



(51) International Patent Classification:

A61M 11/04 (2006.01) A61P 25/04 (2006.01)  
A61M 15/00 (2006.01) A61P 25/30 (2006.01)

(21) International Application Number:

PCT/US2017/057749

(22) International Filing Date:

20 October 2017 (20.10.2017)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/411,455 21 October 2016 (21.10.2016) US

(71) Applicant: SOMNIFERUM LABS LLC [US/US]; 4454 North Decatur Boulevard, Las Vegas, NV 89130 (US).

(72) Inventor: LANZKOWSKY, M.D., David; 4454 North Decatur Boulevard, Las Vegas, NV 89130 (US).

(74) Agent: SCHULTE, Timothy, R. et al.; 410 Seventeenth Street, Suite 2200, Denver, CO 80202 (US).

(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, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP,

KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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:

28 June 2018 (28.06.2018)

(54) Title: APPARATUS FOR CONTROLLED DELIVERY OF OPIOID AND OTHER MEDICATIONS

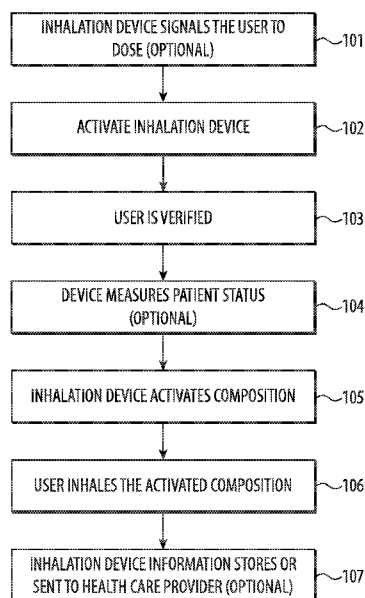


FIG. 1

(57) Abstract: A method, system and apparatus for administering various medications including those for treating pain and substance dependency are disclosed. The apparatus is a unit for heat activation of a morphine opiate liquid concentrate mixed with a carrier substance to produce inhaled gas. The method includes inhaling the heat activated gaseous vapor concentrate for pain relief, to treat substance dependency or administration of other medicaments. The system includes a heat vaporization unit with security, control and communication capability to provide effective patient care and ensure safety.

WO 2018/075981 A3

INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2017/057749

A. CLASSIFICATION OF SUBJECT MATTER  
INV. A61M11/04 A61M15/00 A61P25/04 A61P25/30  
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)  
A61K A61M A61B A61P  
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)  
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.
A	US 2015/164792 A1 (CHONG ALEXANDER CHINHAK [US] ET AL) 18 June 2015 (2015-06-18) paragraphs [0011], [0012], [0015], [0020] - [0024], [0028], [0035] - [0038], [0043], [0052], [0054] -----	1-7
X	WO 2004/022128 A2 (CHRYSALIS TECH INC [US]; NGUYEN TUNG T [US]; IRVING CHRISTOPHER L [US]) 18 March 2004 (2004-03-18) claims 1,4,6,15,18,20,25-27 paragraphs [0085], [0092] - [0095] -----	1-7
X	US 2005/268911 A1 (CROSS STEVEN D [US] ET AL) 8 December 2005 (2005-12-08) claims 37,70 paragraphs [0009], [0068], [0074] ----- -/--	1-7

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	"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
"E" earlier application or patent but 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 <b>14 May 2018</b>	Date of mailing of the international search report <b>28/05/2018</b>
---	---

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer <b>Schembri, Valentina</b>
--	--

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2017/057749

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2005/014090 A1 (ALEXZA MOLECULAR DELIVERY CORP [US]; HALE RON L [US]; LU AMY T [US]; M) 17 February 2005 (2005-02-17) paragraphs [0051], [0086], [0097], [0103], [0171] - [0175] -----	1-7
X	US 2004/099269 A1 (HALE RON L [US] ET AL) 27 May 2004 (2004-05-27) paragraphs [0158], [0193], [0251], [0294] -----	1-7
A	DE 20 2014 101126 U1 (EWWK UG HAFTUNGSBESCHRÄNKT [DE]) 1 April 2014 (2014-04-01) particularly paragraph 41; the whole document -----	1-7
X	WO 2015/079198 A1 (TWENTY SIXTEEN 2016 PHARMA LTD [GB]) 4 June 2015 (2015-06-04) figure 5 claims 32,36,40,43-47 paragraphs [0028], [0029], [0040] - [0042], [0046], [0057] -----	15-20
A	WO 2016/009202 A1 (CAMBRIDGE DESIGN PARTNERSHIP LLP [GB]) 21 January 2016 (2016-01-21) page 21, line 14 - page 23, line 5 -----	15-20

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2017/057749

## 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.: 8-14, 21-29  
because they relate to subject matter not required to be searched by this Authority, namely:  
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy
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 all searchable 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.:

### 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: 1-7

Inhalation apparatus regulating the amount and or timing of a vaporized mixture delivered to the mouthpiece.

---

2. claims: 15-20

System for providing pain relief and for treating substance addiction comprising security and identification components.

---

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2017/057749
---

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2015164792 A1	18-06-2015	US 2013072577 A1 US 2015164792 A1	21-03-2013 18-06-2015
WO 2004022128 A2	18-03-2004	AU 2003263061 A1 CA 2497845 A1 CN 1700934 A EP 1539284 A2 HK 1085952 A1 JP 4933046 B2 JP 2005538159 A US 2004081624 A1 WO 2004022128 A2	29-03-2004 18-03-2004 23-11-2005 15-06-2005 15-06-2012 16-05-2012 15-12-2005 29-04-2004 18-03-2004
US 2005268911 A1	08-12-2005	US 2005268911 A1 US 2009235926 A1 US 2011233043 A1 US 2013180525 A1 US 2017105246 A1	08-12-2005 24-09-2009 29-09-2011 18-07-2013 13-04-2017
WO 2005014090 A1	17-02-2005	US 2005037506 A1 WO 2005014090 A1	17-02-2005 17-02-2005
US 2004099269 A1	27-05-2004	NONE	
DE 202014101126 U1	01-04-2014	NONE	
WO 2015079198 A1	04-06-2015	EP 3102056 A1 EP 3102266 A1 GB 2522727 A WO 2015079197 A1 WO 2015079198 A1	14-12-2016 14-12-2016 05-08-2015 04-06-2015 04-06-2015
WO 2016009202 A1	21-01-2016	NONE	