Claims:

Claim 1. A recombinantly-modified adeno-associated virus (rAAV) that comprises an added Cis-Element in one or more of its P1, P2, P3 or P4 Domains, wherein:

(1) said P1 Domain is 5’ to a 5’ ITR of said rAAV;

(2) said P2 Domain is 3’ to said 5’ ITR of said rAAV and 5’ to a transgene cassette of said rAAV;

(3) said P3 Domain is 3’ to said transgene cassette of said rAAV and 5’ to a 3’ ITR of said rAAV; and

(4) said P4 Domain is 3’ to said 3’ ITR of said rAAV;

wherein such added Cis-Element forms a G-Quadruplex Structure in said employed rAAV; and

wherein the presence of such added Cis-Element causes rAAV-producing cells to produce said rAAV at a higher production titer than would be attained with such rAAV if lacking such added Cis-Element.

Claim 2. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said employed rAAV has been modified to comprise such added Cis-Element in its P1 Domain.

Claim 3. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said employed rAAV has been modified to comprise such added Cis-Element in its P2 Domain.

Claim 4. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said employed rAAV has been modified to comprise such added Cis-Element in its P3 Domain.

Claim 5. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said employed rAAV has been modified to comprise such added Cis-Element in its P4 Domain.

Claim 6. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said employed rAAV has been modified to comprise such added Cis-Element in its P1 Domain and in in one or more of its P2, P3 or P4 Domain.

Claim 7. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said employed rAAV has been modified to comprise such added Cis-Element in its P2 Domain and in one or more of its P3 or P4 Domain.

Claim 8. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said employed rAAV has been modified to comprise such added Cis-Element in its P3 Domain and its P4 Domain.

Claim 9. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein such added Cis-Element is selected from the group consisting of:

(1) a Potential G-Quadruplex Sequence of a wild type AAV genome or a Potential G-Quadruplex Sequence of a wild type AAV genome in a reversed orientation;

(2) an Actual G-Quadruplex Sequence of a wild type AAV genome or an Actual G-Quadruplex Sequence of a wild type AAV genome in a reversed orientation;

(3) a DNA sequence from wild-type AAV or a DNA sequence from wild-type AAV in a reversed orientation; and

(4) a DNA sequence from another viral genome or a DNA sequence from another viral genome in a reversed orientation.

Claim 10. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said transgene cassette encodes a protein, or comprises a polynucleotide domain that is transcribed into an RNA molecule, wherein said protein or said RNA molecule is therapeutic for a genetic or heritable disease or condition.

Claim 11. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said employed rAAV belongs to the rAAV1, rAAV2, rAAV5, rAAV6, rAAV7, rAAV8, rAAV9 or rAAV10 serotype, or to a hybrid of said serotypes.

Claim 12. A pharmaceutical composition that comprises:

(A) the recombinantly-modified adeno-associated virus (rAAV) of claim 1; and

(B) a pharmaceutically acceptable carrier.

Claim 13. The pharmaceutical composition of claim 12, wherein said employed rAAV belongs to the rAAV1, rAAV2, rAAV5, rAAV6, rAAV7, rAAV8, rAAV9 or rAAV10 serotype, or to a hybrid of said serotypes.

Claim 14. A method for increasing the production titer of recombinantly-modified adeno-associated virus (rAAV), wherein said method comprises:

(A) employing, as said rAAV for producing said production titer, an rAAV that has been modified to comprise an added Cis-Element in one or more of its P1, P2, P3 or P4 Domains, wherein:

(1) said P1 Domain is 5' to a 5' ITR of said rAAV;

(2) said P2 Domain is 3' to said 5' ITR of said rAAV and 5' to a transgene cassette of said rAAV;

(3) said P3 Domain is 3' to said transgene cassette of said rAAV and 5' to a 3' ITR of said rAAV; and

(4) said P4 Domain is 3' to said 3' ITR of said rAAV;

wherein such added Cis-Element forms a G-Quadruplex Structure in said employed rAAV; and

(B) culturing cells that have been transfected with said employed rAAV, wherein said cells additionally contain an AAV helper function-providing polynucleotide and a non-AAV helper function-providing polynucleotide, and wherein said culturing is conducted in a culture medium under conditions sufficient to permit the production of rAAV;

wherein the presence of such added Cis-Element in said employed rAAV causes said cells to produce said rAAV at an increased production titer relative to that which would be attained if said employed rAAV had lacked such added Cis-Element.

Claim 15. The method of claim 14, wherein said cells are human embryonic kidney cells or baby hamster kidney cells.

Claim 16. The method of claim 15, wherein said cells are HEK293 human embryonic kidney cells.

Claim 17. The method of claim 15, wherein said cells are BHK21 baby hamster kidney cells.

Claim 18. The method of claim 14, wherein said cells are sf9 insect cells.