WHAT IS CLAIMED IS:

1. A guidewire assembly for advancing and retracting a guidewire into and out from a catheter and for repositioning a distal end of the catheter, the guidewire assembly comprising:

a guidewire housing;

a connector formed at a distal end of the guidewire housing configured to connect to an IV catheter device that includes the catheter;

a guidewire actuator configured to slide within the guidewire housing; and

a guidewire having a first segment and a second segment;

wherein the guidewire actuator is coupled to a proximal end of the first segment and to a proximal end of the second segment such that the guidewire slides when the guidewire actuator is slid within the guidewire housing, and wherein the guidewire actuator is further configured to advance the guidewire through the IV catheter device to a distal end of the catheter, and to cause relative movement between the proximal end of the first segment and the proximal end of the second segment to thereby cause the distal end of the guidewire to reposition; wherein the guidewire actuator is configured to move the guidewire between a first position where a distal end of the guidewire is received within the guidewire housing and a second position where the distal end of the guidewire extends outside of the guidewire housing.

2. The guidewire assembly of claim 1, wherein a single wire forms the first segment and the second segment.

3. The guidewire assembly of claim 1, wherein multiple wires form the first segment and the second segment.

4. The guidewire assembly of claim 1, wherein the guidewire actuator includes a first tab that is coupled to the proximal end of the first segment, and wherein the first tab moves relative to a main body of the guidewire actuator to cause the relative movement between the proximal end of the first segment and the proximal end of the second segment.

5. The guidewire assembly of claim 4, wherein the first tab moves relative to the main body by sliding along the main body.

6. The guidewire assembly of claim 4, wherein the guidewire actuator includes a second tab that is coupled to the proximal end of the second segment, and wherein the second tab moves relative to the main body of the guidewire actuator to cause the relative movement between the proximal end of the first segment and the proximal end of the second segment.

7. The guidewire assembly of claim 6, wherein the first tab and the second tab move relative to the main body by sliding along the main body.

8. The guidewire assembly of claim 1, wherein the guidewire actuator includes a main body and the proximal end of the first segment and the proximal end of the second segment are coupled to the main body, and wherein the main body rotates to cause the relative movement between the proximal end of the first segment and the proximal end of the second segment.

9. The guidewire assembly of claim 8, wherein the first segment and the second segment are wrapped around the main body in opposite directions.

10. The guidewire assembly of claim 1, wherein the guidewire further comprises one of more of:

a ring that maintains a spacing between the first and second segments;

a bend that is spaced from the distal end; or

a dome-shaped distal end.

11. The guidewire assembly of claim 1, wherein the first segment is a core wire and the second segment is a coil that extends around the core wire.

12. The guidewire assembly of claim 11, wherein a proximal end of the first segment is coupled to a tab of the guidewire actuator, and wherein the guidewire actuator further includes a spring that biases the tab in a proximal direction.

13. An intravenous catheter device comprising:

a catheter adapter having a distal end from which a catheter extends, the catheter adapter comprising a port;

a guidewire assembly that is coupled, either directly or through an additional adapter, to the port of the catheter adapter, the guidewire assembly comprising:

a guidewire housing;

a guidewire actuator configured to slide within the guidewire housing; and

a guidewire having a first segment and a second segment;

wherein the guidewire actuator is coupled to a proximal end of the first segment and to a proximal end of the second segment such that the guidewire slides when the guidewire actuator is slid within the guidewire housing to thereby enable a distal end of the guidewire to be advanced through the catheter adapter and through the catheter so as to be positioned at or near a distal end of the catheter, and wherein the guidewire actuator is further configured to cause relative movement between the proximal end of the first segment and the proximal end of the second segment to thereby cause a distal end of the guidewire to reposition to thereby reposition the distal end of the catheter.

14. The intravenous catheter device of claim 13, wherein the guidewire actuator includes a first tab that is coupled to the proximal end of the first segment, and wherein the first tab moves relative to a main body of the guidewire actuator to cause the relative movement between the proximal end of the first segment and the proximal end of the second segment.

15. The intravenous catheter device of claim 14, wherein the guidewire actuator includes a second tab that is coupled to the proximal end of the second segment, and wherein the second tab moves relative to the main body of the guidewire actuator to cause the relative movement between the proximal end of the first segment and the proximal end of the second segment.

16. The intravenous catheter device of claim 13, wherein the guidewire actuator includes a main body and the proximal end of the first segment and the proximal end of the second segment are coupled to the main body, and wherein the main body rotates to cause the relative movement between the proximal end of the first segment and the proximal end of the second segment.

17. The intravenous catheter device of claim 13, wherein the guidewire actuator rotates relative to the guidewire housing and the rotation also causes the distal end of the catheter to reposition.

18. The intravenous catheter device of claim 13, wherein the guidewire assembly forms a fluid pathway for collecting a blood sample through the catheter.