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(54) Title: TISSUE ENGINEERED HEART VALVE

(57) Abstract: The tissue-engineered heart valve of the present invention is comprised of elements, such as leaflets, formed from self-supporting human engineered tissue. Such self-supporting tissue is comprised of living biological cells and extracellular matrix without the presence of nonviable scaffolding structures. Thus, the tissue-engineered heart valve of the present invention consists of totally living human tissue which could theoretically function like a native biological structure with the potential to grow, to repair and to remodel.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/22836

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : A61F 2/24; C12N/15/02  
 US CL : 623/2.12, 2.13; 435/325

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 U.S. : 623/2.12, 2.13; 435/325

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 MEDLINE, BIOSIS, CANCERLIT, CAPLUS, EMBASE, SCISEARCH

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	SHINOKA et al. Tissue-engineered heart valves: Autologous valve leaflet replacement study in a lamb model. Circulation. 1996, Vol. 94 No. 8 Suppl, pages II-164 through II-168, see particularly section of Methods.	1-3, 5, 9, 10, 15, 16, 28-32, 35, 36, 38
Y	SHINOKA et al. Tissue-engineered heart valves leaflets: Does all origin affect outcome? Circulation, 1997, Vol. 96 [suppl II], pages II-102 through II-107], see particularly section of Methods.	1-5, 9, 10, 15, 16, 28-32, 35, 36, 38
Y	US 3,744,062 A (PARSONNET) 10 July 1973, see particularly abstract and figures.	1-48
Y	Ye et al, Tissue engineering in cardiovascular surgery: new approach to develop completely human autologous tissue. Eur J Cardio-thoracic Surg., 2000 April Vol. 17, pages 449-454, see entire document	28-32, 35, 36

Further documents are listed in the continuation of Box C.

See patent family annex.

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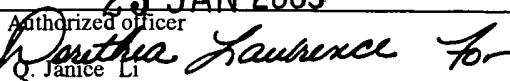
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