What is claimed is:

1. A biocontainer adapted to receive a biopharmaceutical material therein, wherein the biocontainer comprises: an indicator to indicate whether the biopharmaceutical material was properly frozen;
a sensor attachment mechanism affixed to opposite edges of said biocontainer, disposed within said biocontainer and passing though the geometric center of said biocontainer, said sensor attachment mechanism comprising a sealed enclosure holding:
at least one wireless temperature sensor positioned near said geometric center of said biocontainer;
at least one processing unit in communication with said indicator and configured to:
compare data obtained by said wireless temperature sensor to predetermined values to determine whether the biopharmaceutical material, once frozen, was properly frozen, and actuate said indicator to indicate the result of said determination of whether the biopharmaceutical material was properly frozen; and
a storage element, in communication with said processing unit, to store data obtained by said temperature sensor. ~~at least one wireless temperature sensor positioned near the geometric center of said biocontainer.~~

2. The biocontainer of claim 1, wherein said biocontainer is filled to its volumetric capacity and said geometric center comprises the thermal center of the material contained therein.

3. The biocontainer of claim 1, further comprising a

second wireless temperature sensor located at an outer edge of the biocontainer.

4. The biocontainer of claim 1, wherein the biocontainer comprises a volumetric capacity ranging from about 20 milliliters to about 1000 liters .

5. The biocontainer of claim 1, wherein the biopharmaceutical material is selected from the group consisting of an amino acid, a peptide, a protein, a DNA molecule, an RNA molecule, a drug, an enzyme, an antibody or fragment thereof, a tissue or fragment thereof, an organ or fragment thereof, a preservative, a blood product, a cell, a cellular organelle, an inclusion body, and a cellular aggregate.

6. The biocontainer of claim 1, wherein said biopharmaceutical material is selected from the group

consisting of serum, blood, plasma, an amino acid formulation, a protein formulation, a nucleic acid formulation, a cell culture media formulation.

7. The biocontainer of claim 1, further comprising a wireless transmitter adapted to transmit data obtained by said temperature sensor.

8. The biocontainer of claim 1, ~~further comprising a storage element adapted to store data obtained by said temperature sensor~~wherein said indicator comprises an LED.

9. The biocontainer of claim 1, wherein said biocontainer and said temperature sensor are sterilized prior to receiving said biopharmaceutical material~~further comprising a processing unit~~.

10. The biocontainer of claim 1~~9~~, wherein said ~~processing unit is adapted to compare data obtained by said temperature sensor to predetermined values~~biocontainer comprises one or more plastic pieces which are fused together and wherein said sensor attachment mechanism comprises a sealed sleeve, fused to a seam of said biocontainer, wherein said wireless temperature sensor, said processing unit, and said storage element are disposed in said sealed sleeve.

11. The biocontainer of claim 1~~0~~, ~~further comprising an indicator, adapted to indicate the result of said comparison~~wherein said sensor attachment mechanism comprises a thin film or strand extending from sidewalls of said biocontainer and a sealed enclosure

attached to the thin film or strand, where said sensor, said processing unit, and said storage element are disposed in said sealed enclosure.

12. The biocontainer of claim 1~~1~~, further comprising one or more ports affixed to said biocontainer wherein said sensor attachment mechanism is affixed to said one or more ports~~where said indicator comprises an LED~~.

13. The biocontainer of claim 1, further comprising a battery disposed in said sealed enclosure and in electrical communication with said wireless sensor, said processing unit, and said storage element.~~wherein said biocontainer and said temperature sensor are sterilized prior to receiving said biopharmaceutical material~~.

~~14. A method for monitoring the freezing of a biopharmaceutical material contained in a biocontainer, the method comprising the steps of:~~

~~(a) providing a sterilized biocontainer of a predetermined volumetric capacity comprising a wireless temperature sensor positioned at or about the geometric center of said biocontainer;~~

~~(b) filling said biocontainer to its volumetric capacity with said material;~~

~~(c) placing the biocontainer in a cryofreezer, thereby to freeze the solution contained therein; and~~

~~(d) using said sensor to monitor the temperature of said material at said geometric center.~~

14. The biocontainer of claim 1, further comprising an antenna disposed in said sealed enclosure to receive electro-magnetic waves and convert said waves to electrical power, wherein said electrical power is used to operate said temperature sensor, said processing unit, and said storage element.

~~15. The method of claim 14, further comprising:~~

~~(e) providing a storage element in communication with said temperature sensor; and~~

~~(f) storing data from said sensor in said storage element.~~

15. The biocontainer of claim 1, wherein said indicator comprises a visual indicator.

~~16. The method of claim 14, further comprising:~~

~~(e) providing a wireless transmitter in communication with said temperature sensor; and~~

~~(f) transmitting data from said sensor via said wireless transmitter.~~

16. The biocontainer of claim 1, wherein said indicator comprises an audio alarm.

~~17. The method of claim 14, further comprising:~~

~~(e) providing a processing unit in communication with said temperature sensor and an indicator in communication with said processing unit;~~

(f) using said processing unit to compare data from said sensor to predetermined values; and

(g) activating said indicator by said processing unit if said comparison indicates a defective freezing profile.

17. The biocontainer of claim 1, wherein said indicator comprises a data pattern written to the storage element.

18. The method of claim 14, further comprising:

(e) providing a processing unit in communication with said temperature sensor and an indicator in communication with said processing unit;

(f) using said processing unit to compare data from said sensor to previous data from said sensor; and

(g) activating said indicator by said processing unit if said comparison indicates a defective freezing profile.

18. The biocontainer of claim 1, wherein the determination of whether the biopharmaceutical material was properly frozen is stored in the storage element.

19. The method of claim 14, wherein said biocontainer is held in place by a frame, carrier or other structure.

19. The biocontainer of claim 1, further comprising a transmitter, wherein the transmitter conveys the determination of whether the biopharmaceutical material was properly frozen.

20. A method of attaching a temperature sensor to the interior of a biocontainer, wherein said biocontainer comprises one or more plastic pieces which are fused together, comprising:

(a) affixing a thermoplastic material to said sensor;

~~(b) placing a portion of said thermoplastic material between two open edges of said one or more plastic pieces comprising said biocontainer; and~~

(c) fusing said edges of said pieces together, thereby affixing said material between said pieces.

20. The biocontainer of claim 1, wherein said predetermined values are stored on said storage element.

21. A method of attaching a temperature sensor to the interior of a biocontainer, wherein said biocontainer comprises outer surfaces and at least one of said outer surfaces comprises an opening onto which a port is attached, comprising:

(a) affixing a thermoplastic material to said sensor;

(b) placing a portion of said thermoplastic material through said opening, and between said outer surface and said port; and

(c) fusing said outer surface and said port together, thereby affixing said thermoplastic material between said outer surface and said port.

22. A method for monitoring the storage temperature of a biopharmaceutical material contained in a biocontainer, the method comprising of:

(a) providing said biopharmaceutical material in a sterilized biocontainer of a predetermined volumetric capacity comprising a wireless temperature sensor positioned at or about the geometric center of said biocontainer;

(b) measuring the temperature of said material within a biocontainer at or about the geometric center;

(c) comparing the temperature to a reference temperature;

(d) determining if the difference between said measured temperature and said reference temperature is acceptable; and

(e) providing an indication of the results of said determination.

23. The method of claim 22, further comprising:

(f) providing a storage element in communication with said temperature sensor; and

(g) wherein said indication of the results comprises storing the results of said determination in said storage element.

24. The method of claim 22, further comprising:

(f) providing an alarm in communication with said temperature sensor; and

(g) actuating said alarm based on said results of said determination.

25. A method for monitoring the thawing of a frozen biopharmaceutical material contained in a biocontainer, the method comprising of:

(a) providing said frozen biopharmaceutical material in a sterilized biocontainer of a predetermined volumetric capacity comprising a wireless temperature sensor positioned at or about the geometric center of said biocontainer;

(b) measuring the temperature of said frozen material within said biocontainer at or about the geometric center;

(c) comparing the measured temperature to a second temperature;

(d) determining if the difference between said measured temperature and said second temperature is acceptable; and

(e) providing an indication of the results of said determination.

26. The method of claim 25, further comprising:

(f) providing a storage element in communication with said temperature sensor; and

(g) wherein said indication of the results comprises storing the results of said determination in said storage element.

27. The method of claim 25, further comprising:

(f) Providing an alarm in communication with said temperature sensor; and

(g) actuating said alarm based on said results of said determination.

28. The method of claim 25, wherein said second temperature is a previously measured temperature.

29. The method of claim 25, wherein said second temperature is based on a reference temperature profile.