

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 December 2007 (06.12.2007)

PCT

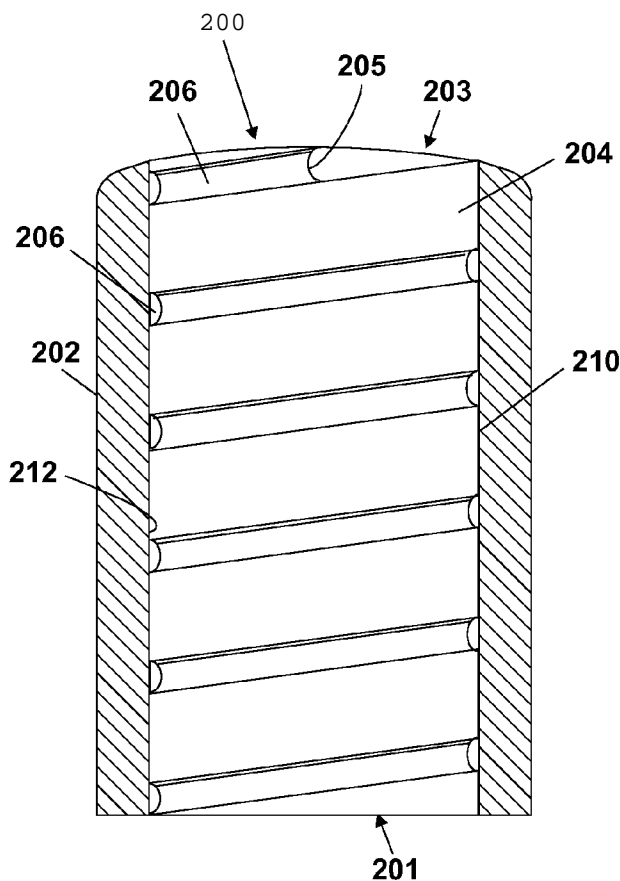
(10) International Publication Number
WO 2007/140416 A3

- (51) **International Patent Classification:**
A61K 9/00 (2006.01) A61M 5/142 (2006.01)
- (21) **International Application Number:**
PCT/US2007/069990
- (22) **International Filing Date:** 30 May 2007 (30.05.2007)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
60/809,451 30 May 2006 (30.05.2006) US
- (71) **Applicant (for all designated States except US):** **INTARCIA THERAPEUTICS, INC.** [US/US]; 24650 Industrial Boulevard, Hayward, CA 94545 (US).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** **LAUTENBACH, Scott D.** [US/US]; 466 23rd Avenue, San Mateo, CA 94043 (US). **DE LA SERNA, Pedro E.** [US/US]; 375 Patton Avenue, San Jose, CA 95128 (US). **ZAMORA, Pauline C.**

- [US/US]; 107 Glen Drive, Sausalito, CA 94965 (US). **DESJARDIN, Michael A.** [US/US]; 670 Lambeth Court, Sunnyvale, CA 94087 (US).
- (74) **Agents:** **McCLUNG, Barbara G.** et al.; Intarcia Therapeutics, Inc., 24650 Industrial Blvd, Hayward, CA 94545 (US).
- (81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, **BR**, BW, BY, BZ, CA, CH, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, 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),

[Continued on next page]

(54) **Title:** TWO-PIECE, INTERNAL-CHANNEL OSMOTIC DELIVERY SYSTEM FLOW MODULATOR



(57) **Abstract:** An osmotic delivery system flow modulator includes an outer shell constructed and arranged for positioning in an opening of a reservoir of an osmotic delivery system, an inner core inserted in the outer shell, and a fluid channel having a spiral shape defined between the outer shell and the inner core. The fluid channel is adapted for delivery of an active agent formulation from the reservoir of the osmotic delivery system.

WO 2007/140416 A3



European (AT, BE, BG, CH, CY, CZ, DE, **DK**, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) **Date of publication of the international search report:**
30 October 2008

Published:

— *with international search report*

INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/069990
--

A. CLASSIFICATION OF SUBJECT MATTER
 INV. A61K9/00 A61M5/142

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)
A61K A61M

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 02/085428 A (MICROSOLUTIONS, INC.) 31 October 2002 (2002-10-31) claims 1,2; figure 20 -----	1-20
X	US 2004/039376 A1 (J. PEERY ET AL.) 26 February 2004 (2004-02-26) the whole document -----	1-20
X	US 6 524 305 B1 (L. PETERSON ET AL.) 25 February 2003 (2003-02-25) cited in the application the whole document -----	13-20
A	EP 1 600 187 A (CORDIS CORP.) 30 November 2005 (2005-11-30) paragraphs [0014], [0020]; figures 1a, 2a. -----	1-20

D 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
- "X¹" 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
- "Y¹" 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
- "&¹" document member of the same patent family

Date of the actual completion of the international search

18 February 2008

Date of mailing of the International search report

26/02/2008

Name and mailing address of the ISA/
 European Patent Office, P B 5818 Patentlaan 2
 NL - 2280 HV RIJSWIJK
 Tel (+31-70) 340-2040, Tx 31 651 epo nl,
 Fax (+31-70) 340-3016

Authorized officer

GLIKMAN, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/069990

Patent document cited in search report	publication date	Patent family member(s)	Publication date
WO 02085428 A	31-10-2002	AU 2002307085 A1	05-11-2002
		US 2003135202 A1	17-07-2003
		US 2004249365 A1	09-12-2004
		US 2002183722 A1	05-12-2002

US 2004039376 A1	26-02-2004	NONE	

US 6524305 B1	25-02-2003	US 2003114837 A1	19-06-2003

EP 1600187 A	30-11-2005	AU 2005201877 A1	15-12-2005
		CA 2507368 A1	27-11-2005
		JP 2005334651 A	08-12-2005
		KR 20060046183 A	17-05-2006
