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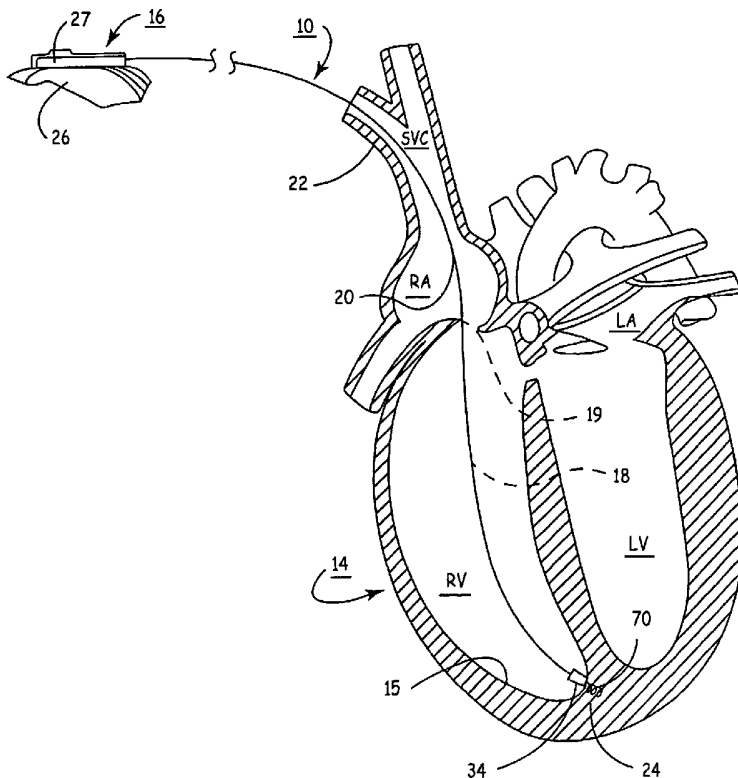
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- (51) International Patent Classification<sup>7</sup>: A61M 25/00, (72) Inventors: BYRD, Charles, L.; 248 Fairmont Way, Fort Lauderdale, FL 33326 (US). LACH, Linda, L.; 421 Bear Avenue South, Vadnais Heights, MN 55127 (US). TORBET, Jesse, T.; 2497 Hampshire Road, Number 23, Cleveland, OH 44106 (US). LENERS, Michael, R.; 855 201st Lane Northeast, East Bethel, MN 55011 (US). THOMAS, Ralph, J.; 7616 113 1/2 Avenue North, Champlin, MN 55316 (US). KELLEY, James, F.; 13000 Nightingale Street Norhtwest, Coon Rapids, MN 55448 (US).
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- (71) Applicant: MEDTRONIC, INC. [US/US]; MS LC340, 710 Medtronic Parkway NE, Minneapolis, MN 55432 (US). (84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

[Continued on next page]

(54) Title: BILUMEN GUIDE CATHETERS FOR ADDRESSING CARDIAC SITES



(57) Abstract: Bilumen catheters and methods of using same for facilitating implantation cardiac leads for applying electrical stimulation to and/or sensing electrical activity of the heart through one or more electrode positioned at an implantation site within a heart chamber or cardiac vessel adjacent a heart chamber, and more particularly to a method and apparatus for introducing such cardiac lead having low torqueability and pushability through a tortuous pathway to enable attachment of the cardiac lead at the implantation site employing a bilumen guide catheter are disclosed. The bilumen catheter body includes a relatively large diameter delivery lumen to introduce a small diameter cardiac lead and a small diameter guide lumen to receive a stylet or guidewire to locate the guide catheter body distal end at the implantation site. The small diameter lumen within a small diameter guide tube extends distally from the delivery exit port of the delivery lumen.

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**Declaration under Rule 4.17:**

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations CA, JP, European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR)*

**Published:**

— *with international search report*

**(88) Date of publication of the international search report:**

18 November 2004

**(15) Information about Correction:**

**Previous Correction:**

see PCT Gazette No. 37/2004 of 10 September 2004, Section II

*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.*

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 03/39808A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61M25/00 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)  
IPC 7 A61M 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, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/072710 A1 (DUKART BRIAN L ET AL) 13 June 2002 (2002-06-13)  the whole document	1, 3, 4, 11, 15, 17, 18, 26, 28
A	US 4 602 645 A (BARRINGTON JAMES E ET AL) 29 July 1986 (1986-07-29) cited in the application column 4, line 43 - column 5, line 22; figures	1-29
A	US 5 827 229 A (AUTH DAVID C ET AL) 27 October 1998 (1998-10-27) abstract; figures 9-11	1, 15, 28
A	US 5 374 245 A (MAHURKAR SAKHARAM D) 20 December 1994 (1994-12-20) abstract; figures 41, 45	1, 15, 28

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## ° Special categories of cited documents:

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

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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

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\*&amp;\* document member of the same patent family

Date of the actual completion of the international search

3 August 2004

Date of mailing of the international search report

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Name and mailing address of the ISA

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 03/39808

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 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.: 30-40  
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
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 II Observations where unity of invention is lacking (Continuation of item 2 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 an additional fee, this Authority did not invite payment of any additional fee.
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.

No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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