

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
20 March 2008 (20.03.2008)

PCT

(10) International Publication Number
WO 2008/033375 A3

- (51) **International Patent Classification:**
A61K 48/00 (2006.01) C12N 15/85 (2006.01)
C07H 21/04 (2006.01)
- (21) **International Application Number:**
PCT/US2007/0 19774
- (22) **International Filing Date:**
12 September 2007 (12.09.2007)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
60/844,351 14 September 2006 (14.09.2006) US
- (71) **Applicant (for all designated States except US):** MED-GENICS LTD. [IL/IL]; 12 Hanapach St., P.O. Box 6314, 21653 Karmlel (IL).
- (72) **Inventor; and**
- (75) **Inventor/Applicant (for US only):** PEARLMAN, Andrew, L. [US/US]; Moshav Shorashim, 20194 D.n. Misgav (IL).
- (74) **Agent:** COHEN, Mark, S.; Pearl Cohen Zedek Latzer, LLP, 1500 Broadway, 12th Floor, New York, NY 10036 (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), 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
- with sequence listing part of description published separately in electronic form and available upon request from the International Bureau

- (88) **Date of publication of the international search report:**
14 August 2008



WO 2008/033375 A3

(54) **Title:** LONG LASTING DRUG FORMULATIONS

(57) **Abstract:** The present invention is directed to long-lasting therapeutic formulations and their methods of use wherein the formulation comprises a genetically modified micro-organism that comprises a vector which comprises a nucleic acid sequence operably linked to one or more regulatory sequences, wherein the nucleic acid sequence encodes a therapeutic polypeptide, such as erythropoietin or interferon alpha.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/ 19774

A CLASSIFICATION OF SUBJECT MATTER

IPC: A61 K 48/00(2006.01);CO7H 21/04;C12N 15/85(2006.01)

USPC 5 14/44:424/93. 1;536/23 1,435/325

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)
U.S 5 14/44:424/93. 1;536/23. 1;435/325

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 practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CHIOU et al., Gene Therapy Strategies for the treatment of chronic viral hepatitis, 2001 , Expert Opinion Biol. Ther., Vol. 1(4), pgs. 629-639.	1-1 05
A	CHEN et al., Adeno-associated virus mediated interferon-gamma inhibits the progression of hepatic fibrosis in vitro and in vivo, 2005, World J Gastroenterol, Vol. 11, pgs 4045-405 1.	1- 105

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents	"T"
"A" document defining the general state of the art which is not considered to be of particular relevance	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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
O document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search
06 June 2008 (06.06.2008)

Date of mailing of the international search report
SIT JUN 2008

Name and mailing address of the ISA/US
Mail Stop PCT, Ann ISA/US
Commissioner for Patents
P O Box 1450
Alexandria, Virginia 22313-1450
Facsimile No. (57 1) 273-3201

Authorized officer
Valerie Bell-Harris
/Deborah Crouch/ for DAVID MONTANAR
Telephone No. 511-212-Vb00

INTERNATIONAL SEARCH REPORT

International application No
PCT/US07/19774

Continuation of B FIELDS SEARCHED Item 3
EAST embase, biosis, caplus, medline