**CLAIMS**

1. A composition comprising

(i) a recombinant viral vector comprising

a viral capsid that encapsulates a nucleotide of interest,

wherein the capsid comprises a recombinant viral capsid protein modified to comprise a heterologous epitope;

(ii) a multispecific binding molecule comprising

(a) an antibody paratope that specifically binds the epitope and

(b) a retargeting ligand that specifically binds a receptor; and optionally

(iii) a pharmaceutically acceptable carrier.

2. The composition of claim 1, wherein the viral capsid exhibits reduced to abolished natural tropism, which is restored and redirected upon combination with the multispecific binding molecule.

3. The composition of claim 1 or claim 2, wherein the recombinant viral capsid protein is derived from an adeno-associated virus (AAV) capsid gene modified to express the heterologous epitope.

4. The composition of any one of claims 1-3, wherein the recombinant viral capsid protein comprises a second and different mutation, in addition to the heterologous epitope.

5. The composition of any one of the preceding claims, wherein the heterologous epitope is inserted such that the insertion partially reduces the natural tropism of the viral capsid compared to a reference capsid and the viral capsid further comprises a further mutation (e.g. a substitution, deletion, insertion other than the insertion of the heterologous epitope).

6. The composition of any one of claims 1-5, wherein the heterologous epitope

(i) comprises an affinity tag and an optional linker, and/or

(ii) is flanked by and/or operably linked to at least 5 contiguous amino acids of an AAV VP1 capsid protein.

7. The composition of any one of claims 1-6, wherein the heterologous epitope comprises an amino acid sequence EQKLISEEDL (SEQ ID NO:6) or a portion thereof, and wherein the antibody paratope specifically binds the amino acid sequence EQKLISEEDL or a portion thereof.

8. The composition of any one of claims 1-7, wherein the nucleotide of interest is:

(i) under the control of a promoter selected from the group consisting of a viral promoter, a bacterial promoter, a mammalian promoter, an avian promoter, a fish promoter, an insect promoter, and any combination thereof; optionally wherein the nucleotide of interest is under the control of a non-human promoter; and/or

(ii) flanked by AAV ITR sequences; and/or

(iii) a reporter gene, optionally wherein the reporter gene encodes green fluorescent protein, or is selected from the group consisting of a suicide gene, a nucleotide encoding an antibody or fragment thereof, a nucleotide encoding a CRISPR/Cas system or portion(s) thereof, a nucleotide encoding antisense RNA, a nucleotide encoding siRNA, and a combination thereof.

9. The composition of any one of claims 1-8, wherein

(i) the multispecific binding molecule is a bispecific binding molecule,

(ii) the antibody paratope is an Fv domain, optionally wherein the Fv domain is directly fused to a heavy chain constant domain,

(iii) the retargeting ligand is an antibody or portion thereof, optionally

wherein the antibody paratope and the retargeting ligand each comprise a distinct Fv domain fused to a first and second heavy chain constant domain, optionally wherein the first and second heavy chains bind to Protein A with differential binding affinities or

wherein the retargeting ligand comprises a tetrameric antibody structure comprising two identical immunoglobulin heavy chains and two

identical light chains and wherein the paratope that binds the heterologous epitope is appended to the C-terminus or N-terminus of one or both heavy chains and/or to the C-terminus or N-terminus of one or both heavy chain, and optionally wherein the paratope is an scFv, optionally wherein the scFv comprises an amino acid sequence set forth as SEQ ID NO:37.

10. The composition of any one of claims 1-9, wherein the retargeting ligand binds a receptor expressed on the surface of a mammalian or human cell.

11. The composition of any one of claims 3 to 10 wherein the AAV is selected from the group AAV1, AAV2, AAV3, AAV4, AAV5, AAV6, AAV7, AAV8 and AAV9 and/or wherein the heterologous epitope is inserted after and/or replaces a position selected from the group consisting of I453 of AAV2, I587 of AAV2, I585 of AAV6, I590 of AAV8, I453 of AAV9, I589 of AAV9, and any corresponding amino acids of an AAV serotype that infects primates.

12. The composition of any one of the preceding claims, wherein the viral capsid is a mosaic capsid which comprises a reference capsid protein that does not comprise the heterologous epitope.

13. The composition of any one of the preceding claims, wherein the recombinant viral capsid protein is encoded by a chimeric capsid gene modified to express the heterologous epitope.

14. The composition of any one of the preceding claims for use in a method of delivering the nucleotide of interest to a target cell expressing the receptor comprising contacting the target cell with the composition.

15. The composition for use according to claim 14, wherein:

(a) the target cell is *in vitro,* or the target cell is *in vivo* in a subject, optionally wherein the subject is a human; and/or

(b) the target cell is a human cell; and/or

(c) the target cell is selected from the group consisting of a liver cell, a brain cell, a T cell, a kidney cell, an intestinal cell, a pancreas cell, a cancerous cell, and a cell infected with heterologous pathogen.

16. The composition for use according to claim 14 or claim 15 wherein:

(a) the target cell is a human liver cell and/or wherein the receptor is human asialoglycoprotein receptor 1 (hASGR1); or

(b) the target cell is a human T cell, optionally wherein the receptor is CD3; or

(c) the cell surface protein is human glucagon receptor (hGCGR); or

(d) the target cell is an intestinal cell or is a pancreas cell; optionally wherein the receptor is ENTPD3.

17. The composition of claim 6(i) wherein the affinity tag does not form a binding pair with an immunoglobulin constant domain or a metal ion and/or comprises c-myc (EQKLISEEDL; SEQ ID NO:6).

18. The composition of claim 7 wherein the paratope comprises an HCVR, LCVR, HCDR1, HCDR2, HCDR3, LCDR1, LCDR2 and/or LCDR3 sequences of the scFv encoded by the nucleic acid sequence set forth as SEQ ID NO:28.