A Device for the Construction and Coating of Tubular Structures by Spraying on a Rotating Mandrel

Published date: Jan. 18, 2018

Technology description

This technology from the laboratory of Dr. Ozan Akkus and clinically developed in collaboration with Dr. Mark Weidenbecher, provides for tubular collagen for esophogus transplants. The devices disclosed enable construction of hollow cylindrical structures, with single or multiple layers of one or more different materials, including biomaterials and are particularly useful as medical devices. Tubular cylindrical medical devices are used in numerous medical applications in urological, cardiovascular, orthopaedic, throat surgery as stents, catheters or tissue repair scaffolds. The structures incorporating collagen can be made with robust mechanical properties that also facilitate cell attachment and tissue integration, which is a primary limitation of synthetic materials.

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