

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
3 July 2008 (03.07.2008)

PCT

(10) International Publication Number  
**WO 2008/078318 A3**

(51) International Patent Classification:

A61M 5/142 (2006.01) A61M 39/04 (2006.01)  
A61M 5/158 (2006.01)

(21) International Application Number:

PCT/IL2007/001578

(22) International Filing Date:

20 December 2007 (20.12.2007)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/876,679 22 December 2006 (22.12.2006) US

(71) Applicant (for all designated States except US):  
**MEDINGO LTD.** [IL/IL]; Yoqneam Industrial Park,  
Building 7, P.O. Box 261, 20692 Yoqneam Illit (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **YODFAT, Ofer**  
[IL/IL]; 72 Galil St., 71908 Maccabim-Reut (IL). **IDDAN,**  
**Gavriel J.** [IL/IL]; 44a Einstein St., 34602 Haifa (IL).  
**NETA, Avraham** [IL/IL]; D. N. Misgav, 34602 Gilon  
(IL).

(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.

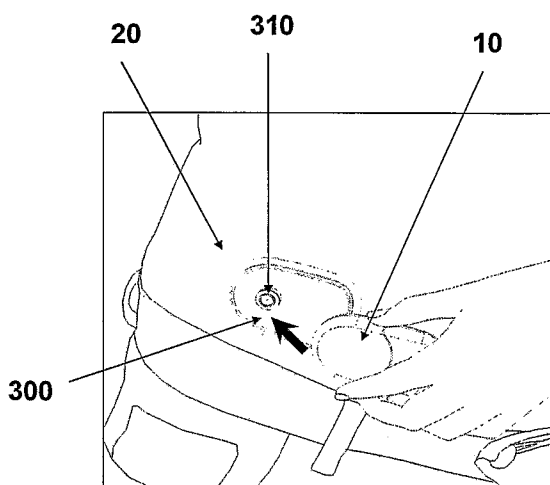
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, 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

(88) Date of publication of the international search report:  
25 September 2008

(54) Title: SYSTEMS AND DEVICES FOR SUSTAINED DELIVERY OF THERAPEUTIC FLUID



(57) Abstract: Embodiments of the present invention are directed to devices, systems and methods for delivering therapeutic fluid (e.g., insulin) into the body, including a skin adherable cradle, for retaining a therapeutic fluid dispenser for delivering a therapeutic fluid to a user.

WO 2008/078318 A3

## INTERNATIONAL SEARCH REPORT

International application No

PCT/IL2007/001578

## A. CLASSIFICATION OF SUBJECT MATTER

INV. A61M5/142 A61M5/158 A61M39/04

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)

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 2006/108809 A (NOVO NORDISK AS [DK]; HANSEN STEFFEN [DK]; LARSEN BJOERN GULLAK [DK];) 19 October 2006 (2006-10-19)	1-4,6, 8-12,14, 17-33, 35,40
A.	figures 1-31  page 18, line 11 - page 34, line 3 page 46, line 29 - page 47, line 25	5,7,13, 15,16,34
X	US 2005/101932 A1 (COTE STEVE [US] ET AL) 12 May 2005 (2005-05-12)	1-4,6, 8-15, 17-23, 27,28, 30-33, 35,40
	figures 1-55 paragraph [0153] - paragraph [0179]  ----- -/--	



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

27 March 2008

Date of mailing of the international search report

01/08/2008

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

Reinbold, Sylvie

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/IL2007/001578

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 2005/107743 A1 (FANGROW THOMAS F JR [US] FANGROW JR THOMAS F [US]) 19 May 2005 (2005-05-19) figures 1-14 paragraph [0063] - paragraph [0078] -----	1-4,6, 8-13
X	WO 98/58693 A (MAERSK MEDICAL AS [DK]; LARSEN BJOERN GULLAK [DK]; MATHIASSEN ORLA [DK]) 30 December 1998 (1998-12-30) figures 1-33 page 10, line 11 - page 20, line 23 -----	1-4,6, 8-13
X	US 2001/053889 A1 (MARGGI ROLF [CH] ET AL MARGGI ROLF [CH] ET AL) 20 December 2001 (2001-12-20) figures 1-9 paragraph [0029] - paragraph [0049] -----	1-4,6, 8-12

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims Nos.: 36-39

The methods of claims 36-39 for delivering a therapeutic fluid to a human body are carried out within a human body. As stated in the claims, the methods are during a medical therapy.

These methods are forming part of a therapeutic procedure and can therefore not be regarded as an invention which is susceptible of industrial application.

The application does not meet the requirement of Rule 39.1(iv), because these claims are a method of treatment of the human body.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IL2007/001578

## 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.: 36-39  
because they relate to subject matter not required to be searched by this Authority, namely:  
see FURTHER INFORMATION sheet PCT/ISA/210
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 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 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.:

see additional sheet(s)

### 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: 1-35,40

These claims essentially define a fluid infusion device comprising a first assembly having:

- a structure having a first surface configured for adhering to the skin of a user and having at least a portion of a second surface which substantially corresponds to at least a portion of a therapeutic fluid infusion device
- at least one connecting area for connection with a corresponding connecting area of the infusion device
- an opening for receiving a fluid dispensing outlet of the infusion device and for receiving a cannula
- an adhesive

(technical effect: to provide an infusion device which permits repeated connection and disconnection of the infusion device to/from the first assembly)

2. claims: 41-48

These claims essentially define an inserter device comprising:

- a housing
- an actuator
- a spring loaded plunger

(technical effect: to provide an inserter)

3. claim: 49

This claim essentially defines a medical infusion penetrating assembly comprising:

- a needle
- a cannula
- a grip portion
- at least one strip of material for preventing crumpling of a medical infusion device cradle

(technical effect: to provide a penetrating assembly which prevents crumpling of a medical infusion device cradle)

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No  
PCT/IL2007/001578

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2006108809 A	19-10-2006	EP 1877116 A1	16-01-2008
US 2005101932 A1	12-05-2005	AU 2004289183 A1 CA 2544299 A1 CN 1878592 A EP 1684840 A1 JP 2007510497 T WO 2005046780 A1	26-05-2005 26-05-2005 13-12-2006 02-08-2006 26-04-2007 26-05-2005
US 2005107743 A1	19-05-2005	AU 2004291104 A1 CA 2544579 A1 EP 1694385 A2 JP 2007511325 T US 2006270990 A1 US 2006270992 A1 US 2006211990 A1 US 2006211991 A1 US 2006276760 A1 US 2006224119 A1 WO 2005049117 A2	02-06-2005 02-06-2005 30-08-2006 10-05-2007 30-11-2006 30-11-2006 21-09-2006 21-09-2006 07-12-2006 05-10-2006 02-06-2005
WO 9858693 A	30-12-1998	AT 285259 T AU 731678 B2 AU 8011598 A CA 2294994 A1 DE 69828281 D1 DE 69828281 T2 EP 0991439 A1 ES 2235334 T3 JP 4063893 B2 JP 2002505600 T US 5968011 A	15-01-2005 05-04-2001 04-01-1999 30-12-1998 27-01-2005 15-12-2005 12-04-2000 01-07-2005 19-03-2008 19-02-2002 19-10-1999
US 2001053889 A1	20-12-2001	NONE	