

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P11145PC00	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2015/070504	International filing date (<i>day/month/year</i>) 8 September 2015 (08-09-2015)	(Earliest) Priority Date (<i>day/month/year</i>) 8 September 2014 (08-09-2014)
Applicant LANDSTEINER GENMED, S.L.		

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 6 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. _____

☐

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

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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.:
because they relate to subject matter not required to be searched by this Authority, namely:
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.

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2015/070504

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61K38/05 C07K5/06 A61P3/04
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 C07K 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, BIOSIS, CHEM ABS Data, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 514 694 A (POWERS JAMES C [US] ET AL) 7 May 1996 (1996-05-07) column 30, line 33; tables 3,4 -----	1-25
Y	US 5 610 297 A (POWERS JAMES C [US]) 11 March 1997 (1997-03-11) column 5, line 15; examples 1,4,7-10 -----	1-25
Y	WO 00/16767 A1 (CEPHALON INC [US]) 30 March 2000 (2000-03-30) claim 27; examples 1,2,5,14 -----	1-25
Y	WO 2005/056519 A1 (SENJU PHARMA CO [JP]; SHIRASAKI YOSHIHISA [JP]; MIYASHITA HIROYUKI [JP] 23 June 2005 (2005-06-23) claims ----- -/-	1-25



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

18 May 2016

Date of mailing of the international search report

30/05/2016

Name and mailing address of the ISA/

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	ALICE LEE-DUTRA ET AL: "Cathepsin S inhibitors: 2004 - 2010", EXPERT OPINION ON THERAPEUTIC PATENTS, vol. 21, no. 3, 1 March 2011 (2011-03-01), pages 311-337, XP055100095, ISSN: 1354-3776, DOI: 10.1517/13543776.2011.553800 page 312, paragraph 1; figure 3 -----	1-25

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2015/070504

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5514694	A	07-05-1996	NONE
US 5610297	A	11-03-1997	US 5610297 A 11-03-1997
		US 5650508	A 22-07-1997
WO 0016767	A1	30-03-2000	AU 771518 B2 25-03-2004
		AU 6050299	A 10-04-2000
		CA 2342985	A1 30-03-2000
		CN 1319008	A 24-10-2001
		EP 1115390	A1 18-07-2001
		ES 2327804	T3 03-11-2009
		HK 1039276	A1 16-04-2010
		JP 2003534233	A 18-11-2003
		NO 20011388	A 16-05-2001
		NZ 510303	A 20-12-2002
		US 6686335	B1 03-02-2004
		US 2004106558	A1 03-06-2004
		WO 0016767	A1 30-03-2000
WO 2005056519	A1	23-06-2005	AT 446948 T 15-11-2009
		EP 1692098	A1 23-08-2006
		ES 2331841	T3 18-01-2010
		KR 20060134929	A 28-12-2006
		US 2007004643	A1 04-01-2007
		WO 2005056519	A1 23-06-2005

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-13

A compound of formula (I) or a pharmaceutically acceptable salt thereof for use in the treatment and/or prevention obesity-related conditions selected from the group consisting of obesity, lipid storage disease and hyperlipemia as well as the non-therapeutic use to reduce fat accumulation in a subject which does not suffer from obesity.

2. claims: 14-25

A compound of formula (II), a process for its preparation and its use as a medicament.
