

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference X22568	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/US2020/060663	International filing date (<i>day/month/year</i>) 16 November 2020 (16-11-2020)	(Earliest) Priority Date (<i>day/month/year</i>) 22 November 2019 (22-11-2019)
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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International application No.

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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. C07K16/28 A61P25/28
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 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, 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	WO 2018/015573 A2 (DEUTSCHES ZENTRUM FÜR NEURODEGENERATIVE ERKRANKUNGEN E V (DZNE) [DE] E) 25 January 2018 (2018-01-25) the whole document in particular, pages 2, 3 and 51-54 -----	1-20
Y	WO 2017/062672 A2 (ALECTOR LLC [US]) 13 April 2017 (2017-04-13) the whole document in particular, pages 7-8, 270 and 278. -----	1-20
Y	WO 2019/055841 A1 (DENALI THERAPEUTICS INC [US]) 21 March 2019 (2019-03-21) the whole document in particular, page 144 and 165 ----- -/-	1-20



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

15 February 2021

Date of mailing of the international search report

25/02/2021

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	WO 2019/118513 A1 (PIONYR IMMUNOTHERAPEUTICS INC [US]) 20 June 2019 (2019-06-20) the whole document in particular, pages 66-67 -----	1-20
A	GRATUZE MAUD ET AL: "New insights into the role of TREM2 in Alzheimer's disease", MOLECULAR NEURODEGENERATION, vol. 13, no. 1, 1 December 2018 (2018-12-01), XP055775843, DOI: 10.1186/s13024-018-0298-9 Retrieved from the Internet: URL:http://link.springer.com/content/pdf/1 0.1186/s13024-018-0298-9.pdf> the whole document -----	1-20
A	SABER MAHA ET AL: "Triggering Receptor Expressed on Myeloid Cells 2 Deficiency Alters Acute Macrophage Distribution and Improves Recovery after Traumatic Brain Injury", JOURNAL OF NEUROTRAUMA., vol. 34, no. 2, 15 January 2017 (2017-01-15), pages 423-435, XP055775826, US ISSN: 0897-7151, DOI: 10.1089/neu.2016.4401 Retrieved from the Internet: URL:https://www.liebertpub.com/doi/pdf/10. 1089/neu.2016.4401> cited in the application the whole document -----	1-20

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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 2018015573 A2	25-01-2018	AU 2017300040 A1 CA 3030785 A1 CN 109641961 A EP 3487886 A2 JP 2019531332 A US 2019185565 A1 WO 2018015573 A2	24-01-2019 25-01-2018 16-04-2019 29-05-2019 31-10-2019 20-06-2019 25-01-2018
WO 2017062672 A2	13-04-2017	AU 2016334051 A1 CA 2997960 A1 CN 108738323 A EP 3359569 A2 JP 2018537956 A KR 20180068999 A SG 10201912150T A US 2019330335 A1 WO 2017062672 A2	12-04-2018 13-04-2017 02-11-2018 15-08-2018 27-12-2018 22-06-2018 27-02-2020 31-10-2019 13-04-2017
WO 2019055841 A1	21-03-2019	CA 3075285 A1 CN 111448212 A EP 3681909 A1 JP 2020534277 A US 2020277373 A1 WO 2019055841 A1	21-03-2019 24-07-2020 22-07-2020 26-11-2020 03-09-2020 21-03-2019
WO 2019118513 A1	20-06-2019	AU 2018383709 A1 BR 112020011833 A2 CA 3083660 A1 CL 2020001575 A1 CN 111712258 A CR 20200303 A EP 3723803 A1 KR 20200097765 A SG 11202005484V A US 2019309064 A1 US 2020140546 A1 WO 2019118513 A1	16-07-2020 24-11-2020 20-06-2019 04-09-2020 25-09-2020 23-12-2020 21-10-2020 19-08-2020 29-07-2020 10-10-2019 07-05-2020 20-06-2019