CLAIMS

1. A human UBE3A vector comprising:

a nucleic acid having

i) a 5’ inverted terminal repeat (ITR) sequence;

ii) a promoter downstream of the 5’ ITR sequence;

iii) a *UBE3A* nucleotide sequence encoding a human UBE3A protein isoform operably linked downstream of the promoter; and,

iv) a 3’ ITR sequence downstream of the UBE3A sequence; and

an adeno-associated virus serotype 9 (AAV9) capsid comprising an amino acid sequence of SEQ ID NO: 27,

wherein the nucleic acid is packaged in the AAV9 capsid, and

wherein the nucleic acid does not include a secretion sequence.

2. The vector of claim 1, wherein the 5' and 3’ ITR sequences are independently selected from the group consisting of adeno--associated virus serotype 1 (AAV1) ITRs, serotype 2 (AAV2) ITRs, serotype 3 (AAV3) ITRs, serotype 4 (AAV4) ITRs, and serotype 9 (AAV9) ITRs.

3. The vector of claim 1, wherein the 5' and 3’ ITR sequences are both serotype 2 (AAV2) ITRs.

4. The vector of claim 1, wherein the 5’ and/or 3’ ITR sequences comprise the nucleotide sequence of SEQ ID NO: 22.

5. The vector of claim 1, wherein the promoter sequence is a cytomegalovirus chicken-beta actin hybrid promoter or human ubiquitin ligase C promoter.

6. The vector of claim 1, wherein the *UBE3A* nucleotide sequence encodes hUBE3A isoform 1 having the amino acid sequence of SEQ ID NO: 4.

7. The vector of claim 1, wherein the *UBE3A*a nucleotide sequence is SEQ ID NO: 25.

8. A use of the human UBE3 vector of claim 1, in the manufacture of medicament formulated for intracranial injection to a neural cell in a subject in need thereof.

9. The use of claim 8, wherein the medicament comprises the human UBE3 vector in an amount of 5×10^6 viral genomes per gram (vg/g) brain mass to 2.86×10^{12}

vg/g of brain mass, from 4 x 10^7 vg/g to about 2.86 x 10^{12} vg/g of brain mass, or from 1 x 10^8 to 2.86 x 10^{12} vg/g of brain mass.

10. The method of claim 8, wherein intracranial administration comprises bilateral injection.

11. The use of claim 8, wherein the intracranial injection comprises hippocampal injection or intracerebroventricular injection.

12. The use of claim 8, wherein the intracranial injection comprises intracerebroventricular Injection (ICV).

13. The use of any one of the claims 8-12, wherein the intracranial injection comprises transduction into at least two of hippocampus, auditory cortex, prefrontal cortex), striatum, thalamus and cerebellum.

14. The use of any one of the claims 8-13, wherein the medicament is for treatment of an UBE3A deficiency.

15. The use of claim 14, wherein the UBE3A deficiency is Angelman Syndrome.

16. The use of claim 15, wherein the ICV injection restores UBE3A expression to wild type levels in at least two of the hippocampus, auditory cortex, prefrontal cortex and striatum.

17. The use of claim of 15 or 16, wherein the medicament is for the treatment of at least one symptom of Angelman Syndrome.

18. The use of claim 17, wherein at least one symptom of Angelman Syndrome comprises learning and memory deficits.