

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference VAC.1534PCT	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2018/043444	International filing date (<i>day/month/year</i>) 24 July 2018 (24-07-2018)	(Earliest) Priority Date (<i>day/month/year</i>) 2 August 2017 (02-08-2017)
Applicant KCI LICENSING, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of:

- the international application in the language in which it was filed
 a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. **Certain claims were found unsearchable** (See Box No. II)

3. **Unity of invention is lacking** (see Box No III)

4. With regard to the **title**,

- the text is approved as submitted by the applicant
 the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- the text is approved as submitted by the applicant
 the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 2

- as suggested by the applicant
 as selected by this Authority, because the applicant failed to suggest a figure
 as selected by this Authority, because this figure better characterizes the invention

b. none of the figures is to be published with the abstract

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2018/043444

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.: 30, 31
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 30, 31 relate to subject-matter considered by this Authority to be covered by the provisions of Rule 39.1(iv) PCT. The method disclosed therein has the explicit purpose of treating a wound site; hence it is considered a method for treatment of the human or animal body by therapy/surgery.
2. Claims Nos.: 32
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:
see FURTHER INFORMATION sheet PCT/ISA/210
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:

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.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2018/043444

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61M1/00
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)
A61M A61F

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.
X	US 2011/224630 A1 (SIMMONS TYLER [US] ET AL) 15 September 2011 (2011-09-15)	1-3,5-9, 12-29
Y	paragraphs 0021, 0022, 0027, 0028, 0030, 0032, 0033, 0037, 0038, 0045; figures 1, 2	4,10,11
Y	----- WO 2016/015001 A2 (KCI LICENSING INC [US]) 28 January 2016 (2016-01-28)	4
Y	paragraphs 0025, 0061, 0063, 0067; figures 1, 3, 4A-B	10,11
Y	----- US 2014/316353 A1 (RIESINGER BIRGIT [DE]) 23 October 2014 (2014-10-23)	
	paragraphs 0046, 0164, 0174	

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 application or patent 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
2 October 2018

Date of mailing of the international search report
09/10/2018

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
Martin Amezaga, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2018/043444

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 2011224630	A1	15-09-2011	AU 2011224324 A1	16-08-2012
			AU 2016201800 A1	14-04-2016
			CA 2789002 A1	15-09-2011
			CA 3015738 A1	15-09-2011
			CN 102811750 A	05-12-2012
			CN 105287104 A	03-02-2016
			EP 2544730 A1	16-01-2013
			EP 3042671 A1	13-07-2016
			JP 5844751 B2	20-01-2016
			JP 6294287 B2	14-03-2018
			JP 2013521887 A	13-06-2013
			JP 2016041283 A	31-03-2016
			JP 2018126517 A	16-08-2018
			TW 201200175 A	01-01-2012
			US 2011224630 A1	15-09-2011
			US 2013253454 A1	26-09-2013
			US 2016193394 A1	07-07-2016
WO 2011112774 A1	15-09-2011			

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			CA 2955958 A1	28-01-2016
			CN 106794286 A	31-05-2017
			EP 3180048 A2	21-06-2017
			JP 2017527336 A	21-09-2017
			US 2017209641 A1	27-07-2017
			WO 2016015001 A2	28-01-2016

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			CA 2628295 A1	10-05-2007
			CN 101299978 A	05-11-2008
			EP 1942851 A1	16-07-2008
			EP 2359784 A1	24-08-2011
			EP 3292846 A1	14-03-2018
			US 2008312572 A1	18-12-2008
			US 2014316353 A1	23-10-2014
			WO 2007051599 A1	10-05-2007

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims Nos.: 30, 31

Claims 30, 31 relate to subject-matter considered by this Authority to be covered by the provisions of Rule 39.1(iv) PCT. The method disclosed therein has the explicit purpose of treating a wound site; hence it is considered a method for treatment of the human or animal body by therapy/surgery.

Continuation of Box II.2

Claims Nos.: 32

Claim 32 contains references to the description. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guidelines C-IV, 7.2), should the problems which led to the Article 17(2) declaration be overcome.