WHAT IS CLAIMED IS:

1. A composition in a unit dose for changing a color of a subject's iris of an eye, comprising:

a sterile ophthalmic preparation comprising a genetic vector ~~carrying~~ comprising

(a) a suicide gene; and (b) a melanocyte-specific gene promoter operably linked to the suicide gene,

wherein the unit dose is sufficient to kill melanocytes in a stroma of the subject's iris of the eye without inducing visible inflammatory cell or flare in the anterior chamber of the eye.

2. The composition in the unit dose of claim 1, wherein the genetic vector is selected from the group consisting of a plasmid, an adenovirus, an adeno-associated virus, and a lentivirus.

3. The composition in the unit dose of claim 1, wherein the genetic vector comprises a recombinant adeno-associated virus.

4. The composition in the unit dose of claim 1, wherein the sterile ophthalmic preparation is in a powder form, and is reconstitutable with a fluid to form a sterile ophthalmic solution or suspension.

5. The composition in the unit dose of ~~any of~~ claim~~s~~ 1~~-4~~, further comprising a biocompatible object ~~configured to contact~~comprising the sterile ophthalmic preparation and sized to be placed in contact with ~~a person~~the subject's iris.

6. The composition in the unit dose of claim ~~4~~5, wherein the biocompatible object comprises a disc, strip, or pledget.

7. The composition in the unit dose of ~~any of~~ claim~~s~~ 1~~-6~~, wherein the suicide gene is selected from the group consisting of (i) a herpes simplex virus thymidine kinase (HSVtk) gene; (ii) a cytosine deaminase gene; (iii) a nitroreductase gene; and (iv) a carboxypeptidase G2 gene.

8. The composition in the unit dose of ~~any of~~ claim~~s~~ 1~~-7~~, wherein the melanocyte-specific gene promoter comprises a tyrosinase (Tyr) promoter.

9. The composition in the unit dose of ~~any of~~ claim~~s~~ 1~~-6~~, wherein the suicide gene comprises a ~~herpes simplex virus thymidine kinase (~~HSVtk~~)~~ gene, and the melanocyte-specific gene promoter comprises a ~~tyrosinase (~~Tyr~~)~~ promoter.

10. The composition in the unit dose of claim 1, wherein the unit dose comprises 5-50µL of the sterile ophthalmic preparation comprising 1E10 to 1E13 vector genomes (vg)/ml of the genetic vector.

11. The composition in the unit dose of claim 1, wherein the sterile ophthalmic preparation is suitable for injection directly into the anterior chamber of the eye.

~~10. A method for changing a color of a subject's iris, comprising:~~
~~introducing a melanocyte-killing agent into the anterior chamber of an eye of a subject;~~
~~wherein the agent causes apoptotic death to melanocytes in a stroma of the iris of the eye, thereby changing a color of the iris.~~

~~11. A method for changing a color of a subject's iris, comprising:~~
~~introducing a gene vector into the anterior chamber of an eye of a subject;~~
~~wherein the introducing of the gene vector results in death to melanocytes in a stroma of the iris of the eye, thereby changing a color of the iris.~~

~~12. The method of claim 11, wherein the step of introducing is performed from outside the anterior chamber, through an opening in the cornea of the eye, into the anterior chamber.~~

~~13. The method of claim 11, wherein the gene vector comprises a suicide gene.~~

~~14. The method of claim 13, wherein the suicide gene is selected from the group consisting of (i) a herpes simplex virus thymidine kinase gene; (ii) a cytosine deaminase gene; (iii) a nitroreductase gene; and (iv) a carboxypeptidase G2 gene.~~

15. The method of claim 11, wherein the gene vector comprises a viral thymidine kinase (tk) suicide gene.

16. The method of claim 11, wherein the gene vector comprises a herpes simplex virus thymidine kinase (HSVtk) gene.

17. The method of claim 11, wherein the suicide gene is operably linked to a melanocyte-specific gene promoter.

18. The method of claim 11, wherein the suicide gene is operably linked to a melanocyte-specific gene promoter for tyrosinase (Tyr).

19. The method of claim 11, wherein the suicide gene comprises a herpes simplex virus thymidine kinase (HSVtk) gene operably linked to a melanocyte specific gene promoter for tyrosinase (Tyr).

20. The method of any of claims 11-19, wherein the gene vector is selected from the group consisting of a plasmid, an adenovirus, an adeno-associated virus, and a lentivirus.

21. The method of any of claims 11-19, wherein the gene vector comprises a recombinant adeno-associated virus.

22. The method of claim 21, wherein the recombinant adeno-associated virus comprises an AAV1 or an AAV6 capsid protein.

23. The method of any of claims 11-22, further comprising administering a nucleoside analog to the subject.

24. The method of any of claims 11-22, further comprising maintaining miosis of the pupil of the eye of the subject during the introducing.

25. The method of claim 23, wherein the nucleoside analog is ganciclovir, acyclovir, or valganciclovir.

~~26. A method for changing a color of a subject's iris, comprising contacting an anterior surface of the iris with a substance that kills melanocytes, thereby changing a color of the iris.~~

~~27. The method of claim 26, wherein the substance comprises a recombinant adeno-associated virus (rAAV) comprising a herpes simplex virus thymidine kinase (HSVtk) gene that is operably linked to a gene promoter for tyrosinase (Tyr).~~

~~28. Use of a gene vector for changing a color of a subject's iris, wherein the gene vector comprises (a) a suicide gene; and (b) a melanocyte-specific gene promoter operably linked to the suicide gene.~~

~~29. A gene vector for use in changing a color of a subject's iris, wherein the gene vector comprises (a) a suicide gene; and (b) a melanocyte-specific gene promoter operably linked to the suicide gene.~~

~~30.~~12. A pharmaceutical composition for changing a color of a subject's iris of an eye, comprising:

a sterile ophthalmic preparation comprising an effective dose of a genetic vector comprising

(a) a suicide gene; and (b) a melanocyte-specific gene promoter operably linked to the suicide gene,

wherein the effective dose is sufficient to: change color of the subject's iris of the eye and kill melanocytes in a stroma of the subject's iris of the eye without inducing visible inflammatory cell or flare in the anterior chamber of the eye, after the pharmaceutical composition is injected directly into the anterior chamber of the eye.

~~a sterile ophthalmic preparation comprising a genetic vector carrying a nucleic acid that is capable of inducing death of melanocytes in the iris when administered into an eye.~~

13. The pharmaceutical composition of claim 12, wherein the genetic vector is selected from the group consisting of a plasmid, an adenovirus, an adeno-associated virus, and a lentivirus.

14. The pharmaceutical composition of claim 12, wherein the genetic vector comprises a recombinant adeno-associated virus.

15. The pharmaceutical composition of claim 12, wherein the sterile ophthalmic preparation is in a powder form, and is reconstitutable with a fluid to form a sterile ophthalmic solution or suspension.

16. The pharmaceutical composition of claim 12, wherein the suicide gene is selected from the group consisting of (i) a herpes simplex virus thymidine kinase (HSVtk) gene; (ii) a cytosine deaminase gene; (iii) a nitroreductase gene; and (iv) a carboxypeptidase G2 gene.

17. The pharmaceutical composition of claim 12, wherein the melanocyte-specific gene promoter comprises a tyrosinase (Tyr) promoter.

18. The pharmaceutical composition of claim 12, wherein the suicide gene comprises a HSVtk gene, and the melanocyte-specific gene promoter comprises a Tyr promoter.

19. The pharmaceutical composition of claim 12, wherein the effective dose comprises 5-50μL of the sterile ophthalmic preparation comprising 1E10 to 1E13 vector genomes (vg)/ml of the genetic vector.