Claims:

1. Use of a fusion protein of formula I in the manufacture of a medicament for the treatment or prevention of a medical condition in a subject in need thereof,

wherein formula I is:

$$(X)_m - (R_1)_n - A - (Y)_o - B - (Z)_p \text{ (formula I)}$$

wherein:

X is a signal peptide or MHHHHHH (SEQ ID NO. 2);

m is 0 or 1;

R_1 is an amino acid;

n is 0, 1, 2, 3, 4, 5 or 6;

A is an immunogenic fragment of Protein E selected from SEQ ID NO. 122, SEQ ID NO. 123, SEQ ID NO. 124, SEQ ID NO. 125, SEQ ID NO. 126, SEQ ID NO. 179 or SEQ ID NO. 180 or a sequence having at least 95% sequence identity to any one of SEQ ID NO. 122, SEQ ID NO. 123, SEQ ID NO. 124, SEQ ID NO. 125, SEQ ID NO. 126, SEQ ID NO. 179 or SEQ ID NO. 180;

Y is selected from the group consisting of GG, SG, SS, GGG and $(G)_h$ wherein h is 4, 5, 6, 7, 8, 9, or 10;

o is 0 or 1;

B is an immunogenic fragment of PilA, at least 95% identical to amino acids 40-149 of any of SEQ ID NO. 58 to SEQ ID NO. 121;

Z is GGHHHHHH (SEQ ID NO. 3); and

p is 0 or 1, and

wherein the medical condition is selected from the group consisting of otitis media, acute exacerbations of chronic obstructive pulmonary disease (AECOPD), pneumonia, *H. influenzae* infection or disease, and NTHi infection or disease.

2. The use according to claim 1 wherein X is selected from the group consisting of FlgI, NadA and pelB.

3. The use according to claim 1 wherein m is 0.

4. The use according to any one of claims 1-3 wherein n is 0.

5. The use according to any one of claims 1-4 wherein A is an immunogenic fragment of Protein E from *H. influenzae* selected from the group consisting of amino acids 17-160 of SEQ ID NO. 4 (SEQ ID NO. 122), amino acids 18-160 of SEQ ID NO. 4 (SEQ ID NO. 123), amino acids 19-160 of SEQ ID NO. 4 (SEQ ID NO. 124), amino acids 20-160 of SEQ ID NO. 4 (SEQ ID NO. 125), amino acids 22-160 of SEQ ID NO. 4 (SEQ ID NO. 126), amino acids 23-160 of SEQ ID NO. 4 (SEQ ID NO. 179) and amino acids 24-160 of SEQ ID NO. 4 (SEQ ID NO. 180).

6. The use according to any one of claims 1-5 wherein A is the immunogenic fragment of Protein E from *H. influenzae* as set forth in SEQ ID NO: 124.

7. The use according to any of claims 1-5 wherein A is the immunogenic fragment of Protein E from *H. influenzae* as set forth in SEQ ID NO: 125.

8. The use according to any one of claims 1-7 wherein Y is GG.

9. The use according to any one of claims 1-8 wherein B is an immunogenic fragment of PilA, consisting of amino acids 40-149 from any of SEQ ID NO. 58 -SEQ ID NO. 121.

10. The use according to any one of claims 1-9 wherein B is the immunogenic fragment of PilA from *H. influenzae* as set forth in SEQ ID NO. 127.

11. The use according to any one of claims 1-5 wherein B is the fragment of PilA as set forth in SEQ ID NO. 127 and A is an immunogenic fragment of Protein E selected from the group consisting of SEQ ID NO. 122, SEQ ID NO. 124, SEQ ID NO. 125 and SEQ ID NO. 126.

12. Use of a fusion protein selected from the group consisting of SEQ ID NO. 136, SEQ ID NO. 138, SEQ ID NO. 140, SEQ ID NO. 142, SEQ ID NO. 144, SEQ ID NO. 146, SEQ ID NO. 148, SEQ ID NO. 150, SEQ ID NO.182, SEQ ID NO.184, SEQ ID NO.186, SEQ ID NO.188, SEQ ID NO. 190, SEQ ID NO.192, SEQ ID NO.194, SEQ ID NO.196, SEQ ID NO.198, SEQ ID NO.200, SEQ ID NO.202 and SEQ ID NO.204, in the manufacture of a medicament for the treatment or prevention of a medical condition in a subject in need thereof,

wherein the medical condition is selected from the group consisting of otitis media, acute exacerbations of chronic obstructive pulmonary disease (AECOPD), pneumonia, *H. influenzae* infection or disease, and NTHi infection or disease.

13. Use of a fusion protein approximately 95% identical to any of SEQ ID NO. 136, SEQ ID NO. 138, SEQ ID NO. 140, SEQ ID NO. 142, SEQ ID NO. 144, SEQ ID NO. 146, SEQ ID NO. 148, SEQ ID NO. 150, SEQ ID NO. 182, SEQ ID NO. 184, SEQ ID NO. 186, SEQ ID NO. 186, SEQ ID NO. 188, SEQ ID NO. 190, SEQ ID NO. 192, SEQ ID NO. 194, SEQ ID NO. 196, SEQ ID NO. 198, SEQ ID NO. 200, SEQ ID NO. 202 or SEQ ID NO. 204, in the manufacture of a medicament for the treatment or prevention of a medical condition in a subject in need thereof,

wherein the medical condition is selected from the group consisting of otitis media, acute exacerbations of chronic obstructive pulmonary disease (AECOPD), pneumonia, *H. influenzae* infection or disease, and NTHi infection or disease.

14. The use according to claim 12 or claim 13 wherein the signal peptide of the fusion protein has been removed.

15. Use of a fusion protein of SEQ ID NO. 148, wherein the signal peptide has been removed, SEQ ID NO. 177 (QIQKAEQN DVKLAPPTDV RSGYIRLVKN VNYYIDSESI WVDNQEPQIV HFDAVVNLDK GLYVYPEPKR YARSVRQYKI LNCANYHLTQ VRTDFYDEFW GQGLRAAPKK QKKHTLSLTP DTTLYNAAQI ICANYGEAFS VDKKGGTKKA AVSELLQASA PYKADVELCV YSTNETTNCT GGKNGIAADI TTAKGYVKSV TTSNGAITVK GDGTLANMEY ILQATGNAAT GVTWTTTCKG TDASLFPANF CGSVTQ), in the manufacture of a medicament for the treatment or prevention of a medical condition in a subject in need thereof, wherein the medical condition is selected from the group consisting of otitis media, acute exacerbations of chronic obstructive pulmonary disease (AECOPD), pneumonia, *H. influenzae* infection or disease, and NTHi infection or disease.

16. Use of a fusion protein of SEQ ID NO. 194, wherein the signal peptide has been removed, SEQ ID NO. 219 (IQKAEQND VKLAPPTDVR SGYIRLVKNV NYYIDSESIW VDNQEPQIVH FDAVVNLDKG LYVYPEPKRY ARSVRQYKIL NCANYHLTQV RTDFYDEFWG QGLRAAPKKQ KKHTLSLTPD TTLYNAAQII CANYGEAFSV DKKGGTKKAA VSELLQASAP YKADVELCVY STNETTNCTG GKNGIAADIT TAKGYVKSVT TSNGAITVKG DGTLANMEYI LQATGNAATG VTWTTTCKGT DASLFPANFC GSVTQ), in the manufacture of a medicament for the treatment or prevention of a medical condition in a subject in need thereof,

wherein the medical condition is selected from the group consisting of otitis media, acute exacerbations of chronic obstructive pulmonary disease (AECOPD), pneumonia, *H. influenzae* infection or disease, and NTHi infection or disease.

17. Use of an immunogenic composition comprising isolated Protein E from *H. influenzae and* isolated PilA from *H. influenzae*, in the manufacture of a medicament for the treatment or prevention of a medical condition in a subject in need thereof,

wherein the medical condition is selected from the group consisting of otitis media, acute exacerbations of chronic obstructive pulmonary disease (AECOPD), pneumonia, *H. influenzae* infection or disease, and NTHi infection or disease.

18. The use of claim 17 wherein Protein E is a polypeptide of SEQ ID NO. 4, a polypeptide comprising a sequence having at least 75%, 77%, 80%, 85%, 90%, 95%, 97%, 99% or 100% identity, over the entire length, to SEQ ID NO. 4, or is a polypeptide comprising an immunogenic fragment of at least 7, 10, 15, 20, 25, 30 or 50 contiguous amino acids of SEQ ID NO. 4.

19. The use of any one of claims 17-18 wherein PilA is a polypeptide of SEQ ID NO. 58, a polypeptide comprising a sequence having at least 80%, 85%, 90%, 95%, 97% or 100% identity, over the entire length, to SEQ ID NO. 58, or is a polypeptide comprising an immunogenic fragment of at least 7, 10, 15, 20, 25, 30 or 50 contiguous amino acids of SEQ ID NO. 58.

20. The use of any one of claims 17-19, wherein the Protein E from *H. influenzae* and the PilA from *H. influenzae* are comprised as the fusion protein of any one of claims 1-16.

21. The use of any one of claims 17-20, wherein the immunogenic composition further comprises Protein D from H. influenzae.

22. The use of any one of claims 17-21, wherein the immunogenic composition further comprises an adjuvant, optionally wherein the adjuvant is AS01, for instance, AS01B or AS01E.

23. Use of an immunogenic composition comprising the fusion protein of SEQ ID NO. 177 (QIQKAEQN DVKLAPPTDV RSGYIRLVKN VNYYIDSESI WVDNQEPQIV HFDAVVNLDK GLYVYPEPKR YARSVRQYKI LNCANYHLTQ VRTDFYDEFW GQGLRAAPKK QKKHTLSLTP DTTLYNAAQI ICANYGEAFS VDKKGGTKKA AVSELLQASA PYKADVELCV YSTNETTNCT GGKNGIAADI TTAKGYVKSV TTSNGAITVK GDGTLANMEY ILQATGNAAT GVTWTTTCKG TDASLFPANF CGSVTQ), in the manufacture of a medicament for the treatment or prevention of a medical condition in a subject in need thereof,

wherein the medical condition is selected from the group consisting of otitis media, acute exacerbations of chronic obstructive pulmonary disease (AECOPD), pneumonia, *H. influenzae* infection or disease, and NTHi infection or disease.

24. Use of an immunogenic composition comprising the fusion protein of SEQ ID NO. 219 (IQKAEQND VKLAPPTDVR SGYIRLVKNV NYYIDSESIW VDNQEPQIVH FDAVVNLDKG LYVYPEPKRY ARSVRQYKIL NCANYHLTQV RTDFYDEFWG QGLRAAPKKQ KKHTLSLTPD TTLYNAAQII CANYGEAFSV DKKGGTKKAA VSELLQASAP YKADVELCVY STNETTNCTG GKNGIAADIT TAKGYVKSVT TSNGAITVKG DGTLANMEYI LQATGNAATG VTWTTTCKGT DASLFPANFC GSVTQ), in the manufacture of a medicament for the treatment or prevention of a medical condition in a subject in need thereof,

wherein the medical condition is selected from the group consisting of otitis media, acute exacerbations of chronic obstructive pulmonary disease (AECOPD), pneumonia, *H. influenzae* infection or disease, and NTHi infection or disease.

25. The use according to any one of claims 1 to 24, wherein the medical condition is acute exacerbations of chronic obstructive pulmonary disease (AECOPD).