

What is claimed is:

1. A composition comprising a TGFβ3 polypeptide which shares at least 90% sequence identity to the amino acid sequence of SEQ ID NO:1 or which comprises at least at least 100 amino acids of the amino acid sequence of SEQ ID NO:1, and dexamethasone or any salts, esters, or hydrides thereof, wherein the composition is in a form suitable for administration to the eye, and is formulated as a solution, suspension, emulsion, dispersion, gel, cream, or ointment, and wherein the composition is for use in: (i) treatment or prevention of a condition that results in thinning or irregularity of a cornea; (ii) treatment or prevention of damage or injury of a cornea; or (iii) treatment or prevention of a refractive error of the eye.
2. The composition for use according to claim 1, wherein the TGFβ3 polypeptide: a) includes the amino acid sequence of SEQ ID NO:1; or b) consists of the amino acid sequence of SEQ ID NO:1.
3. The composition for use according to claim 1 or claim 2, wherein the dexamethasone is dexamethasone phosphate.
4. The composition for use according to any one of claims 1 to 3, wherein the composition comprises 10 to 100 ng/ml of the TGFβ3 polypeptide.
5. The composition for use according to any one of claims 1 to 4, wherein the composition comprises 40 to 4000 ng/ml dexamethasone.
6. The composition for use according to any one of claims 1 to 5, wherein the composition is formulated as an eye drop.
7. The composition for use according to claim 6, wherein the composition is formulated with gellan gum.
8. The composition for use according to any one of claims 1 to 7, wherein the composition is formulated for administration once daily or twice daily.
9. The composition for use according to any one of claims 1 to 8, wherein the composition is formulated for co-administration with one or more additional agents for the eye.
10. The composition for use according to claim 9, wherein the one or more additional agents for the eye are selected from the group consisting of: anaesthetic agents, anti-inflammatory agents, anti-microbial agents, and lubricants.

11. The composition for use according to any one of claims 1 to 10, wherein the composition is formulated for administration in conjunction with use of a contact lens, corneal insert, corneal implant, or intrastromal ring.
12. The composition for use according to claim 11, wherein the contact lens, corneal insert, corneal implant, or intrastromal ring is adapted for moulding or holding corneal shape during and/or following administration of the composition.
13. The composition for use according to claim 11 or claim 12, wherein the contact lens, corneal insert, corneal implant, or intrastromal ring is adapted to act as a carrier for the composition or as a composition eluting device.
14. The composition for use according to any one of claims 1 to 13, wherein for (i) or (ii), the composition is formulated for administration in conjunction with corneal collagen crosslinking.
15. The composition for use according to claim 14, wherein the composition is formulated for administration prior to and/or subsequent to the corneal collagen crosslinking.
16. The composition for use according to any one of claims 1 to 13, wherein for (ii) or (iii), the composition is formulated for administration preceding or following refractive surgery.
17. The composition for use according to any one of claims 1 to 15, wherein the condition is selected from the group consisting of: keratoconus, myopia, and astigmatism.
18. The composition for use according to any one of claims 1 to 16, wherein the damage or injury of the cornea is associated with one or more of: an abrasion, tear, ulcer, burn, puncture, or surgery.
19. The composition for use according to any one of claims 1 to 16, wherein the refractive error of the eye is associated with one or more of: myopia, hyperopia, astigmatism, and presbyopia.
20. A kit comprising: a composition comprising a TGF β 3 polypeptide which shares at least 90% sequence identity to the amino acid sequence of SEQ ID NO:1 or which comprises at least 100 amino acids of the amino acid sequence of SEQ ID NO:1, and dexamethasone or any salts, esters, or hydrides thereof, wherein the composition is in a form suitable for administration to the eye, and is formulated as a solution,

suspension, emulsion, dispersion, gel, cream, or ointment, and wherein the kit is for use in: (i) treatment or prevention of a condition that results in thinning or irregularity of a cornea; (ii) treatment or prevention of damage or injury of a cornea; or (iii) treatment or prevention of a refractive error of the eye.

21. The kit for use according to claim 20, wherein the composition is adapted for use with a contact lens, corneal insert, corneal implant, or intrastromal ring for moulding or holding corneal shape during and/or following treatment with the composition.

22. The kit for use according to claim 20 or claim 21, wherein the contact lens, corneal insert, corneal implant, or intrastromal ring act as a carrier for the composition or as a composition eluting device.

23. The kit for use according to any one of claims 20 to 22, wherein the TGF β 3 polypeptide: a) includes the amino acid sequence of SEQ ID NO:1; or b) consists of the amino acid sequence of SEQ ID NO:1.

24. The kit for use according to any one of claims 20 to 23, wherein the dexamethasone is dexamethasone phosphate.

25. The kit for use according to any one of claims 20 to 24, wherein the composition comprises 10 to 100 ng/ml of the TGF β 3 polypeptide.

26. The kit for use according to any one of claims 20 to 25, wherein the composition comprises 40 to 4000 ng/ml dexamethasone.

27. The kit for use according to any one of claims 20 to 26, wherein the composition is formulated as an eye drop.

28. The kit for use according to claim 27, wherein the composition is formulated with gellan gum.

29. The kit for use according to any one of claims 20 to 28, wherein the composition is formulated for administration once daily or twice daily.

30. The kit for use according to any one of claims 20 to 29, wherein the composition is co-formulated with one or more additional agents for the eye.

31. The kit for use according to any one of claims 20 to 30, wherein the kit includes one or more additional agents for the eye.

32. The kit for use according to claim 30 or claim 31, wherein the one or more additional agents for the eye are selected from the group consisting of: anaesthetic agents, anti-inflammatory agents, anti-microbial agents, and lubricants.

33. The kit for use according to any one of claims 20 to 32, wherein the kit includes a contact lens solution.

34. The kit for use according to any one of claims 20 to 33, wherein the kit includes instructions for use.

35. The kit for use according to any one of claims 20 to 34, being a kit for: (i) treatment or prevention of a corneal condition selected from the group consisting of: keratoconus, myopia, hyperopia, astigmatism, presbyopia, and stromal dystrophies; or (ii) treatment of a corneal condition selected from the group consisting of: an abrasion, tear, ulcer, burn, puncture, corneal melt, and surgical injury.

36. A combination of:

(i) a composition comprising TGFβ3 polypeptide which shares at least 90% sequence identity to the amino acid sequence of SEQ ID NO:1 or which comprises at least at least 100 amino acids of the amino acid sequence of SEQ ID NO:1, and

(ii) a composition comprising dexamethasone or any salts, esters, or hydrides thereof,

wherein the combination is in a form suitable for administration to the eye, and is formulated as a solution, suspension, emulsion, dispersion, gel, cream, or ointment, and wherein the combination is for use in: (i) treatment or prevention of a condition that results in thinning or irregularity of a cornea; (ii) treatment or prevention of damage or injury of a cornea; or (iii) treatment or prevention of a refractive error of the eye.

37. Use of a composition comprising a TGFβ3 polypeptide which shares at least 90% sequence identity to the amino acid sequence of SEQ ID NO:1 or which comprises at least 100 amino acids of the amino acid sequence of SEQ ID NO:1, and dexamethasone or any salts, esters, or hydrides thereof, for preparation of a medicament for: (i) treatment or prevention of a condition that results in thinning or irregularity of a cornea; (ii) treatment or prevention of damage or injury of a cornea; or (iii) treatment or prevention of a refractive error of the eye.

38. The use of claim 37, wherein the TGFβ3 polypeptide: a) includes the amino acid sequence of SEQ ID NO:1; or b) consists of the amino acid sequence of SEQ ID NO:1.

39. The use according to claim 37 or claim 38, wherein the dexamethasone is dexamethasone phosphate.

40. The use of any one of claims 37 to 39, wherein the composition comprises 10 to 100 ng/ml of the TGF β 3 polypeptide.
41. The use of any one of claims 37 to 40, wherein the composition comprises 40 to 4000 ng/ml dexamethasone.
42. The use of any one of claims 37 to 41, wherein the composition is formulated as an eye drop.
43. The use of claim 42, wherein the composition is formulated with gellan gum.
44. The use of any one of claims 37 to 43, wherein the composition is formulated for administration once daily or twice daily.
45. The use of any one of claims 37 to 44, wherein the composition is formulated for co-administration with one or more additional agents for the eye.
46. The use of claim 45, wherein the one or more additional agents for the eye are selected from the group consisting of: anaesthetic agents, anti-inflammatory agents, anti-microbial agents, and lubricants.
47. The use of any one of claims 37 to 46, wherein the composition is formulated for administration in conjunction with use of a contact lens, corneal insert, corneal implant, or intrastromal ring.
48. The use of claim 47, wherein the contact lens, corneal insert, corneal implant, or intrastromal ring is adapted for moulding or holding corneal shape during and/or following administration of the composition.
49. The use of claim 47 or claim 48, wherein the contact lens, corneal insert, corneal implant, or intrastromal ring is adapted to act as a carrier for the composition or as a composition eluting device.
50. The use of any one of claims 37 to 49, wherein for (i) or (ii), the composition is formulated for administration in conjunction with corneal collagen crosslinking.
51. The use of claim 50, wherein the composition is formulated for administration prior to and/or subsequent to the corneal collagen crosslinking.
52. The use of any one of claims 37 to 49, wherein for (ii) or (iii), the composition is formulated for administration preceding or following refractive surgery.
53. The use of any one of claims 37 to 51, wherein the condition is selected from the group consisting of: keratoconus, myopia, and astigmatism.

54. The use of any one of claims 37 to 52, wherein the damage or injury of the cornea is associated with one or more of: an abrasion, tear, ulcer, burn, puncture, or surgery.

55. The use of any one of claims 37 to 52, wherein the refractive error of the eye is associated with one or more of: myopia, hyperopia, astigmatism, and presbyopia.

56. Use of:

a composition comprising TGF β 3 polypeptide which shares at least 90% sequence identity to the amino acid sequence of SEQ ID NO:1 or which comprises at least at least 100 amino acids of the amino acid sequence of SEQ ID NO:1, and

a composition comprising dexamethasone or any salts, esters, or hydrides thereof,

for preparing a medicament for: (i) treatment or prevention of a condition that results in thinning or irregularity of a cornea; (ii) treatment or prevention of damage or injury of a cornea; or (iii) treatment or prevention of a refractive error of the eye.