

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference X21678	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2019/024756	International filing date (<i>day/month/year</i>) 29 March 2019 (29-03-2019)	(Earliest) Priority Date (<i>day/month/year</i>) 6 April 2018 (06-04-2018)
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

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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. C07K14/495
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

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, Sequence Search, 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.
X	WO 2017/109706 A1 (NOVARTIS AG [CH]) 29 June 2017 (2017-06-29) abstract paragraph [0012] paragraph [0015] paragraph [0018] - paragraph [0021] paragraph [0065] - paragraph [0073] paragraph [0151] - paragraph [0230] claims 1-24	1-22
X	US 2016/120999 A1 (SHEN WENYAN [US] ET AL) 5 May 2016 (2016-05-05) abstract claims 1-84 sequence 63 ----- -/-	1-22



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

1 July 2019

Date of mailing of the international search report

05/07/2019

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.
T	YUMEI XIONG ET AL: "Long-acting MIC-1/GDF15 molecules to treat obesity: Evidence from mice to monkeys", SCIENCE TRANSLATIONAL MEDICINE, vol. 9, no. 412, 18 October 2017 (2017-10-18), page eaan8732, XP55593022, US ISSN: 1946-6234, DOI: 10.1126/scitranslmed.aan8732 the whole document -----	

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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 2017109706	A1	29-06-2017	CN 108367053 A	03-08-2018
			EP 3393494 A1	31-10-2018
			JP 2018538335 A	27-12-2018
			US 2019000923 A1	03-01-2019
			WO 2017109706 A1	29-06-2017

US 2016120999	A1	05-05-2016	AU 2015339130 A1	06-04-2017
			BR 112017005986 A2	19-12-2017
			CA 2961587 A1	06-05-2016
			CL 2017000864 A1	11-05-2018
			CN 106687128 A	17-05-2017
			DO P2017000097 A	15-05-2017
			EA 201790405 A1	29-09-2017
			EP 3212226 A1	06-09-2017
			GT 201700072 A	27-11-2018
			JP 2017538395 A	28-12-2017
			KR 20170074852 A	30-06-2017
			MD 20170035 A2	30-09-2017
			MX 357994 B	01-08-2018
			PE 10582017 A1	21-07-2017
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			SG 11201702580P A	30-05-2017
			SV 2017005420 A	17-10-2017
			TN 2017000113 A1	04-07-2018
			TW 201625698 A	16-07-2016
			US 2016120999 A1	05-05-2016
			US 2018237514 A1	23-08-2018
			WO 2016069921 A1	06-05-2016
