2000 01547-9

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : A61M 1/10, 1/36 — A1

(11) International Publication Number: **WO 99/19010**

(43) International Publication Date: 22 April 1999 (22.04.99)

(21) International Application Number: PCT/US98/21424

(22) International Filing Date: 9 October 1998 (09.10.98)

(30) Priority Data:

60/061,434	9 October 1997 (09.10.97)	US
09/166,005	2 October 1998 (02.10.98)	US

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

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(54) Title: IMPLANTABLE HEART ASSIST SYSTEM

(57) Abstract

An extracardiac pumping system (10) for supplementing the circulation of blood through a patient without any component thereof being connected to the patient's heart, and method of using same. The extracardiac system comprises a pump (32) implanted subcutaneously at or about the patient's groin in a minimally-invasive procedure, wherein the pump is powered by a battery (44), and means for charging the battery extracorporeally, wherein the pump draws blood through an inflow conduit (50) fluidly coupled to the patient's femoral artery (26) via a subcutaneous anastomosis connection, and discharges blood through an outflow conduit (52) fluidly coupled to a peripheral artery that stems from the patient's aortic arch via a subcutaneous anastomosis connection. The pump may be operated continuously or in a pulsatile fashion, synchronous with the patient's heart, thereby potentially reducing the pumping load on the heart.

