CLAIMS

What is claimed is:

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

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

3. The immunogenic composition ~~of~~ according to claim 1 or 2, 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~~ according to any one of claims 1 to 3, 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~~ according to any one of claims 1 to 4, wherein the subject is a bovine.

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

7. The immunogenic composition according to any one of claims 1 to 6, wherein the immunogenic composition is a vaccine.

8. The immunogenic composition of any one of claims 1 to 7, wherein the immune response provides reduction or protection against urine shedding or renal infection in a subject.

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

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

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

~~13~~9. Use of ~~An immunogenic composition comprising~~ a *Leptospira interrogans* serovar *hardjo* (type *hardjoprajitno*) in the manufacture of an immunogenic composition for ~~use in~~ provoking an immune response against ~~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.

~~14~~10. The ~~immunogenic composition~~use of claim ~~13~~9, wherein the *Leptospira interrogans* serovar *hardjo* (type *hardjoprajitno*) is a killed bacterium.

~~15~~11. The ~~immunogenic composition~~use ~~of~~ according to claim ~~13~~9 or 10, 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~~12. The ~~immunogenic composition~~use ~~of~~ according to any one of claims ~~13~~9 to 11, 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~~13. The ~~immunogenic composition~~use according to any one of claims 9 to ~~16~~12, wherein the subject is a bovine.

~~18~~14. The ~~immunogenic composition~~use ~~of~~ according to claim ~~17~~13, wherein the bovine is a cow or heifer.

15. The use according to any one of claims 9 to 14, wherein the immunogenic composition is a vaccine.

16. The use according to any one of claims 9 to 15, wherein the immune response provides reduction or protection against urine shedding or renal infection in a subject.