

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
4 February 2010 (04.02.2010)

(10) International Publication Number  
**WO 2010/014690 A3**

PCT

(51) International Patent Classification:

A61L 27/14 (2006.01) A61L 27/54 (2006.01)  
A61L 27/50 (2006.01)

(21) International Application Number:

PCT/US2009/052081

(22) International Filing Date:

29 July 2009 (29.07.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/085,169 31 July 2008 (31.07.2008) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,

DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— 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:

30 September 2010

(54) Title: MEDICAL DEVICES FOR THERAPEUTIC AGENT DELIVERY

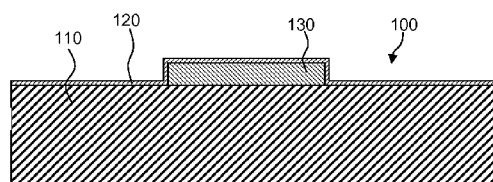


Fig. 1

(57) Abstract: In various aspects, the present invention relates to implantable or insertable medical devices which release therapeutic agent into the body of a patient.



WO 2010/014690 A3

# INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2009/052081

## A. CLASSIFICATION OF SUBJECT MATTER

INV. A61L27/14 A61L27/50 A61L27/54  
ADD.

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 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, 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 01/35928 A1 (MICROCHIPS INC [US]) 25 May 2001 (2001-05-25) page 2, line 23 - page 3, line 16 page 9, line 30 - page 12, line 25 claims 24-27	2-4, 7, 12-19
X	WO 2004/006885 A2 (MNEMOSCIENCE GMBH [DE]; LENDLEIN ANDREAS [DE]; STEUER SUSI [DE]; TULEW) 22 January 2004 (2004-01-22) page 4, line 10 - page 5, line 26 page 17, lines 8-26 claims 1-18	9-11
A		12-16
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☒ See patent family annex.

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Date of the actual completion of the international search

5 August 2010

Date of mailing of the international search report

12/08/2010

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# INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2009/052081

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/187611 A1 (DING NI [US] ET AL) 25 August 2005 (2005-08-25)	1,5,6,8
A	page 2, paragraph 23 - page 3, paragraph 30 page 3, paragraph 42 - page 4, paragraph 48	2-4,7
A	----- SUNGTHONGJEEN S ET AL: "Development of pulsatile release tablets with swelling and rupturable layers" JOURNAL OF CONTROLLED RELEASE, ELSEVIER, AMSTERDAM, NL LNKD- DOI:10.1016/J.JCONREL.2003.10.023, vol. 95, no. 2, 5 March 2004 (2004-03-05), pages 147-159, XP004492010 ISSN: 0168-3659 paragraphs [0001], [ 2.1], [ 3.3] -----	1-8
E	WO 2009/131911 A2 (BOSTON SCIENT SCIMED INC [US]; FLANAGAN AIDEN [IE]; KILCOOLEY JOHN [IE] 29 October 2009 (2009-10-29) page 10, paragraph 47 - page 12, paragraph 55 page 17, paragraph 73 - page 18, paragraph 74 claims 25-35 -----	1-8

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/052081

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0135928	A1	25-05-2001	AT 425738 T	15-04-2009
			AU 770395 B2	19-02-2004
			AU 1616201 A	30-05-2001
			CA 2392006 A1	25-05-2001
			EP 1229901 A1	14-08-2002
			ES 2332869 T3	15-02-2010
			JP 2003513755 T	15-04-2003
			JP 2006328083 A	07-12-2006
			JP 2009261961 A	12-11-2009
WO 2004006885	A2	22-01-2004	AU 2003254333 A1	02-02-2004
			EP 1519713 A2	06-04-2005
US 2005187611	A1	25-08-2005	US 2005208200 A1	22-09-2005
WO 2009131911	A2	29-10-2009	US 2009264975 A1	22-10-2009