CLAIMS:

1. A cultured meat product comprising:

a scaffold comprising an electrospun polymer fiber; and

a population of cells;

wherein the cultured meat product has a thickness from 100 μm to 500 mm.

2. The cultured meat product of claim 1, wherein the electrospun polymer fiber comprises a polymer selected from the group consisting of nylon, nylon 6,6, polycaprolactone, polyethylene oxide terephthalate, polybutylene terephthalate, polyethylene oxide terephthalate-co-polybutylene terephthalate, polyethylene terephthalate, polyurethane, polyethylene, polyethylene oxide, polyvinylpyrrolidone, polymethylmethacrylate, polyacrylonitrile, silicone, polycarbonate, polylactide, polyglycolide, polyether ketone ketone, polyether ether ketone, polyether imide, polyamide, polystyrene, polyether sulfone, polysulfone, polyvinyl acetate, polytetrafluoroethylene, polyvinylidene fluoride, polylactic acid, polyglycolic acid, polylactide-co-glycolide, poly(lactide-co-caprolactone), polyglycerol sebacate, polydioxanone, polyhydroxybutyrate, poly-4-hydroxybutyrate, trimethylene carbonate, polydiols, polyesters, collagen, gelatin, fibrin, fibronectin, albumin, hyaluronic acid, elastin, chitosan, alginate, silk, zein, a soy protein, a plant protein, a carbohydrate, copolymers thereof, and combinations thereof.

3. The cultured meat product of claim 1, wherein the electrospun polymer fiber comprises a polymer configured to degrade to produce a byproduct.

4. The cultured meat product of claim 3, wherein the byproduct is selected from the group consisting of lactic acid, glycolic acid, caproic acid, and combinations thereof.

5. The cultured meat product of claim 1, wherein the electrospun polymer fiber comprises a polymer configured to degrade upon exposure to saliva.

6. The cultured meat product of claim 1, wherein the scaffold comprises multiple electrospun polymer fibers aligned substantially parallel to one another.

7. The cultured meat product of claim 1, wherein the thickness of the cultured meat product is from 5 mm to 75 mm.

8. The cultured meat product of claim 1, wherein the cultured meat product is configured to mimic a property of a traditional slaughtered meat.

9. The cultured meat product of claim 8, wherein the property is selected from the group consisting of taste, texture, size, shape, topography, and combinations thereof.

10. The cultured meat product of claim 1, wherein the population of cells is selected from the group consisting of mesenchymal stem cells, myocytes, adipocytes, chondrocytes, and combinations thereof.

11. The cultured meat product of claim 1, wherein the scaffold further comprises a plurality of electrospun fiber fragments having a maximum length of 10 mm.

12. A method of producing a cultured meat product, the method comprising:

preparing a scaffold comprising an electrospun polymer fiber;

placing the scaffold into a bioreactor;

adding a population of cells to the bioreactor;

culturing the population of cells in the bioreactor containing the scaffold for a period of time, thereby forming the cultured meat product having a thickness from 100 μm to 500 mm; and

removing the cultured meat product from the bioreactor.

13. The method of claim 12, wherein the period of time is from 1 day to 6 weeks.

14. The method of claim 12, wherein the period of time is 3 weeks.

15. The method of claim 12, wherein the electrospun polymer fiber comprises a polymer selected from the group consisting of nylon, nylon 6,6, polycaprolactone, polyethylene oxide terephthalate, polybutylene terephthalate, polyethylene oxide terephthalate-co-polybutylene terephthalate, polyethylene terephthalate, polyurethane, polyethylene, polyethylene oxide, polyvinylpyrrolidone, polymethylmethacrylate, polyacrylonitrile, silicone, polycarbonate, polylactide, polyglycolide, polyether ketone ketone, polyether ether ketone, polyether imide, polyamide, polystyrene, polyether sulfone, polysulfone, polyvinyl acetate, polytetrafluoroethylene, polyvinylidene fluoride, polylactic acid, polyglycolic acid, polylactide-co-glycolide, poly(lactide-co-caprolactone), polyglycerol sebacate, polydioxanone, polyhydroxybutyrate, poly-4-hydroxybutyrate, trimethylene carbonate, polydiols, polyesters, collagen, gelatin, fibrin, fibronectin, albumin, hyaluronic acid, elastin,

chitosan, alginate, silk, zein, a soy protein, a plant protein, a carbohydrate, copolymers thereof, and combinations thereof.

16. The method of claim 12, wherein the electrospun polymer fiber comprises a polymer configured to degrade to produce a byproduct.

17. The method of claim 16, wherein the byproduct is selected from the group consisting of lactic acid, glycolic acid, caproic acid, and combinations thereof.

18. The method of claim 12, further comprising exposing the electrospun polymer fiber to saliva, wherein the electrospun polymer fiber comprises a polymer configured to degrade upon exposure to saliva.

19. The method of claim 12, wherein the scaffold comprises multiple electrospun polymer fibers aligned substantially parallel to one another.

20. The method of claim 12, wherein the thickness of the cultured meat product is from 5 mm to 75 mm.

21. The method of claim 12, wherein the cultured meat product is configured to mimic a property of a traditional slaughtered meat.

22. The method of claim 21, wherein the property is selected from the group consisting of taste, texture, size, shape, topography, and combinations thereof.

23. The method of claim 12, wherein the population of cells is selected from the group consisting of mesenchymal stem cells, myocytes, adipocytes, chondrocytes, and combinations thereof.

24. The method of claim 12, wherein the scaffold further comprises a plurality of electrospun fiber fragments having a maximum length of 10 mm.