Claims

1. An acellular pertussis (aP) vaccine composition comprising *Bordetella pertussis* antigens pertussis toxoid (PT), filamentous hemagglutinin (FHA), and fimbriae types 2 and 3 (FIM), wherein FIM is present in an amount of 12-100 μg per human dose.

2. An aP composition according to claim 1, wherein FIM is present in an amount of 15-60 μg per human dose.

3. An aP composition according to any one of the preceding claims, wherein FIM is present in an amount of 20-60 μg per human dose.

4. An aP composition according to any one of the preceding claims, wherein FIM is present in an amount of 20-50 μg per human dose.

5. An aP composition according to any one of the preceding claims, wherein FIM is present in an amount of 20-25 μg per human dose.

6. An aP vaccine composition according to any one of the preceding claims, further comprising pertactin (PRN).

7. An aP vaccine composition according to any one of the preceding claims, wherein PT is genetically detoxified.

8. A composition according to any one of the preceding claims, further comprising antigens from one or more pathogens other than *B.pertussis*.

9. A composition according to claim 8, comprising tetanus toxoid and diphtheria toxoid.

10. A composition according to claim 8 or 9, comprising one or more of:
a) *Heamophilus influenzae* (Hib) oligosaccharide or polysaccharide conjugate;
b) hepatitis B virus surface antigen (HBsAg); and

c) inactivated polio virus (IPV).

11. A composition according to any one of the preceding claims, further comprising an adjuvant.

12. A composition according to claim 11, wherein the adjuvant comprises aluminium hydroxide, aluminium phosphate, or a combination thereof.