CLAIMS

1. A vaccine against *Clostridium chauvoei*, said vaccine comprising a *C chauvoei* component and additional cctA protein.

2. The vaccine according to claim 1, wherein one dose of said vaccine contains at least about 3.5 μg of said additional cctA protein.

3. The vaccine of claim 1 or 2, wherein one dose contains 0.025 to 0.148 RU of flagella.

4. The vaccine of any one of claims 1-3, wherein one dose contains about 0.074 RU of said flagella.

5. The vaccine of any one of claims 1-4, wherein one dose contains about 5 μg of said additional cctA protein.

6. The vaccine according to any one of claims 1-5 wherein said cctA protein is a recombinantly produced cctA protein.

7. The vaccine according to any one of claims 1-5, wherein said cctA protein is produced from the supernatant of cultured *C chauvoei*.

8. The vaccine according to any one of claims 1-7, wherein said C chauvoei component is a bacterin, a whole cell extract, a partial cell extract, or a combination thereof.

9. The vaccine according to claim 8, wherein C chauvoei component is said partial cell membrane that comprises a membrane fraction.

10. A method of preparing a vaccine against *C chauvoei* infection, said method comprising:

    a. Culturing *C chauvoei*;

    b. Collecting culture media;

    c. Concentrating *C chauvoei* from said culture media;

    d. Concentrating cctA from said culture media; and

    e. Combining said concentrated cctA with *C chauvoei*.

11. The method of claim 10 comprising a step of microfiltrating said culture media to obtain a microfiltered retentate and a microfiltered permeate.

12. The method of claim 10 or 11, wherein the step of culturing *C chauvoei* is performed in a culture media comprising a peptone of plant origin, a peptone of animal origin, or a combination thereof.

13. The method of claim 11 or 12, wherein the step of concentrating said cctA from said culture media comprises:

    a. Ultrafiltration of said microfiltered permeate, to obtain an ultrafiltered retentate, followed by

    b. Diafiltration, to obtain a diafiltered retentate, followed by

    c. Sterile filtration, to obtain a sterile solution of said additional cctA protein.

14. The method of claim 13 wherein said ultrafiltration comprises passing said microfiltered permeate through a 10 kDa cassette.

15. The method of claim 13 or 14, wherein said diafiltration comprises passing said ultrafiltered retentate through a 10 kDa cassette.

16. The method of any one of claims 12-15, wherein said diafiltration is followed by a sterile filtration of the diafiltered retentate through a 0.2 µm filter to prepare the sterile solution of additional cctA protein.

17. The method of any one of claims 11 – 16, wherein the microfiltered retentate is diafiltered to obtain the *C chauvoei* component.

18. The method according to any one of claims 10-17 wherein at least a portion of the *C chauvoei* component according to claim 17 and at least a portion of the sterile solution of additional cctA protein are combined.

19. A vaccine comprising a *C chauvoei* antigen, wherein said *C chauvoei* antigen is produced by a method according to any one of claims 7-18, wherein one dose of said vaccine contains at least 3.5 µg of said concentrated cctA protein.

20. The vaccine of claim 19, wherein one dose contains about 0.074 to 0.148 RU of said flagella.

21. The vaccine of claim 19 or claim 20, wherein one dose contains about 5 µg of said concentrated cctA.

22. The vaccine of claim 21, wherein one dose contains about 0.074 Ru of said flagella.

23. The vaccine according to any one of claims 1-6 or 19-22 further comprising at least one additional antigen selected from the group consisting of *Clostridium septicum, Clostridium haemolyticum, Clostridium novyi, Clostridium sordellii, Clostridium tetani*, *Clostridium perfringens* types C and D, *Erysipelothrix rhusiopathiae, Leptospira borgpetersenii* serovar Hardjo, Leptospira *interrogans* serovar Pomona and *Mannheimia haemolytica* antigens.

24. The vaccine according to claim 23 wherein said at least one additional antigen is an inactivated culture or toxoid.

25. The vaccine according to any one of claims 1-9 or 19-24, further comprising an adjuvant.

26. Use of the vaccine according to any one of claims 1-9 or 19-24 in the manufacture of a medicament for preventing *C chauvoei* infection in a subject, wherein said medicament is to be administered to said subject.

27. The use of claim 26 wherein said subject is a bovine or an ovine subject.