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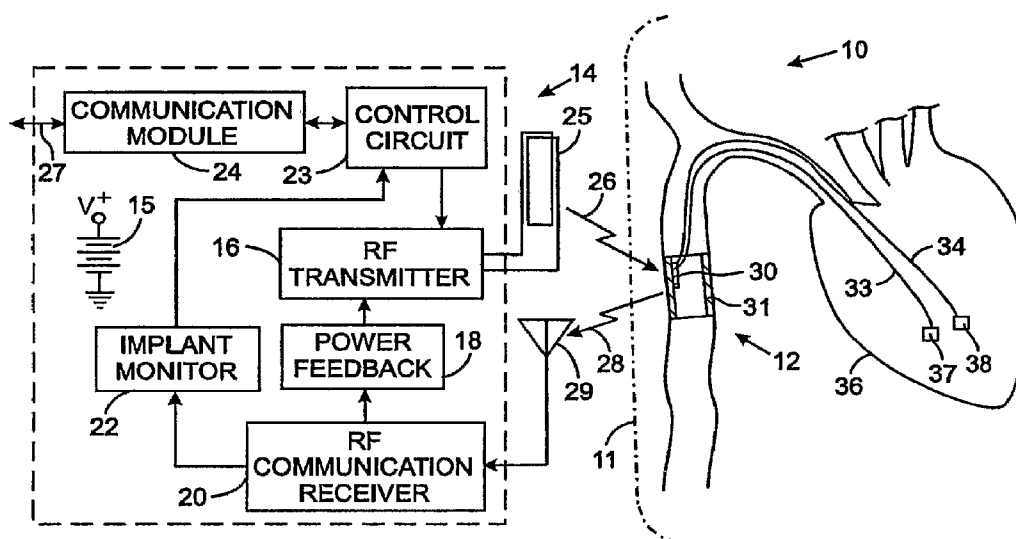
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(54) Title: SELF-ANCHORING ELECTRICAL LEAD WITH MULTIPLE ELECTRODES



(57) Abstract: An apparatus provides an electrical interface with a lumen in a body of an animal. The apparatus has a self-anchoring lead structure for implantation inside the lumen and includes at least two insulated conductors each connected to a separate electrode. Each electrode has an associated shape memory material and a rounded terminus to grip the lumen wall for anchoring the lead when properly positioned. The conductor for each electrode also is connected to a control circuit that programmably selects electrodes for electrically interfacing with the lumen. The self-anchoring lead structure has a contracted state for insertion into the animal and an expanded stated in which the electrode termini engage a wall of the lumen.

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/013413

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61N1/05

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)

A61N

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, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98/42403 A (SULZER INTERMEDICS INC [US]) 1 October 1998 (1998-10-01) pages 3-5; figures 8,9	1-4,7-13
Y	-----	5,6,14, 15
Y	US 2004/249431 A1 (RANSBURY TERRANCE [US] ET AL) 9 December 2004 (2004-12-09) paragraph [0065]	5,6,14, 15
Y	-----	5,6,14, 15
Y	WO 02/18006 A (CARDIAC PACEMAKERS INC [US]; WESTLUND RANDY [US]; TOCKMAN BRUCE [US];) 7 March 2002 (2002-03-07) page 10, lines 7-9	5,6,14, 15
A	-----	1,10
	US 2005/096710 A1 (KIEVAL ROBERT S [US]) 5 May 2005 (2005-05-05) the whole document	
	----- -/-	

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

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O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	US 2007/038278 A1 (ZAREMBO PAUL E [US]) 15 February 2007 (2007-02-15) paragraphs [0002], [0058], [0060], [0078], [0079]; figures 1B,1C,9B,10B -----	1-15

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/013413

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 16-20
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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US 2007038278	A1	15-02-2007	NONE	