Title: INDUCTIVE COIL APPARATUS FOR BIO-MEDICAL TELEMETRY

Abstract: An improved bio-medical telemetry apparatus for programming an implanted medical device includes a large substantially planar and concentrically wound first telemetry coil. The coil is disposed inside a thin flexible housing including layers of insulative materials to prevent electrical contact between loops of the first telemetry coil and to hold the first telemetry coil formed shape in place. The apparatus further includes a communication lead coupled to the first telemetry coil for communicating with a medical device programmer. During a telemetry session the first telemetry coil including the flexible housing is disposed at a posterior location of the torso and an implanted medical device disposed subcutaneously on an anterior location of the torso. During programming the first telemetry coil is inductively coupled to the implanted medical device for wireless data communication with the implanted medical device. The large, substantially planar design of the first telemetry coil permits more even and large flux paths, which allow for less precise positioning of the apparatus with respect to the implantable medical device. Also, the flexible housing conforms to irregular surface of patient’s and supporting furnishing providing comfort to patients lying upon the first telemetry coil during telemetry sessions.
## INTERNATIONAL SEARCH REPORT

### A. CLASSIFICATION OF SUBJECT MATTER

**IPC 7** A61N1/372

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)

**IPC 7** A61N A61B A61F

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 practical, search terms used)

EPO-Internal

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

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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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<tr>
<td>X</td>
<td>US 4 586 508 A (BATINA WILLIAM P ET AL) 6 May 1986 (1986-05-06) the whole document</td>
<td>1-4, 9, 12</td>
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<tr>
<td>Y</td>
<td>US 5 882 300 A (HOJAIBAN GEORGE ET AL) 16 March 1999 (1999-03-16) the whole document</td>
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<td>US 5 948 006 A (MANN CARLA M) 7 September 1999 (1999-09-07) the whole document</td>
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Date of the actual completion of the international search: 9 October 2001

Date of mailing of the international search report: 15/10/2001

Name and mailing address of the ISA:

**European Patent Office, P B. 5618 Patentlaan 2 NL - 2280 HV Rijswijk**

Tel: (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016

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<td>US 4586508</td>
<td>06-05-1986</td>
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