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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
4 March 2010



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(54) Title: IMPLANTABLE MEDICAL DEVICES HAVING ADJUSTABLE PORE VOLUME AND METHODS FOR MAKING THE SAME

(57) Abstract: The present invention is directed to implantable medical devices which may be used for controllably releasing a therapeutic agent within a patient and methods for making the same. These medical devices may include porous coatings, which may be polymer-free, located on an outer surface or an ab luminal surface of the medical device. The medical device may be a stent. The pores of the porous coating may be expandable to facilitate loading of the therapeutic agent. The medical device may be triggerable upon implantation of the medical device such that the volume of the voids shrinks to eject the therapeutic agent. The voids may be slots in the stent. Expandable materials or structures may be positioned in the voids to expand upon implantation and eject the therapeutic agent.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/068958

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61L31/14 A61L31/16

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)
A61L

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. |
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| X | WO 00/32255 A (SCIMED LIFE SYSTEMS INC [US]) 8 June 2000 (2000-06-08) claims 1,13 | 1 |
| X | US 2002/111601 A1 (THOMPSON DAVID L [US]) 15 August 2002 (2002-08-15) page 1, paragraph 8 figure 9 | 1 |
| X | WO 2007/010536 A (ELUTEX LTD [IL]; DOMB ABRAHAM J [IL]) 25 January 2007 (2007-01-25) page 5, lines 6-16 page 32, lines 13-24 examples 5,6 | 1,5,6 |
| | ----- -/-- ----- | |

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
- "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

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4 December 2009

20/01/2010

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INTERNATIONAL SEARCH REPORT

International application No
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| C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT | | |
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| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | EP 0 712 615 A (ADVANCED CARDIOVASCULAR SYSTEM [US]) 22 May 1996 (1996-05-22) column 3, line 4 - column 4, line 15 figures 5-13 | 1,3,4,7 |
| X | US 2005/271696 A1 (DINH THOMAS Q [US] ET AL) 8 December 2005 (2005-12-08) page 1, paragraph 7 examples 1,4 claims 1-7 | 1 |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/068958

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.:
because they relate to subject matter not required to be searched by this Authority, namely:

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:

see additional sheet

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 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.:

1-7

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-7

Method of making and the corresponding implantable medical device with an outer coating comprising voids with variable volume.

2. claims: 14-19

Method of making and the corresponding implantable medical device with outer porous coating, the pores being loaded with a first expandable layer and a second therapeutic layer.

3. claims: 8-13,20

Method of making and the corresponding implantable medical device with struts which comprise slots cut through, each slot comprising two porous layers, and between the porous layers a first expandable layer and a second therapeutic layer.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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| International application No PCT/US2008/068958 |
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