~~What is c~~Claim~~ed i~~s:

1. Use of an amount of iron composition and a chemotherapeutic agent in the manufacture of a pharmaceutical combination ~~A method~~ for protecting the kidney, ~~during cancer chemotherapy comprising:~~

~~——~~wherein the pharmaceutical combination is to be administered~~ing a chemotherapeutic agent and an amount of iron composition~~ to a human patient, and wherein the amount of iron composition confers protection of the patient's kidney against cytotoxic effects of the chemotherapeutic agent.

2. The ~~method~~use of claim 1, wherein the chemotherapeutic agent is bevacizumab, gemcitabine, IFN therapy, cisplatin, ifosfamide, pemetrexed, cetuximab, or methotrexate, or a combination thereof.

3. The ~~method~~use of ~~any of the previous~~ claim~~s~~ 1, wherein the chemotherapeutic agent is cisplatin.

4. The ~~method~~use of ~~any of the previous~~ claim~~s~~ 1, wherein the ~~method~~pharmaceutical combination is to be administered to induce~~s~~ an increase in hepcidin in the human patient.

5. The ~~method~~use of ~~any of the previous~~ claim~~s~~ 1, wherein the iron composition is an iron sucrose composition.

6. The ~~method~~use of claim 5, wherein the iron sucrose composition comprises bicarbonate.

7. The ~~method~~use of claim 5, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately 1–10%, a total iron content of 5–19 mg/ml, an organic carbon content of 4–11%, an

osmolality of 1100–1600 mOsM/Kg, an iron core size of about 1–3nm, a Na content of between 0.8%–3%, and an average molecular weight of 10,000–30,000 daltons.

8. The ~~method~~use of claim 5, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately 3–4%, a total iron content of 10–15 mg/ml, an organic carbon content of 6–9%, an osmolality of 1400–1580 mOsm/Kg, an iron core size of about 2–2.8 nm, a Na content of between 1%-2%, and an average molecular weight of 20,000 –25,000 daltons.

9. The ~~method~~use of claim 5, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately about 3.4%, a total iron content of about 12 mg/ml, an organic carbon content of about 7.7%, an osmolality of about 1540 mOsm/Kg, an iron core size of about 2.39 nm, a Na content of about 1.26%, and an average molecular weight of about 23,881 daltons.

10. Use of an amount of iron and a radiocontrast agent in the manufacture of a pharmaceutical combination ~~A method~~ for protecting the kidney ~~during radiocontrast imaging comprising:~~

~~_____~~, wherein the pharmaceutical combination is to be administer~~ed~~~~ing the radiocontrast agent and an amount of iron composition~~ to a human patient, and wherein the amount of iron ~~sucrose~~composition confers protection of the patient's kidney against cytotoxic effects of the radiocontrast agent.

11. The ~~method~~use of claim 10, wherein the radiocontrast agent is an iodine-containing radiocontrast agent.

12. The ~~method~~use of ~~any of~~ claim~~s~~ 10~~–11~~, wherein the radiocontrast agent is diatrizoate, metrizoate, ionic iothalamate, ionic ioxaglate, iopamidol, iohexol, ioxilan, iopromide, iodixanol, ioversol, gadopentetate, gadobenate, gadodiamide, gadoterate, gadoteridol, gadobutrol, or gadoexetate, or a combination thereof.

13. The ~~method~~use of ~~any of~~ claim~~s~~ 10~~–12~~, wherein the ~~method~~pharmaceutical combination is to be administered to induce~~s~~ an increase in hepcidin in the human patient.

14. The ~~method~~use of ~~any of~~ claim~~s~~ 10~~–13~~, wherein the iron composition comprises an iron sucrose composition.

15. The ~~method~~use of claim 14, wherein the iron sucrose composition comprises bicarbonate.

16. The ~~method~~use of claim 14, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately 1–10%, a total iron content of 5–19 mg/ml, an organic carbon content of 4–11%, an osmolality of 1100–1600 mOsM/Kg, an iron core size of about 1–3nm, a Na content of between 0.8%–3%, and an average molecular weight of 10,000–30,000 daltons.

17. The ~~method~~use of claim 14, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately 3–4%, a total iron content of 10–15 mg/ml, an organic carbon content of 6–9%, an osmolality of 1400–1580 mOsm/Kg, an iron core size of about 2–2.8 nm, a Na content of between 1%-2%, and an average molecular weight of 20,000 –25,000 daltons.

18. The ~~method~~use of claim 14, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately about 3.4%, a total iron content of about 12 mg/ml, an organic carbon content of about 7.7%, an osmolality of about 1540 mOsm/Kg, an iron core size of about 2.39 nm, a Na content of about 1.26%, and an average molecular weight of about 23,881 daltons.

19. Use of an amount of phorphyrin and a chemotherapeutic agent in the manufacture of a pharmaceutical combination~~A method~~ for protecting the kidney, ~~during cancer chemotherapy comprising:~~

wherein the pharmaceutical combination is to be administered~~ing a chemotherapeutic agent and an amount of protoporphyrin~~ to a human patient, and wherein the amount of protoporphyrin confers protection of the patient's kidney against cytotoxic effects of the chemotherapeutic agent.

~~20. The method of claim 19, wherein the chemotherapeutic agent is bevacizumab, gemcitabine, IFN therapy, cisplatin, ifosfamide, pemetrexed, cetuximab, or methotrexate, or a combination thereof.~~

~~21. The method of any of claims 19–20, wherein the chemotherapeutic agent is cisplatin.~~

~~22. The method of any of claims 19–21, wherein the method induces an increase in hepcidin in the human patient.~~

~~23. The method of any of claims 19–22, wherein the protoporphyrin is a metal protoporphyrin.~~

~~24. The method of claim 23, wherein the metal protoporphyrin is tin protoporphyrin.~~

2~~5~~0. Use of an amount of phorphyrin and a radiocontrast agent in the manufacture of a pharmaceutical combination~~A method~~ for protecting the kidney, ~~during radiocontrast imaging comprising:~~

wherein the pharmaceutical combination is to be administered~~ing the radiocontrast agent and an amount of protoporphyrin~~ to a human patient, and wherein the amount of protoporphyrin confers protection of the patient's kidney against cytotoxic effects of the radiocontrast agent.

~~26. The method of claim 25, wherein the radiocontrast agent is an iodine-containing radiocontrast agent.~~

~~27. The method of any of claims 25–26, wherein the radiocontrast agent is diatrizoate, metrizoate, ionic iothalamate, ionic ioxaglate, iopamidol, iohexol, ioxilan, iopromide, iodixanol, ioversol, gadopentetate, gadobenate, gadodiamide, gadoterate, gadoteridol, gadobutrol, or gadoexetate, or a combination thereof.~~

~~28. The method of any of claims 25–27, wherein the method induces an increase in hepcidin in the human patient.~~

~~29. The method of any of claims 25–28, wherein the protoporphyrin is metal protoporphyrin.~~

~~30. The method of claim 29, wherein the metal protoporphyrin is tin protoporphyrin.~~

~~3~~2~~1~~. Use of an amount of phorphyrin, an amount of iron composition and a chemotherapeutic agent in the manufacture of a pharmaceutical combination~~A method~~ for protecting the kidney ~~during cancer chemotherapy comprising:~~,

~~——~~wherein the pharmaceutical combination is to be administered~~ing a chemotherapeutic agent and an amount of protoporphyrin and an amount of iron composition~~ to a human patient, and wherein the amount of protoporphyrin and the amount of iron composition confers protection of the patient's kidney against cytotoxic effects of the chemotherapeutic agent.

~~32. The method of claim 31, wherein the chemotherapeutic agent is bevacizumab, gemcitabine, IFN therapy, cisplatin, ifosfamide, pemetrexed, cetuximab, or methotrexate, or a combination thereof.~~

~~33. The method of any of claims 31–32, wherein the chemotherapeutic agent is cisplatin.~~

~~34. The method of any of claims 31–33, wherein the method induces an increase in hepcidin in the human patient.~~

~~35. The method of any of claims 31–34, wherein the protoporphyrin is metal protoporphyrin.~~

~~36. The method of claim 35, wherein the metal protoporphyrin is tin protoporphyrin.~~

~~37. The method of any of claims 31–36, wherein the iron composition is an iron sucrose composition.~~

~~38. The method of claim 37, wherein the iron sucrose comprises bicarbonate.~~

~~39. The method of claim 37, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately 1–10%, a total iron content of 5–19 mg/ml, an organic carbon content of 4–11%, an osmolality of 1100–1600 mOsM/Kg, an iron core size of about 1–3nm, a Na content of between 0.8%–3%, and an average molecular weight of 10,000–30,000 daltons.~~

~~40. The method of claim 37, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately 3–4%, a total iron content of 10–15 mg/ml, an organic carbon content of 6–9%, an osmolality of 1400–1580 mOsm/Kg, an iron core size of about 2–2.8 nm, a Na content of between 1%-2%, and an average molecular weight of 20,000 –25,000 daltons.~~

~~41. The method of claim 37, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately about 3.4%, a total iron content of about 12 mg/ml, an organic carbon content of about 7.7%, an osmolality of about 1540 mOsm/Kg, an iron core size of about 2.39 nm, a Na content of about 1.26%, and an average molecular weight of about 23,881 daltons.~~

~~4~~22. Use of an amount of phorphyrin, an amount of iron composition and a radiocontrast agent in the manufacture of a pharmaceutical combination~~A method~~ for protecting the kidney ~~during radiocontrast imaging comprising:~~

~~_____~~, wherein the pharmaceutical combination is to be administer~~ed~~~~ing the radiocontrast agent and an amount of protoporphyrin and an amount of iron composition~~ to a human patient, and wherein the amount of protoporphyrin and the amount of iron composition confers protection of the pat~~i~~ent's kidney against cytotoxic effects of the radiocontrast agent.

~~43. The method of claim 42, wherein the radiocontrast agent is an iodine-containing radiocontrast agent.~~

~~44. The method of any of claims 42–43, wherein the radiocontrast agent is diatrizoate, metrizoate, ionic iothalamate, ionic ioxaglate, iopamidol, iohexol, ioxilan, iopromide, iodixanol, ioversol, gadopentetate, gadobenate, gadodiamide, gadoterate, gadoteridol, gadobutrol, or gadoexetate, or a combination thereof.~~

~~45. The method of any of claims 42–44, wherein the method induces an increase in hepcidin in the human patient.~~

~~46. The method of any of claims 42–45, wherein the protoporphyrin is metal protoporphyrin.~~

~~47. The method of claim 46, wherein the metal protoporphyrin is tin protoporphyrin.~~

~~48. The method of any of claims 42–47, wherein the iron composition is an iron sucrose composition.~~

~~49. The method of claim 48, wherein the iron sucrose composition comprises bicarbonate.~~

~~50. The method of claim 48, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately 1–10%, a total iron content of 5–19 mg/ml, an organic carbon content of 4–11%, an osmolality of 1100–1600 mOsM/Kg, an iron core size of about 1–3nm, a Na content of between 0.8%–3%, and an average molecular weight of 10,000–30,000 daltons.~~

~~51. The method of claim 48, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately 3–4%, a total iron content of 10–15 mg/ml, an organic carbon content of 6–9%, an osmolality of 1400–1580 mOsm/Kg, an iron core size of about 2–2.8 nm, a Na content of between 1%-2%, and an average molecular weight of 20,000 –25,000 daltons.~~

~~52. The method of claim 48, wherein the iron sucrose composition comprises Fe2+/Fe3+ ratio of approximately about 3.4%, a total iron content of about 12 mg/ml, an organic carbon content of about 7.7%, an osmolality of about 1540 mOsm/Kg, an iron core size of about 2.39 nm, a Na content of about 1.26%, and an average molecular weight of about 23,881 daltons.~~