

## CLAIMS

1. A slaughter-free meat product for dietary consumption exhibiting an extended shelf life, wherein the shelf life is extended compared to conventional meat obtained by slaughter, and wherein the shelf life is extended for at least 3 days following harvest.
2. The slaughter-free meat product of claim 1, wherein the extended shelf life is maintained for at least 3 days following harvest at about 0°C to about 30°C.
3. The slaughter-free meat product of any one of claims 1-2, wherein the shelf life is determined after harvest, and prior to formulation.
4. The slaughter-free meat product of any one of claims 1-3, wherein the shelf life is determined after formulation.
5. The slaughter-free meat product of claim 3, wherein the shelf life is extended when the meat is harvested under non-aseptic conditions.
6. The slaughter-free meat product of any one of claims 1-5, wherein the shelf life is determined by measuring the total microbial count (TC), E. coli/coliforms count (EC), E. coli microbial count, or the coliforms count.
7. The slaughter-free meat product of claim 6, wherein the TC measurement of conventional meat obtained by slaughter is at least 1.5x higher than that of the TC measurement of slaughter-free meat product.
8. The slaughter-free meat product of any one of claims 1-7, comprising no more than 1 cfus microbial contamination per g/wet mass.
9. The slaughter-free meat product of any one of claims 1-8, wherein the slaughter-free meat product comprises no more than about 1ug steroid hormone.
10. The slaughter-free meat product of any one of claims 1-9, wherein the slaughter-free meat product comprises about 50g to about 90 g by weight of amino acids per 100 g dry mass.
11. The slaughter-free meat product of any one of claims 1-10, wherein the slaughter-free meat product comprises one or more of the following amino acids in the indicated amounts (expressed as g of amino acid/100g total amino acid): Tryptophan about 1 to about 2.2, Threonine about 4.6 and 6.5, Isoleucine about 3.8 to about 5, Leucine about 6.1 to about 8.9, Lysine about 5.7 to about 8.8, Methionine about 0.14 to about 3.0,

Cysteine about 1.5 to about 1.8, Phenylalanine about 3.7 to about 4.8, Tyrosine about 3.0 to about 5.2, Valine about 4.8 to about 6.1, Arginine about 7.0 to about 8.0, Histidine about 2.5 to about 4, Alanine about 5.0 to about 6.3, Aspartic acid about 8.6 to about 10.4, Glutamic acid about 12.5 to about 14.6, Glycine about 4.6 to about 9.8, Proline about 4.6 to about 6.8, Serine about 4.4 to about 5.3, and/or Hydroxyproline about 0.0 to 4.0.

12. The slaughter-free meat product of any one of claims 1-11, wherein the slaughter-free meat product has a moisture content of about 65% to about 95%, wherein the moisture content is measured after harvest, but before formulation.
13. The slaughter-free meat product of any one of claims 1-12, wherein the slaughter-free meat product comprises at least about 0.5mg Vitamin E/100g wet mass of the slaughter-free meat product.
14. The slaughter-free meat product of any one of claims 1-13, wherein the slaughter-free meat product comprises one or more of the following fatty acids classes in the amounts indicated, expressed as % of that class over total fatty acids:
  - a. saturated fatty acids content between about 10% to about 60%;
  - b. monounsaturated fatty acids content between about 10% to about 60%; and
  - c. polyunsaturated fatty acids content between about 1% to about 50%.
15. The slaughter-free meat product of any one of claims 1-14, wherein the slaughter-free meat product comprises a ratio of about 2:1 to 18:1 omega 6:3 fatty acids classes.
16. The slaughter-free meat product of any one of claims 1-15, wherein the slaughter-free meat product comprises slaughter-free chicken, duck, or bovine meat, and the conventional meat comprises chicken, duck or bovine meat obtained by slaughter.
17. The slaughter-free meat product of any one of claims 1-16, wherein the slaughter-free meat product is substantially free of vasculature.
18. The slaughter-free meat product of any one of claims 1-17, wherein the conventional meat is not processed.
19. A slaughter-free meat product for dietary consumption exhibiting a lower microbial contamination count as compared to conventional meat obtained by slaughter, wherein

the lower microbial contamination count is exhibited for at least 3 days following harvest.

20. The slaughter-free meat product of claim 19, wherein the lower microbial contamination count is maintained for at least 3 days following harvest at about 0°C to about 30°C.
21. The slaughter-free meat product of any one of claims 19-20, wherein the microbial contamination count is determined following harvest, and prior to formulation.
22. The slaughter-free meat product of any one of claims 19-21, wherein the slaughter-free meat product is maintained under non-aseptic conditions.
23. The slaughter-free meat product of any one of claims 19-22, wherein the microbial contamination count is determined by measuring the total microbial count (TC), E. coli/coliforms count (EC), E. coli microbial count, or the coliforms count.
24. The slaughter-free meat product of any one of claims 19-23, comprising no more than 1 cfus microbial contamination per g/wet mass.
25. The slaughter-free meat product of any one of claims 19-24, wherein the TC measurement of conventional meat obtained by slaughter is at least 1.5x higher than that of the TC measurement of slaughter-free meat product.
26. The slaughter-free meat product of any one of claims 19-25, wherein the slaughter-free meat product comprises no more than about 1ug steroid hormone.
27. The slaughter-free meat product of any one of claims 19-26, wherein the slaughter-free meat product comprises one or more of the following amino acids in the indicated amounts (expressed as g of amino acid/100g total amino acid): Tryptophan about 1 to about 2.2, Threonine about 4.6 and 6.5, Isoleucine about 3.8 to about 5, Leucine about 6.1 to about 8.9, Lysine about 5.7 to about 8.8 , Methionine about 0.14 to about 3.0 , Cysteine about 1.5 to about 1.8, Phenylalanine about 3.7 to about 4.8, Tyrosine about 3.0 to about 5.2, Valine about 4.8 to about 6.1, Arginine about 7.0 to about 8.0, Histidine about 2.5 to about 4, Alanine about 5.0 to about 6.3, Aspartic acid about 8.6 to about 10.4, Glutamic acid about 12.5 to about 14.6, Glycine about 4.6 to about 9.8, Proline about 4.6 to about 6.8, Serine about 4.4 to about 5.3 , and/or Hydroxyproline about 0.0 to 4.0.

- 28.** The slaughter-free meat product of any one of claims 19-27, wherein the slaughter-free meat product comprises one or more of the following fatty acids classes in the amounts indicated, expressed as % of that class over total fatty acids:
- a.** saturated fatty acids content between about 29% to about 42%;
  - b.** monounsaturated fatty acids content between about 19% to about 54%; and
  - c.** polyunsaturated fatty acids content between about 5% to about 36%.
- 29.** The slaughter-free meat product of any one of claims 19-28, wherein the slaughter-free meat product comprises a ratio of about 2:1 to 18:1 omega 6:3 fatty acids classes.
- 30.** The slaughter-free meat product of any one of claims 19-29, wherein the slaughter-free meat product comprises slaughter-free chicken, duck, or bovine meat, and the conventional meat comprises chicken, duck or bovine meat obtained by slaughter.
- 31.** A method of producing a slaughter-free meat product exhibiting an increase in shelf life compared to unprocessed conventional meat obtained by slaughter, the method comprising:
- a.** providing cells from a non-human organism;
  - b.** culturing the cells in media under suspension culture conditions or adherent culture conditions, wherein the media is substantially free of serum and other components derived from an animal; and
  - c.** isolating the cells and producing the slaughter-free meat product.
- 32.** The method of claim 31, wherein the cells comprise myoblasts, fibroblasts, adipocytes, endothelial cells, cells of a mesoderm lineage, and combinations thereof.
- 33.** The method of any one of claims 31-32, wherein the cells comprise at least fibroblasts and myoblasts, and the fibroblasts and myoblasts are provided at a ratio of about 95F:5M to about 5F:95M.
- 34.** The method of any one of claims 31-33, wherein the method comprises adjusting the fatty acid content of the media, wherein the resulting slaughter-free meat product has a ratio of about 2:1 to about 18:1 of the omega 6:3 fatty acids classes.