WHAT IS CLAIMED IS:

1. A stable aqueous formulation comprising ~~a~~ bG-CSF-T133pAF-20K PEG~~bG-CSF polypeptide or a variant thereof, a buffer substance, and an excipient~~, a citrate or succinate buffer, arginine, and optionally a counter ion for arginine, and wherein said formulation contains less than 0.001%~~is substantially free~~ of a surfactant.

2. The formulation of claim 1, wherein counter ion for arginine is chloride or sulfate.

3. The formulation of claim 1 or 2, wherein the surfactant is a polysorbate surfactant.

~~2. The formulation of claim 1 wherein the bG-CSF polypeptide or the variant thereof is linked to a water soluble polymer, wherein the water soluble polymer comprises a poly(ethylene glycol) moiety.~~

~~3. The formulation of claim 2 wherein the water soluble polymer has a molecular weight of between about 0.1 kDa and about 100 kDa.~~

~~4. The formulation of claim 2 or 3, wherein the water soluble polymer has a molecular weight of about 20 kDa.~~

~~5. The formulation of claim 1 wherein the bG-CSF polypeptide or a variant thereof comprises at least one non-naturally encoded amino acid.~~

~~6. The formulation of claim 5 wherein said bG-CSF polypeptide or a variant thereof is linked to a water soluble polymer at the non-naturally encoded amino acid, wherein the water soluble polymer comprises a poly(ethylene glycol) moiety having a molecular weight of between about 0.1 kDa and about 100 kDa.~~

~~7. The formulation of claim 5 or 6 wherein said non-naturally encoded amino acid is para-acetylphenylalanine.~~

~~8. The formulation of any of claims 5 to 7 wherein the formulation comprises bG-CSF-T133pAF-20K-PEG.~~

~~9. The formulation of any of claims 1 to 8 wherein the buffer substance is citrate, histidine, maleate, succinate, phosphate, or a combination thereof, wherein the buffer substance has a molarity between about 10 mM and about 50 mM, wherein the excipient is sodium chloride, trehalose, sorbitol, arginine, or a combination thereof, wherein the excipient has a molarity of between about 100 mM to about 500 mM, and wherein the formulation has a pH of between about 5.7 to about 6.6.~~

4. The formulation of any of claims 1 to 3 wherein bG-CSF-T133pAF-20K PEG is present in an amount of between 0.5 and 12 grams/liter, the buffer is citrate and said citrate buffer has a molarity of about 30 mM, arginine has a molarity of 250 mM, and wherein the formulation has a pH value of 5.7 to 6.6.

~~10~~5. The formulation of any of claims 1 to ~~9~~ 4 optionally including one or more other therapeutic ingredients.

~~11~~6. Use of the ~~A~~ formulation of any of claims 1 to ~~10~~ 5 ~~for use in~~in the manufacture of a medicament for treating an animal having a disorder modulated by bG-CSF.

~~12~~7. The use ~~formulation~~ of claim ~~11~~ 6 wherein said disorder is mastitis and wherein said animal is a periparturient cow.

~~13. A stable aqueous formulation comprising a bG-CSF polypeptide or a variant thereof having at least one non-naturally encoded amino acid, a citrate or succinate buffer, arginine, and optionally a counter ion for arginine, and wherein said formulation is substantially free of a polysorbate surfactant.~~

~~14. The formulation of claim 13 wherein the bG-CSF polypeptide or the variant thereof is linked to a linker, a polymer, or a biologically active molecule at the non-naturally encoded amino acid.~~

~~15. The formulation of claim 14 wherein the bG-CSF polypeptide or the variant thereof is linked to a water soluble polymer, wherein the water soluble polymer comprises a poly(ethylene glycol) moiety having a molecular weight of between about 0.1 kDa and about 50 kDa.~~

16. The formulation of claims 13 to 15 wherein the the formulation comprises bG-CSF-T133pAF-20K-PEG.

17. The formulation of claim 16 wherein bG-CSF-T133pAF-20K-PEG is present in an amount of between about 0.5 and about 12 grams/liter, the buffer is citrate and said citrate buffer has a molarity of about 30 mM, arginine has a molarity of about 250 mM, and wherein the formulation has a pH value of about 5.7 to about 6.6.

18. The formulation of any of claims 13 to 17 for use in treating an animal having a disorder modulated by bG-CSF.

19. The formulation of claim 18 wherein said disorder is mastitis and wherein said animal is a periparturient cow.

20. A stable aqueous formulation consisting essentially of bG-CSF-T133pAF-20K-PEG, a citrate buffer, arginine, and optionally a counter ion for arginine being chloride or sulfate.

21. The formulation of claim 20 wherein bG-CSF-T133pAF-20K-PEG is present in an amount of between about 0.5 and about 12 grams/liter, the buffer has a molarity of about 30 mM, arginine has a molarity of about 250 mM, and wherein the formulation has a pH value of about 5.7 to about 6.6.

22. The formulation of claims 20 or 21 for use in treating an animal having mastitis.

23. Use of the formulation of claim 20 or 21 in the manufacture of a medicament for the treatment of an animal having mastitis.