CLAIMS

What is claimed is:

1. An immungenic composition comprising a *Leptospira interrogans* serovar *hardjo* (type *hardjoprajitno*) capable of provoking an immune response against *Leptospira borgpetersenii* serovar *hardjo* (type *hardjo-bovis*).

2. The immunogenic composition of claim 1, wherein the *Leptospira interrogans* serovar *hardjo* (type *hardjoprajitno*) is a killed bacterium.

3. The immunogenic composition of claim 1, further comprising one or more modified live viruses (MLVs) selected from the group consisting of Infectious Bovine Rhinotracheitis (IBR) virus, Bovine Virus Diarrhea (BVD) Types 1 and 2, Parainfluenza 3 (PI3) virus, and Bovine Respiratory Syncytial Virus (BRSV).

4. The immunogenic composition of claim 1, wherein the immune response provides protection against, reduction in the the incidence, and/or lessens the severity of infection by *Leptospira borgpetersenii* serovar *hardjo* (type *hardjo-bovis*) in a subject.

5. The immunogenic composition of claim 4, wherein the subject is a bovine.

6. The immunogenic composition of claim 5, wherein the bovine is a cow or heifer.

7. A vaccine comprising a *Leptospira interrogans* serovar *hardjo* (type *hardjoprajitno*) capable of provoking a protective immune response against *Leptospira borgpetersenii* serovar *hardjo* (type *hardjo-bovis*).

8. The vaccine of claim 7, wherein the *Leptospira interrogans* serovar *hardjo* (type *hardjoprajitno*) is a killed bacterium.

9. The ~~immunogenic composition~~vaccine of claim 7, further comprising one or more modified live viruses (MLVs) selected from the group consisting of Infectious Bovine Rhinotracheitis (IBR) virus, Bovine Virus Diarrhea (BVD) Types 1 and 2, Parainfluenza 3 (PI3) virus, and Bovine Respiratory Syncytial Virus (BRSV).

10. The vaccine ~~immunogenic composition~~ of claim 7, wherein the immune response provides protection against, reduction in the ~~the~~ incidence, and/or lessens the severity of infection by *Leptospira borgpetersenii* serovar *hardjo* (type *hardjo-bovis*) in a subject.

11. The vaccine ~~immunogenic composition~~ of claim 10, wherein the subject is a bovine.

12. The vaccine ~~immunogenic composition~~ of claim 11, wherein the bovine is a cow or heifer.

13. An immunogenic composition comprising a *Leptospira interrogans* serovar *hardjo* (type *hardjoprajitno*) for use in ~~method of~~ providing protection against, reduction in the incidence, and/or lessening the severity of infection by *Leptospira borgpetersenii* serovar *hardjo* (type *hardjo-bovis*) in a subject ~~comprising administering to the subject an immunogenic composition, wherein the immunogenic composition includes a *Leptospira interrogans* serovar *hardjo* (type *hardjoprajitno*)~~.

14. The immunogenic composition ~~method~~ of claim 13, wherein the *Leptospira interrogans* serovar *hardjo* (type *hardjoprajitno*) is a killed bacterium.

15. The immunogenic composition ~~method~~ of claim 13, further comprising one or more modified live viruses (MLVs) selected from the group consisting of Infectious Bovine Rhinotracheitis (IBR) virus, Bovine Virus Diarrhea (BVD) Types 1 and 2, Parainfluenza 3 (PI3) virus, and Bovine Respiratory Syncytial Virus (BRSV).

16. The immunogenic composition ~~method~~ of claim 13, wherein the immune response provides protection against, reduction in the the incidence, and/or lessens the severity of infection by *Leptospira borgpetersenii* serovar *hardjo* (type *hardjo-bovis*) in a subject.

17. The immunogenic composition ~~method~~ of claim 16, wherein the subject is a bovine.

18. The immunogenic composition ~~method~~ of claim 17, wherein the bovine is a cow or heifer.