CLAIMS

1. A liposomal formulation for ocular drug delivery comprising:

(i) liposomes comprising at least one lipid bilayer; and

(ii) ~~a prostaglandin drug and/or a prostaglandin derivative~~ latanoprost encapsulated in the liposomes,

wherein the liposomes have a mean diameter of less than 2 μm~~; and~~ ,

~~wherein~~ the liposomes comprise phosphatidylcholines, and

~~wherein~~ the liposomal formulation has a ~~drug~~ latanoprost to lipid mole ratio of about 0.01 to about 0.50.

2. The liposomal formulation as claimed in claim 1, wherein the liposomal formulation has a ~~drug~~ latanoprost to lipid mole ratio of about 0.01 to about 0.37.

3. The liposomal formulation as claimed in claim 2, wherein the liposomal formulation has a ~~drug~~ latanoprost to lipid mole ratio of about 0.015 to about 0.37.

4. The liposomal formulation as claimed in claim 3, wherein the liposomal formulation has a ~~drug~~ latanoprost to lipid mole ratio of about 0.04 to about 0.37.

5. The liposomal formulation as claimed in any one of claims 1 to 4, wherein the liposomes comprise mixtures of phosphatidylcholines and at least one of sphingolipids, sterol lipids, saccharolipids, or polyketide lipids.

6. The liposomal formulation as claimed in any one of claims 1 to 5, wherein the phosphatidylcholines are selected from the group consisting of 1,2-dioleoyl-sn-glycero-3-phosphocholines (DOPC), 1,2-dioleoyl-sn-glycero-O-ethyl-3-phosphocholines, 1,2-Dilauroyl-sn-glycero-3-phosphocholines (DLPC), 1,2-Dimyristoyl-sn-glycero-3-phosphocholines (DMPC), 1,2-Dipalmitoyl-sn-glycero-3-phosphocholines(DPPC), 1,2-Distearoyl-sn-glycero-3-phosphocholines (DSPC) and mixtures thereof.

7. The liposomal formulation as claimed in claim 6, wherein the phosphatidylcholines are 1,2-Dipalmitoyl -sn-glycero-3-phosphocholines (DPPC).

8. The liposomal formulation as claimed in any one of claims l to 7, wherein the phosphatidylcholines each comprises at least one unsaturated fatty acid moiety.

9. The liposomal formulation as claimed in claim 8, wherein the phosphatidylcholines each comprises L-α-phosphatidylcholine or 95% Egg phosphatidylcholines (eggPC 95%).

10. The liposomal formulation as claimed in any one of claims 5 to 9, wherein the sphingolipids each comprises at least one unsaturated fatty acid moiety.

11. The liposomal formulation as claimed in claim 10, wherein the sphingolipids each comprises hexadecanoylsphingomyelin or Egg Sphingomyelin.

~~12. The liposomal formulation as claimed in any one of the preceding claims, wherein the prostaglandin drug or the prostaglandin derivative is selected from the group consisting of latanoprost , bimatoprost , travoprost, carboprosttrometamol, gemeprost, sulprostone, dinoprostone (PGE2), alprostadil (PGE 1), beroprost, iloprost, epoprostenol, treprostinil, misoprostol , enoprostil, omoprostil , limaprost. unoprostone isopropyl, arthrotec, and mixtures thereof.~~

~~13. The liposomal formulation as claimed in any one of claims 1 to 12, wherein the prostaglandin drug comprises latanoprost.~~

~~14~~12. The liposomal formulation as claimed in any one of the preceding claims, wherein the liposomes have a mean diameter of less than l μm.

~~15~~13. The liposomal formulation as claimed in claim ~~14~~12, wherein the liposomes have a mean diameter of about 100 nm to about 300 nm.

~~16~~14. The liposomal formulation as claimed in any one of the preceding claims, wherein the liposomes are small unilamellar vesicles (SUV), ~~or a~~ large unilamellar vesicles (LUV), or multilamellar vesicles.

~~17~~15. The liposomal formulation as claimed in claim 1, wherein the liposomal formulation has a ~~drug~~ latanoprost to lipid mole ratio of about 0.50.

~~18~~16. The liposomal formulation as claimed in any one of claims 1 to ~~16~~14, wherein the liposomal formulation has a ~~drug~~ latanoprost to lipid mole ratio of about 0.18.

~~19~~17. The liposomal formulation as claimed in any one of the preceding claims, wherein the liposomal formulation has a ~~polydisperisty~~ polydispersity index of less than or equal to 0.25.

~~20~~18. The liposomal formulation as claimed in any one of the preceding claims, wherein the liposome further comprises cholesterol.

~~21~~19. The liposomal formulation as claimed in claim ~~20~~18, wherein the cholesterol is of an amount of about 10 % to about 40 % by weight of the liposome.

~~22~~20. The liposomal formulation as claimed in any one of ~~any one~~ the preceding claims, wherein the liposome further comprises a linear C_8-C_{20} alkyl or alkenyl amine.

~~23~~21. The liposomal formulation as claimed in claim ~~22~~20, wherein the linear C_8-C_{20} alkyl or alkenyl amine is stearyl amine.

~~24~~22. The liposomal formulation as claimed in claim ~~23~~21, wherein the stearyl amine is of an amount of about 5 % to about 25 % by weight of the liposome.

~~25~~23. The liposomal formulation as claimed in claim ~~24~~22, wherein the stearyl amine is of an amount of about 10 % to about 20 % by weight of the liposome.

~~26~~24. A pharmaceutical composition comprising the liposomal formulation as claimed in any one of claims ~~1-25~~1-23.

~~27~~25. The pharmaceutical composition as claimed in claim ~~26~~24, wherein the pharmaceutical composition is in a form of an ophthalmic solution.

~~28~~26. The pharmaceutical composition as claimed in claim ~~27~~25, wherein the pharmaceutical composition is for use in ocular drug delivery in an injection solution or a viscous aqueous vehicle.

~~29~~27. The pharmaceutical composition as claimed in claim ~~28~~26, wherein the viscous aqueous vehicle comprises an aqueous solution of polysaccharides.

~~30~~28. The pharmaceutical composition as claimed in claim ~~29~~27, wherein the polysaccharide is hyaluronic acid.

~~31. Use of a liposomal formulation as claimed in any one of claims 1-25 or the pharmaceutical composition as claimed in any one of claims 26-30 in the treatment or prevention of an ocular disease, comprising administering the liposomal formulation or the pharmaceutical composition to a subject in need thereof.~~

~~32. The use as claimed in claim 31, wherein the ocular disease is glaucoma.~~

~~33. The use as claimed in claim 31 or 32 wherein the use comprises administering the liposomal formulation or pharmaceutical composition by subconjunctival injection to provide sustained release of the ocular drug.~~