

WHAT IS CLAIMED IS:

1. A method for the treatment, or reduction of risk, of a disorder associated with neurodegeneration in a subject, the method comprising administering a therapeutically or prophylactically effective amount of a composition prepared using crystals of Glutathione Trisulfide (GSSSG) to a subject in need thereof.
2. The method of claim 1, further comprising preparing the composition comprising GSSSG by dissolving a crystalline form of GSSSG in saline at pH 3-6.
3. The method of claim 1, wherein the disorder is post-ischemic neuronal death.
4. The method of claim 1, wherein the disorder is a chronic cerebral degenerative disease.
5. The method of claim 1, wherein the chronic cerebral degenerative disease is multi-infarct dementia, Alzheimer's disease, Parkinson's disease, or Lewy body dementia.
6. The method of claim 1, comprising administering an effective amount of a composition comprising GSSSG within a few minutes to hours after a traumatic injury occurs.
7. The method of claim 1, comprising administering an effective amount of a composition comprising GSSSG before a scheduled thoracic and/or abdominal aortic surgical procedure.
8. The method of claim 7, comprising administering an effective amount of a composition comprising GSSSG hours to days before a scheduled thoracic and/or abdominal aortic surgical procedure.
9. The method of claim 8, comprising administering an effective amount of a composition comprising GSSSG 2-24 hours, and/or 1, 2, 3, 4, 5, 6, and/or 7 days before the scheduled thoracic and/or abdominal aortic surgical procedure.

10. A composition prepared using crystals of Glutathione Trisulfide (GSSSG) for use in the treatment, or reduction of risk, of a disorder associated with neurodegeneration in a subject, the method comprising administering a therapeutically or prophylactically effective amount of to a subject in need thereof.
11. The composition for the use of claim 10, wherein the composition is prepared by a method comprising dissolving a crystalline form of GSSSG in saline at pH 3-6.
12. The composition for the use of claim 10, wherein the disorder is post-ischemic neuronal death.
13. The composition for the use of claim 10, wherein the disorder is a chronic cerebral degenerative disease.
14. The composition for the use of claim 10, wherein the chronic cerebral degenerative disease is multi-infarct dementia, Alzheimer's disease, Parkinson's disease, or Lewy body dementia.
15. The composition for the use of claim 10, wherein the method comprises administering an effective amount of a composition comprising GSSSG within a few minutes to hours after a traumatic injury occurs.
16. The composition for the use of claim 10, wherein the method comprises administering an effective amount of a composition comprising GSSSG before a scheduled thoracic and/or abdominal aortic surgical procedure.
17. The composition for the use of claim 16, wherein the method comprises administering an effective amount of a composition comprising GSSSG hours to days before a scheduled thoracic and/or abdominal aortic surgical procedure.
18. The composition for the use of claim 17, wherein the method comprises administering an effective amount of a composition comprising GSSSG 2-24 hours, and/or 1, 2, 3, 4, 5, 6, and/or 7 days before the scheduled thoracic and/or abdominal aortic surgical procedure.