

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference X20448	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2016/012124	International filing date (<i>day/month/year</i>) 5 January 2016 (05-01-2016)	(Earliest) Priority Date (<i>day/month/year</i>) 9 January 2015 (09-01-2015)
Applicant ELI LILLY AND COMPANY		

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. _____
☐ 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

BPI Labs, LLC, EX1005

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Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.c of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of a sequence listing:
- a. ☒ forming part of the international application as filed:
- ☒ in the form of an Annex C/ST.25 text file.
- ☐ on paper or in the form of an image file.
- b. ☐ furnished together with the international application under PCT Rule 13~~ter~~.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
- c. ☐ furnished subsequent to the international filing date for the purposes of international search only:
- ☐ in the form of an Annex C/ST.25 text file (Rule 13~~ter~~.1(a)).
- ☐ on paper or in the form of an image file (Rule 13~~ter~~.1(b) and Administrative Instructions, Section 713).
2. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

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A. CLASSIFICATION OF SUBJECT MATTER

INV. C07K14/575 C07K14/605 A61K38/26
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)

C07K A61K

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, EMBASE, Sequence Search, 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	WO 2013/164483 A1 (ZEALAND PHARMA AS [DK]) 7 November 2013 (2013-11-07) abstract paragraphs [0005] - [0020], [0078] sequences 4, 30	1-19
A	WO 2012/088379 A2 (MARCADIA BIOTECH INC [US]; VIGNATI LOUIS [US]; DIMARCHI RICHARD D [US]) 28 June 2012 (2012-06-28) abstract paragraphs [0008] - [0013] sequence 115 ----- -/-	1-19



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

14 April 2016

Date of mailing of the international search report

25/04/2016

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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.
A	<p>GREEN B D ET AL: "STRUCTURALLY MODIFIED ANALOGUES OF GLUCAGON-LIKE PEPTIDE-1 (GLP-1) AND GLUCOSE-DEPENDENT INSULINOTROPIC POLYPEPTIDE (GIP) AS FUTURE ANTIDIABETIC AGENTS", CURRENT PHARMACEUTICAL DESIGN, BENTHAM SCIENCE PUBLISHERS, NL, vol. 10, no. 29, 1 January 2004 (2004-01-01), pages 3651-3662, XP009068381, ISSN: 1381-6128, DOI: 10.2174/1381612043382774 the whole document -----</p>	1-19

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Information on patent family members

International application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2013164483	A1	07-11-2013	AR 090937 A1 17-12-2014
			AU 2013255751 A1 18-12-2014
			CA 2872314 A1 07-11-2013
			CN 104470948 A 25-03-2015
			EA 201491918 A1 30-07-2015
			EP 2844669 A1 11-03-2015
			HK 1208232 A1 26-02-2016
			JP 2015517459 A 22-06-2015
			KR 20150003910 A 09-01-2015
			PH 12014502452 A1 02-02-2015
			SG 11201407137P A 27-11-2014
			TW 201348252 A 01-12-2013
			US 2015299281 A1 22-10-2015
			WO 2013164483 A1 07-11-2013

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			AU 2011348202 A1 04-07-2013
			CA 2822617 A1 28-06-2012
			CN 103402536 A 20-11-2013
			EP 2654774 A2 30-10-2013
			JP 2014501762 A 23-01-2014
			KR 20140020851 A 19-02-2014
			NZ 611878 A 27-02-2015
			RU 2013133803 A 27-01-2015
			SG 191252 A1 31-07-2013
			US 2014018291 A1 16-01-2014
			WO 2012088379 A2 28-06-2012
