What is claimed is:

1. A viscoelastic glycated chitosan formulation for use in the treatment of neoplasms, consisting essentially of glycated chitosan polymer and an aqueous solution wherein the glycated chitosan polymer has a molecular weight between about 50,000 Daltons to about 1,500,000 Daltons, and further wherein the degree of glycation of free amino groups of the chitosan polymer ranges from about one tenth of one percent to about thirty percent, further wherein the glycated chitosan polymer is sterile filterable.

2. The viscoelastic glycated chitosan formulation of claim 1 for use in the manufacture of a medicament for the treatment of neoplasms.

3. The viscoelastic glycated chitosan formulation of claim 1, wherein the molecular weight of the viscoelastic glycated chitosan is approximately 250,000 Daltons, the degree of deacetylation of a chitin parent of the viscoelastic glycated chitosan is about eighty percent, and the degree of glycation of free amino groups of the chitosan is about seven percent.

4. The viscoelastic glycated chitosan formulation of claim 1, wherein the glycated chitosan polymer possesses about two percent glycation of its otherwise free amino groups.

5. The viscoelastic glycated chitosan formulation of claim 1, wherein the an aqueous solution possesses a pH from between about five (5) to about seven (7).

6. The viscoelastic glycated chitosan formulation of claim 1, wherein the aqueous solution comprises a buffered physiological saline solution.

7. The viscoelastic glycated chitosan formulation of claim 1, wherein the viscoelastic formulation comprises about one percent by weight of the glycated chitosan polymer dispersed in an aqueous solution, said aqueous solution having a viscosity of between about one to about one hundred centistokes measured at about 25 degrees Celsius.

8. The viscoelastic glycated chitosan formulation of claim 1, wherein the viscoelastic formulation comprises about one percent by weight of a glycated chitosan polymer dispersed in an aqueous solution, wherein the glycated chitosan polymer possesses about one-tenth of a percent to

about thirty percent glycation of otherwise free amino groups, further wherein the aqueous solution has a viscosity from about one centistokes to approximately one hundred centistokes.

9. The viscoelastic glycated chitosan formulation of claim 1, comprising at least about one percent by weight of the glycated chitosan polymer dispersed in an aqueous solution, wherein the glycated chitosan polymer possesses about five percent glycation of its otherwise free amino groups, and further wherein the aqueous solution has a viscosity that allows for injection and administration to a subject.

10. The viscoelastic glycated chitosan formulation of claim 1 for use in the treatment of cancer.

11. The viscoelastic glycated chitosan formulation of claim 1 for use in the manufacture of a medicament for the treatment of cancer.

12. A composition for use in conditioning a neoplasm for tandem photophysical and immunological treatment, comprising an immunoadjuvant, wherein the immunoadjuvant comprises the viscoelastic glycated chitosan formulation of claim 1.

13. A composition for use in conditioning a neoplasm for tandem photophysical and immunological treatment, comprising an immunoadjuvant, wherein the immunoadjuvant comprises the viscoelastic glycated chitosan formulation of claim 1, further wherein the immunoadjuvant is conjugated to a tumor specific antigen.

14. An immunoadjuvant comprising the viscoelastic glycated chitosan formulation of claim 1.

15. An in situ autologous vaccine composition comprising an amalgam of a fragmented neoplastic tissue and cellular molecules and an immunoadjuvant that comprises the viscoelastic glycated chitosan formulation of claim 1 or a combination thereof.

16. A viscoelastic glycated chitosan formulation for use in the treatment of neoplasms, consisting essentially of glycated chitosan polymer and an aqueous solution, wherein the glycated chitosan polymer has a molecular weight between about 50,000 Daltons to about 1,500,000 Daltons, the degree of deacetylation of a chitin parent of the viscoelastic glycated chitosan is eighty percent and further wherein the degree of glycation of free amino groups of the chitosan

polymer ranges from one tenth of one percent to 12.5 percent, further wherein the glycated chitosan polymer is sterile filterable.

17. The viscoelastic glycated chitosan formulation of claim 16 for use in the treatment of neoplasms.

18. The viscoelastic glycated chitosan formulation of claim 16, wherein the aqueous solution comprises a buffered physiological saline solution or a solution possessing a pH from between about five (5) to about seven (7).

19. The viscoelastic glycated chitosan formulation of claim 16, wherein the viscoelastic formulation comprises about one percent by weight of the glycated chitosan polymer dispersed in an aqueous solution, said aqueous solution having a viscosity suitable that allows for the formulation to be injected and administered to a subject, said viscosity of between about one to about one hundred centistokes measured at 25 degrees Celsius.

20. The viscoelastic glycated chitosan formulation of claim 16 for use in the treatment of cancer.

21. The viscoelastic glycated chitosan formulation of claim 16 for use in the manufacture of a medicament for the treatment of cancer.

22. An immunoadjuvant comprising the viscoelastic glycated chitosan formulation of claim 16.

23. A composition for use in conditioning a neoplasm for tandem photophysical and immunological treatment, comprising an immunoadjuvant of claim 22, wherein said immunoadjuvant is either alone or conjugated to a tumor specific antigen.

24. A method of photophysically destroying a neoplasm and concurrently generating an in situ autologous vaccine in a tumor-bearing host, comprising:

a. irradiating the neoplasm with a laser of wavelength in the visible, near infra-red or infrared range, at a power and for a duration sufficient to produce a photothermal reaction inducing neoplastic cellular destruction and generating fragmented neoplastic tissue and cellular molecules;

b. introducing an immunoadjuvant into the neoplasm by intratumor injection, wherein the immunoadjuvant comprises the viscoelastic glycated chitosan formulation of claim 16, further wherein the in situ vaccine comprises an amalgam of the fragmented neoplastic tissue and cellular molecules and the immunoadjuvant; and

c. stimulating the self-immunological defense system against neoplastic cellular multiplication by having the vaccine presented locally to induce an anti-tumor response systemically within the host.

25. A viscoelastic glycated chitosan formulation for use in the treatment of neoplasms, consisting essentially of glycated chitosan polymer and aqueous solution, wherein the glycated chitosan polymer has a molecular weight between about 1,000 Daltons to about 1,500,000 Daltons, and further wherein the degree of glycation of free amino groups of the chitosan polymer ranges from about one tenth of one percent to about thirty percent, further wherein the glycated chitosan polymer is sterile filterable.

26. The viscoelastic glycated chitosan formulation of claim 25 for use in the treatment of neoplasms.

Claims

1. A viscoelastic glycated chitosan formulation for use in the treatment of neoplasms, consisting essentially of glycated chitosan polymer and an aqueous solution wherein the glycated chitosan polymer has a molecular weight between 50,000 Daltons and 1,500,000 Daltons, and further wherein the degree of glycation of free amino groups of the chitosan polymer ranges from one tenth of one percent to thirty percent, further wherein the glycated chitosan polymer is sterile filterable.

2. The viscoelastic glycated chitosan formulation of claim 1 for use in the manufacture of a medicament for the treatment of neoplasms.

3. The viscoelastic glycated chitosan formulation of claim 1, wherein the molecular weight of the viscoelastic glycated chitosan is 250,000 Daltons, the degree of deacetylation of a chitin parent of the viscoelastic glycated chitosan is eighty percent, and the degree of glycation of free amino groups of the chitosan is seven percent.

4. The viscoelastic glycated chitosan formulation of claim 1, wherein the glycated chitosan polymer possesses two percent glycation of its otherwise free amino groups.

5. The viscoelastic glycated chitosan formulation of claim 1, wherein the aqueous solution possesses a pH from between five (5) to seven (7).

6. The viscoelastic glycated chitosan formulation of claim 1, wherein the aqueous solution comprises a buffered physiological saline solution.

7. The viscoelastic glycated chitosan formulation of claim 1, wherein the viscoelastic formulation comprises one percent by weight of the glycated chitosan polymer dispersed in an aqueous solution, said aqueous solution having a viscosity of between one to one hundred centistokes measured at 25 degrees Celsius.

8. The viscoelastic glycated chitosan formulation of claim 1, wherein the viscoelastic formulation comprises one percent by weight of a glycated chitosan polymer dispersed in an aqueous solution, wherein the glycated chitosan polymer possesses one-tenth of a percent to thirty percent glycation of otherwise free amino groups further wherein the aqueous solution has a viscosity from one centistokes to one hundred centistokes.

9. The viscoelastic glycated chitosan formulation of claim 1, comprising at least one percent by weight of the glycated chitosan polymer dispersed in an aqueous solution, wherein the glycated chitosan polymer possesses five percent glycation of its otherwise free amino groups, and further wherein the aqueous solution has a viscosity that allows for injection and administration to a subject.

10. The viscoelastic glycated chitosan formulation of claim 1 for use in the treatment of cancer.

11. The viscoelastic glycated chitosan formulation of claim 1 for use in the manufacture of a medicament for the treatment of cancer.

12. A composition for use in conditioning a neoplasm for tandem photophysical and immunological treatment, comprising an immunoadjuvant, wherein the immunoadjuvant comprises the viscoelastic glycated chitosan formulation of claim 1.

13. A composition for use in conditioning a neoplasm for tandem photophysical and immunological treatment, comprising an immunoadjuvant, wherein the immunoadjuvant comprises the viscoelastic glycated chitosan formulation of claim 1, further wherein the immunoadjuvant is conjugated to a tumor specific antigen.

14. An immunoadjuvant comprising the viscoelastic glycated chitosan formulation of claim 1.

15. An in situ autologous vaccine composition comprising an amalgam of a fragmented neoplastic tissue and cellular molecules and an immunoadjuvant that comprises the viscoelastic glycated chitosan formulation of claim 1 or a combination thereof.

16. A viscoelastic glycated chitosan formulation for use in the treatment of neoplasms, consisting essentially of glycated chitosan polymer and an aqueous solution, wherein the glycated chitosan polymer has a molecular weight between 50,000 Daltons to 1,500,000 Daltons, the degree of deacetylation of a chitin parent of the viscoelastic glycated chitosan is eighty percent and further wherein the degree of glycation of free amino groups of the chitosan polymer ranges from one tenth of one percent to 12.5 percent, further wherein the glycated chitosan polymer is sterile filterable.

17. The viscoelastic glycated chitosan formulation of claim 16 for use in the treatment of neoplasms.

18. The viscoelastic glycated chitosan formulation of claim 16, wherein the aqueous solution comprises a buffered physiological saline solution or a solution possessing a pH from between five (5) to seven (7).

19. The viscoelastic glycated chitosan formulation of claim 16, wherein the viscoelastic formulation comprises one percent by weight of the glycated chitosan polymer dispersed in an aqueous solution, said aqueous solution having a viscosity suitable that allows for the formulation to be injected and administered to a subject, said viscosity of between one to one hundred centistokes measured at 25 degrees Celsius.

20. The viscoelastic glycated chitosan formulation of claim 16 for use in the treatment of cancer.

21. The viscoelastic glycated chitosan formulation of claim 16 for use in the manufacture of a medicament for the treatment of cancer.

22. An immunoadjuvant comprising the viscoelastic glycated chitosan formulation of claim 16.

23. A composition for use in conditioning a neoplasm for tandem photophysical and immunological treatment, comprising an immunoadjuvant of claim 22, wherein said immunoadjuvant is either alone or conjugated to a tumor specific antigen.

24. A viscoelastic glycated chitosan formulation for use in the treatment of neoplasms, consisting essentially of glycated chitosan polymer and aqueous solution, wherein the glycated chitosan polymer has a molecular weight between 1,000 Daltons and 1,500,000 Daltons, and further wherein the degree of glycation of free amino groups of the chitosan polymer ranges from one tenth of one percent to thirty percent, further wherein the glycated chitosan polymer is sterile filterable.

25. The viscoelastic glycated chitosan formulation of claim 24 for use in the treatment of neoplasms.