CLAIMS:

1. A method of producing a clarified virus pool, the method comprising:
   a. providing a cell line in a cell media, a buffer and a supplement;
   b. treating cells of the cell line with at least one enzyme;
   c. infecting the cell line with a virus to form an infected cell line;
   d. washing of the infected cell line with a virus media and the buffer;
   e. harvesting the infected cell line in the media to obtain a harvest; optionally re-harvesting the infected cell line one or more times;
   f. adding at least one stabilizer to the harvest; and
   g. clarifying the harvest to obtain a clarified virus pool (CVP).

   optionally, wherein the cell line or the infected cell line in exponential growth phase is
   - grown with additional ventilation or aeration, or
   - provided with re-addition of the buffer or
   - both.

2. The method as claimed in claim 1, wherein the virus is selected from single-stranded, positive-sense, negative-sense, enveloped, non-enveloped RNA viruses belonging to the family Picornaviridae, Caliciviridae, Togaviridae, Matonaviridae, Flaviviridae, Coronaviridae, Retroviridae, Filoviridae, Bunyaviridae, Rhabdoviridae, Orthomyxoviridae, Arenaviridae, Paramyxoviridae.

3. The method as claimed in any one claims 1 or 2, wherein the virus is Measles morbillivirus (measles virus), Mumps orthorubulavirus (mumps virus) and Rubivirus rubellae (rubella virus).

4. The method as claimed in any one claims 1 to 3, wherein the cell line is selected from animal cell line, mammalian, avian, insect cell line, human cell line, primary cell line, diploid cell line, continuous cell line, Rhesus monkey kidney (RhMK) cells; Primary rabbit kidney cells; Human foreskin fibroblasts; Chick embryo fibroblast (CEF); Human epidermoid carcinoma cells (HEp-2); Human lung carcinoma cells (A549); Human Cervix Epithelial (HeLa); African Green Monkey Kidney Epithelial (Vero); Human Lung Fibroblast (MRC-5); Human Lung Fibroblast (MRC-9); Mouse Embryo Fibroblast (NIH3T3); Mouse Connective Tissue Fibroblast (L929); Chinese Hamster Ovary

Fibroblast (CHO); Syrian Hamster Kidney Fibroblast (BHK-21); Human embryo Kidney Epithelial (HEK-293); Human Liver Epithelial (HepG2); Bovine Aorta Endothelial (BAE-1); Human Neuroblastoma Neuronal (SH-SY5Y); Mouse Myeloma Lymphoblast (NS0); Human Hystiocytic Lymphoma Lymphoblast (U937); Human Leukemia Lymphoblast (HL60); Mouse B-cell Lymphoma Lymphoblast (WEHI231); Mouse Lymphoma Lymphoblast (YAC1); Human Myeloma Lymphoblast (U266B1); Human T-cell Leukemia Lymphoblast (Jurkat); Human Monocyte Leukemia Lymphoblast (THP-1); Human embryonic lung cells (W1-38); Madin Darby canine kidney cells (MDCK); Human embryonic retinal cells (PER.C6); Human embryonic retinoblasts (HER.911); Murine non-secreting myeloma (Sp2.0); Epithelial cells of African green monkey kidney origin (BSC-1 cells); Rhesus Monkey Kidney Epithelial Cells (LLC-MK2 cells); Cercopithecus aethiops monkey kidney cells (CV-1 cells); African green monkey kidney fibroblast-like cells (COS-cells); Crandell- Rees Feline Kidney Cells (CRFK cells); Rapidly Accelerated Fibrosarcoma cells (RAF cells); Normal Rabbit Kidney Epithelial Cells (RK-13 cells); Transformed C3H Mouse Kidney-1 (TCMK-1 cells); Pig Kidney Epithelial Cells (LLC-PK1 cells); Porcine kidney cells (PK15 cells); Rabbit kidney cell line (LLC-RK1 cells), Nonsecreting myeloma cell lines (NS-1 cells), New human male diploid cell strain (TIG-1, TIG-7); nonhuman primate diploid cell line (FRhL-2); Human foetal lung (IMR-90, IMR-91) cells; human diploid lung fibroblasts and others.

5. The method as claimed in any one claims 1 to 4, wherein the enzyme is selected from trypsin, recombinant trypsin, dipase, collagenase, hyaluronidase, elastase, cysteine protease, deoxyribonuclease I and chymotrypsin.

6. The method as claimed in any one claims 1 to 5, wherein the cell media includes basal media, enriched media, selective and indicator media, transport media, storage media, carbon sources, or combination thereof.

7. The method as claimed in any one claims 1 to 6, wherein the supplement includes amino acids, cholesterol, proteins, lactoferrin, linoleic acid, yeast extracts, serums, antioxidants, vitamins, antibiotics, nutrients, trace elements, adherence agents, extension factors, or combinations thereof.

8. The method as claimed in any one claims 1 to 7, wherein the buffer is selected from the $NaHCO_3$, NaOH, NaCl, HEPES, PIPES, MES, phosphates, carbonates, Hank's, Earl's or combinations thereof.

9. The method as claimed in any one claims 1 to 8, wherein the virus media for washing the infected cell line is selected from basal media, enriched media, selective and indicator media, transport media, storage media, carbon sources, or combination thereof.
10. The method as claimed in any one claims 1 to 9, wherein the washing of the infected cell lines by the virus media is performed post infection with virus having MOI in the range of 1:5 to 1: 60 and is followed by incubation at 30 to 40°C.

11. The method as claimed in any one claims 1 to 10, wherein the at least one stabilizer includes at least one carbohydrate, at least one protein, at least one amino acid, or a combination thereof.

12. The method as claimed in any one claims 1 to 11, wherein the clarification of the harvest is carried out using at least one filter having pore size in the range of 0.1 to 10.0 µ.

13. The clarified virus pool (CVP) obtained by the method as claimed in any one of claims 1 to 12.

14. The method as claimed in any one of claims 1 to 12, for producing a measles clarified virus pool, the method comprising:
    a. providing the cell line in a cell media, the buffer and the supplement;
    b. treating cells of the cell line with the enzyme;
    c. infecting the cell line with Measles morbillivirus to form the measles infected cell line;
    d. washing of the measles infected cell line with the virus media and the buffer;
    e. harvesting the measles infected cell line in the media to obtain the harvest; optionally re-harvesting the measles infected cell line;
    f. adding the stabilizer to the harvest; and
    g. clarifying the harvest to obtain the measles clarified virus pool (CVP).

optionally, wherein the cell line or the measles infected cell line in exponential growth phase is

- grown with additional ventilation or aeration, or
- provided with re-addition of the buffer or
- both.

15. A measles clarified virus pool (CVP) obtained by the method as claimed in claim 14.

16. The method as claimed in any one of claims 1 to 12 for producing a mumps clarified virus pool, the method comprising:
    a. providing the cell line in the cell media, the buffer and the supplement;
    b. treating cells of the cell line with the enzyme;
    c. infecting the cell line with the Mumps orthorubula virus to form a mumps infected cell line;
    d. washing of the mumps infected cell line with the virus media and the buffer;
    e. harvesting the mumps infected cell line in the media to obtain the harvest; optionally re-harvesting the mumps infected cell line;
    f. adding the stabilizer to the harvest; and
    g. clarifying the harvest to obtain the mumps clarified virus pool (CVP).

    optionally, wherein the cell line or the mumps infected cell line in exponential growth phase is

    - grown with additional ventilation or aeration, or
    - provided with re-addition of the buffer or
    - both.

17. A mumps clarified virus pool (CVP) obtained by the method as claimed in claim 16.

18. The method as claimed in any one of claims 1 to 12 for producing a rubella clarified virus pool, the method comprising:
    a. providing the cell line in the cell media and the supplement;
    b. treating cells of the cell line with the enzyme;
    c. infecting the cell line with the Rubivirus rubellae to form a rubella infected cell line;
    d. washing of the rubella infected cell line with the virus media and the buffer;

e. harvesting the rubella infected cell line in the media to obtain the harvest; optionally re-harvesting the rubella infected cell line;
f. adding the stabilizer to the harvest; and
g. clarifying the harvest to obtain the rubella clarified virus pool (CVP).

optionally, wherein the cell line or the rubella infected cell line in exponential growth phase is

- grown with additional ventilation or aeration, or
- provided with re-addition of the buffer or
- both.

19. A rubella clarified virus pool (CVP) obtained by the method as claimed in claim 18.

20. A method of obtaining a lyophilized/ freeze-dried MMR immunogenic composition comprising at least one CVP selected from a measles CVP, a mumps CVP, a rubella CVP or a combination thereof, the method comprising:
providing a measles CVP of claim 15 or obtained by claim 14, a mumps CVP of claim 17 or obtained by claim 16, a rubella CVP of claim 19 or obtained by claim 18, or a combination thereof,
blending of the CVPs, followed by lyophilizing the blended CVPs.

21. The method of claim 20, wherein the method includes:
a) thawing at least one CVP of measles, mumps, rubella virus or combination thereof at 30 to 35°C to obtain the thawed CVP;
b) blending the thawed CVP and blind vaccine to obtain a blended solution;
c) clarifying the blended solution through a 0.45µ filter to obtain a homogenous bulk;
d) aseptically filling the homogenous bulk into sterilized vials, followed by transferring the vials to a lyophilizer/ freeze dryer.
e) lyophilizing/ freeze drying the vials containing the homogenous bulk.

22. The method according to claim 21, wherein the lyophilizing/ freeze-drying step comprises:
a) pre-freezing shelf, loading the trays containing vials of the MMR immunogenic composition on the shelf;
b) freezing;

c) primary drying/ sublimation and
d) secondary drying

23. A lyophilized/ freeze-dried MMR immunogenic composition obtained by the method as claimed in claim 22, the composition comprising;
    a) atleast one virus;
    b) stabilizer comprising atleast one carbohydrate, atleast one amino acid and atleast one hydrolyzed protein.

24. The lyophilized/ freeze-dried MMR immunogenic composition as claimed in claim 23, comprising of live attenuated measles virus present at a dose of not less than 1000 $CCID_{50}$ per dose, live attenuated mumps virus present at a dose of not less than 5000 $CCID_{50}$ per dose and live attenuated rubella virus present at a dose of not less than 1000 $CCID_{50}$ per dose.

25. The lyophilized/ freeze-dried MMR immunogenic composition as claimed in claim 23, wherein the composition comprises;
    a) at least one carbohydrate at concentration range of 1-20% (w/v)
    b) at least one amino acid at concentration range of 0.01-10% (w/v);
    c) at least one hydrolyzed protein at concentration range of 0.1-10% (w/v)

26. The lyophilized/ freeze-dried MMR immunogenic composition as claimed in claim 50, comprising of at least one an adjuvant, an immunostimulatory component, pharmaceutically acceptable additive, or a combination thereof.

27. The lyophilized/ freeze-dried MMR immunogenic composition as claimed in claim 23, comprising of a pharmaceutically acceptable additive selected from a group consisting of transporter, excipient, binder, carrier, isotonic agent, emulsifier and humectant.

28. The lyophilized/ freeze-dried MMR immunogenic composition as claimed in claim 23, wherein the lyophilized/freeze-dried viral vaccine composition is reconstituted with an aqueous solution selected from a group consisting of saline, buffer and WFI (water for injection).

29. The lyophilized/freeze-dried MMR immunogenic composition as claimed in any of the previous claims 23 to 28, comprising:
    a) live attenuated measles virus present at a dose of not less than 1000 $CCID_{50}$ per dose, live attenuated mumps virus present at a dose of not less than 5000 $CCID_{50}$ per dose and live attenuated rubella virus present at a dose of not less than 1000 $CCID_{50}$ per dose;
    b) stabilizer comprising

    carbohydrate consisting of sorbitol present at a concentration of 1 to 10% (w/v);

    amino acid consisting of tricine present at a concentration of 0.1% to 2% (w/v), L-histidine present at a concentration of 0.1% to 2% (w/v), L-alanine present at a concentration of 0.01% to 1% (w/v) and L-arginine hydrochloride present at a concentration of 0.1% to 5% (w/v); and

    hydrolyzed protein consisting of gelatin present at a concentration of 0.1% to 5% (w/v) and lactalbumin hydrolysate present at a concentration of 0.1% to 2% (w/v).

30. A kit comprising the lyophilized/freeze-dried MMR immunogenic composition as claimed in claim 29 comprises;
    a) a first container containing a lyophilized (freeze-dried) viral vaccine composition said composition comprising: live attenuated measles virus present at a dose of not less than 1000 $CCID_{50}$ per dose, live attenuated mumps virus present at a dose of not less than 5000 $CCID_{50}$ per dose and live attenuated rubella virus present at a dose of not less than 1000 $CCID_{50}$ per dose; carbohydrate consisting of sorbitol present at a concentration of 1 to 10% (w/v); amino acid consisting of tricine present at a concentration of 0.1% to 2% (w/v), L-histidine present at a concentration of 0.1% to 2% (w/v), L-alanine present at a concentration of 0.01% to 1% (w/v) and L-arginine hydrochloride present at a concentration of 0.1% to 5% (w/v); and hydrolyzed protein consisting of gelatin present at a concentration of 0.1% to 5% (w/v) and lactalbumin hydrolysate present at a concentration of 0.1% to 2% (w/v); and
    b) a second container containing an aqueous solution selected from saline or water for injection (WFI) for the reconstitution of the lyophilized (freeze-dried) vaccine composition.