CLAIMS:

1. A multi-lumen extension system, comprising:

a multi-lumen tube comprising:

a first lumen forming a fluidic channel within the multi-lumen extension system;

a second lumen forming a non-fluidic channel within the multi-lumen extension system, the ;second lumen in parallel with the first lumen and laterally offset therefrom within the multi-lumen tube;

a patency instrument housed within the second lumen;

a seal between the first lumen and the second lumen to prevent fluid from entering the second lumen from the first lumen; and

a grip formed along the multi-lumen tube and wrapped at least partially thereabout, the grip operatively coupled to the patency instrument housed within the second lumen to selectively translate the patency instrument along the second lumen, wherein the grip is separately and independently movable along an outer surface of the multi-lumen tube.

2. The multi-lumen extension system of claim 1, wherein the grip comprises:

a ring formed coaxially around the second lumen; and

a low-friction sliding surface formed between the ring and an outside wall of the second lumen;

wherein the patency instrument comprises a surface that engages the low-friction sliding surface to cause the patency instrument to move within the second lumen upon movement of the ring.

3. The multi-lumen extension system of claim 2, wherein the second lumen comprises a gas vent that allows gases to escape from the second lumen upon movement of the patency instrument.

4. The multi-lumen extension system of claim 1, further comprising a luer-lock access device (LLAD) operatively coupled to a proximal end of the first lumen.

5. The multi-lumen extension system of claim 1, wherein the patency instrument comprises a magnetic hub formed at a proximal end of the patency instrument.

6. The multi-lumen extension system of claim 5, wherein the grip comprises a permanent magnetic ring formed coaxially around the second lumen and magnetically coupled to the magnetic hub to cause the patency instrument to move within the second lumen upon movement of the permanent magnetic ring.

7. The multi-lumen extension system of claim 1, wherein the grip is mechanically coupled to a proximal end of the patency instrument via a channel formed through a multi-lumen tube formed coaxially around the first lumen and the second lumen.

8. The multi-lumen extension system of claim 7, wherein the grip comprises a channel through which the first lumen passes.

9. The multi-lumen extension system of claim 1, wherein a distal end of the second lumen is oriented non-parallel to a major axis of the first lumen.

10. The multi-lumen extension system of claim 1, wherein the patency instrument is a guidewire formed coaxially within the second lumen.

11. A method of manufacturing a multi-lumen extension system, comprising:

forming a fluidic lumen in a multi-lumen tube and from a male vascular access device (VAD) coupler at a distal end of a first lumen to a female luer-lock access device (LLAD);

forming a non-fluidic lumen in the multi-lumen tube and from the male VAD coupler to the female luer-lock access device (LLAD) coupler, the non-fluidic lumen in parallel with the fluidic lumen and laterally offset therefrom within the multi-lumen tube;

forming a patency checking device coaxially within the non-fluidic lumen; and

forming a grip along the multi-lumen tube and operatively coupling the grip to the patency checking device to selectively advance the patency checking device along the non-fluidic lumen, the grip being separately and independently movable along an outer surface of the multi-lumen tube.

12. The method of claim 10, wherein forming the grip further comprises:

forming a ring coaxially around the non-fluidic lumen; and

forming a plurality of ball bearings between the ring and an outside wall of the non-fluidic lumen.

13. The method of claim 12, further comprising forming a hub on the patency checking device to engage the plurality of ball bearings to allow the patency checking device to move within a second lumen upon movement of the ring.

14. The method of claim 10, wherein:

forming the grip further comprises:

forming a permanent magnetic ring coaxially around the non-fluidic lumen; and forming a magnetic hub at a proximal end of the patency checking device.

15. A vascular access device (VAD), comprising:

an intravenous (IV) catheter insertable into a blood vessel of a patient;

a multi-lumen extension system, comprising:

a multi-lumen tube comprising:

a first lumen forming a first fluidic channel within the multi-lumen extension system;

a second lumen forming a second non-fluidic channel within the multi-lumen extension system, the second lumen in parallel with the first lumen and laterally offset therefrom within the multi-lumen tube;

a patency instrument housed within the second lumen;

a grip formed along the multi-lumen tube and wrapped at least partially thereabout, the grip operatively coupled to the patency instrument housed within the second lumen to selectively advance the patency instrument along the second lumen,

wherein the grip is separately and independently movable along an outer surface of the multi-lumen tube; and

a luer-lock access device (LLAD) operatively coupled to a proximal end of the first lumen.

16. The vascular access device (VAD) of claim 15, wherein the grip comprises:

a ring formed coaxially around the second lumen; and

a plurality of ball bearings formed between the ring and an outside wall of the second lumen;

wherein the patency instrument comprises a surface that engages the plurality of ball bearings to cause the patency instrument to move within the second lumen upon movement of the ring.

17. The vascular access device (VAD) of claim 15, wherein the grip comprises a permanent magnetic ring formed coaxially around the second lumen and magnetically coupled to a magnetic hub to cause the patency instrument to move within the second lumen upon movement of the permanent magnetic ring.

18. The vascular access device (VAD) of claim 15, wherein the patency instrument is a guidewire formed coaxially within the second lumen.