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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MYOBLAST TREATMENT OF DISEASED OR WEAKENED ORGANS

(57) Abstract: Bioengineering the regenerative heart or other body organ in need of greater muscle mass or improved blood perfusion provides a novel treatment for organ weakness or failure. In the case of cardiac failure treatment, on May 14, 2002, a 55-year-old man suffering ischemic myocardial infarction received 25 injections carrying 465 million cGMP-produced pure myoblasts into his myocardium after coronary artery bypass grafting. Three myogenesis mechanisms were elucidated with 17 human/porcine xenografts using cyclosporine as immunosuppressant. Some myoblasts developed to become cardiomyocytes. Others transferred their nuclei into host cardiomyocytes through natural cell fusion. As yet others formed skeletal myofibers with satellite cells. De novo production of contractile filaments augmented heart contractility. Human myoblasts transduced with VEGF165 gene produced six times more capillaries in porcine myocardium than placebo. Xenograft rejection was not observed for up to 20 weeks despite cyclosporine discontinuation at 6 weeks.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A01N 63/00, 65/00; A61K 48/00
US CL : 424/93.1, 93.21

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. : 424/93.1, 93.21

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, EMBASE, CAPLUS, SCISEARCH, WPIDS, US PATENT DATABASES

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>Y</td>
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Additional information:

- [ ] Further documents are listed in the continuation of Box C.
- [ ] See patent family annex.

Date of the actual completion of the international search: 22 November 2005 (22.11.2005)

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