

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference i30905WO	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2018/053745	International filing date ( <i>day/month/year</i> ) 21 December 2018 (21-12-2018)	(Earliest) Priority Date ( <i>day/month/year</i> ) 21 December 2017 (21-12-2017)
Applicant  THALAMUS AI LIMITED		

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 4 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. 1  
 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/GB2018/053745

A. CLASSIFICATION OF SUBJECT MATTER  
INV. G16H50/30 G16H20/00  
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)  
G16H A61B G06F  
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 2009/054908 A1 (ZAND JASON MATTHEW [US] ET AL) 26 February 2009 (2009-02-26) paragraphs [0008] - [0009] paragraph [0056] paragraph [0075] paragraph [0093] paragraphs [0106] - [0108] -----	1-19
A	US 2017/231701 A1 (COHEN DVIR [IL] ET AL) 17 August 2017 (2017-08-17) paragraph [0484] -----	1-19
A	EP 0 917 078 A1 (SMITHKLINE BEECHAM CORP [US]) 19 May 1999 (1999-05-19) paragraph [0005] -----	1-19
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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	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search <b>20 March 2019</b>	Date of mailing of the international search report <b>29/03/2019</b>
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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 <b>Reinbold, Bernhard</b>
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## INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2018/053745

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2014/108045 A1 (AFSHAR SALIM [US] ET AL) 17 April 2014 (2014-04-17) paragraph [0008] -----	1-19
A	US 2016/055307 A1 (MACOVIK JOHN A [US] ET AL) 25 February 2016 (2016-02-25) paragraphs [0004], [0108], [0127], [0129] -----	1-19
A	US 2015/255004 A1 (MANZKE ROBERT [DE] ET AL) 10 September 2015 (2015-09-10) paragraphs [0022], [0029] -----	1-19

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2018/053745

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 2009054908	A1	26-02-2009	CA 2604563 A1	26-10-2006
			CN 101495025 A	29-07-2009
			CN 103622725 A	12-03-2014
			EP 1868485 A2	26-12-2007
			EP 3095379 A1	23-11-2016
			US 2009054908 A1	26-02-2009
			US 2016073909 A1	17-03-2016
			WO 2006113394 A2	26-10-2006
-----				
US 2017231701	A1	17-08-2017	CA 2957620 A1	10-03-2016
			CA 2957622 A1	10-03-2016
			CA 2957624 A1	10-03-2016
			CN 106714655 A	24-05-2017
			EP 3188645 A2	12-07-2017
			EP 3188682 A2	12-07-2017
			JP 2017533057 A	09-11-2017
			US 2017071687 A1	16-03-2017
			US 2017071688 A1	16-03-2017
			US 2017112581 A1	27-04-2017
			US 2017112583 A1	27-04-2017
			US 2017119483 A1	04-05-2017
			US 2017135776 A1	18-05-2017
			US 2017231701 A1	17-08-2017
			US 2019000574 A1	03-01-2019
			WO 2016035084 A2	10-03-2016
			WO 2016035085 A2	10-03-2016
WO 2016035086 A2	10-03-2016			
-----				
EP 0917078	A1	19-05-1999	AU 3930797 A	02-04-1998
			CA 2216681 A1	30-03-1998
			EP 0917078 A1	19-05-1999
			JP H10198750 A	31-07-1998
			NZ 328870 A	28-05-1999
			ZA 9708698 B	03-08-1998
-----				
US 2014108045	A1	17-04-2014	US 2014107461 A1	17-04-2014
			US 2014108045 A1	17-04-2014
-----				
US 2016055307	A1	25-02-2016	US 2014058755 A1	27-02-2014
			US 2014089001 A1	27-03-2014
			US 2015142466 A1	21-05-2015
			US 2016055307 A1	25-02-2016
			WO 2013077977 A1	30-05-2013
-----				
US 2015255004	A1	10-09-2015	CN 104704543 A	10-06-2015
			EP 2904601 A1	12-08-2015
			JP 6306024 B2	04-04-2018
			JP 2015533245 A	19-11-2015
			US 2015255004 A1	10-09-2015
			WO 2014053940 A1	10-04-2014
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