CLAIMS

1. A method for the commercial scale production of porcine reproductive and respiratory syndrome virus (PRRSV) comprising:

a) concurrently seeding a large scale culture media with a mammalian cell line that is permissive to PRRSV infection into a bioreactor and infecting said mammalian cells with a PRRSV.

b) propagating virus for 5 to 7 days post infection;

c) performing a first harvesting step by removing the media from said bioreactor and isolating propogated virus therefrom;

d) replenishing the media in said bioreactor and propagating virus for 1 to 4 days;

e) performing a second harvesting step by removing the media from said bioreactor and isolating propogated virus therefrom;

f) replenishing the media in said bioreactor and propagating virus for 1 to 4 days and

g) performing a third harvesting step by removing the media from said bioreactor and isolating propogated virus therefrom.

2. The method of claim 1, further comprising at least one re-feeding and harvest steps subsequent to the third harvesting step comprising replenishing the media in said bioreactor and propagating virus for 1 to 4 days and performing a fourth harvesting step by removing the media from said bioreactor and isolating propogated virus therefrom

3. The method of claim 1, wherein the target multiplicity of infection (MOI) is 0.01 to 0.30 ~~and the cell planting density~~.

4. The method of claim 1, wherein said mammalian cells are planted at a density of about 7×10^8 to 1.0×10^9 per 300L bioreactor.

5. The method of claim 4, wherein said cell planting density is about 1.0 x 10^9 per 300L bioreactor.

6. The method of claim 5, wherein said ~~MOI~~ infection is with about 7 x 10^8 virus particles per 300L bioreactor.

7. The method of claim 1, comprising monitoring the dextrose concentration of said media wherein said first harvest step is performed on the first day when the dextrose concentration of the media decreases to less than 0.1 g/L.

8. The method of claim 1, wherein said second harvest is performed 1 or 2 days post-refeeding with media.

9. The method of claim 1, wherein said third harvest is performed 1 to 4 days post the second refeeding with media.

10. The method of claim 1, wherein the culture media is added to the bioreactor on the day prior to or on the same day prior to addition of said mammalian cell line and said PRRS.

11. The method of claim 1, wherein the culture media is added to the bioreactor one day prior to the addition of said mammalian cell line and said PRRS.

12. The method of claim 1, wherein the temperature of said bioreactor is set at between 34°C and 38°C.

13. The method of claim 1, wherein said media comprises 5% v/v irradiated fetal calf serum.

14. The method of claim 1, wherein said PRRSV is selected from the group consisting of PRRSV strain 94881, VR 2332, 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; 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.

15. A commercial-scale production method for the preparation of a PRRSV comprising:

a. a concurrent seeding of both mammalian cells permissive to infection by said PRRSV and said PRRSV into a bioreactor containing a media suitable for the growth of said cells; and

b. performing three consecutive harvesting steps wherein PRRSV is harvested wherein after each of the first and second harvests, the media is replenished, and wherein:

i. the first harvest is performed on the first day that the dextrose concentration of the media decreases to less than 0.1 g/L;

ii. the second harvest is performed 1 or 2 days after addition of the media following the first harvest; and

iii. the third harvest is performed between 1 and 4 days after addition of the media following the second harvest.

~~16. A PRRSV MLV comprising a PRRSV produced according to the method of any of claims 1-16 formulated with an acceptable adjuvant or carrier for delivery to a pig.~~

~~17,~~16. A method for the commercial scale production of porcine reproductive and respiratory syndrome virus (PRRSV) comprising:

a) concurrently seeding a large scale culture media with a mammalian cell line that is permissive to PRRSV infection into a roller bottles and infecting said mammalian cells with a PRRSV.

b) propagating virus for 5 to 7 days post infection;

c) performing a first harvesting step by removing the media from said roller bottle and isolating propogated virus therefrom;