hydroxide.

8. The mixed carrier, multivalent pneumococcal conjugate composition of claim 7, wherein the adjuvant is aluminum phosphate.

9. The mixed carrier, multivalent pneumococcal conjugate composition of any one of the preceding claims, wherein:

the capsular polysaccharide from serotype 9N is conjugated to CRM_{197} in a state where the capsular polysaccharide from serotype 9N is activated to have a degree of oxidation of 2-19 or 5-10 and a molecular weight of 200-700 kDa;

the conjugate formed between the capsular polysaccharide from serotype 9N and CRM_{197} has a molecular weight of 500-4,000 kDa;

a ratio (W/W) of the capsular polysaccharide from serotype 9N to CRM_{197} in the conjugate formed between the capsular polysaccharide from serotype 9N and CRM_{197} is 0.5-2.5; and/or

15-60% of the conjugate formed between the capsular polysaccharide from serotype 9N and CRM_{197} has a K_d of 0.3 or below in a CL-4B column.

~~10. The use of the mixed carrier, multivalent pneumococcal conjugate composition of any of the preceding claims for prophylaxis against Streptococcus pneumoniae infection or disease in a subject.~~

~~11~~10. A vaccine comprising the mixed carrier, multivalent pneumococcal conjugate composition of any one of claims 1-9 and a pharmaceutically acceptable excipient.

11. The vaccine of claim 10, wherein the 21 different pneumococcal capsular polysaccharide-protein conjugates consist of the capsular polysaccharides from serotypes 1 and 5, each of which is conjugated to the tetanus toxoid, and the capsular polysaccharides from serotypes 3, 4, 6A, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 18C, 19A, 19F, 22F, 23F, and 33F, each of which is conjugated to CRM_{197}.

12. The vaccine of claim 11, wherein the vaccine is formulated as a single 0.5 ml dose comprising 2 µg to 2.5 µg of each capsular polysaccharide except the capsular polysaccharide of serotype 6B, and 4 µg to 5 µg of capsular polysaccharide from serotype 6B.

13. The vaccine of claim 12, wherein the vaccine is formulated as a single 0.5 ml dose comprising 2.2 µg of each capsular polysaccharide except the capsular polysaccharide of serotype 6B, and 4.4 µg of capsular polysaccharide from serotype 6B.

14. The vaccine of claim 11, wherein the vaccine is formulated as a single 0.5 ml dose comprising 2 µg to 2.5 µg of each capsular polysaccharide from serotypes 1, 5, 6A, 7F, 8, 9N, 10A, 11A, 12F, 14, 15B, 18C, 22F, 23F, and 33F and 4 µg to 5 µg of each capsular polysaccharide from serotypes 3, 4, 6B, 9V, 19A, and 19F.

15. The vaccine of claim 14, wherein the vaccine is formulated as a single 0.5 ml dose comprising 2.2 µg of each capsular polysaccharide from serotypes 1, 5, 6A, 7F, 8, 9N, 10A, 11A, 12F, 14, 15B, 18C, 22F, 23F, and 33F and 4.4 µg of each capsular polysaccharide from serotypes 3, 4, 6B, 9V, 19A, and 19F.

16. The vaccine of claim 11, wherein the vaccine is formulated as a single 0.5 ml dose comprising 2.2 µg of each capsular polysaccharide except for up to six serotypes selected from the group consisting of serotypes 1, 3, 4, 5, 6B, 9V, 19A, and 19F, and 4.4 µg of each capsular polysaccharide from the up to six serotypes selected from the group consisting of serotypes 1, 3, 4, 5, 6B, 9V, 19A, and 19F.

17. The vaccine of claim 11, wherein the vaccine is formulated as a single 0.5 ml dose comprising:

2 µg to 2.5 µg of each capsular polysaccharide except for serotype 6B;
4 µg to 5 µg of capsular polysaccharide from serotype 6B;
2 µg to 25 µg of tetanus toxoid;
40 µg to 75 µg of CRM_{197};
0.125 to 0.250 mg of elemental aluminum adjuvant; sodium chloride; and
a succinate buffer.

18. The vaccine of claim 17, further comprising polysorbate 80.

19. The vaccine of claim 17, wherein the elemental aluminum adjuvant comprises aluminum phosphate.

20. The vaccine of claim 17, comprising 2.2 µg of each capsular polysaccharide except for serotype 6B and 4.4 µg of capsular polysaccharide from serotype 6B.

~~12. A method for prophylaxis of Streptococcus pneumoniae infection or disease in a subject, the method comprising administering a prophylactically effective amount of the mixed carrier, multivalent pneumococcal conjugate composition of any one of claims 1-9 or the vaccine of claim 11 to the subject.~~

~~13. The method of claim 12, wherein the subject is a human who is at least 50 years old and the disease is pneumonia or invasive pneumococcal disease (IPD).~~

~~14. The method of claim 12, wherein the subject is a human who is at least 6 weeks old and the disease is pneumonia, invasive pneumococcal disease (IPD), or acute otitis media (AOM).~~

~~15. The method of claim 14, wherein the subject is 6 weeks to 5 years of age, 2 to 15 months of age, or 6 to 17 years of age.~~

~~16. The use of claim 10 or the method of any one of claims 12-15, wherein the subject is a human.~~

~~17. The method of any one of claims 12-16, wherein the mixed carrier, multivalent pneumococcal conjugate composition or the vaccine is administered by intramuscular injection.~~

~~18. The method of any one of claims 12-17, wherein the mixed carrier, multivalent pneumococcal conjugate composition or the vaccine is administered as part of an immunization series.~~

~~19. A method for preparing an immunogenic conjugate of Streptococcus pneumoniae serotype 9N, comprising:~~

~~(a) lysing a bacterial cell producing Streptococcus pneumoniae serotype 9N capsular polysaccharide by fermenting the same;~~

~~(b) purifying Streptococcus pneumoniae serotype 9N capsular polysaccharide from the lysed cell;~~

~~(c) activating the Streptococcus pneumoniae serotype 9N capsular polysaccharide by reacting with an oxidizing agent to achieve a degree of oxidation of 2-19 or 5-10; and~~

~~(d) forming a conjugate of the Streptococcus pneumoniae serotype 9N capsular polysaccharide bound to a protein carrier by mixing the activated serotype 9N polysaccharide with the protein carrier, wherein the protein carrier is CRM197.~~

~~20. The method of claim 19, wherein CRM197 mixed in step (d) is reacted with a reducing agent to form the conjugate with the activated serotype 9N polysaccharide.~~

~~21. The method of claim 19 or 20, wherein:~~

~~in step (c), 0.02-0.19 pg of periodate is reacted with 1 pg of the Streptococcus pneumoniae serotype 9N capsular polysaccharide at 20-25 °C for 15-20 hours;~~

~~the activated serotype 9N polysaccharide mixed with the CRM197 in step (d) has a molecular weight of 200-700 kDa;~~

~~the conjugate formed in step (d) has a molecular weight of 500-4,000 kDa;~~

~~an initial input ratio of the CRMwto the activated serotype 9N capsular polysaccharide is 0.5-2.5: 1; and/or~~

~~at least 15-60% of the conjugate formed in step (d) has a Kd of 0.3 or below in a CL-4B column.~~