WHAT IS CLAIMED IS:

1. An ophthalmic composition comprising an aqueous solution, comprising (i) a pharmaceutically effective amount of a phosphorylcholine-tuftsin conjugate (PC), (ii) between 0.1 and 5% weight per weight (w/w) of a viscosity enhancer, and (iii) between 0.1 and 5% w/w of a mucoadhesive polymer.

2. The ophthalmic composition of claim 1, wherein said ophthalmic composition further comprises a quaternary ammonium cation at a preservative effective concentration below a preservative effective concentration of the quaternary ammonium cation within a similar composition devoid of said PC.

3. The ophthalmic composition of claim 2, wherein said quaternary ammonium cation is or comprises benzalkonium (BAK), including any salt thereof.

4. The ophthalmic composition of claim 2 or 3, wherein said preservative effective concentration of said quaternary ammonium cation within said ophthalmic composition is between 0.01 and 0.18 mg/ml.

5. The ophthalmic composition of any one of claims 2 to 4, wherein a w/w ratio between the PC and the quaternary ammonium cation within said ophthalmic composition is between about 1000:1 and 1:1.

6. The ophthalmic composition of any one of claims 1 to 5, wherein a w/w ratio between said mucoadhesive polymer and said viscosity enhancer is between 1:1 and 10:1.

7. The ophthalmic composition of any one of claims 1 to 6, wherein said pharmaceutically effective amount is between 0.01 and 10% w/w of said phosphorylcholine-tuftsin conjugate.

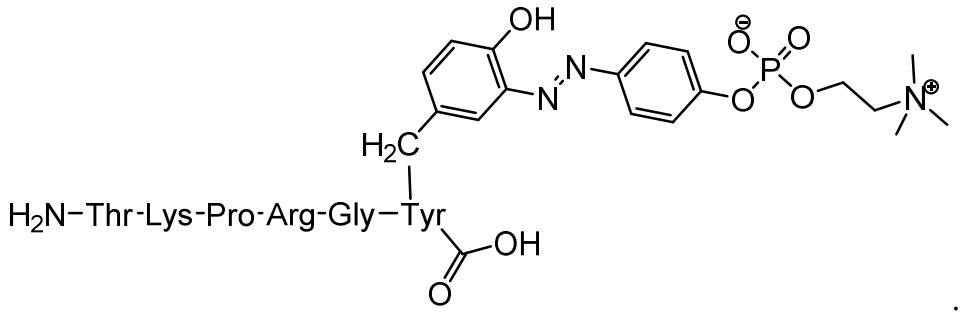
8. The ophthalmic composition of any one of claims 1 to 7, wherein said phosphorylcholine-tuftsin conjugate comprises at least one phosphorylcholine moiety or a derivative thereof and tuftsin or a derivative thereof covalently linked via a spacer.

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9. The ophthalmic composition of claim 8, wherein said spacer comprises at least two amino acids.

10. The ophthalmic composition of any one of claims 8 and 9, wherein said phosphorylcholine moiety or a derivative thereof is covalently linked to said spacer via a diazo group.

11. The ophthalmic composition of any one of claims 1 to 10, wherein said phosphorylcholine-tuftsin conjugate is represented by Formula 1 (SEQ ID NO: 2):



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12. The ophthalmic composition of any one of claims 1 to 11, wherein said mucoadhesive polymer comprises an ionic mucoadhesive polymer.

13. The ophthalmic composition of claim 12 wherein said ionic mucoadhesive polymer is selected form the group consisting of: alginic acid, chitosan, polyacrylate, hyaluronic acid, carboxymethylcellulose, pectin, and gelatin including any salt, any copolymer, or any combination thereof.

14. The ophthalmic composition of any one of claims 1 to 13, wherein said viscosity enhancer comprises hydroxy methyl cellulose, hydroxy ethyl cellulose, cellulose, hydroxypropyl methyl cellulose, polyvinylpyrrolidone, polyethyleneglycol, polypropyleneglycol, poly(2-hydroxyethyl methacrylate), and polyvinylalcohol, including any salt, any copolymer, or any combination thereof.

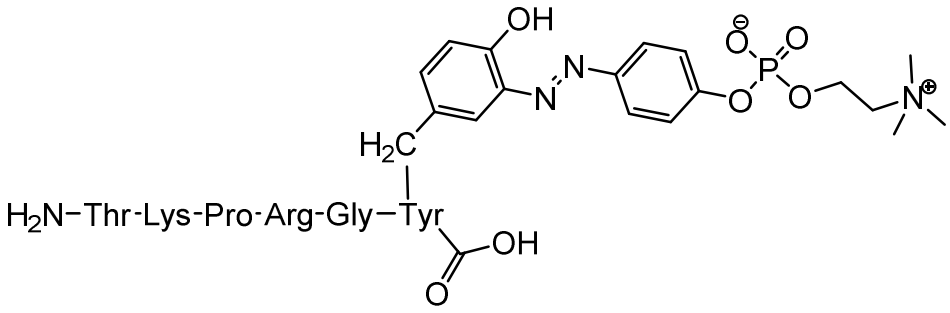
15. The ophthalmic composition of any one of claims 1 to 14, wherein said aqueous solution comprises a pharmaceutically acceptable salt.

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16. The ophthalmic composition of any one of claims 1 to 15, further comprises up to 5% w/w of a tonicity regulator.

17. The ophthalmic composition of any one of claims 1 to 16, in a form of an eye drop formulation formulated for ocular administration.

18. A preservative comprising a phosphorylcholine-tuftsin conjugate (PC) of Formula 1 (SEQ ID NO: 2):



, including any salt thereof; and a quaternary ammonium cation including any salt thereof, wherein a w/w ratio between the PC and the quaternary ammonium cation within said preservative is between about 1000:1 and 1:1, wherein said preservative is characterized by a synergistic antimicrobial activity within an aqueous composition at an effective concentration corresponding to a concentration of said quaternary ammonium cation below 0.18 mg/ml.

19. The preservative of claim 18, wherein said synergistic antimicrobial activity is a preservative effectiveness, as determined by Preservative Effectiveness Testing (PET) according to USP<51>.

20. The preservative of claim 18 or 19, wherein said quaternary ammonium cation is or comprises benzalkonium (BAK), including any salt thereof.

21. The preservative of any one of claims 18 to 20, wherein the concentration of said quaternary ammonium cation is between 0.01 and 0.18 mg/ml.

22. A pharmaceutical composition comprising an effective amount of the preservative of any one of claims 18 to 21, wherein the effective amount corresponds to a concentration

of said quaternary ammonium cation below 0.18 mg/ml within said pharmaceutical composition.

23. The pharmaceutical composition of claim 22, wherein the effective amount corresponds to a concentration of said quaternary ammonium cation between 0.01 and 0.18 mg/ml within said pharmaceutical composition.

24. The pharmaceutical composition of claim 22 or 23, wherein the effective amount further corresponds to a concentration of said PC between 1 and 50 mg/ml within said pharmaceutical composition.

25. The pharmaceutical composition of any one of claims 22 to 24, wherein said pharmaceutical composition is an ophthalmic composition.

26. A method for treating or preventing an ocular disease or disorder in a subject in need thereof, the method comprising administering to an eye of said subject an effective amount of the ophthalmic composition of any one of claims 1 to 17.

27. The method of claim 26, wherein the ocular disease or disorder comprises an ocular inflammation.

28. The method of claim 27, wherein said ocular inflammation is uveitis, or a condition associated with any one of dry eye, dry macular degeneration, and post operation inflammation.

29. A method for enhancing ocular bioavailability of a phosphorylcholine-tuftsin conjugate (PC) in a subject afflicted with an ocular disease or disorder, comprising administering to an eye of said subject the ophthalmic composition of any one of claims 1 to 17, thereby enhancing a concentration of said PC in said eye.

30. The method of claim 29, wherein said enhancing ocular bioavailability is by at least 10% compared to a control.

31. The method of any one of claims 29 and 30, wherein said enhancing ocular bioavailability comprises increasing concentration of said phosphorylcholine-tuftsin conjugate in an aqueous humor of said eye.

32. The method of any one of claims 26 and 31, wherein said administering comprises administering to said subject a reduced dose of said PC, thereby obtaining a therapeutically effective concentration of said PC in said eye, wherein said therapeutically effective concentration is sufficient for reducing at least one symptom associated with said ocular disease or disorder; and wherein reduced dose comprises at least 10% reduced amount of said PC compared to a control.

33. The method of claim 32, wherein said method comprises a preliminary step preceding said administering; wherein the preliminary step comprises determining a subject suitable for treatment by said PC; and wherein said subject is selected from a human subject and an animal subject.