SUMMARY ~~OF THE INVENTION~~

One ~~aspect~~embodiment of the ~~invention~~present disclosure pertains to a method of treating eye discomfort in a human subject, comprising topical administration to at least a portion of the external surface of the eyelid of the eye to be treated, of a therapeutically-effective amount of a liquid cooling agent composition which comprises a cooling agent.

In one embodiment, the method is a method of treating eye discomfort in a human subject, comprising topical administration to at least a portion of the external surface of the *closed* eyelid of the eye to be treated, of a therapeutically-effective amount of a liquid cooling agent composition which comprises a cooling agent.

Another ~~aspect~~embodiment of the present ~~invention~~disclosure is a cooling agent for the treatment of eye discomfort in a human subject by topical administration of a liquid cooling agent composition comprising said cooling agent to at least a portion of the external surface of the eyelid of the eye to be treated.

In an aspect, there is provided a cooling agent for the treatment of eye discomfort in a human subject by topical administration of a liquid cooling agent composition comprising said cooling agent to at least a portion of the external surface of the eyelid of the eye to be treated, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

In another aspect, there is provided a cooling agent for the treatment of eye discomfort in a human subject by topical administration of a liquid cooling agent composition comprising said cooling agent to at least a portion of the external surface of the *closed* eyelid of the eye to be treated, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

In one embodiment, the cooling agent is a cooling agent for the treatment of eye discomfort in a human subject by topical administration of a liquid cooling agent composition comprising said cooling agent to at least a portion of the external surface of the *closed* eyelid of the eye to be treated.

Another ~~aspect~~embodiment of the present ~~invention~~disclosure is use of a cooling agent in the manufacture of a medicament, wherein said medicament is a liquid cooling agent composition comprising said cooling agent, for the treatment of eye discomfort in a human subject by topical administration of said liquid cooling agent composition to at least a portion of the external surface of the eyelid of the eye to be treated.

In an aspect, there is provided the use of a cooling agent in the manufacture of a medicament, wherein said medicament is a liquid cooling agent composition comprising said cooling agent, for the treatment of eye discomfort in a human subject by topical administration of said liquid cooling agent composition to at least a portion of the external surface of the eyelid of the eye to be treated, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

In another aspect, there is provided the use of a cooling agent in the manufacture of a medicament, wherein said medicament is a liquid cooling agent composition comprising said cooling agent, for the treatment of eye discomfort in a human subject by topical administration of said liquid cooling agent composition to at least a portion of the external surface of the *closed* eyelid of the eye to be treated, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

In one embodiment, the use is use of a cooling agent in the manufacture of a medicament, wherein said medicament is a liquid cooling agent composition comprising said cooling agent, for the treatment of eye discomfort in a human subject by topical administration of said liquid cooling agent composition to at least a portion of the external surface of the *closed* eyelid of the eye to be treated.

Another ~~aspect~~embodiment of the present ~~invention~~disclosure is a wipe, pad, or towelette carrying a liquid cooling agent composition comprising a cooling agent, wherein the cooling agent is a polyhydroxyalkyl ester of (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid.

In one embodiment, the wipe, pad, or towelette is a wipe, pad, or towelette carrying a therapeutically-effective amount of a liquid cooling agent composition comprising a cooling agent, wherein the cooling agent is a polyhydroxyalkyl ester of (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid.

In one embodiment, the cooling agent is a polyhydroxyalkyl ester of (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid.

In an aspect, there is provided a wipe, pad, or towelette carrying a liquid cooling agent composition comprising a cooling agent, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.
~~In one embodiment, the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.~~

In one embodiment, the cooling agent is present in the liquid cooling agent composition at a concentration of 0.01 to 1 % w/v.

In one embodiment, the cooling agent is present in the liquid cooling agent composition at a concentration of 0.1 to 1 % w/v.

In one embodiment, the liquid cooling agent composition is water further comprising the cooling agent or a saline solution further comprising the cooling agent.

In one embodiment, the liquid cooling agent composition is water further comprising the cooling agent.

In one embodiment, the liquid cooling agent composition is an isotonic saline solution further comprising the cooling agent.

In one embodiment, the liquid cooling agent composition further comprises an adjunctive ocular drug.

In one embodiment, the adjunctive ocular drug is a polymer lubricant, hypromellose, polyethylene glycol 400, hyaluronan, or propanediol.

In one embodiment, the liquid cooling agent composition is carried on or in a wipe, pad, or towelette.

In one embodiment, the liquid cooling agent composition is carried in an absorbent wipe, pad, or towelette.

In one embodiment, the topical administration is by wiping said wipe, pad, or towelette over the closed eyelid.

In one embodiment, the topical administration is by wiping said wipe, pad, or towelette over the closed eyelid from the medial to the lateral canthus.

In one embodiment, the eye discomfort is eye discomfort caused by extended wear of contact lenses, by eye strain and fatigue, by air pollutants, or by excessive exposure to the sun.

In one embodiment, the eye discomfort is eye discomfort caused by conjunctivitis.

In one embodiment, the eye discomfort is eye discomfort caused by dry eye syndrome.

For the avoidance of doubt, the term "medicament" is intended to include, for example, a cosmeceutical, which may be used, for example, to brighten or enliven otherwise tired or fatigued eyes.

As will be appreciated by one of skill in the art, features and preferred embodiments of one aspect of the ~~invention~~present disclosure will also pertain to other aspects of the ~~invention~~present disclosure.

CLAIMS

1. A method of treating eye discomfort in a human subject, comprising topical administration to at least a portion of the external surface of the eyelid of the eye to be treated, of a therapeutically-effective amount of a liquid cooling agent composition which comprises a cooling agent, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

2. A method of treating eye discomfort in a human subject, comprising topical administration to at least a portion of the external surface of the *closed* eyelid of the eye to be treated, of a therapeutically-effective amount of a liquid cooling agent composition which comprises a cooling agent, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

3. A method according to claim 1 or 2, wherein the cooling agent is present in the liquid cooling agent composition at a concentration of 0.01 to 1 % w/v.

4. A method according to any one of claims 1 to 3, wherein the liquid cooling agent composition is water further comprising the cooling agent or a saline solution further comprising the cooling agent.

5. A method according to claim 4, wherein the liquid cooling agent composition is water further comprising the cooling agent.

6. A method according to claim 4, wherein the liquid cooling agent composition is an isotonic saline solution further comprising the cooling agent.

7. A method according to any one of claims 1 to 6, wherein the liquid cooling agent composition further comprises an adjunctive ocular drug.

8. A method according to claim 7, wherein the adjunctive ocular drug is a polymer lubricant, hypromellose, polyethylene glycol 400, hyaluronan, or propanediol.

9. A method according to any one of claims 1 to 8, wherein the liquid cooling agent composition is carried on or in a wipe, pad, or towelette.

10. A method according to claim 10, wherein the liquid cooling agent composition is carried in an absorbent wipe, pad, or towelette.

11. A method according to claim 9 or 10, wherein the topical administration is by wiping said wipe, pad, or towelette over the closed eyelid.

12. A method according to claim 11, wherein the topical administration is by wiping said wipe, pad, or towelette over the closed eyelid from the medial to the lateral canthus.

13. A method according to any one of claims 1 to 12, wherein the eye discomfort is eye discomfort caused by extended wear of contact lenses, by eye strain and fatigue, by air pollutants, or by excessive exposure to the sun.

14. A method according to any one of claims 1 to 12, wherein the eye discomfort is eye discomfort caused by conjunctivitis.

15. A method according to any one of claims 1 to 12, wherein the eye discomfort is eye discomfort caused by dry eye syndrome.

CLAIMS

116. A cooling agent for the treatment of eye discomfort in a human subject by topical administration of a liquid cooling agent composition comprising said cooling agent to at least a portion of the external surface of the eyelid of the eye to be treated, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

217. A cooling agent for the treatment of eye discomfort in a human subject by topical administration of a liquid cooling agent composition comprising said cooling agent to at least a portion of the external surface of the *closed* eyelid of the eye to be treated, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

318. A cooling agent according to claim 116 or 217, wherein the cooling agent is present in the liquid cooling agent composition at a concentration of 0.01 to 1 % w/v.

419. A cooling agent according to any one of claims 116 to 318, wherein the liquid cooling agent composition is water further comprising the cooling agent or a saline solution further comprising the cooling agent.

520. A cooling agent according to claim 419, wherein the liquid cooling agent composition is water further comprising the cooling agent.

621. A cooling agent according to claim 419, wherein the liquid cooling agent composition is an isotonic saline solution further comprising the cooling agent.

722. A cooling agent according to any one of claims 116 to 621, wherein the liquid cooling agent composition further comprises an adjunctive ocular drug.

823. A cooling agent according to claim 722, wherein the adjunctive ocular drug is a polymer lubricant, hypromellose, polyethylene glycol 400, hyaluronan, or propanediol.

924. A cooling agent according to any one of claims 116 to 823, wherein the liquid cooling agent composition is carried on or in a wipe, pad, or towelette.

1025. A cooling agent according to claim 924, wherein the liquid cooling agent composition is carried in an absorbent wipe, pad, or towelette.

1126. A cooling agent according to claim 924 or 1025, wherein the topical administration is by wiping said wipe, pad, or towelette over the closed eyelid.

1227. A cooling agent according to claim 1126, wherein the topical administration is by wiping said wipe, pad, or towelette over the closed eyelid from the medial to the lateral canthus.

1328. A cooling agent according to any one of claims 116 to 1227, wherein the eye discomfort is eye discomfort caused by extended wear of contact lenses, by eye strain and fatigue, by air pollutants, or by excessive exposure to the sun.

1429. A cooling agent according to any one of claims 116 to 1227, wherein the eye discomfort is eye discomfort caused by conjunctivitis.

1530. A cooling agent according to any one of claims 116 to 1227, wherein the eye discomfort is eye discomfort caused by dry eye syndrome.

1631. Use of a cooling agent in the manufacture of a medicament, wherein said medicament is a liquid cooling agent composition comprising said cooling agent, for the treatment of eye discomfort in a human subject by topical administration of said liquid cooling agent composition to at least a portion of the external surface of the eyelid of the eye to be treated, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

1732. Use of a cooling agent in the manufacture of a medicament, wherein said medicament is a liquid cooling agent composition comprising said cooling agent, for the treatment of eye discomfort in a human subject by topical administration of said liquid cooling agent composition to at least a portion of the external surface of the *closed* eyelid of the eye to be treated, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

1833. Use according to claim 1631 or 1732, wherein the cooling agent is present in the liquid cooling agent composition at a concentration of 0.01 to 1 % w/v.

1934. Use according to any one of claims 1631 to 1833, wherein the liquid cooling agent composition is water further comprising the cooling agent or a saline solution further comprising the cooling agent.

2035. Use according to claim 1934, wherein the liquid cooling agent composition is water further comprising the cooling agent.

2136. Use according to claim 1934, wherein the liquid cooling agent composition is an isotonic saline solution further comprising the cooling agent.

2237. Use according to any one of claims 1631 to 2136, wherein the liquid cooling agent composition further comprises an adjunctive ocular drug.

2338. Use according to claim 2237, wherein the adjunctive ocular drug is a polymer lubricant, hypromellose, polyethylene glycol 400, hyaluronan, or propanediol.

2439. Use according to any one of claims 1631 to 2338, wherein the liquid cooling agent composition is carried on or in a wipe, pad, or towelette.

2540. Use according to claim 2439, wherein the liquid cooling agent composition is carried in an absorbent wipe, pad, or towelette.

2641. Use according to claim 2439 or 2540, wherein the topical administration is by wiping said wipe, pad, or towelette over the closed eyelid.

2742. Use according to claim 2641, wherein the topical administration is by wiping said wipe, pad, or towelette over the closed eyelid from the medial to the lateral canthus.

2843. Use according to any one of claims 1631 to 2742, wherein the eye discomfort is eye discomfort caused by extended wear of contact lenses, by eye strain and fatigue, by air pollutants, or by excessive exposure to the sun.

2944. Use according to any one of claims 1631 to 2742, wherein the eye discomfort is eye discomfort caused by conjunctivitis.

3045. Use according to any one of claims 1631 to 2742, wherein the eye discomfort is eye discomfort caused by dry eye syndrome.

3146. A wipe, pad, or towelette carrying a liquid cooling agent composition comprising a cooling agent, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

3247. A wipe, pad, or towelette according to claim 3146, carrying a therapeutically-effective amount of a liquid cooling agent composition comprising a cooling agent, wherein the cooling agent is (1*R*,2*S*,5*R*)-2-isopropyl-5-methyl-cyclohexanecarboxylic acid 2,3-dihydroxy-propyl ester.

3348. A wipe, pad, or towelette according to claim 3146 or 3247, wherein the cooling agent is present in the liquid cooling agent composition at a concentration of 0.01 to 1 % w/v.

3449. A wipe, pad, or towelette according to any one of claims 3146 to 3348, wherein the liquid cooling agent composition is water further comprising the cooling agent or a saline solution further comprising the cooling agent.

3550. A wipe, pad, or towelette according to claim 3449, wherein the liquid cooling agent composition is water further comprising the cooling agent.

3651. A wipe, pad, or towelette according to claim 3449, wherein the liquid cooling agent composition is an isotonic saline solution further comprising the cooling agent.

3752. A wipe, pad, or towelette according to any one of claims 3146 to 3651, wherein the liquid cooling agent composition further comprises an adjunctive ocular drug.

3853. A wipe, pad, or towelette according to claim 3752, wherein the adjunctive ocular drug is a polymer lubricant, hypromellose, polyethylene glycol 400, hyaluronan, or propanediol.