~~What Is~~ Claim~~ed I~~s:

Claim 1. A recombinantly-modified adeno-associated virus (rAAV) that comprises a<u>n added</u> 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;

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

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

Claim 2. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said employed rAAV has been modified to comprise <u>such</u> ~~an~~ 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 <u>such</u> ~~an~~ 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 <u>such</u> ~~an~~ 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 <u>such</u> ~~an~~ 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 ~~an~~ 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 ~~an~~ 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 ~~an~~ added Cis-Element in its P3 Domain and its P4 Domain.

~~Claim 9. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said added Cis-Element forms a G-Quadruplex Structure in said employed rAAV.~~

Claim ~~10~~9. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein ~~an~~ 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 ~~11~~10. The recombinantly-modified adeno-associated virus (rAAV) of claim 1, wherein said transgene cassette encodes a protein, or comprises a ~~transcribed nucleic acid~~polynucleotide domain that is transcribed into an RNA molecule, ~~that~~ wherein said protein or said RNA molecule is therapeutic for a genetic or heritable disease or condition.

Claim ~~12~~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 ~~13~~12. A pharmaceutical composition that comprises:

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

(B) a pharmaceutically acceptable carrier.

Claim ~~14~~13. The pharmaceutical composition of claim ~~13~~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 ~~15~~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 ~~said~~ 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 ~~said~~ such added Cis-Element.

Claim ~~16~~15. The method of claim ~~15~~14, wherein said cells are human embryonic kidney cells or baby hamster kidney cells.

Claim ~~17~~16. The method of claim ~~16~~15, wherein said cells are HEK293 human embryonic kidney cells.

Claim ~~18~~17. The method of claim ~~16~~15, wherein said cells are BHK21 baby hamster kidney cells.

Claim ~~19~~18. The method of claim ~~15~~14, wherein said cells are sf9 insect cells.