CLAIMS

We claim:

1. A catheter system, comprising:

a catheter assembly, comprising:

a catheter hub, comprising a distal end, a proximal end, and a lumen extending through the distal end of the catheter hub and the proximal end of the catheter hub; and

a catheter extending distally from the distal end of the catheter hub;

a needle assembly, comprising:

an introducer needle, comprising a distal tip and a proximal end;

a housing, comprising a button; and

a needle hub disposed within the housing, wherein the proximal end of the introducer needle is secured within the needle hub; wherein in response to activation of the button, the needle hub and the introducer needle move proximally within the housing;

a cover coupled to a proximal portion of the catheter hub, wherein the cover comprises a push tab and a slot, wherein the slot extends parallel to a longitudinal axis of the catheter system; and

an extension, comprising a distal end and a proximal end, wherein the distal end of the extension is slidable with respect to the slot, wherein the proximal end of the extension is coupled the needle hub,

wherein when the needle hub and the introducer needle are pulled proximally into the housing, the cover is pulled proximally and removed from the proximal portion of the catheter hub.

2. The catheter system of claim 1, wherein in response to activation of the button, the cover is pulled proximally and removed from the proximal portion of the catheter hub.
3. The catheter system of claim 1, wherein the extension comprises a tether.
4. The catheter system of claim 1, wherein the extension comprises a spring.
5. The catheter system of claim 1, wherein the extension is rigid.
6. The catheter system of claim 1, wherein the cover comprises a proximal extension covering at least a portion of the button to prevent premature activation of the button.
7. The catheter system of claim 1, wherein the catheter hub comprises a push tab, wherein a distal end of the cover is proximate the push tab of the catheter hub.
8. The catheter system of claim 1, wherein a distal end of the cover comprises an arm extending distally along a side of the catheter hub, wherein the arm comprises a portion of the slot.
9. The catheter system of claim 8, wherein the catheter hub comprises a push tab, wherein the arm extends distal to the push tab of the catheter hub.
10. A catheter system, comprising:

a catheter assembly, comprising:

a catheter hub, comprising a distal end, a proximal end, and a lumen extending through the distal end of the catheter hub and the proximal end of the catheter hub; and

a catheter extending distally from the distal end of the catheter hub; and

a needle assembly, comprising:

an introducer needle, comprising a distal tip and a proximal end;

a housing, comprising a button; and

a needle hub disposed within the housing, wherein a proximal end of the introducer needle is secured within the needle hub; wherein in response to activation of the button, the needle hub and the introducer needle move proximally within the housing; and

a cover coupled to a proximal portion of the catheter hub, wherein the cover comprises a push tab,

wherein when the needle hub and the introducer needle move proximally within the housing, the cover is pulled proximally and removed from the proximal portion of the catheter hub.

11. The catheter system of claim 10, wherein the cover comprises a proximal extension covering at least a portion of the button to prevent premature activation of the button.
12. The catheter system of claim 10, wherein an outer surface of the cover comprises a plurality of protrusions to facilitate gripping of the cover by a user.
13. The catheter system of claim 10, further comprising an extension, wherein the extension comprises a distal end and a proximal end, wherein the distal end is coupled to the cover, wherein the proximal end is coupled to the needle hub, wherein the extension comprises a spring.
14. The catheter system of claim 13, wherein in response to activation of the button, the needle hub moves proximally within the housing and a portion of the introducer needle is disposed within the housing, wherein in response to release of the cover by a user, the spring contracts and the cover moves proximate the housing and shields the distal tip of the introducer needle.