

CLAIMS

1. A catheter assembly, comprising:
 - a catheter adapter having a distal end and a proximal end;
 - an elongated catheter tube extending from the catheter adapter distal end;
 - 5 a distal chamber and a proximal chamber defined within the catheter adapter, the distal chamber communicating with the catheter tube;
 - a divider interposed between the distal chamber and the proximal chamber;
 - one or more vent channels extending between the distal chamber and the proximal chamber so as to communicate the distal chamber with the proximal chamber; and
 - 10 a hydrophobic porous material interposed between the distal chamber and the one or more vent channels, the hydrophobic porous material configured to allow air to pass therethrough so that air from the distal chamber can flow through the one or more vent channels to the proximal chamber, the hydrophobic porous material configured to repel blood so that blood within the distal chamber is prevented from flowing through the one or more vent
 - 15 channels.
2. A catheter assembly as in Claim 1, wherein the one or more vent channels are formed through the divider.
3. A catheter assembly as in Claim 2, wherein the divider comprises a central wall comprising an aperture, and a septum seat is defined about the aperture, an elastomeric septum
20 being received within the septum seat so as to maintain a seal with the central wall, and wherein the one or more vent channels are formed through the central wall.
4. A catheter assembly as in Claim 3 additionally comprising a distal tube extending distally from the central wall and defining a fluid flow passage within the distal chamber, a distal side chamber being defined between an outer surface of the distal tube and an inner surface of the
25 catheter adapter, side apertures formed through a wall of the distal tube communicating the fluid flow passage with the distal side chamber.
5. A catheter assembly as in Claim 4, wherein the side apertures through the wall of the distal tube are open for both air and fluid to flow into the distal side chamber.
6. A catheter assembly as in Claim 5, wherein the hydrophobic porous material is applied to
30 a distal side of the central wall so as to cover a distal opening of the one or more vent channels.

7. A catheter assembly as in Claim 6, wherein the side apertures through the wall of the distal tube comprise a proximal side aperture and a distal side aperture, the distal side aperture being spaced distally from the proximal side aperture.
8. A catheter assembly as in Claim 1, wherein the divider comprises an elastomeric septum.
- 5 9. A catheter assembly as in Claim 8, wherein the one or more vent channels are formed in a body portion of the catheter adapter, the one or more vent channels being at least partially filled with the hydrophobic porous material.