CorMatrix Cardiovascular Receives Three Patents for Biomaterial Heart Valve

Business Wire

CorMatrix Cardiovascular, Inc., (www.cormatrix.com [1]) a leading medical device developer, today announced the receipt of three U.S. Patents for replacement heart valves that utilize unique biomaterial called extracellular matrix (ECM). The established leader in cardiac biomaterial, CorMatrix has more than 120 U.S. and international patent applications pending on various ECM-based compositions and structures as well as methods for processing ECM materials and forming the ECM structures.

“The receipt of these three patents is just the beginning,” said David B. Camp, chairman and CEO of CorMatrix. “In the last year alone, we have filed more than 90 U.S. and international patent applications and, in view of our on-going research efforts and the opening of our new laboratory facilities, we envision further significant enhancement of our existing patent portfolio.”

The U.S. Patent and Trademark Office has issued to CorMatrix U.S. Pat. No. 8,257,434, U.S. Pat. No. 8,409,275 and U.S. Pat. No. 8,449,607, all titled “Prosthetic Tissue Valve.” The patents cover a flat valve configuration that can be employed in several cardiovascular applications. CorMatrix plans to use this technology to rapidly accelerate its research and development of further medical devices.

Honored at International Society of Minimally Invasive Cardiac Surgery (ISMICS)

Receipt of these patents comes just prior to multiple physicians presenting case studies on the use of CorMatrix ECM technology claimed top honors at the annual scientific meeting of the International Society of Minimally Invasive Cardiac Surgery (ISMICS), held in Prague, Czech Republic. Of the 110 submitted studies, the overall winner selected by fellow physicians was the use of CorMatrix ECM that pre-clinically regenerated a tricuspid valve using a new, minimally invasive surgical technique in a series of animals. Additionally, a separate study on the use of CorMatrix ECM scaffold as a tubular graft for ascending aorta aneurysm repair finished first in its category. Both teams of physicians were recognized at the ISMICS formal dinner.

“Having not one, but two of the top 11 poster presentations – and the top presentation overall – speaks volumes for the medical applications of CorMatrix ECM,” said John E. Davis, executive vice president of sales and marketing for CorMatrix . “The use of CorMatrix ECM continues to gain acceptance across the globe as more and more of the world’s top cardiac surgeons learn about the unique benefits of the device in various situations.”

Expanded use of CorMatrixECM

CorMatrix ECM Technology is a platform technology with multiple cardiovascular applications. This naturally occurring extracellular matrix biomaterial supports native tissue repair by providing a bioscaffold that enables a patient's own cells to repopulate and repair damaged tissues. CorMatrix holds an exclusive worldwide license to research, develop, manufacture and market naturally occurring extracellular matrix products for cardiovascular applications.

The company has obtained U.S. FDA clearance and European CE mark approval to market CorMatrix ECM Technology as an implant for pericardial closure, cardiac tissue repair, which includes suture-line reinforcing, buttressing for soft tissue reaproximation, repair of cannulation sites and bleeding sites, and as an intracardiac patch or pledget for tissue repair of structural problems such as septal defects and for carotid artery repair.

CorMatrix biomaterials have been used in more than 80,000 cardiac procedures at more than 720 hospitals in the United States.

"Extracellular matrix is a naturally occurring substance that helps regulate cells and is present in all humans and animals," said Robert "Rob" Matheny, M.D., chief scientific officer for CorMatrix .

A natural source to produce a manufactured extracellular matrix is derived from the thin lining of the small intestine of a pig. After it is harvested, the extracellular matrix is processed in a way that removes all cells. Only the complex structural matrix, which is made of collagen, remains.

"After sterilization and testing, CorMatrix ECM is an exceptionally strong, but very pliable and thin sheet that can be sewn onto the heart to facilitate the repair of different heart structures," said Dr. Matheny.

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