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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health



National Institutes of Health Commercialization Assistance Program (NIH-CAP)

## Company Profile

**Industry Sector:** Medical Devices, Combination Products

**Company Overview:** Allvivo Vascular, Inc. (AVI) develops biomimetic coatings for medical devices and combination products. The company's lead product targets the coronary stent market. This biologic based coating down regulates the complement cascade while preventing thrombus formation, providing a promising alternative to the use of immuno-suppressive and cytotoxic drugs to prevent restenosis.

**Target Market(s):** Medical device companies as partners or licensees of the technology, interventional cardiologists as the end user of the product

## Key Value Drivers

**Technology\*:** ProteoGuard® is a two part coating for stents that combines our platform End Group Activated Polymer (EGAP) coating technology with the protein factor H. EGAP makes the device thromboresistant and provides the mechanism for linking Factor H to the device in a highly active form. Factor H down regulates the inflammatory response to the device and in doing so, prevents the primary trigger for restenosis.

**Competitive Advantage:** ProteoGuard® overcomes the limitations of drug eluting stents by preventing narrowing of the artery while providing an environment that supports healing of the artery's protective endothelial layer. This is expected to increase the safety and efficacy of treating patients with coated stents by reducing the risk for very late stent thrombosis and eliminating the need to extend dual anti-platelet therapy, which significantly increases risks for bleeding and hypersensitivity reactions.

**Plan & Strategy:** Secure a partnership or license agreement to bring a ProteoGuard® coated stent through the FDA approval process and commercialization  
\*Technology funded by the NIDDK and being commercialized under the NIH-CAP

## Management

### Leadership:

Jennifer A. Neff, PhD, CEO, CTO  
Richard Nagler, Chairman

### Scientific Advisory Board:

**Karin Caldwell, PhD,** Professor, directs the Center for Surface Biotechnology at the University of Uppsala in Sweden.

**David E. Allie, MD,** Chief of Cardiothoracic and Endovascular Surgery at the Cardiovascular Institute of the South/Lafayette, LA.

**Subbarao Mylavarapu, MD,** Medical Director of Cardiovascular Research and Vascular Intervention at Hoag Memorial Hospital Presbyterian in Newport Beach, CA.

## Product Pipeline

**ProteoGuard® Coated Stent:** AVI has tested ProteoGuard® through the preclinical stage and is now poised to begin a First in Man (FIM) trial to demonstrate clinical efficacy. AVI will produce its own ProteoGuard® coated stent and will leverage the data obtained from the clinical trial to secure a partnership with a major coronary stent manufacturer. The partnership will be used to facilitate regulatory approval and market penetration of what AVI expects to be the next dominant stent platform.

**Antibacterial Coated Central Venous Catheter:** AVI is developing a dual function coating for CVCs that prevents thrombus formation and infection. A major advantage of this coating is that it will not promote the development of bacterial resistance to clinical antibiotics. Feasibility for this coating has been demonstrated in vitro. The coating is in the development stage and animal studies are expected to begin in the 3<sup>rd</sup> quarter of 2009.