**CLAIMS**

1. An immunogenic composition comprising:

   (a) a *Streptococcus pneumoniae* serotype 22F glycoconjugate with a molecular weight of between 1000 kDa and 12,500 kDa comprising an isolated capsular polysaccharide from *S. pneumoniae* serotype 22F and a carrier protein, wherein:

   a ratio (w/w) of the polysaccharide to the carrier protein is between 0.4 and 2;

   the carrier protein is $CRM_{197}$; and

   (b) glycoconjugates from *S. pneumoniae* serotypes 1, 3, 4, 5, 6A, 6B, 7F, 8, 9V, 10A, 11A, 12F, 14, 15B, 18C, 19A, 19F, 23F, and 33F individually conjugated to $CRM_{197}$;

   wherein the immunogenic composition is a 20-valent pneumococcal conjugate composition.

2. The immunogenic composition of claim 1, wherein the *Streptococcus pneumoniae* serotype 22F glycoconjugate comprises at least 0.1 mM acetate per mM polysaccharide.

3. The immunogenic composition of claim 1, wherein said immunogenic composition further comprises a buffer, a salt, a divalent cation, a non-ionic detergent, a cryoprotectant, an anti-oxidant, or a combination thereof.

4. The immunogenic composition of claim 3, wherein the composition further comprises a buffer.

5. The immunogenic composition of claim 4, wherein the buffer is phosphate, succinate, histidine or citrate.

6. A syringe filled with the immunogenic composition of claim 1.

7. The syringe of claim 6, wherein the syringe is siliconized or made of glass.

8. The immunogenic composition of claim 1, wherein each dose of said immunogenic composition comprises 0.1 μg to 100 μg of the polysaccharide.

9. The immunogenic composition of claim 1, wherein each dose of said immunogenic composition comprises 10 μg to 150 μg of the carrier protein.

10. The immunogenic composition of claim 1, wherein said immunogenic composition further comprises an antigen from other pathogens.

11. The immunogenic composition of claim 10, wherein said antigen is selected from the group consisting of a diphtheria toxoid (D), a tetanus toxoid (T), a pertussis antigen (P), an acellular pertussis antigen (Pa), a hepatitis B virus (HBV) surface antigen (HBsAg), a hepatitis A virus (HAV) antigen, a conjugated *Haemophilus influenzae* type b capsular saccharide (Hib), and an inactivated poliovirus vaccine (IPV) antigen.

12. The immunogenic composition of claim 1, wherein said immunogenic composition further comprises a conjugated *N. meningitidis* serogroup A capsular saccharide (MenA), a conjugated *N. meningitidis* serogroup W135 capsular saccharide (MenW135), a conjugated *N. meningitidis* serogroup Y capsular saccharide (MenY), or a conjugated *N. meningitidis* serogroup C capsular saccharide (MenC).

13. The immunogenic composition of claim 1, wherein said immunogenic composition further comprise at least one adjuvant.

14. The immunogenic composition of claim 13, wherein said at least one adjuvant is selected from the group consisting of aluminum, calcium phosphate, a liposome, an oil-in-water emulsion, and poly(D,L-lactide-co-glycolide) (PLG) microparticles or nanoparticles.

15. The immunogenic composition of claim 14, wherein said adjuvant is an aluminum adjuvant selected from the group consisting of aluminum phosphate, aluminum sulfate and aluminum hydroxide.

16. The immunogenic composition of claim 13, wherein said at least one adjuvant is a CpG Oligonucleotide.

17. The immunogenic composition of claim 1, wherein said immunogenic composition is formulated in liquid form.

18. The immunogenic composition of claim 1, wherein said immunogenic composition is formulated in a lyophilized form.

19. A container filled with the immunogenic composition of claim 1.

20. An immunogenic composition of claim 1 for use in the treatment of an infection, disease or condition associated with *S. pneumoniae*.

21. Use of an immunogenic composition of claim 1 in the manufacture of a medicament for the treatment of an infection, disease or condition associated with *S. pneumoniae.*

22. The use of claim 21, wherein the subject is a human being less than 2 years of age.

23. The use of claim 21, wherein the subject is a human adult 50 years of age or older.

24. The use of claim 21, wherein the subject is an immunocompromised human.

25. The immunogenic composition of claim 1, wherein at least 30% of the *Streptococcus pneumoniae* serotype 22F glycoconjugates have a $K_d$ below or equal to 0.3 in a CL-4B column.

26. The immunogenic composition of claim 1, wherein the *Streptococcus pneumoniae* serotype 22F glycoconjugates comprise less than about 50% of free polysaccharide compared to a total amount of polysaccharide.

27. The immunogenic composition of claim 1, wherein a ratio of mM acetate per mM polysaccharide in the *Streptococcus pneumoniae* serotype 22F glycoconjugate to mM acetate per mM isolated polysaccharide is at least 0.6.

28. The immunogenic composition of claim 1, wherein said *Streptococcus pneumoniae* serotype 22F glycoconjugate is prepared using reductive amination.

29. The immunogenic composition of claim 28, wherein said reductive amination comprises:
    (a) oxidation of the polysaccharide to form an activated polysaccharide and
    (b) reduction of the activated polysaccharide and a carrier protein to form the *Streptococcus pneumoniae* serotype 22F glycoconjugate.

30. The immunogenic composition of claim 29, wherein the ratio of mM acetate per mM polysaccharide in the *Streptococcus pneumoniae* serotype 22F glycoconjugate to mM acetate per mM polysaccharide in the activated polysaccharide is at least 0.6.

31. The immunogenic composition of claim 1, wherein the degree of conjugation of said *Streptococcus pneumoniae* serotype 22F glycoconjugate is between 2 and 15.

32. The immunogenic composition of claim 1, wherein the polysaccharide has a molecular weight of between 1,000 kDa and 2,000 kDa.