(19) World Intellectual Property Organization

International Bureau





(10) International Publication Number WO 2007/115169 A3

(43) International Publication Date 11 October 2007 (11.10.2007)

(51) International Patent Classification: A61K 9/00 (2006.01)

(21) International Application Number:

PCT/US2007/065638

(22) International Filing Date: 30 March 2007 (30.03.2007)

(25) Filing Language: English

(26) Publication Language: **English**

(30) Priority Data:

60/787,191 30 March 2006 (30.03.2006)

(71) Applicants (for all designated States except US): GELE-SIS, INC. [US/US]; 222 Berkeley Street, Suite 1040, Boston, MA 02116 (US). EXOTECH BIO SOLUTIONS LTD. [IL/IL]; Indusrial Zone, 2/2 Ha'ashlagan Street, 32100 Kiryat Gat (IL).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): BUCEVSCHI, Mircea, Dan [RO/IL]; 9/12 Eliezer Ben Yehuda Street, 76300 Rehovot (IL). COLT, Monica [RO/IL]; 9/12 Eliezer Ben Yehuda Street, 76300 Rehovot (IL). AXLERAD, Mendy [IL/IL]; 38 Hassam Street, 76216 Rehevot (IL).
- (74) Agents: BRENNAN, Nancy, K. et al.; Patent Group, Foley Hoag LLP, 155 Seaport Boulevard, Boston, MA 02210-2600 (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, 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, 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), 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).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 20 March 2008



(54) Title: POLYMERIC MATERIALS AS STOMACH FILLER AND THEIR PREPARATION

(57) Abstract: The present invention relates to swellable polymeric materials comprising a synthetic polymer, or copolymer, comprising a carboxylic group and a biopolymer that is suitable for bio applications. Because of their ability to swell, the polymeric materials are suitable for use as stomach fillers for the treatment of being over weight or obese, or for inducing the feeling of being satiated. Methods for preparing the swellable polymeric materials comprising aqueous reaction systems are also disclosed.

INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/065638

INV.	FICATION OF SUBJECT MATTER A61K9/00			
	o International Patent Classification (IPC) or to both national classification	ion and IPC		
	SEARCHED			
A61K	ocumentation searched (classification system followed by classification	n symbols)		
			¥	
Documentat	ion searched other than minimum documentation to the extent that su	ch documents are included in the fields searched		
Electronic da	ata base consulted during the international search (name of data bas	e and, where practical, search terms used)		
EPO-In	ternal, WPI Data			
	,			
	ENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where appropriate, of the rele	vant passages Relevant to clai	m No.	
_				
Α	EP 0 415 671 A (YAMANOUCHI PHARMA	CO LTD 1-87		
	[JP]) 6 March 1991 (1991-03-06) page 2, line 53 - page 3, line 4			
	page 5, line 28			
Α	US 4 767 627 A (CALDWELL LARRY J [US] ET 1-87			
	AL) 30 August 1988 (1988-08-30)			
	claim 1			
				
]	
	<u> </u>			
Furti	her documents are listed in the continuation of Box C.	X See patent family annex.		
* Special o	categories of cited documents :	T* later document published after the international filing date		
	ent defining the general state of the art which is not	or priority date and not in conflict with the application but cited to understand the principle or theory underlying the		
	dered to be of particular relevance document but published on or after the international	invention		
filing o	date	X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to		
which	ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another	involve an inventive step when the document is taken alone 'Y' document of particular relevance; the claimed invention	į.	
	n or other special reason (as specified) ent referring to an oral disclosure, use, exhibition or	cannot be considered to involve an inventive step when the document is combined with one or more other such docu-		
other	means	ments, such combination being obvious to a person skilled in the art.		
P docume	ent published prior to the international filing date but han the priority date claimed	** document member of the same patent family		
Date of the	actual completion of the international search	Date of mailing of the international search report		
2	8 January 2008	04/02/2008		
Name and	mailing address of the ISA/	Authorized officer		
	European Patent Office, P.B. 5818 Patentlaan 2			
	NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,	Von Kuzenko, Michael		
	Fax: (+31-70) 340-3016	TON NULTINO, MICHAEL		

INTERNATIONAL SEARCH REPORT

International application No. PCT/US2007/065638

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. X Claims Nos.: 60-69 because they relate to subject matter not required to be searched by this Authority, namely:
The subject-matter of claims 60 to 69 is not patentable since these claims are concerned with methods for the treatment of human body by therapy.Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy
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:
As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable 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 reportcovers only those claims for which fees were paid, specifically claims Nos.:
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 Information on patent family members

International application No PCT/US2007/065638

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
EP 0415671		A 06-03-1991	AT	120367 T	15-04-1995
			AU	645518 B2	20-01-1994
			ΑÜ	6199090 A	07-03-1991
			CA	2024450 A1	01-03-1991
			CN	1049787 A	13-03-1991
			DD	297337 A5	09-01-1992
			DE	69018165 D1	04-05-1995
			DE	69018165 T2	10-08-1995
			DK	415671 T3	24-07-1995
			ES	2072987 T3	01-08-1995
			ΙE	903152 A1	27-03-1991
			JP	3163011 A	15-07-1991
			MX	22149 A	01-10-1993
			NO	903808 A	01-03-1991
			NZ	235076 A	25-02-1993
			PT	95141 A	29-05-1992
			RU	2070029 C1	10-12-1996
US 4767627	Α	30-08-1988	NONE		