

Abstract**An Endovascular Device with Membrane having Permanently Attached Agents**

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An endovascular device (10) for treatment of a bodily vessel (5) of a patient at a surgical site, the endovascular device (10) comprising: a mechanically expandable device (11) expandable from a first position to a second position, said mechanically expandable device (11) is expanded radially outwardly to the second position such
10 that the circumferential surface of said mechanically expandable device (11) engages with the inner surface of the vessel (5) so as to maintain a fluid pathway through said vessel (5); and a membrane (15) secured to a portion of the circumferential surface of said mechanically expandable device (11); wherein at least one capture agent (20, 21) is permanently attached to the luminal surface of
15 the membrane (15) to capture a predetermined target component from blood passing through the fluid pathway; and at least one signal agent (22) is permanently attached to the luminal surface of the membrane (15) to signal the captured target component to up regulate or down regulate a cell function of the captured target component to enhance endothelialization and healing.

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Figure 1