WHAT IS CLAIMED IS:

1. A blood collection device configured to couple to a catheter assembly, the blood collection device comprising:

a housing, comprising a distal end, a proximal end, and a slot;

a tube movably disposed within the housing;

an advancement element configured to move along the slot, wherein in response to distal movement of the advancement element along the slot, the tube may be configured to advance distally beyond the distal end of the housing; and

a coil extending distal to the tube, wherein a proximal end of the coil is coupled to a distal end of the tube.

2. The blood collection device of claim 1, wherein the tube comprises a plurality of sections, wherein the plurality of sections comprises a first section and a second section proximal to the first section, wherein the first section is a distalmost section of the plurality of sections, wherein the first section comprises a first inner diameter and a first outer diameter that are constant along the first section, wherein the second section comprises a second inner diameter and a second outer diameter that are constant along the second section, wherein the coil extends distal to the first section.

3. The blood collection device of claim 2, wherein a proximal end of the coil is coupled to the first section.

4. A catheter system, comprising:

the blood collection device of claim 1; and

a catheter assembly, comprising:

a catheter, comprising a distal tip and a proximal end.

5. The catheter system of claim 4, wherein the tube comprises a plurality of sections, wherein the plurality of sections comprises a first section and a second section proximal to the first section, wherein the first section is a distalmost section of the plurality of sections, wherein the first section comprises a first inner diameter and a first outer diameter that are constant along the first section, wherein the second section comprises a second inner diameter and a second outer diameter that are constant along the second section, wherein the coil extends distal to the first section, wherein in response to movement of the advancement element along the slot from the retracted position to the advanced position, first section and the second section are configured to advance distally beyond the distal end of the housing.

6. The catheter system of claim 5, wherein in response to movement of the advancement element along the slot from the retracted position to the advanced position, the first section extends through the distal tip and the second section is at least partially disposed within the catheter.

7. The catheter system of claim 5, wherein the blood collection device comprises a septum, wherein in response to movement of the advancement element along the slot from the retracted position to the advanced position, the first section and the second section move through the septum.

8. The catheter system of claim 5, wherein the catheter assembly further comprises:

a catheter adapter, wherein the catheter adapter comprises a distal end, a proximal end, a lumen extending through the distal end and the proximal end, and a side port between the distal end and the proximal end and in fluid communication with the lumen; and

an extension tube integrated within the side port, wherein in response to movement of the advancement element along the slot from the retracted position to the advanced position, a distal end of the first section is disposed within the catheter.

9. The catheter system of claim 5, wherein the catheter assembly further comprises:

a catheter adapter, wherein the catheter adapter comprises a distal end, a proximal end, a lumen extending through the distal end and the proximal end, and a side port between the distal end and the proximal end and in fluid communication with the lumen; and

an extension tube integrated within the side port, wherein in response to movement of the advancement element along the slot from the retracted position to the advanced position, a distal end of the first section is disposed within the catheter adapter proximal to the catheter.

10. The catheter system of claim 9, wherein the catheter assembly further comprises a wedge securing the catheter within the catheter adapter, wherein in response to movement of the advancement element along the slot from the retracted position to the advanced position, the distal end of the first section is disposed within the wedge proximal to the catheter.

11. The catheter system of claim 5, wherein the catheter assembly further comprises:

a catheter adapter, wherein the catheter adapter comprises a distal end, a proximal end, a lumen extending through the distal end and the proximal end, and a side port between the distal end and the proximal end and in fluid communication with the lumen; and

an extension tube integrated within the side port, wherein in response to movement of the advancement element along the slot from the retracted position to the advanced position, a distal end of the first section is disposed within the extension tube or within the side port distal to the extension tube.

12. A blood collection device, configured to couple to a catheter assembly, the blood collection device comprising:

a housing, comprising a distal end, a proximal end, and a slot;

a tube disposed within the housing;

a guidewire comprising a coil;

a distal advancement element configured to move along the slot and coupled to the tube, wherein in response to distal movement of the distal advancement element along the slot, the tube is configured to advance distally beyond the distal end of the housing;

a proximal advancement element configured to move along the slot and coupled to the guidewire, wherein in response to distal movement of the proximal advancement element along the slot, the coil is configured to advance distally beyond the distal end of the housing; and an extension tube coupled to the distal advancement element and in fluid communication with the tube;

wherein a height of the proximal advancement element is less than a height of the distal advancement element, with the proximal advancement

element not spanning a lumen of the housing such that a space is provided between the proximal advancement element and the housing; and

wherein the extension tube extends proximally from the distal advancement element, passes through the space between the proximal advancement element and the housing, and passes out through the proximal end of the housing.

13. The blood collection device of claim 12, wherein when the distal advancement element and the proximal advancement element are each in an initial position, the distal advancement element is distal and spaced apart from the proximal advancement element.

14. The blood collection device of claim 13, wherein the proximal advancement element is configured to move distally along the slot a first distance from the initial position to contact the distal advancement element, wherein in response to movement of the proximal advancement element distally along the slot a second distance greater than the first distance from the initial position, the distal advancement element and the proximal advancement element move distally along the slot together.

15. The blood collection device of claim 12, wherein the tube further comprises a plurality of sections, wherein the plurality of sections comprises a first section and a second section proximal to the first section, wherein the first section is a distalmost section of the plurality of sections, wherein the first section comprises a first inner diameter and a first outer diameter that are constant along the first section, wherein the second section comprises a second inner diameter and a second outer diameter that are constant along the second section, wherein in response to distal movement of the distal advancement element along the slot, the

first section and the second section are configured to advance distally beyond the distal end of the housing.