CLAIMS

1. A catheter system, comprising:

a luer adapter, comprising an outer surface having a recess, wherein the luer adapter is coupled to a catheter adapter via extension tubing;

a flow control plug, comprising:

a proximal end having a filter element permeable to air and not to blood; and

a distal end having a cylinder and a taper-shaped luer tip spaced apart from the cylinder, wherein an inner surface of the cylinder includes a protrusion engaged in a snap-fit with the recess, wherein an outer surface of the distal end comprises a plurality of first ribs and an outer surface of the proximal end comprises a plurality of second ribs, wherein the plurality of first ribs and the plurality of second ribs are oriented longitudinally with respect to the flow control plug, wherein the outer surface of the proximal end has more second ribs than the outer surface of the distal end has first ribs, and wherein the distal end further comprises a stepped surface, wherein the distal end extends outwardly from the proximal end to form the stepped surface, wherein the stepped surface is annular.

2. The catheter system of claim 1, wherein the luer adapter is a Y-adapter.

3. catheter system of claim 1, wherein the plurality of first ribs extend from the stepped surface and along an entire length of the cylinder.

4. The catheter system of claim 1, wherein a width of each of the plurality of first ribs is greater than a width of each of the plurality of second ribs.

5. The catheter system of claim 1, wherein the plurality of first ribs comprises a first rib and a second rib that opposes the first rib.