~~WHAT IS~~ CLAIM~~ED I~~S:

1. A method for coating a wound dressing, the method comprising:

coating a first side of a flexible wound contact layer of the wound dressing with a hydrophobic coating, the first side of the wound contact layer supporting a plurality of electronic components; and

coating a second side of the wound contact layer opposite the first side with either the same hydrophobic coating as that used to coat the first side or with a different type of coating, the wound contact layer formed at least in part ~~partially~~ from hydrophilic material, wherein the coating is biocompatible.

2. The method of ~~any of the preceding~~ claim~~s~~ 1, further comprising encapsulating the wound contact layer with the coating.

~~3. The method of any of the preceding claims, wherein the coating is hydrophobic.~~

~~4. The method of any of the preceding claims, wherein the coating is biocompatible.~~

3~~5~~. The method of any one of the preceding claims, wherein the coating is ~~substantially~~ stretchable.

4~~6~~. The method of any one of the preceding claims, wherein the plurality of electronic components comprises at least one electronic connection.

5~~7~~. The method of any one of the preceding claims, further comprising coating at least some of the plurality of the electrical components with multiple layers of coating.

6~~8~~. The method of any one of the preceding claims, wherein coating the first and second sides of the wound contact layer comprises spraying the coating.

~~9. The method of claim 8, wherein spraying comprises spraying with compressed air or inert gas~~

~~10. The method of any of the preceding claims, wherein the coating is formed from material compliant with IEC 60601 standard.~~

11. A method for coating a wound dressing, the method comprising:

coating a plurality of electronic components supported by a first side of a flexible wound contact layer of the wound dressing with a first biocompatible coating; and

coating one or more remaining areas of the first side of the wound contact layer and a second side of the wound contact layer opposite the first side with a second biocompatible coating.

12. The method of claim 11, wherein the first coating is substantially non-stretchable.

13. The method of claim 11, wherein the first coating comprises at least one of Dymax 20351, Dymax 20558, Dymax 9001-E, or Loctite 3211.

14. The method of any of claims 11 to 13, wherein the wound contact layer is formed at least partially from hydrophilic material.

15. The method of any of claims 11 to 14, wherein the first and second coatings are hydrophobic.

16. The method of any of claims 11 to 15, wherein the first and second coatings are formed from material compliant with IEC 60601 standard.

17. The method of any of claims 11 to 16, wherein the first coating has viscosity of no more than about 50,000 centipoise.

18. A method for coating a wound dressing, the method comprising:

coating a plurality of electronic components supported by a first side of a flexible wound contact layer of the wound dressing with a non-biocompatible coating; and

coating the first side of the wound contact layer including the plurality of electrical components and a second side of the wound contact layer opposite the first side with a biocompatible coating.

19. The method of claim 18, wherein the non-biocompatible coating is substantially non-stretchable.

20. The method of any of claims 18 to 19, wherein coating the first of the wound contact layer with the biocompatible coating comprises coating the non-biocompatible coating covering the plurality of electronic components.

21. The method of any of claims 18 to 20, wherein the biocompatible coating is hydrophobic.

22. The method of any of claims 18-21, wherein the biocompatible coating is formed from material compliant with IEC 60601 standard.

23. A method of coating a wound dressing, the method comprising:

positioning substantially in tension between first and second frames a flexible wound contact layer of the wound dressing, the wound contact layer including a first side supporting a plurality of electronic components protruding from a surface of the first side and a second side opposite the first side, the second side being substantially smooth; and

coating the wound contact layer with a biocompatible coating.

24. The method of claim 23, further comprising:

supporting the first side of the wound contact layer in a substantially flat position by a mold, the mold including a plurality of recesses configured to support the plurality of electronic components; and

substantially evenly applying the coating to the second side of the wound contact layer.

25. The method of claim 24, further comprising:

supporting between the first and second frames the second side of the wound contact layer in a substantially flat position; and

substantially evenly applying the coating to the first side of the wound contact layer.

~~26. The method of any of claims 23 to 25, wherein coating comprises spraying the biocompatible coating.~~

~~27. The method of claim 26, wherein spraying comprises spraying with compressed air or inert gas.~~

~~28. The method of any of claims 23 to 27, wherein coating comprises encapsulating the wound contact layer with the biocompatible coating.~~

~~29. The method of any of claims 23 to 28, wherein the biocompatible coating is formed from material compliant with IEC 60601 standard.~~

7~~30~~. A method of any one of the preceding claims, further comprising making at least one perforation in the ~~substantially~~ flexible wound contact layer prior to coating the first side of the ~~substantially~~ flexible wound contact layer supporting the plurality of electronic components.

8~~31~~. The method of claim ~~30~~7, further comprising making the at least one perforation under at least one electronic component.

9~~32~~. The method of ~~any of~~ claim~~s 30~~ 7 or ~~31~~claim 8, further comprising applying a higher pressure to the first side than to the second side of the ~~substantially~~ flexible wound contact layer when coating the first side.

10. A wound dressing manufactured and/or coated by the method of any one of claims 1 to 9.

11~~33~~. A wound dressing prepared by a process comprising:

placing a plurality of electronic components on a first side of a flexible wound contact layer of the wound dressing, the wound contact layer formed at least ~~partially~~ in part from hydrophilic material;

coating the first side of the wound contact layer including the plurality of electronic components with a hydrophobic coating; and

coating a second side of the wound contact layer opposite the first side with either the same hydrophobic coating as that used to coat the first side or with a different type of coating and wherein the coating is biocompatible.

~~34. The wound dressing of claim 33, wherein the wound contact layer is flexible.~~

~~35. The wound dressing of any of claims 33 to 34, wherein the coating is biocompatible.~~

1236. The wound dressing of ~~any of~~ claim~~s 33~~ 11 ~~to 35~~, wherein the coating is ~~substantially~~ stretchable.

~~37. The wound dressing of any of claims 33 to 36, wherein the coating is formed from material compliant with IEC 60601 standard.~~

1338. The wound dressing of ~~any of~~ claim~~s 33~~ 11 ~~to 37~~or claim 12, wherein the process further comprises, prior to coating the first side of the wound contact layer with the hydrophobic coating, coating the plurality of electronic components with another ~~substantially~~ non-stretchable coating.

1439. A wound dressing of any of claims ~~33~~ 11 to ~~38~~13, wherein the process further comprises making at least one perforation in the wound contact layer prior to coating the first side of the wound contact layer supporting the plurality of electronic components.

1540. The wound dressing of claim ~~39~~14, wherein the at least one perforation is made under at least one electronic component and/or wherein the process further comprises applying a higher pressure to the first side than to the second side of the wound contact layer when coating the first side.

~~41. The wound dressing of any of claims 39 or 40, wherein the process further comprises applying a higher pressure to the first side than to the second side of the wound contact layer when coating the first side.~~

42. A wound dressing manufactured and/or coated by the method of any of the preceding claims.

43. A method for coating an electronic device, the method comprising:

coating a first side of a flexible substrate of the electronic device with a hydrophobic coating, the first side of the substrate supporting a plurality of electronic components; and

coating a second side of the substrate opposite the first side with the hydrophobic coating, the substrate formed at least partially from hydrophilic material.

44. A method for coating an electronic device, the method comprising:

coating a plurality of electronic components supported by a first side of a flexible substrate of the electronic device with a first biocompatible coating; and

coating one or more remaining areas of the first side of the substrate and a second side of the substrate opposite the first side with a second biocompatible coating.

45. A method for coating an electronic device, the method comprising:

coating a plurality of electronic components supported by a first side of a flexible substrate of the electronic device with a non-biocompatible coating; and

coating the first side of the substrate including the plurality of electrical components and a second side of the substrate opposite the first side with a biocompatible coating.

46. A method of coating an electronic device, the method comprising:

positioning substantially in tension between first and second frames a flexible substrate of the electronic device, the substrate including a first side supporting a plurality of electronic components protruding from a surface of the

~~first side and a second side opposite the first side, the second side being substantially smooth; and~~

~~coating the substrate with a biocompatible coating.~~

~~47. A wound dressing manufactured and/or coated as shown and/or described.~~

~~48. A method of manufacturing and/or coating a wound dressing as shown and/or described.~~