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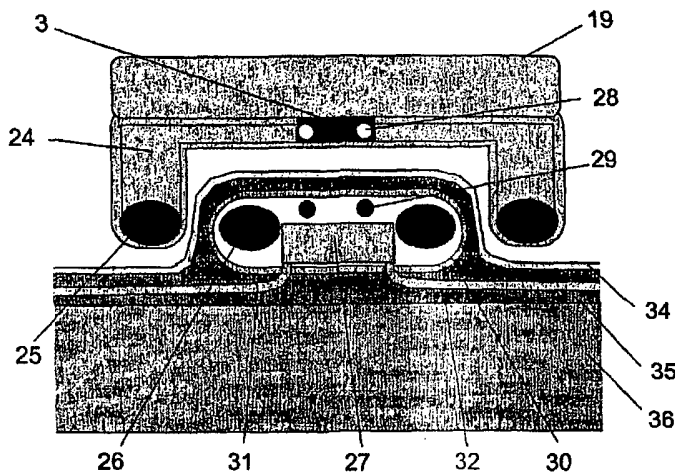
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(54) Title: **MAGNETIC CIRCUMFERENTIALLY COUPLED IMPLANTABLE PUMP**



(57) Abstract: A magnetic circumferentially-coupled implantable pump (9) is disclosed herein. A magnetically coupled implantable actuation system utilizes a magnetically-coupled drive mechanism (4) configured to generate power for implantable medical devices. One variation generally comprise a drive magnet (25) having a first radius and adapted to rotate about a longitudinal axis when urged, and a driven magnet (26) defining a second radius, which is less than the first radius. This driven magnet is adapted to be implanted within a body rotate about the longitudinal axis when coaxially positioned within a receiving cavity defined by the drive magnet such that magnetic coupling occurs circumferentially between the driven magnet and the drive magnet. Another variation utilizes elongate bar magnets (1, 5) configured to rotate about a pivot. An optional anchor (12) can

be used to secure the implanted driven magnet housing against any rotational forces or moments by securing the housing within the subcutaneous layer.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 9/22

US CL : 604/890.1

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. : 604/890.1, 891.1, 892.1, 93.01, 131, 151, 154

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,021,048 A (BUCKHOLTZ) 04 June 1991, Figures 1-13.	1-31
A, T, E	US 6,846,168 B2 (DAVIS et al) 25 January 2005, Figures 1-14.	1-31

Further documents are listed in the continuation of Box C.

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