CLAIMS

1. A process for recovering a “full” viral product from a viral product composition comprising said “full” viral product and an “empty” viral product, which process comprises:

A) contacting the composition with a functionalised chromatography medium, whereby the composition has a dissolved salt concentration such that the electrical conductivity is below 10 mS/cm;

B) optionally washing the functionalised chromatography medium with a liquid phase of low ionic concentration, corresponding to the loading electric conductivity of A); and

C) selectively eluting the “full” viral product and the “empty” viral product by contacting the functionalised chromatography medium with a liquid phase of increasing ionic strength, wherein:

(i) the “full” viral product is an Adenovirus or an Adeno-associated virus, or corresponding viral particle containing one or more polynucleotides;

(ii) the “empty” viral product is an Adenovirus or an Adeno-associated virus, or corresponding viral particle substantially devoid of polynucleotides; and

(iii) the functionalised chromatography medium comprises one or more non-woven non-grafted cellulose nanofibres having a density of 600 to 1,000 μmol trimethylammonium ligand groups per g of functionalised chromatography medium.

2. The process according to claim 1, wherein:

a) the “full” viral product comprises a plurality of viruses, virus particles, viral cores, membrane-stripped viruses, viral cores with outer membrane(s) removed, or proviruses, each of which is capable of infecting a cell; and

b) the “empty” viral product comprises a plurality of viruses, virus particles/virions, virus-like particles, viral cores, membrane-stripped viruses, viral cores with outer membrane(s) removed and/or capsids removed or proviruses, each of which is incapable of infecting a cell.

3. The process according to any of the preceding claims, wherein the “full” viral product comprises a plurality of viral vectors each containing one or more transgenic polynucleotides.

4. The process according to any one of the preceding claims, wherein the functionalised chromatography medium has a dynamic binding capacity of up to 50 mg/mL (10%

breakthrough).

5. The process according to any one of the preceding claims, wherein the functionalised chromatography medium is in the form of a membrane or sheet.

6. The process according to any one of the preceding claims, wherein the composition is contacted with the functionalised chromatography medium for a period of one minute or less.

7. The process according to any one of the preceding claims, wherein the one or more polynucleotides are one or more nucleic acids chosen from DNA and RNA, including siRNA.

8. The process according to any one of the preceding claims, wherein the functionalised chromatography medium is in the form of a membrane or sheet and the composition is passed through a holder comprising one or more said membranes or sheets and optionally one or more frits or other spacer materials.

9. The process according to claim 8, wherein the composition is passed through the holder such that the path length through said one or more membranes or sheets is less than 2 mm.

10. The process according to claim 8, wherein the composition is passed through the holder such that the total path length through membranes, sheets, frits and other spacer materials is less than 50 mm.

11. The process according to any one of the preceding claims, wherein the composition is contacted with the functionalised chromatography medium for a period of 10 seconds or less.