CLAIMS

1. An intratumor injectable formulation consisting of comprising a basic chemotherapeutic drug selected from the group consisting of an anthracycline base, a vinca alkaloid base, eribulin base and an alkylating agent base, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable biocompatible carrier for injection of the drug selected from the group consisting of a PEG of molecular weight of 200 to 400 dalton (da), an oleic acid, a liquid alcohol selected from the group consisting of ethanol, benzyl alcohol, and mixtures thereof, a glycerin, and mixtures thereof, and an organic acid selected from the group consisting of acetic acid, malic acid, fumaric acid, tartaric acid, succinic acid, maleic acid, and mixtures thereof, wherein the intratumor injectable formulation is a solution and contains more than 4% to less than 15% of water by volume, and optionally containing sodium or potassium chloride.

2. The intratumor injectable formulation of claim 1, wherein the pharmaceutically acceptable biocompatible carrier for injection is an organic liquid selected from the group consisting of a PEG of molecular weight of 200 to 400 dalton (da), oleic acid, glycerol, a liquid alcohol comprising ethanol and benzyl alcohol, and mixtures thereof, such that the formulation is a solution.

3. The intratumor injectable formulation of claim 1, wherein the basic chemotherapeutic drug is a desalinated salt form of a chemotherapeutic drug, wherein the biocompatible carrier is selected from the group consisting of a PEG of molecular weight of 200 to 400 dalton (da), a medium chain triglyceride, oleic acid, glycerol, a liquid alcohol comprising ethanol and benzyl alcohol, and combinations thereof, and a salt selected from the group consisting of sulfate, chloride, mesylate and mixtures thereof, such that the formulation is a solution.

4. The intratumor injectable formulation of claim 1, wherein the vinca alkaloid base is selected from the group consisting of vinblastine, vincristine, vindesine, and mixtures thereof; wherein the anthracycline base is selected from the group consisting of doxorubicin, epirubicin, daunorubicin, mitoxantrone, idarubicin, amrubicin, aclarubicin, valrubicin, and mixtures thereof; and wherein the alkylating agent base is selected from the group consisting of bendamustine, mechlorethamine, procarbazine, and mixtures thereof.

5. The intratumor injectable formulation of claim 3, wherein the injectable formulation is the basic chemotherapeutic agent, the biocompatible carrier, an alcohol comprised of ethanol or benzyl alcohol, sodium or potassium chloride, an organic acid and wherein the organic acid is selected from the group consisting of acetic acid, malic acid, fumaric acid, tartaric acid, succinic acid, maleic acid, and mixtures thereof, and wherein the water is less than 15% of the injectable formulation and the amount of organic solvent is more than 85% of the volume of the solution.

6. The intratumor injectable formulation of claim 1, wherein the injectable formulation is a solution comprising an anthracycline base selected from the group consisting of doxorubicin base, epirubicin base, daunorubicin base, amrubicin base and mitoxantrone base, an oleic acid, glycerol, acetic acid, more than 4% to less than 15% of water by volume of the solution and the liquid alcohol.

7. The intratumor injectable formulation of claim 1, wherein the formulation is a solution comprising daunorubicin base, oleic acid, ethanol, acetic acid, sodium or potassium chloride and from about 4% to about 10% of water by volume of the emulsion.

8. The intratumor injectable formulation of claim 1, wherein the formulation is a solution comprising amrubicin base, oleic acid, ethanol, acetic acid, sodium or potassium chloride and from about 4% to about 10% of water by volume of the solution.

9. The intratumor injectable formulation of claim 1, wherein the formulation is a solution comprising mitoxantrone base, oleic acid, glycerol, ethanol, acetic acid, sodium or potassium chloride and from about 2% to about 10% of water by volume of the solution.

10. The intratumor injectable formulation of claim 1, wherein the formulation comprises mitoxantrone base, ethanol and acetic acid, and further includes either oleic acid or glycerol, wherein the formulation is a solution.

11. The intratumor injectable formulation of claim 1, wherein the formulation is a solution comprising doxorubicin base, oleic acid, ethanol, acetic acid, NaCl and from about 4% to about 15% of water by volume of the solution.

12. The intratumor injectable formulation of claim 1, wherein the formulation is a solution comprising the basic chemotherapeutic agent, oleic acid, an alcohol, acetic acid, sulfate or chloride, and from about 4% to about 15% of water by volume of the solution, wherein the basic chemotherapeutic agent selected from the group consisting of daunorubicin base, epirubicin base, doxorubicin base, mitoxantrone base and amrubicin base.

13. The intratumor injectable formulation of claim 1, wherein the basic chemotherapeutic drug is selected from the group consisting of a vincristine base, a vinblastine base and a vindesine base wherein the biocompatible carrier is a mixture of a liquid alcohol comprising ethanol or benzyl alcohol, glycerol or oleic acid, and wherein the formulation further comprises acetic acid, sulfate or chloride salt, such that the formulation is a solution containing from about 0.5% to about 5% of water by volume of the solution.

14. The intratumor injectable formulation of claim 1, wherein the basic chemotherapeutic drug comprises bendamustine base and the pharmaceutically acceptable biocompatible carrier is a mixture selected from the group consisting of ethanol mixed with a PEG of molecular weight from about 200 to 400 dalton (da)or oleic acid mixed with acetic acid, such that the formulation is a solution.

15. The intratumor injectable formulation of claim 1, wherein the basic chemotherapeutic drug formulation is a solution comprises bendamustine base and wherein the pharmaceutically acceptable biocompatible carrier is a mixture of oleic acid and an ethanol, the formulation further comprises a water phase of acetic acid, sodium or potassium chloride and from about 2% to about 10% of water by volume of the solution.

16. The intratumor injectable formulation of claim 1, wherein the basic chemotherapeutic drug formulation is a solution comprises bendamustine base and wherein the pharmaceutically acceptable biocompatible carrier is a mixture of glycerol and an ethanol, the formulation further comprising a water phase of acetic acid, sodium or potassium chloride and a small amount of water from about 2% to about 10% of water by volume of the solution.

17. The intratumor injectable formulation of claim 1, wherein the formulation is a solution comprising bendamustine base dissolved in a mixture of a PEG of molecular weight of 200 to 400 dalton (da) and an ethanol, acetic acid, sodium or potassium chloride and from about 2% to about 10% of water by volume of the solution.

18. The intratumor injectable formulation of claim 1, wherein the basic chemotherapeutic drug comprises mechlorethamine base and and ethanol, the formulation further comprising acetic acid, and less than about 10% of water by volume of the formulation, such that the formulation is a solution.

19. The intratumor injectable formulation of claim 1, wherein the basic chemotherapeutic drug

comprises mechlorethamine base and the pharmaceutically acceptable biocompatible carrier comprises ethanol, the formulation further comprising acetic acid, sodium or potassium chloride and less than about 10% of water by volume of the formulation, such that the formulation is a solution.

20. The intratumor injectable formulation of claim 1, wherein the basic chemotherapeutic drug is eribulin base, wherein the biocompatible carrier is a mixture of ethanol or benzyl alcohol and, glycerol, PEG of molecular weight 200 to 400 dalton (da) or oleic acid, and wherein the formulation further comprises a water phase of acetic acid, sodium mesylate or potassium mesylate and water such that the formulation is a solution.

21. An intratumor injectable formulation kit, comprising a first vial containing a basic chemotherapeutic drug and a second vial containing a pharmaceutically acceptable excipient for delivery of the drug into a tumor, the pharmaceutically acceptable excipient comprising a solvent selected from the group consisting of a PEG, an oleic acid, glycerin, a liquid alcohol selected from the group consisting of ethanol, benzyl alcohol, and mixtures thereof, and mixtures thereof, an organic acid selected from the group consisting of acetic acid, malic acid, fumaric acid, tartaric acid, succinic acid, maleic acid, and mixtures thereof, a pharmaceutically acceptable diluent, and mixtures thereof, wherein the PEG has a molecular weight from about 200 to 400 dalton (da), wherein the formulation in the first vial is a solution and contains more than 4% to less than 15% of water by volume; and wherein the basic chemotherapeutic drug is selected from the group consisting of an anthracycline base, a vinca alkaloid base, eribulin base and an alkylating agent base.

22. The intratumor injectable formulation kit of claim 21, wherein the anthracycline base is selected from the group consisting of doxorubicin base, epirubicin base, amrubicin base, daunorubicin base and mitoxantrone base, and wherein the pharmaceutical acceptable excipient comprises a mixture of ethanol and oleic acid or PEG, or glycerol.

23. The intratumor injectable formulation of claim 21, wherein the pharmaceutically acceptable biocompatible carrier for injection comprises an alcohol selected from the group consisting of ethanol, benzyl alcohol and combinations thereof.

24. Use of basic chemotherapeutic drug selected from the group consisting of an anthracycline base, a vinca alkaloid base, eribulin base and an alkylating agent base in the manufacturing of basic chemotherapeutic intratumor injection of claim 1 for the treatment of malignant mass in a mammal, wherein the malignant mass is a primary or secondary tumor located in skin, eye, tongue, mouth, thyroid, breast, cervix, uterus, anus, prostate, vagina, bone, urinary bladder, ureter, urethra, penis, testis, epididymis, nasopharynx, liver, kidney, gall bladder, ovary, oviduct, pancreas, metastasis of lymph node, peritoneum metastasis of the abdominal cavity, esophagus, stomach, duodenum, small intestine, large intestine, caecum, rectum, lung, trachea, larynx, brain, a malignant lymphoma or lymph node metastasis, metastatic breast cancer, metastatic Wilms' tumor, Kaposi's sarcoma, metastatic neuroblastoma or a metastatic soft tissue sarcoma.

25. A method of making an intratumor injectable formulation of claim 1 comprising dissolving a basic chemotherapeutic drug selected from the group consisting of an anthracycline base, a vinca alkaloid base, eribulin base or an alkylating agent base in an organic liquid comprising a solvent selected from the group consisting of a PEG of molecular weight of 200 to 400 dalton (da), oleic acid, glycerol, a liquid alcohol and mixtures thereof.