**CLAIMS**

1. A therapeutic formulation suitable for intravenous administration to a subject comprising:

an aqueous solution;

a hydrophobic active agent;

a dispersion stabilizing agent; and

an opsonization reducer;

wherein the hydrophobic active agent is Coenzyme Q10 (CoQ10);

the dispersion stabilizing agent is Dimyristoylphosphatidyl choline (DMPC); and

wherein the hydrophobic active agent is dispersed into a colloidal nano-dispersion of particles having a mean size of between about 10-nm and about 100-nm.

2. The formulation of claim 1, wherein the opsonization reducer is selected from the group consisting of poloxamer and poloxamines.

3. The formulation of claim 2, wherein the opsonization reducer is poloxamer 188.

4. The formulation of claim 1, wherein the colloidal nano-dispersion is a suspension or an emulsion.

5. The formulation of claim 1, wherein the active agent of the colloidal nano-dispersion is in a crystalline form or a super-cooled melt form.

6. The formulation of claim 3, wherein the formulation has a weight-per-volume of the CoQ10, DMPC and poloxamer 188 of 4%, 3% and 1.5%, respectively.

7. The formulation of claim 3, wherein the formulation has a weight-per-volume of the CoQ10, DMPC and poloxamer 188 of 8%, 6% and 3% respectively.

8. The formulation of claim 1, wherein the mean size of the nano-dispersion particles is (a) between about 30-nm and about 80-nm; (b) between about 35-nm and about 40-nm; or (c) less than about 45-nm.

9. A therapeutic formulation suitable for intravenous administration to a subject comprising:

an aqueous solution;

a hydrophobic active agent;

dimyristoylphosphatidyl choline (DMPC); and

an opsonization reducer;

wherein the hydrophobic active agent is Coenzyme Q10 (CoQ10);

wherein the hydrophobic active agent is dispersed into liposomes having sizes between about 10-nm and about 100-nm.

10. The formulation of claim 9, wherein the liposomes are unilamellar.

11. The formulation of claim 9, wherein the liposomes are bi-layered multilamellar liposomes having an aqueous space between the bi-layers and a lipophilic space within the bi-layers.

12. The formulation of claim 11, wherein the hydrophobic active agent is entrapped within the lipophilic space of the bi-layers.

13. The formulation of claim 11, wherein the multilamellar liposome further includes a hydrophilic agent entrapped in the aqueous space between the bi-layers.

14. The formulation of claim 9, wherein the opsonization reducer is selected from the group consisting of poloxamer and poloxamines.

15. The formulation of claim 9, wherein the opsonization reducer is poloxamer 188.

16. The formulation of claim 15, wherein the formulation has a weight-per-volume of the CoQ10, DMPC and poloxamer 188 of 4%, 3% and 1.5%, respectively.

17. The formulation of claim 15, wherein the formulation has a weight-per-volume of the CoQ10, DMPC and poloxamer 188 of 8%, 6% and 3%, respectively.

18. The formulation of claim 9, wherein the colloidal nano-dispersion is a suspension or an emulsion.

19. The formulation of claim 9, wherein the active agent of the colloidal nano-dispersion is in a crystalline form or a super-cooled melt form.

20. A therapeutic formulation suitable for intravenous administration to a subject comprising:

an aqueous solution;

Coenzyme Q10 (CoQ10); and

Dimyristoylphosphatidyl choline (DMPC);

wherein the CoQ10 is dispersed into colloidal nano-dispersion of particles having a mean size of between 10-nm and 100-nm.

21. The formulation of claim 20, wherein the colloidal nano-dispersion is a suspension or an emulsion.

22. The formulation of claim 20, wherein the active agent of the colloidal nano-dispersion is in a crystalline form or a super-cooled melt form.

23. A therapeutic formulation suitable for intravenous administration to a subject comprising:

an aqueous solution;

Coenzyme Q10 (CoQ10);

DMPC;

and poloxamer 188;

wherein CoQ10 is dispersed into a colloidal nano-dispersion of particles having a mean size of between 30-nm and 80-nm.

24. A method of preparing the therapeutic formulation of claim 1, wherein the method comprises dispersing the hydrophobic active agent by high pressure homogenization by: adding hydrophobic active agent to a 65°C bath of water and mixing to form a hydrophobic active agent/water mixture;

adding a dispersion stabilizing agent to the hydrophobic active agent/water mixture and mix at 65°C to form a hydrophobic active agent/water/stabilizer mixture;

adding an opsonization reducer to form a hydrophobic active agent/water/stabilizer/reducer mixture;

pre-heating a Microfluidizer to 65°C; and

processing by mixing the hydrophobic active agent/water/stabilizer/reducer mixture in the Microfluidizer at 65°C such that a hydrophobic active agent colloidal nano-dispersion having a mean particle size of between 10-nm and 100-nm is formed.

25. The method of claim 24, wherein the oposonization reducer is selected from the group consisting of poloxamer and poloxamines; e.g. poloxamer 188.

26. The method of claim 24, wherein the opsonization reducer is poloxamer 188.

27. The method of claim 24, wherein the CoQ10 of the colloidal nano-dispersion is in the form of a super-cooled melt.

28. The method, of claim 25 or 26, wherein the formulation has a weight-per-volume of the CoQ10, DMPC and poloxamer 188 of 4%, 3% and 1.5%, respectively.

29. The method of claim 25 or 26, wherein the formulation has a weight-per-volume of the CoQ10, DMPC and poloxamer 188 of 8%, 6% and 3%, respectively.

30. The method of claim 24, wherein a hydrophobic active agent colloidal nano-dispersion having a mean particle size of (a) between 35-nm and 40-nm; or (b) less than about 45-nm is formed.

31. The method of claim 24, further comprising the step of lyophilizing the colloidal nano-dispersion to crystallize the CoQ10 colloidal nano-dispersion particles.

32. The method of claim 31, further comprising the step of adding a lyoprotectant.

33. The method of claim 32, wherein the lyoprotectant is a nutritive sugar e.g., lactose, mannose, maltose, galactose, fructose, sorbose, raffinose, neuraminic acid, glucosamine, galactosamine, N-methylglucosamine, mannitol, sorbitol, arginine, glycine and sucrose.

34. The therapeutic formulation as described in any one of claims 1-23 for use in the treatment or prevention of an oncological disorder in a subject,

wherein the therapeutic formulation is to be intravenously administered to the subject.

35. Use of the therapeutic formulation as described in any one of claims 1-23 in the manufacture of a medicament for the treatment or prevention of an oncological disorder in a subject,

wherein the therapeutic formulation is to be intravenously administered to the subject.

36. The use of claim 35, wherein the therapeutic formulation to be intravenously administered to the subject is via a dose selected for providing efficacy in the subject for the oncological disorder being treated.

37. The use of claim 35, wherein the oncological disorder is an aggressive or metastatic oncological disorder.

38. The use of claim 37, wherein the aggressive or metastatic oncological disorder is selected from the group consisting of pancreatic carcinoma, hepatocellular carcinoma, Ewing's sarcoma, metastatic breast cancer, metastatic melanoma, brain cancer (astrocytoma, glioblastoma), neuroendocrine cancer, colon cancer, lung cancer, osteosarcoma, androgen-independent prostate cancer, ovarian cancer and non-Hodgkin's Lymphoma.

39. The use of claim 35, wherein the oncological disorder is a non-aggressive oncological disorder.

40. The use of claim 39, wherein the non-aggressive oncological disorder is selected from the group consisting of non-metastatic breast cancer, androgen-dependent prostate cancer, small cell lung cancer and acute lymphocytic leukemia.

41. The use of claim 35, wherein the formulation comprises about 4% of Coenzyme Q10, 3% DMPC and 1.5% poloxamer 188.

42. The therapeutic formulation as described in any one of claims 1-23 for use in inhibiting tumor cell growth in a subject,
wherein the therapeutic formulation is to be intravenously administered to the subject.

43. Use of the therapeutic formulation as described in any one of claims 1-23 in the manufacture of a medicament for inhibiting tumor cell growth in a subject,
wherein the therapeutic formulation is to be intravenously administered to the subject.

44. The use of claim 43, wherein the therapeutic formulation to be intravenously administered to the subject is via a dose selected for providing efficacy in inhibiting tumor cell growth in the subject.

45. The use of claim 43, wherein the formulation comprises about 4% of Coenzyme Q10, 3% DMPC and 1.5% poloxamer 188.