CLAIMS

1. A Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) of a European type, which is of the strain deposited with European Collection of Cell Cultures (ECACC) under the Accession Numbers ECACC 11012501 ~~or Accession Numbers ECACC 11012502~~.

2. A Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) of a European type, which is of the strain deposited with European Collection of Cell Cultures (ECACC) under the Accession Numbers ECACC 11012502.

~~2~~3. The PRRSV of claim ~~1~~2, wherein said virus is attenuated by passaging at least 36 times in cell culture such that when the modified virus is administered to a swine or other mammal prone to PRRSV, it fails to cause clinical signs of PRRSV disease but is capable of inducing an immune response that immunizes the mammal against pathogenic forms of PRRSV.

~~3~~4. A method for the preparation of the live attenuated PRRSV according to claim ~~1~~2, comprising adapting an MA 104-grown PRRSV of a European type according to claim 1 to non-MA 104 mammalian cells.

~~4~~5. A vaccine for the protection of pigs against PRRSV infection, comprising the live attenuated PRRSV according to claim ~~1~~2 and a pharmaceutically acceptable carrier.

~~5~~6. The vaccine according to claim ~~4~~5, which further comprises one or more non-PRRSV attenuated or inactivated pathogens or antigenic material thereof.

~~6~~7. The vaccine according to claim ~~5~~6, wherein said non-PRRSV pathogens are selected from Pseudorabies virus, Porcine influenza virus, Porcine parvovirus, Transmissible gastroenteritis virus, Escherichia coli, Erysipelo rhusiopathiae, Bordetella bronchiseptica, Salmonella cholerasuis, Haemophilus parasuis, Pasteurella multocida, Streptococcus suis, Mycoplasma hyopneumoniae and Actinobacillus pleuropneumoniae.

~~7~~8. The vaccine according to claim ~~4~~5 which further comprises one or more additional European PRRSV strains selected from the group consisting of a PRRSV strain deposited under the Accession Numbers Lelystad virus strain (Lelystad Agent (CDI-NL-2.91), or other strains such as those deposited under the Accession Numbers ECACC 04102703, ECACC 04102702, ECACC 04102704, CNCM Accession No. I-1140, CNCM Accession No I-1387, CNCM Accession No I-1388, ATCC VR 2332, VR 2385, VR 2386, VR 2429, VR 2474, and VR 2402; CNCM I-1102, CNCM I-1140, CNCM I-1387, CNCM I-1388, or ECACC V93070108 or a U.S. strain such as North American PRRS virus, pT7P129A; ATCC deposit VR-2332, ATCC deposit VR-2368; ATCC VR-2495; ATCC VR 2385, ATCC VR 2386, ATCC VR 2429, ATCC VR 2474, and ATCC VR 2402.

~~8~~9. The vaccine according to claim 45, which comprises a carrier that is suitable for intradermal or intramuscular application.

~~9~~10. The vaccine according to claim 45, which is in freeze-dried form.

~~10~~11. The vaccine of claim ~~4~~5 wherein said vaccine comprises at least about $10^7$ virus particles.

~~11~~12. A method for the preparation of a live attenuated vaccine for combating PRRS, comprising admixing a live attenuated PRRSV according to claim ~~1~~2 with a pharmaceutically acceptable carrier.

~~12~~13. The method according to claim ~~11~~12, wherein the live attenuated PRRSV further comprises one or more additional European PRRSV strains selected from the group consisting of a PRRSV strain deposited under the Accession Numbers ECACC 04102703, ECACC 04102702, ECACC 04102704, CNCM Accession No. I-1140, CNCM Accession No I-1387, and CNCM Accession No I-1388.

~~13~~14. The method according to claim ~~11~~12, wherein the live attenuated PRRSV further comprises an adjuvant.

~~14. A method of immunizing swine against porcine reproductive and respiratory syndrome (PRRS), said method comprising the step of administering to swine a vaccine composition including a live porcine reproductive and respiratory syndrome virus mixed with a pharmacologically compatible carrier agent, said virus comprising PRRS 94881 virus passaged at least 36 times in cell culture to modify the virus such that when the modified virus is administered to a swine or other mammal prone to PRRS, it fails to cause clinical signs of PRRS disease but is capable of inducing an immune response that immunizes the mammal against pathogenic forms of PRRS.~~

15. A vaccine according to any one of claims 5 to 11, for use in a method of immunizing swine against porcine reproductive and respiratory syndrome (PRRS).

~~15~~16. The ~~method~~ vaccine for use according to ~~of~~ claim ~~14~~15, wherein said swine presents no lung lesions after vaccination.

~~16. The method of claim 14, wherein said swine presents fewer lung lesions after vaccination as compared to vaccination with Porcilis vaccine.~~

17. A PRRS virus having a nucleotide sequence that is at least 95% homologous with the sequence set forth in either SEQ ID NO:1 or SEQ ID NO:10.

18. The PRRS virus of claim 17 having a nucleotide sequence that is set forth in either SEQ ID NO: 1 or SEQ ID NO: 10.

~~18. A PRRS virus that comprises at least one ORF that encodes a protein that is at least 98% identical to any of the sequences set forth in SEQ ID NO: 2 to 9 or SEQ ID NO:11 to SEQ ID NO:18.~~

~~19. A PRRS virus that has a nucleotide sequence of SEQ ID NO:1 or SEQ ID NO:10 or a fragment of either SEQ ID NO:1 or SEQ ID NO:2 wherein said fragment encodes an ORF selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8,~~

SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, and SEQ ID NO:18.

20. A subunit vaccine for vaccination of a porcine animal wherein said vaccine comprises one or more nucleotides selected from the group consisting of a nucleotide that encodes an ORF selected from the group consisting of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, and SEQ ID NO:18.

21. A subunit vaccine for vaccination of a porcine animal wherein said vaccine comprises one or more nucleotides selected from the group consisting of SEQ ID NO:19; SEQ ID NO:20; SEQ ID NO:21; SEQ ID NO:22; SEQ ID NO:23; SEQ ID NO:24; SEQ ID NO:25; SEQ ID NO:26; SEQ ID NO:27; SEQ ID NO:28; SEQ ID NO:29; SEQ ID NO:30; SEQ ID NO:31; SEQ ID NO:32; SEQ ID NO:33; and SEQ ID NO:34.

22. A composition comprising one or more proteins selected from the group consisting of a protein having the sequence of SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, and SEQ ID NO:18.

23. An isolated nucleic acid comprising a sequence selected from the group consisting of SEQ ID NO:19; SEQ ID NO:20; SEQ ID NO:21; SEQ ID NO:22; SEQ ID NO:23; SEQ ID NO:24; SEQ ID NO:25; SEQ ID NO:26; SEQ ID NO:27; SEQ ID NO:28; SEQ ID NO:29; SEQ ID NO:30; SEQ ID NO:31; SEQ ID NO:32; SEQ ID NO:33; and SEQ ID NO:34.

24. A recombinant expression vector comprising a nucleic acid sequence that encodes one or more PRRSV ORFs selected from the group consisting of SEQ

~~ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:16, SEQ ID NO:17, and SEQ ID NO:18 operably linked to a promoter.~~

~~25. The recombinant expression vector of claim 24 wherein said nucleic acid encoding said ORFs is selected from the group consisting of SEQ ID NO:19; SEQ ID NO:20; SEQ ID NO:21; SEQ ID NO:22; SEQ ID NO:23; SEQ ID NO:24; SEQ ID NO:25; SEQ ID NO:26; SEQ ID NO:27; SEQ ID NO:28; SEQ ID NO:29; SEQ ID NO:30; SEQ ID NO:31; SEQ ID NO:32; SEQ ID NO:33; and SEQ ID NO:34.~~

~~26. A vaccine comprising a recombinant expression vector of any of claims 24 or 25.~~

19. A vaccine for the protection of pigs against PRRSV infection, comprising a PRRS virus according to claim 17 or 18 and a pharmaceutically acceptable carrier, wherein said PRRS virus has a nucleotide sequence that is set forth in SEQ ID NO: 1, or is an attenuated PRRS virus that has a nucleotide sequence that is at least 95% homologous with the sequence set forth in SEQ ID NO: 1.

20. The vaccine according to claim 19, which further comprises one or more non-PRRSV attenuated or inactivated pathogens or antigens material thereof.

21. The vaccine according to claim 20, wherein said non-PRRSV pathogens are selected from Pseudorabies virus, Porcine influenza virus, Porcine parvovirus, Transmissible gastroenteritis virus, Escherichia coli, Erysipelo rhusiopathiae, Bordetella bronchiseptica, Salmonella cholerasuis, Haemophilus parasuis, Pasteurella multocia, Streptococcus suis, Mycoplasma hyponeumoniae and Actinobacilllus pleuropneumoniae.