CLAIMS

1. Use of a metal-desferrioxamine B complex (metal-DFO complex) or a combination thereof in the preparation of a pharmaceutical composition for preventing, inhibiting, reducing, or ameliorating neurodegeneration.

2. The use according to claim 1, wherein said metal-DFO complex each independently is the zinc-, gallium-, indium-, silver-, cobalt-, or gold-DFO complex, or a lanthanide-DFO complex such as europium- or gadolinium-DFO complex.

3. The use according to claim 2, wherein said metal-DFO complex each independently is Zn-DFO complex, Ga-DFO complex, Eu-DFO complex, or Gd-DFO complex.

4. The use according to claim 3, wherein said combination of metal-DFO complexes includes Zn-DFO complex and Ga-DFO complex, wherein the quantitative ratio of said Zn-DFO complex to said Ga-DFO complex in said combination is in a range of 100:1 to 1:100.

5. The use according to claim 3 or 4, wherein said combination of metal-DFO complexes includes Zn-DFO complex, Ga-DFO complex, and at least one additional metal-DFO complex.

6. The use according to any one of claims 1 to 5, for use in the treatment of a neurodegenerative disease, disorder or condition such as Parkinson's disease, Alzheimer's disease, amyotrophic lateral sclerosis, Huntington's disease, or age-related brain degeneration.

7. The use according to any one of claims 1 to 5, for use in the treatment of a disorder or condition induced by an injury such as an injury caused by a mechanical force, ischemia, a toxic agent, or hemorrhage.

8. The use according to any one of claims 1 to 5, for use in the treatment of a disease, disorder or condition caused by prion, such as Creutzfeldt-Jakob disease or a subtype thereof, Gerstmann-Sträussler-Scheinker syndrome, fatal familial insomnia, kuru, Familial spongiform encephalopathy, or multiple system atrophy.

9. A kit comprising:

(i) a first pharmaceutical composition comprising desferrioxamine B (DFO) or a pharmaceutically acceptable salt thereof;

(ii) a second pharmaceutical composition comprising ions of at least one metal; and

(iii) instructions for administration of said compositions, either concomitantly or sequentially at any order and within a time period not exceeding 6 hours, so as to obtain *in situ* a complex of said DFO and said at least one metal to thereby prevent, inhibit, reduce, or ameliorate neurodegeneration.

10. The kit of claim 9, wherein said second pharmaceutical composition comprises ions of zinc, gallium, indium, silver, cobalt, gold, a lanthanide such as europium or gadolinium, or a combination thereof.

11. The kit of claim 10, wherein said second pharmaceutical composition comprises ions of Zn, Ga, Eu, Gd, or a combination thereof.

12. The kit of claim 11, wherein said second pharmaceutical composition comprises ions of both Zn and Ga, and the quantitative ratio of the Zn ions to the Ga ions is in a range of 100:1 to 1:100.

13. The kit of claim 11 or 12, wherein said second pharmaceutical composition comprises ions of Zn, Ga, and at least one additional metal.

14. The kit of any one of claims 9 to 13, wherein said neurodegeneration is associated with a neurodegenerative disease, disorder or condition such as Parkinson's disease, Alzheimer's disease, amyotrophic lateral sclerosis, Huntington's disease, or age-related brain degeneration; a disorder or condition induced by an injury such as an injury caused by a mechanical force, ischemia, a toxic agent, or hemorrhage; or a disease, disorder or condition caused by prion, such as Creutzfeldt-Jakob disease or a subtype thereof, Gerstmann-Sträussler-Scheinker syndrome, fatal familial insomnia, kuru, Familial spongiform encephalopathy, or multiple system atrophy.