What is claimed is:

1. A delivery device comprising:

a main body including a central region and a peripheral region, the central region having a top surface spaced apart from and connected to a base, the peripheral region being defined by a plurality of petal members and a plurality of first slots therebetween, the plurality of petal members extending outward from the base;

an adhesive coupled to at least a part of the main body; and

a collapsible reservoir coupled to at least one delivery sharp.

2. The delivery device of claim 1, wherein the top surface is convex, and wherein the top surface includes a plurality of second slots therein.

3. The delivery device of claim 1, wherein the central region includes a plurality of fenestrations disposed in a ring along a perimeter of the top surface.

4. The delivery device of claim 1, further comprising a sharp bearing body including the at least one delivery sharp, the sharp bearing body being coupled to the collapsible reservoir, wherein the collapsible reservoir is coupled to an inside surface of the central region.

5. The delivery device of claim 4, wherein when the delivery device is in the storage state, the collapsible reservoir contains a fluid and the adhesive is affixed to a penetrable surface of a member external to the delivery device, and wherein when the delivery device is in the delivery state, the penetrable surface has been stretched by the adhesive, the at least one delivery sharp has penetrated the penetrable surface, and the collapsible reservoir has been urged to at least partially collapse, enabling the fluid to enter the member through the penetrable surface via the at least one delivery sharp.

~~6. The delivery device of claim 4, wherein the adhesive is coupled to at least a part of at least two of the plurality of petal members on sides thereof most distal to the top surface.~~

~~7~~6. The delivery device of claim ~~4~~6, wherein when the delivery device is in the storage state, the collapsible reservoir contains a fluid and the adhesive is affixed to a penetrable surface of a member external to the delivery device, and wherein when the delivery device is in the delivery state, the penetrable surface has been stretched by the adhesive, the at least one delivery sharp has penetrated the penetrable surface, and the collapsible reservoir has been urged to at least partially collapse, enabling the fluid to enter the member through the penetrable surface via the at least one delivery sharp.

~~8~~7. The delivery device of claim 4, wherein the at least one delivery sharp is a microneedle including a flow lumen with an elongate cross-section.

~~9~~8. The delivery device of claim 1, wherein an interior volume of the reservoir is partitioned into a first section and a second section.

~~10~~9. The delivery device of claim ~~9~~8, wherein the first section and second section are in fluid communication with one another through at least one flow restrictor.

~~11~~10. The delivery device of claim ~~9~~8, wherein the first section has a variable interior volume and the second section has a fixed interior volume smaller than the variable interior volume.

~~12~~11. The delivery device of claim ~~11~~10, wherein the fixed interior volume is more proximal the at least one delivery sharp than the variable interior volume.

~~13. The delivery device of claim 9, wherein at least two of the plurality of petal members are configured to curl in response to pressure applied on the top surface as the delivery device transitions to the delivery state~~.

~~14. The delivery device of claim 13, wherein the at least two of the plurality of petal members are configured to curl so as to have a substantially constant radius of curvature in response to pressure applied on the top surface as the delivery device transitions to the delivery state.~~

~~15~~12. The delivery device of claim 6~~9~~, wherein at least a part of a first one of the plurality of petal members is configured to move farther away from at least a corresponding part of a second one of the plurality of petal members during at least a part of the transition between the storage state and the delivery state, the first and second petal members being positioned opposite each other.

~~16. The delivery device of claim 9, wherein at least a part of a first one of the plurality of petal members is configured to move farther away from at least a corresponding part of a second one of the plurality of petal members during at least a part of the transition between the storage state and the delivery state and thereby stretch a surface to which the delivery device is affixed with the adhesive, the first and second petal members being positioned opposite each other.~~

~~17~~13. The delivery device of claim 1, wherein the adhesive is coupled to at least a part of at least two of the plurality of petal members on sides thereof most distal to the top surface.

~~18~~14. The delivery device of claim 1, wherein the top surface is configured to transition the delivery device, in response to pressure applied thereon, from a storage state in which the top surface is convex, to a delivery state in which the top surface is concave.

~~19~~15. The delivery device of claim 1, wherein the reservoir includes an orifice plate.

~~20. A method of delivering a medical agent comprising:~~

~~affixing to a skin surface a delivery device that includes at least one delivery sharp coupled to a collapsible reservoir containing the medical agent, the delivery device being in a storage state; and~~

~~applying pressure to the delivery device directed at the skin surface to transition the delivery device to a delivery state and penetrate the skin surface with the at least one delivery sharp, and to cause collapse the reservoir to force the medical agent into the skin via the at least one delivery sharp.~~

~~21. The method of claim 20, wherein the method further comprises stretching the skin surface as the delivery device transitions from the storage state to the delivery state.~~

~~22. The method of claim 21, wherein the method further comprises scratching the skin surface with at least one of the at least one delivery sharp.~~

~~23. The method of claim 20, wherein the method further comprises preventing reuse of the delivery device.~~

~~24~~16. A delivery device comprising:

a main body including a central region coupled to a peripheral region, the central region being shaped substantially as a thimble having a top surface and a base, the peripheral region surrounding the central region and having an inner perimeter and an outer perimeter, the inner perimeter being coupled to the base such that the peripheral region extends outward from the base, the peripheral region including a plurality of first slots extending inward from the outer perimeter;

an adhesive coupled to at least a part of the main body; and

a collapsible reservoir coupled to the main body and to at least one delivery sharp.

~~25~~17. The delivery device of claim ~~24~~16, wherein the top surface is convex and includes a plurality of second slots therein.

~~26~~18. The delivery device of claim ~~25~~17, wherein the plurality of second slots extend outward with respect to a center point of the top surface.

~~27. The delivery device of claim 24, wherein the central region includes a plurality of fenestrations disposed along the base.~~

~~28~~19. The delivery device of claim ~~24~~16, wherein the central region includes a plurality of fenestrations disposed along a perimeter of the top surface.

~~29. The delivery device of claim 24, further comprising a sharp bearing body including the at least one delivery sharp, the sharp bearing body being coupled to the collapsible reservoir, wherein the collapsible reservoir is coupled to an inside surface of the central region.~~

~~30. The delivery device of claim 29, wherein the adhesive is coupled to at least a part of a side of the peripheral region most distal to the top surface.~~

~~31~~20. The delivery device of claim ~~2430~~16, wherein the top surface is configured to transition the delivery device, in response to pressure applied thereon, from a storage state in which the top surface is convex, to a delivery state in which the top surface is concave.

~~32~~21. The delivery device of claim ~~31~~20, wherein the main body has a footprint with an area and is configured such that the area increases during at least a part of the transition between the storage state and the delivery state.

~~33. The delivery device of claim 31, wherein the main body has a footprint with an area and is configured such that the area increases the during at least a part of the transition between~~

~~the storage state and the delivery state and thereby stretches a surface to which the delivery device is affixed with the adhesive.~~

~~34~~22. The delivery device of claim ~~24~~30~~16~~, wherein when the delivery device is in a~~the~~ storage state, the collapsible reservoir contains a fluid and the adhesive is affixed to a penetrable surface of a member external to the delivery device, and wherein when the delivery device is in a~~the~~ delivery state, the penetrable surface has been stretched by the adhesive, the at least one delivery sharp has penetrated the penetrable surface, and the collapsible reservoir is urged to at least partially collapse, enabling the fluid to enter the member through the penetrable surface via the at least one delivery sharp.

~~35. The delivery device of claim 30, wherein the at least a part of the side includes first and second areas between two pairs of adjacent first slots of the plurality of first slots.~~

~~36~~23. The delivery device of claim ~~24~~16, wherein the adhesive is coupled to at least a part of a side of the peripheral region most distal to the top surface.

~~37~~24. The delivery device of claim ~~36~~23, wherein the at least a part of the side includes first and second areas between two pairs of adjacent first slots of the plurality of first slots.

~~38. The delivery device of claim 36, wherein when the delivery device is in the storage state, the collapsible reservoir contains a fluid and the adhesive is affixed to a penetrable surface of a member external to the delivery device, and wherein when the delivery device is in the delivery state, the penetrable surface has been stretched by the adhesive, the at least one delivery sharp has penetrated the penetrable surface, and the collapsible reservoir is urged to at least partially collapse, enabling the fluid to enter the member through the penetrable surface via the at least one delivery sharp.~~

~~39. The delivery device of claim 24, wherein the top surface is configured to transition the delivery device, in response to pressure applied thereon, from a storage state in which the top surface is convex, to a delivery state in which the top surface is concave.~~

~~40. The delivery device of claim 39, wherein the main body has a footprint with an area and is configured such that the area of the footprint increases during at least a part of the transition between the storage state and the delivery state.~~

~~41. The delivery device of claim 40, wherein the main body has a footprint with an area and is configured such that the area of the footprint increases during at least a part of the transition between the storage state and the delivery state and thereby stretches a surface to which the delivery device is affixed with the adhesive.~~

~~42. An actuator assembly for inhibiting reuse of a drug delivery device, comprising:~~

~~a flexure including first and second members, and a plurality of struts which couple the first and second members together, each strut having a resiliency which resists displacement of the first and second member toward one another, the first member including at least one first engagement member, the second member including a cooperating engagement member for each of the first engagement member, the struts configured to deflect and engender a rotational motion of at least one of the first and second member when the first and second member are urged toward one another with more than a threshold~~

force, the at least one first engagement member and each respective second engagement member configured to form a coupling when distance between the first and second member is decreased beyond a threshold distance.

43. A delivery device comprising:
a first portion at least partially covered with a first adhesive and including a cantilevered arm;
a second portion at least partially covered with a second adhesive and including at least one ramp element, the second portion coupled to the first portion via the first adhesive, the second portion configured to elongate from a first state to an elongated state; and
a collapsible reservoir including at least one delivery sharp, the reservoir coupled to an unsupported end of the cantilevered arm.

44. The delivery device of claim 43, wherein the at least one delivery sharp includes one of a one dimensional array of microneedles and a two dimensional array of microneedles.

45. The delivery device of claim 43, wherein the second portion includes a delivery aperture, the delivery aperture being out of alignment with the at least one delivery sharp when the second portion is in the first state and in alignment with the at least one delivery sharp when the second portion is in the elongated state.

46. The delivery device of claim 43, wherein the second portion includes a folded region in the first state, the folded region configured to unfurl as the second portion is transitioned to the elongated state.

47. The delivery device of claim 43, wherein the second portion includes a folded region, a layer of the folded region being coupled to the first adhesive.

48. The delivery device of claim 43, wherein each of the at least one ramp element is disposed on a first side of the cantilevered arm when the second portion is in the first state and disposed on a second side of the cantilevered arm when the second portion is in the second state.

49. The delivery device of claim 43, wherein the second portion is at least partly elastic.

50. The delivery device of claim 43, wherein the second portion includes a pull tab.

51. The delivery device of claim 43, wherein the delivery device further comprises a lock adhesive disposed on a section of the first portion and the delivery device further comprises a tether having a first end which is coupled to the second portion.

52. The delivery device of claim 51, wherein a second end of the tether is coupled to the lock adhesive and covers the lock adhesive when the second portion is in the first state, the second end of the tether configured to at least partially disassociate from the lock adhesive when the second portion is in the elongated state to expose the lock adhesive.

53. The delivery device of claim 51, wherein a second end of the tether is coupled to the lock adhesive and the tether is doubled over upon itself when the second portion is in the first state.

54. The delivery device of claim 43, wherein the first adhesive and second adhesive are disposed a first distance from one another when the second portion is in the first state and the first and second adhesive are disposed a second distance from one another when the second portion is in the elongated state, the second distance being greater than the first distance.

55. The delivery device of claim 43, wherein the at least one ramp element is configured to resiliently deflect the cantilevered arm as the second portion is transitioned from the first state to the second state.

56. A delivery device comprising:

a main body including first and second end blocks spaced apart by first and second side panels and a bridge, the side panels and bridge each including first and second opposing ends, the first ends each connected to the first end block via respective first end living hinges, the second ends each connected to the second end block via respective second end living hinges, the side panels and bridge also each including respective intermediate living hinges between their first and second ends;

an adhesive at least partially covering a first side of the end blocks; and

a collapsible reservoir including at least one delivery sharp, the reservoir coupled to an end of an arm member extending from the bridge toward the first side.

57. The delivery device of claim 56, wherein the side panels each include at least one guard projection.

58. The delivery device of claim 56, wherein the first side panel includes a first guard projection which extends from toward the second side panel and the second side panel includes a second guard projection which extends toward the first side panel.

59. The delivery device of claim 58, wherein the first guard projection includes a latch projection and the second side panel includes a latch catch.

60. The delivery device of claim 58, wherein the first side panel includes a third guard projection which extends toward the second side panel and the second guide panel includes a fourth guard projection which extends toward the first side panel.

61. The delivery device of claim 56, wherein the bridge includes a first panel and a set of struts, the first panel connected to the struts via the intermediate living hinge of the bridge.

62. The delivery device of claim 61, wherein the arm member is disposed between the struts and extends from an end of the panel adjacent the intermediate living hinge of the bridge.

63. The delivery device of claim 56, wherein the side panels have a displacement range from an outwardly bowed state to a substantially straight state and the end blocks are configured to displace away from one another when the side panels are displaced from the outwardly bowed state to the substantially straight state.

64. The delivery device of claim 63, wherein the side panels are configured to displace from the outwardly bowed state to the substantially straight state upon application of a pinching force to the side panels.

65. The delivery device of claim 64, wherein at least the intermediate living hinge of the bridge member is configured to displace toward the first surface of the end blocks when the side panels are displaced from the outwardly bowed state to the substantially straight state.

66. The delivery device of claim 56, wherein the side panels have a displacement range from an outwardly bowed state to a substantially straight state and the bridge is configured such that the arm member is displaced from a first position to a second position in which the at least one delivery sharp is disposed below the first surface of the end blocks when the side panels are displaced from the outwardly bowed state to the substantially straight state.

67. The delivery device of claim 56, wherein the side panels have a displacement range from an outwardly bowed state to a substantially straight state and the main body includes a latch projection and a latch catch, the latch projection configured to engage the latch catch when the side panels are displaced from the outwardly bowed state to the substantially straight state.

68. The delivery device of claim 56, wherein the main body includes a plurality of iris panels which extend from the side panels to create a variable aperture.

69. The delivery device of claim 68, wherein the aperture is configured to vary in size as the side panels are bent about the intermediate living hinge of each side panel.

70. A delivery device comprising:

a main body including a set of opposed end panels and at least two intermediate panels, the panels separated from one another by a plurality of living hinges which each extend across the main body;

an adhesive covering at least a portion of a proximal side of each of the end panels; and

a collapsible reservoir including at least one delivery sharp, the reservoir coupled to the proximal side of one of the intermediate panels;

wherein the two intermediate panels form a linkage displaceable between a raised position and an over center position when the two end panels are constrained to a plane, a first of the intermediate panels extending along the plane when the linkage is in the over center position.

71. The delivery device of claim 70, wherein a first of the end panels is substantially planar and a second of the end panels includes a planar portion and an angled projection extending from the planar portion toward one of the intermediate linkages.

72. The delivery device of claim 71, wherein the second of the end panels includes a buttress which extends from the planar portion to the angled projection.

73. The delivery device of claim 70, wherein the at least one delivery sharp includes an array of microneedles.

74. The delivery device of claim 70, wherein the delivery device is configured to transition from a storage state to a delivery state.

75. The delivery device of claim 70, wherein a second of the intermediate panels is at least partially covered with adhesive on a proximal side thereof.

76. The delivery device of claim 70, wherein the end panels are displaced apart a first distance along the plane as the linkage displaces from the raised position to a center position and are displaced toward one another a second distance shorter than the first distance as the linkages displaces from the center position to the over center position.

77. The delivery device of claim 70, wherein the reservoir is disposed on a second of the intermediate panels adjacent a living hinge of the plurality of living hinges which is between the first and second intermediate panels.

78. The delivery device of claim 70, wherein one of the panels includes a strain relief flexure.

79. The delivery device of claim 70, wherein at least a portion of the main body is configured to plastically deform when the linkage is displaced to the over center position.

80. The delivery device of claim 70, wherein at least one of the living hinges is configured to break when the linkage is displaced from the raised position to the over center position and back.

81. The delivery device of claim 70, wherein the linkage is at least partially inverted in the over center position with respect to the raised position.

82. The delivery device of claim 70, wherein an angle between the intermediate panels when the linkage is in the raised position is an obtuse angle and an angle between the intermediate panels when the linkage is in the over center is a reflex angle.

83. The delivery device of claim 70, wherein one of the intermediate panels is parallel to the skin when the linkage is in the over center position.

84. A delivery device comprising:
an actuator;
a base including a threaded post, the actuator in threaded engagement with the post and displaceable along the threaded post from a raised state in which the actuator is most distal to the base to a delivery state in which the actuator is more proximal the base;
a carriage disposed within a bore of the post, the carriage including at least one first frangible supported on a respective ledge defined in the bore and at least one second frangible;
a delivery aid disposed within the bore;
a collapsible reservoir positioned within the bore and including at least one delivery sharp;
wherein as the actuator is displaced from the raised state to the delivery state, a portion of the actuator is configured to apply pressure against the carriage, the pressure: breaking the at least one of the first frangible and freeing the carriage to displace within the bore, as well

as breaking the at least one of the second frangible such that pressure is exerted through the carriage and delivery aid against the reservoir, displacement of the actuator to the delivery state further configured to displace the reservoir toward the base.

85. The delivery device of claim 84, wherein the actuator includes a projection which is in alignment with the axis of the post, pressure against the carriage being applied via the projection.

86. The delivery device of claim 85, wherein the delivery aid is coupled to an end of the projection most proximal to the base.

87. The delivery device of claim 85, wherein the projection extends through at least a portion of the carriage when the actuator is in at least one of the raised state and the delivery state.

88. The delivery device of claim 84, wherein the delivery aid includes a force concentrating protuberance.

89. The delivery device of claim 84, wherein the base includes a delivery aperture aligned with the bore of the post.

90. The delivery device of claim 84, wherein the at least one first frangible includes a set of frangibles spaced at even angular increments about the carriage.

91. The delivery device of claim 84, wherein the at least one second frangible includes a set of frangibles spaced at even angular increments about the carriage.

92. The delivery device of claim 84, wherein with the at least one first frangible in a broken state, the carriage has a displacement range within the bore which is limited by a stop surface disposed at an end of the bore adjacent the base

93. The delivery device of claim 92, wherein the carriage extends through a delivery aperture in the base when the carriage is against the stop surface such that a skin depressor member of the carriage is external to the bore.

94. The delivery device of claim 84, wherein the reservoir is disposed within a bay of the carriage and frictionally retained therein when pressure applied to the reservoir is below a threshold.

95. The delivery device of claim 84, wherein the carriage, delivery aid, and reservoir are configured to displace together within the bore as a unit after the at least one first frangible is broken.

96. The delivery device of claim 95, wherein the carriage delivery aid, and reservoir are configured to cease displacement together as a unit when the at least one second frangible is broken.

97. A microneedle comprising:

a base including a first edge and a plurality of second edges;

a plurality of sidewalls extending from the base in a direction substantially perpendicular thereto;

a face extending from the first edge to a vertex at an acute angle to the base, two adjacent sidewalls of the plurality of sidewalls defining a side edge extending from the base to the vertex in a direction substantially vertical to the base;

a flow lumen extending through the microneedle from the base to an outlet in the face; and

a channel defined in the face and connected to the flow lumen.

98. The microneedle of claim 97, wherein the outlet in the face is disposed more proximal the vertex than the first edge.

99. The microneedle of claim 97, wherein the outlet in the face is disposed more proximal the first edge than the vertex.

100. The microneedle of claim 97, wherein the outlet in the face is disposed in a mid-region of the face intermediate a region proximal the vertex and a region proximal the first edge.

101. The microneedle of claim 97, wherein the channel extends in a direction toward the first edge from the outlet in the face.

102. The microneedle of claim 97, wherein the channel extends in a direction toward the vertex from the outlet in the face.

103. The microneedle of claim 97, wherein the channel includes a first portion and a second portion, the first portion extending in a direction toward the vertex from the outlet in the face and the second portion extending in a direction toward the first edge from the outlet in the face.

104. The microneedle of claim 97, wherein the channel has a width which is variable.

105. The microneedle of claim 97, wherein the channel has a substantially constant width.

106. The microneedle of claim 97, wherein an end of the channel most proximate the first end is a distance of at least 50-200 microns from the base.

107. The microneedle of claim 97, wherein the microneedle is constructed of silicon.

108. The microneedle of claim 97, wherein a height of the microneedle is at least 600 microns.

109. The delivery device of claim 97, wherein the flow lumen has an elongate cross-sectional shape.

110. A microneedle comprising:

a base including a first edge and a plurality of second edges;

a plurality of sidewalls projecting from the second edges to an arcuate blade edge which extends from a base vertex formed by two of the second edges to a second vertex spaced from the base;

~~a face extending from the first edge to the second vertex;~~

~~a flow lumen extending through the microneedle from the base to an outlet in the face.~~

~~111. The microneedle of claim 110, wherein the blade edge is a double beveled blade.~~

~~112. The microneedle of claim 110, wherein the outlet in the face has an elongate shape.~~

~~113. The microneedle of claim 110, wherein the first edge is disposed such that a plane perpendicular to the base and including the first edge extends through a portion of the blade edge.~~

~~114. The microneedle of claim 110, wherein the first edge is disposed such that a plane perpendicular to the base and including the first edge does not pass through the blade edge.~~

~~115. The microneedle of claim 110, wherein the outlet is disposed such that at least one plane perpendicular to the base and passing through the outlet also passes through the blade edge.~~

~~116. The microneedle of claim 110, wherein the outlet is disposed such that any plane perpendicular to the base and passing through the outlet also passes through the blade edge.~~

~~117. The microneedle of claim 110, wherein the measure of the arc of the blade edge is greater than 90°.~~

~~118. The microneedle of claim 110, wherein the measure of the arc of the blade edge is less than 90°.~~

~~119~~25. A delivery device comprising:

a main body including a peripheral region and a central region extending proud of the peripheral region and having a top surface and a base, the peripheral region including a number of bodies spaced apart by slits which extend from the periphery of the peripheral region toward the central region;

an adhesive coupled to at least a part of the main body; and

a collapsible reservoir coupled to the main body and to at least one delivery sharp.

~~120~~26. The delivery device of claim ~~119~~25, wherein the main body has a first state and a second state, the main body including at least one partially invertible region which is in a first shape in the first state and in the second state is substantially inverted with respect to the first shape over at least a portion of the of the invertible region.

~~121~~27. The delivery device of claim ~~120~~26, wherein the at least one partially invertible region includes the top surface.

~~122~~28. The delivery device of claim ~~120~~26, wherein the main body further comprises a static region which is substantially the same shape when the main body is in the first state and the second state.

~~123~~29. The delivery device of claim ~~122~~28, wherein the static region is included in the central region and extends from a periphery of the top surface to the base.

~~124~~30. The delivery device of claim ~~120~~26, wherein the main body is configured such that at least two of the bodies of the peripheral region spreadingly displace as the main body transitions from the first state to the second state.

~~125~~31. The delivery device of claim ~~120~~26, wherein the top surface is convex in the first state.

~~126~~32. The delivery device of claim ~~120~~26, wherein the top surface is concave in the second state.

~~127~~33. The delivery device of claim ~~119~~25, wherein the reservoir is formed as an assembly including a holder to which the microneedle is coupled and a flexible body coupled to the holder, there being a sealed reservoir volume defined between a portion of the holder and a portion of the flexible body.

~~128~~34. A delivery device comprising:

a main body including a central region and a peripheral region having a plurality of petal members extending outwardly from the central region, the central region defining a receptacle and having a top region and a base which are connected by a wall;

a collapsible reservoir including at least one delivery sharp, the reservoir coupled to the main body and at least partially disposed within the receptacle; and

an adhesive disposed on at least a portion of the main body.

~~129~~35. The delivery device of claim ~~128~~34, wherein the reservoir comprises a rigid portion and a flexible portion coupled to the rigid portion, a sealed interior volume of the reservoir being defined between the rigid portion and the flexible portion, the at least one delivery sharp being coupled to the rigid portion.

~~130~~36. The delivery device of claim ~~129~~35, wherein the rigid portion includes a stage projection.

~~131~~37. The delivery device of claim ~~130~~36, wherein the at least one delivery sharp is coupled to the stage projection and projects therefrom at an acute angle with respect to the rigid portion.

~~132~~38. The delivery device of claim ~~128~~34, wherein the main body includes a ridge adjacent the receptacle, the ridge forming a mounting surface for the reservoir.

~~133~~39. The delivery device of claim ~~128~~34, wherein the delivery device further comprises a packet disposed in the receptacle between the top region and the reservoir.

~~134~~40. The delivery device of claim ~~133~~39, wherein the packet is a gas bladder.

~~135~~41. The delivery device of claim ~~133~~39, wherein the packet contains a means for applying pressure to the reservoir.

~~1364~~2. The delivery device of claim ~~1333~~39, wherein the packet is configured to rupture when subjected to more than a threshold pressure, the packet disposed within a container and including a first substance, the container containing a second substance, the first and second substances configured to react when combined to expand the volume of the container.

~~1374~~3. The delivery device of claim ~~1333~~39, wherein the packet is configured to rupture when subjected to more than a threshold pressure, the packet disposed within a container and filled with a first substance, the container containing a second substance, the first and second substances configured to partake in a chemiluminescent reaction when combined.

~~1384~~4. The delivery device of claim ~~1283~~4, wherein the delivery device further comprises a bias member disposed within the receptacle between the top region and the reservoir.

~~1394~~5. The delivery device of claim ~~1384~~4, wherein the bias member is a conical spring.

~~1404~~6. The delivery device of claim ~~1384~~4, wherein the main body includes a plurality of locating projections which constrain the bias member and the bias member is coupled to the main body.

~~1414~~7. The delivery device of claim ~~1283~~4, wherein the delivery device further comprises a dispensing assembly including a depressor body, a reservoir interface member, and a bias member each of which being at least partially disposed within the receptacle between the reservoir and the top region.

~~1424~~8. The delivery device of claim ~~1283~~4, wherein an interior volume of the reservoir is partitioned into a first portion and a second portion.

~~1434~~9. The delivery device of claim ~~1424~~8, wherein the first portion and second portion are in fluid communication via at least one flow restrictor.

~~1445~~0. The delivery device of claim ~~1424~~8, wherein the first and second portion are in fluid communication via at least one orifice in an orifice plate separating the first and second portion.

~~1455~~1. The delivery device of claim ~~1424~~8, wherein the first portion has a variable interior volume and the second portion has a substantially fixed interior volume, the second portion being adjacent the at least one delivery sharp.

~~1465~~2. The delivery device of claim ~~1283~~4, wherein the at least one delivery sharp includes a spaced array of microneedles.

~~147. A delivery device comprising:~~

~~a main body including a central region and a peripheral region including a plurality of peripheral members extending outwardly from the central region, the central region having a top region and a base which are connected by a wall;~~

~~a reservoir portion including a reservoir with at least one delivery sharp, the reservoir portion detachably coupled to the main body and a least partially covered by the main body;~~

~~an indicator disposed on a section of the reservoir portion covered by the main body; and~~

~~a first adhesive disposed on at least a portion of the main body;~~

~~a second adhesive disposed on at least a part of the reservoir portion;~~

~~wherein the main body obstructs line of sight to the indicator when the reservoir portion and main body are coupled together.~~

~~148. The delivery device of claim 147, wherein when the delivery device is applied to a surface, the second adhesive is configured to maintain the reservoir portion against the surface such that a removal force exerted on the main body results in separation of the main body and reservoir portion.~~

~~149. The delivery device of claim 147, wherein the indicator is selected from a group consisting of a barcode, data matrix, and QR code.~~

~~150. The delivery device of claim 147, wherein the indicator encodes information related to the contents of the reservoir.~~

~~151. The delivery device of claim 147, wherein the main body is opaque.~~

~~152. The delivery device of claim 147, wherein the main body is translucent.~~

~~153. The delivery device of claim 147, wherein the reservoir portion is coupled to the main body via adhesive.~~

~~154. The delivery device of claim 147, wherein the peripheral region includes a pull tab.~~

~~155. The delivery device of claim 147, wherein at least one of the peripheral members defines a pull tab.~~

~~156. The delivery device of claim 147, wherein the main body includes a set of slots and the reservoir portion includes a number of tabs, each of the tabs extending at least partially though a respective slot to detachably couple the reservoir portion and main body.~~

~~157~~53. A delivery device comprising:

a main body including a central region and a peripheral region having a plurality of petal members extending outwardly from the central region, the central region defining a receptacle and having a top region and a base which are connected by a wall;

a collapsible reservoir including at least one delivery sharp, the reservoir coupled to the main body and at least partially disposed within the receptacle;

a dispensing assembly at least partially disposed within the receptacle between the reservoir and the top region; and

an adhesive disposed on at least a portion of the main body.

~~158~~54. The delivery device of claim ~~157~~53, wherein the dispensing assembly includes a depressor body, at least one bias member, and a reservoir interface member.

~~159~~55. The delivery device of claim ~~157~~53, wherein the depressor body includes a portion which projects through an aperture in the top region.

~~160~~56. The delivery device of claim ~~159~~55, wherein the depressor body includes a detent.

~~161~~57. The delivery device of claim ~~159~~55, wherein the portion of the depressor body includes at least one notch and has a cross-sectional shape which is not circular and not a regular polygon.

~~162~~58. The delivery device of claim ~~157~~53, wherein the bias member includes a bow spring.

~~163~~59. The delivery device of claim ~~157~~53, wherein the bias member includes a peripheral region and a number of bias projection extending inwardly therefrom, the main body including a number of slots, the bias projections extending through the slots and into the receptacle.

~~164~~60. The delivery device of claim ~~157~~53, wherein the reservoir interface member is integral with the depressor body.

~~165~~61. The delivery device of claim ~~157~~53, wherein the dispensing assembly includes a coil spring and a reservoir interface member.

~~166~~62. The delivery device of claim ~~165~~61, wherein the reservoir interface member is formed by a terminal portion of the spring which is routed in a pattern in a plane adjacent an end of the coils of the spring.

~~167~~63. The delivery device of claim ~~157~~53, wherein the dispensing assembly includes a spring and the dispensing assembly is out of contact with the reservoir when the delivery device is in a storage state.

~~168~~64. The delivery device of claim ~~167~~63, wherein the spring is in an unstressed state in the storage state.

~~169. A delivery device system comprising;~~
~~A package including an indicium;~~
~~A delivery device contained within the package;~~
~~A database; and~~
~~A reader including a user interface and a controller, the reader being in data communication with the database and configured to capture delivery device information from the indicium, the controller configured check the delivery device information against associated data in the database, and the controller configured to generate use instructions on the user interface when the associated data in the database indicates the device is acceptable for use; and~~
~~Wherein the controller prevents use of at least one functionality of the reader until first information has been collected by the reader and a first service is enabled on the reader.~~

~~170. The system of claim 169, wherein the indicium is selected from a group consisting of a barcode, data matrix, and QR code.~~

171. The system of claim 169, wherein the reader is a smart device and includes an imager and wherein the at least one functionality includes use of the imager.

172. The system of claim 169, wherein the reader includes a plurality of imagers.

173. The system of claim 169, wherein the first service is selected from a group consisting of a notification service and a location service.

174. The system of claim 169, wherein the delivery device comprises a reservoir in fluid communication with one or more microneedles.

175. The system of claim 169, wherein the first information is location information.

176. A method of using of a medical delivery device comprising:

Capturing, with a reader, device information from an indicium on a package containing the medical delivery device;

Applying the delivery device to skin of a patient;

Establishing data communication between the reader and a database;

Comparing the device information against associated device information stored on the database;

Generating, with a controller of the reader, a set of use instructions on a user interface of the reader when an acceptability for use criteria is met by the comparison;

Capturing, with the reader, data from a post usage indicium after the medical delivery device is used; and

Updating the database to indicate that the post usage indicium of the delivery device has been captured by the reader.

177. The method of claim 176, wherein the method further comprises removing a first portion of the medical delivery device to reveal the post usage indicium on a second portion of the delivery device.

178. The method of claim 176, wherein the method further comprises marking the skin with the post usage indicium.

179. The method of claim 176, wherein the method further comprises generating a respective prompt on the user interface for each use instruction of the set of use instructions and preventing display of a next use instruction until the controller registers a user interaction with the prompt.

180. The method of claim 176, wherein the method further comprises preventing use of at least one functionality of the reader until a notification service of the reader is enabled.

181. The method of claim 180, wherein the at least one functionality is use of an imager of the reader.

182. The method of claim 176, wherein the method further comprises generating a confirmation of delivery for display on the user interface of the reader.

183. The method of claim 176, wherein the reader is a smart phone.

~~184. A microneedle comprising:~~
~~a base including a first edge and a plurality of second edges;~~
~~a plurality of sidewalls extending from the base in a direction substantially perpendicular thereto;~~
~~a face extending from the first edge to a vertex at an acute angle to the base, two adjacent sidewalls of the plurality of sidewalls defining a side edge extending from the base to the vertex in a direction substantially vertical to the base; and~~
~~a flow lumen extending through the microneedle from the base to an outlet in the face, the flow lumen having a cross-section with an elongate shape.~~

~~185. The microneedle of claim 184, wherein the cross-sectional shape is obround.~~

~~186. The microneedle of claim 184, wherein the cross-sectional shape has a length in a direction of elongation of up to 100 microns.~~

~~187. The microneedle of claim 184, wherein the cross-sectional shape has a length in a direction of elongation of up to 200 microns.~~

~~188. The microneedle of claim 184, wherein the cross-sectional shape is polygonal.~~

~~189. The microneedle of claim 184, wherein the microneedle is constructed of silicon.~~

~~190. The microneedle of claim 184, wherein a majority of the cross-sectional shape has a constant width.~~

~~191. The microneedle of claim 184, wherein the microneedle has a height of at least 600 microns.~~

~~192. The microneedle of claim 184, wherein the microneedle has a height of up to 800 microns.~~

~~193. A microneedle comprising:~~
~~a base;~~
~~a plurality of sidewalls extending from the base, the sidewalls angled such that the microneedle tapers so as to have a smaller cross-sectional area as distance from the base increases;~~
~~a flow lumen;~~
~~a plurality of side ports in the sidewalls, the side ports being in fluid communication with the flow lumen; and~~
~~a tip at an end of the sidewalls opposite the base.~~

~~194. The microneedle of claim 193, wherein the microneedle has a high aspect ratio.~~

~~195. The microneedle of claim 193, wherein the microneedle is in the shape of an obelisk.~~

~~196. The microneedle of claim 193, wherein the base is polygonal in shape and a sidewall of the plurality of sidewalls extends from each side of the polygonal shape of the base.~~

197. The microneedle of claim 193, wherein the base has the shape of a quadrilateral and a sidewall of the plurality of sidewalls extends from each of the four sides of the base.

198. The microneedle of claim 193, wherein the flow lumen has a substantially constant cross-section.

199. The microneedle of claim 198, wherein the flow lumen extends from the base to a plane in the microneedle where the cross-section of the flow lumen is wider than the portions of the cross-section of the microneedle.

200. The microneedle of claim 193, wherein microneedle is constructed of silicon and the lumen is etched into the microneedle, the side ports being formed as part of the etching of the lumen.

201. The microneedle of claim 193, wherein the flow lumen extends substantially along the long axis of the microneedle.

202. The microneedle of claim 193, wherein the tip is beveled.

203. A method of using of a medical delivery device comprising:
Applying a delivery device to an injection site;
Generating, with a controller of a reader, a set of use instructions on a user interface of the reader;
Delivering an agent into the injection site from the delivery device;
Capturing, with the reader, image data of the injection site, the image data including image data in a spectrum outside of the visible spectrum; and
Analyzing the image data to determine if the image data conforms to at least one criterion indicative of a proper injection.

204. The method of claim 203, wherein the method further comprises establishing data communication between the reader and a database.

205. The method of claim 204, wherein the method further comprises updating the database to indicate an outcome of the analysis.

206. The method of claim 203, wherein the image data includes image data in the near infrared spectrum.

207. The method of claim 203, wherein the image data includes image data in the infrared spectrum.

208. The method of claim 203, wherein the image data includes thermal image data.

209. The method of claim 203, wherein analyzing the image data comprises analyzing thermal image data for the presence of a cool region at the injection site.

210. The method of claim 203, wherein analyzing the image data comprises analyzing the image data to determine the presence of at least one characteristic of interest.

211. The method of claim 210, wherein the at least one characteristic of interest includes a characteristic indicative of an intradermal bleb and a characteristic indicative of leak.

212. The method of claim 203, wherein the reader is a smart phone.

213. A method of delivering a medical agent comprising:

Affixing to a surface a delivery device that includes at least one delivery sharp in fluid communication with an at least partially collapsible reservoir containing the medical agent while the delivery device is in a storage state;

Pressing a portion of the delivery device toward the surface to transition the delivery device to a delivery state;

Spreadingly displacing at least two portions of the delivery device to tension the surface to which the delivery device is affixed;

Penetrating the surface with the at least one delivery sharp;

Transferring fluid out of the at least partially collapsible reservoir and through the at least one delivery sharp until the reservoir is in a depleted state.

214. A delivery device comprising:

a main body comprising:

a peripheral region having a number of petal members; and

a central region extending proud of the peripheral region having a top surface and a base;

a collapsible reservoir in fluid communication with at least one delivery sharp configured to expel fluid from the reservoir in an ejection direction; and

an adhesive member including a central aperture having an increased aperture width portion aligned with the ejection direction.

215. The delivery device of claim 214, wherein the reservoir includes a flexible portion and a rigid portion, the adhesive member being affixed to the main body and the rigid portion.

216. The delivery device of claim 214, wherein the reservoir includes a flexible portion and a rigid portion, the rigid portion having a foot print with a first area, the central aperture encompassing an second area which is between 60-100% of the first area.

217. The delivery device of claim 214, wherein a center of the central aperture is coaxial with a center of the reservoir.

218. The delivery device of claim 214, wherein the adhesive member includes at least one spoke which projects into the central aperture from the periphery of the central aperture.

219. The delivery device of claim 214, wherein the adhesive member covered at least a portion of each of the petal members.

220. The delivery device of claim 214, wherein the at least one delivery sharp includes a spaced array of microneedles.

221. The delivery device of claim 214, wherein the main body has a first state and a second state, the main body including at least one partially invertible region which is in a first shape in the first state and in the second state is substantially inverted with respect to the first shape over at least a portion of the of the invertible region.

222. The delivery device of claim 221, wherein the main body is configured such that at least two of the petal members spreadingly displace as the main body transitions from the first state to the second state.

223. The delivery device of claim 223, wherein the at least one delivery sharp is displaced into communication with a delivery destination when the main body is displaced from the first state to the second state.

224. The delivery device of claim 214, wherein the central aperture includes at the increased width portion at least one notch extending outward from the periphery of the central aperture and through the adhesive member.

225. A delivery device comprising:

a main body including a peripheral region having a number of petal members and a central region extending proud of the peripheral region and having a top surface and a base;

a collapsible reservoir coupled to the main body in fluid communication with at least one microneedle having a width, height, and length; and

an adhesive member including a central aperture having an increased width portion aligned with the length dimension of the microneedle.

226. The delivery device of claim 225, wherein the reservoir includes a flexible portion and a rigid portion, the adhesive member being affixed to the main body and the rigid portion.

227. The delivery device of claim 225, wherein the reservoir includes a flexible portion and a rigid portion, the rigid portion having a foot print with a first area, the central aperture encompassing an second area which is between 60-100% of the first area.

228. The delivery device of claim 225, wherein a center of the central aperture is coaxial with a center of the reservoir.

229. The delivery device of claim 225, wherein the adhesive member includes at least one spoke which projects into the central aperture from the periphery of the central aperture.

230. The delivery device of claim 225, wherein the adhesive member covered at least a portion of each of the petal members.

231. The delivery device of claim 225, wherein the at least one delivery sharp includes a spaced array of microneedles.

232. The delivery device of claim 225, wherein the main body has a first state and a second state, the main body including at least one partially invertible region which is in a first shape in the first state and in the second state is substantially inverted with respect to the first shape over at least a portion of the of the invertible region.

~~233. The delivery device of claim 232, wherein the main body is configured such that at least two of the petal members spreadingly displace as the main body transitions from the first state to the second state.~~

~~234. The delivery device of claim 233, wherein the at least one delivery sharp is displaced into communication with a delivery destination when the main body is displaced from the first state to the second state.~~

~~235. The delivery device of claim 225, wherein the central aperture includes at the increased width portion at least one notch extending outward from the periphery of the central aperture and through the adhesive member.~~

~~236~~65. A delivery device comprising:

a main body including a peripheral region having a number of petal members and a central region extending proud of the peripheral region and having a top surface and a base;

an adhesive coupled to at least a part of the main body;

a reservoir including at least one flexible portion, the at least one flexible portion including a cavity defined by a first wall including a collapse facilitator; and

at least one delivery sharp in fluid communication with the reservoir.

~~237~~66. The delivery device of claim ~~236~~65, wherein the collapse facilitator includes a bellows.

~~238~~67. The delivery device of claim ~~236~~65, wherein the collapse facilitator includes a pleat which extends around the wall in a spiral manner.

~~239~~68. The delivery device of claim ~~236~~65, wherein the collapse facilitator includes at least one stepped region formed in the wall.

~~240~~69. The delivery device of claim ~~236~~65, wherein the first wall extends from a flange coupled to a rigid portion of the reservoir.

~~241~~70. The delivery device of claim ~~240~~69, wherein the first wall tapers as distance from the flange increases such that the cross-sectional area of the cavity decreases with distance from the flange.

~~242~~71. The delivery device of claim ~~236~~65, wherein the cavity is also defined by a second wall at an end of the cavity, the second wall forming a substantially flat surface.

~~243~~72. The delivery device of claim ~~242~~71, wherein the second surface includes a central depression.

~~244~~73. The delivery device of claim ~~236~~65, wherein the wall extends from a flange and is formed integrally therewith, the cavity being defined by the first wall and a second wall at an end of the cavity, the second wall being substantially parallel to the flange.

~~245~~74. The delivery device of claim ~~236~~65, wherein the at least one delivery sharp includes a microneedle.

~~246. Any of the systems, methods, or apparatuses shown or described herein.~~