Claims:

Claim 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.

Claim 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.

Claim 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.

Claim 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.

Claim 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.

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

Claim 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.

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

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

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

Claim 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.

Claim 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.

Claim 13. Use of the topical preparation according to claim ~~13~~12, wherein the topical preparation comprises between 0.0001 µM and 60 µM of 3,7-bis(dimethylamino) phenothiazin-5-ium chloride.

Claim 14. Use of the topical preparation according to claim ~~13~~12, 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.

Claim 15. Use of the topical preparation according to any one of claims ~~13~~ 12 to ~~15~~14, wherein the physiological buffer comprises sodium bicarbonate and sodium chloride.

Claim 16. Use of the topical preparation according to any one of claims ~~13~~ 12 to ~~16~~15, wherein the physiological buffer comprises 4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid.

Claim 17. Use of the topical preparation according to any one of claims ~~13~~ 12 to ~~17~~16, wherein the physiological buffer comprises a neurobasal medium.

Claim 18. Use of the topical preparation according to any one of claims ~~13~~ 12 to ~~18~~17, wherein the carrier increases the viscosity to a range of about 15 to 150 milli-Pascals per second.

Claim 19. Use of the topical preparation according to any one of claims ~~13~~ 12 to ~~19~~18, wherein the carrier comprises a microparticle.

Claim 20. Use of the topical preparation according to any one of claims ~~13~~ 12 to 19, wherein the peripheral nerve damage and its associated conditions comprises neurotrophic keratopathy.

Claim 21. Use of the topical preparation according to any one of claims ~~13~~ 12 to 19, for ophthalmic use on a corneal surface.

Claim 22. Use of the topical preparation according to any one of claims ~~13~~ 12 to 19, wherein the surface peripheral nerve damage is on mucous membranes.