CLAIMS

1. A method for production of RNA based retroviral particles comprising:

(i) transfection of a producer cell, modified to complement deletions in the RNA viral genome upon which the viral vector is based, and culturing the producer cells under suitable conditions to permit the production of viral vector particles, wherein said culturing following transfection is conducted in serum free medium;

(ii) collecting the supernatant containing said RNA based viral vector particles, said supernatant collection being performed during the 72 hrs following transfection of the producer cells, by multiple steps comprised between 3 and 6, at specific time intervals depending on the vector particle half-life at 37°C in the medium of the producer cell.

2. The method of claim 1, comprising no step of sodium butyrate induction.

3. The method of any of claims 1 or 2, wherein the supernatant collection is followed by clarification by centrifugation.

4. The method of any of claims 1 to 3, further comprising a step of ion-exchange chromatography.

5. The method of any of claims 1 to 4, wherein the ultrafiltration is operated on polysulfone hollow-fiber cartridges.