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 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 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 12 to 14, wherein the physiological buffer comprises sodium bicarbonate and sodium chloride.

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

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

Claim 20. Use of the topical preparation according to any one of claims 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 12 to 19, for ophthalmic use on a corneal surface.

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