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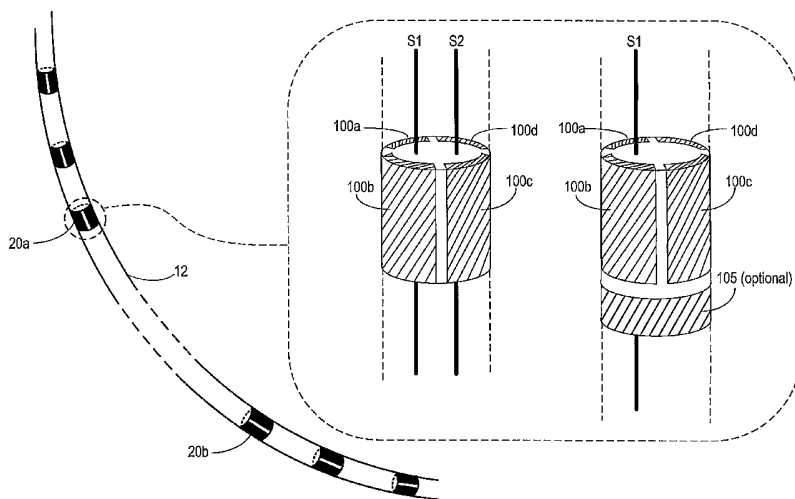
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21 December 2006

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: METHODS AND APPARATUS FOR TISSUE ACTIVATION AND MONITORING



(57) Abstract: Techniques for controlling one or more modular circuits ("satellites") that are intended for placement in a subject's body. The one or more satellites are controlled by sending signals over a bus that includes first and second conduction paths. Also coupled to the bus in system embodiments is a device such as a pacemaker that provides power and includes control circuitry. Each satellite includes satellite circuitry and one or more effectors that interact with the tissue. The satellite circuitry is coupled to the bus, and thus interfaces the controller to the one or more effectors, which may function as actuators, sensors, or both. The effectors may be electrodes that are used to introduce analog electrical signals (e.g., one or more pacing pulses) into the tissue in the local areas where the electrodes are positioned (e.g., heart muscles) or to sense analog signals (e.g., a propagating depolarization signal) within the tissue.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/31559

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **A61B 5/00**(2006.01)

USPC: 600/300

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. : 600/300,301

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.
X --- Y	US 5,999,848 A (GORD et al.) 7 December.1999 (07.12.1999), see col. 4, lines 17-48 and col. 11, lines 1-5.	1-5, 14-16, 18-32, 37-42, 45-54, 56, 57 and 59-65 ----- 17, 33-36, 43, 44, 55 and 58

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 application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"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

"&" document member of the same patent family

Date of the actual completion of the international search

26 July 2006 (26.07.2006)

Date of mailing of the international search report

19 SEP 2006

Name and mailing address of the ISA/US

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/31559

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.: 6-13 and 66-75
because they relate to subject matter not required to be searched by this Authority, namely:
Please See Continuation Sheet
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 all searchable claims.
 2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any 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

International application No.
PCT/US05/31559

Box II Observations where certain claims were found unsearchable 1. because they relate to subject matter not required to be searched by this Authority, namely:

These claims contain inferential recitation of the human body, rendering them non-statutory and unsearchable. Specifically, claim 6 contains the phrase "effectors that interact with the subject's body" while claim 66 contains the phrase "a first electrode contacting the body." Claims 7-13 and 67-75 depend from claims 6 and 66 and are therefore rendered unsearchable by their association.