Claims:

1. A topical preparation for use in protecting against and/or treating surface peripheral nerve damage on body surfaces and its associated conditions comprising, less than or equal to 150 µM of 3,7-bis(dimethylamino) phenothiazin-5-ium chloride; a physiological buffer, and a carrier, wherein the carrier modulates the release profile of 3,7-bis(dimethylamino) phenothiazin-5-ium chloride to a sustained release.

2. The topical preparation for use according to claim 1, wherein the topical preparation comprises between 0.0001 µM and 60 µM of 3,7-bis(dimethylamino) phenothiazin-5-ium chloride.

3. The topical preparation for use according to claim 1, wherein the topical preparation comprises 0.0005 µM, 0.005 µM, 0.05 µM, 0.5 µM, 5 µM, 50µM, or 100µM of 3,7-bis(dimethylamino) phenothiazin-5-ium chloride.

4. The topical preparation for use according to any one of claims 1 to 3, wherein the physiological buffer comprises sodium bicarbonate and sodium chloride.

5. The topical preparation for use according to any one of claims 1 to 4, wherein the physiological buffer comprises 4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid.

6. The topical preparation for use according to any one of claims 1 to 5, wherein the physiological buffer comprises a neurobasal medium.

7. The topical preparation for use according to any one of claims 1 to 6, wherein the carrier increases the viscosity to a range of about 15 to 150 milli-Pascals per second.

8. The topical preparation for use according to any one of claims 1 to 7, wherein the carrier comprises a microparticle.

9. The topical preparation for use according to any one of claims 1 to 8, wherein the surface peripheral nerve damage comprises neurotrophic keratopathy.

10. The topical preparation for use according to any one of claims 1 to 8, for ophthalmic use on a corneal surface.

11. The topical preparation for use according to any one of claims 1 to 8, wherein the surface peripheral nerves on body surfaces are on mucous membranes.

12. Use of 3,7-bis(dimethylamino) phenothiazin-5-ium chloride in the manufacture of a topical preparation comprising, less than or equal to 150 µM of 3,7-bis(dimethylamino) phenothiazin-5-ium chloride; a physiological buffer and a carrier, for prevention and/ or treatment of peripheral nerve damage in surface peripheral nerves on body surfaces and its associated conditions wherein the carrier modulates the release profile of 3,7-bis(dimethylamino) phenothiazin-5-ium chloride to a sustained release.

13. Use of the topical preparation according to claim 13, wherein the topical preparation comprises between 0.0001 µM and 60 µM of 3,7-bis(dimethylamino) phenothiazin-5-ium chloride.

14. Use of the topical preparation according to claim 13, wherein the topical preparation comprises 0.0005 µM, 0.005 µM, 0.05 µM, 0.5 µM, 5 µM, 50µM, or 100µM of 3,7-bis(dimethylamino) phenothiazin-5-ium chloride.

15. Use of the topical preparation according to any one of claim 13 to 15, wherein the physiological buffer comprises sodium bicarbonate and sodium chloride.

16. Use of the topical preparation according to any one of claim 13 to 16, wherein the physiological buffer comprises 4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid.

17. Use of the topical preparation according to any one of claim 13 to 17, wherein the physiological buffer comprises a neurobasal medium.

18. Use of the topical preparation according to any one of claim 13 to 18, wherein the carrier increases the viscosity to a range of about 15 to 150 milli-Pascals per second.

19. Use of the topical preparation according to any one of claim 13 to 19, wherein the carrier comprises a microparticle.

20. Use of the topical preparation according to any one of claims 13 to 19, wherein the peripheral nerve damage and its associated conditions comprises neurotrophic keratopathy.

21. Use of the topical preparation according to any one of claims 13 to 19, for ophthalmic use on a corneal surface.

22. Use of the topical preparation according to any one of claims 13 to 19, wherein the surface peripheral nerve damage is on mucous membranes.