Claims:

1. Use of an amount of an iron sucrose composition and a chemotherapeutic agent in the manufacture of a pharmaceutical combination for protecting the kidney, wherein the pharmaceutical combination is to be administered to a human patient, and wherein the amount of iron sucrose composition confers protection of the patient's kidney against cytotoxic effects of the chemotherapeutic agent, wherein the chemotherapeutic agent is cisplatin, and

wherein the iron sucrose composition comprises bicarbonate, 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 1-3 nm, and a Na content of between 0.8%-3%.

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

3. The use of claim 1, wherein the pharmaceutical combination is to be administered to induce an increase in hepcidin in the human patient.

4. The use of claim 1, wherein the iron sucrose composition has an average molecular weight of 10,000–30,000 daltons.

5. The use of claim 4, 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.

6. The 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.

7. Use of an amount of an iron sucrose composition and a radiocontrast agent in the manufacture of a pharmaceutical combination for protecting the kidney, wherein the pharmaceutical combination is to be administered to a human patient, and wherein the amount of the iron sucrose composition comprises bicarbonate and confers protection of the patient's kidney against cytotoxic effects of the radiocontrast agent 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 1-3 nm, and a Na content of between 0.8%-3%.

8. The use of claim 7, wherein the radiocontrast agent is an iodine-containing radiocontrast agent.

9. The use of claim 7, 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.

10. The use of claim 7, wherein the pharmaceutical combination is to be administered to induce an increase in hepcidin in the human patient.

11. The use of claim 10, wherein the iron sucrose composition has an average molecular weight of 10,000–30,000 daltons.

12. The use of claim 11, 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.

13. The use of claim 12, 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.

14. Use of an amount of a protophorphyrin, an amount of an iron sucrose composition and a chemotherapeutic agent in the manufacture of a pharmaceutical combination for protecting the kidney,wherein the pharmaceutical combination is to be administered to a human patient, and wherein the amount of protoporphyrin and the amount of iron sucrose composition confers protection of the patient's kidney against cytotoxic effects of the chemotherapeutic agent, wherein the chemotherapeutic agent is cisplatin, and

wherein the iron sucrose composition comprises bicarbonate, 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 1-3 nm, and a Na content of between 0.8%-3%.

15. Use of an amount of a protophorphyrin, an amount of an iron sucrose composition and a radiocontrast agent in the manufacture of a pharmaceutical combination for protecting the kidney, wherein the pharmaceutical combination is to be administered to a human patient, and wherein the amount of protoporphyrin and the amount of the iron sucrose composition confers protection of the patient's kidney against cytotoxic effects of the radiocontrast agent, wherein the iron sucrose composition comprises bicarbonate, 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 1-3 nm, and a Na content of between 0.8%-3%.