

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference SP33 WO	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2018/071 232	International filing date ( <i>day/month/year</i> ) 6 August 2018 (06-08-2018)	(Earliest) Priority Date ( <i>day/month/year</i> ) 7 August 2017 (07-08-2017)
Applicant  NAVIGO PROTEINS GMBH		

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. 4

- 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/EP2018/071232

## 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 13ter.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 13ter.1(a)).
- on paper or in the form of an image file (Rule 13ter.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:

INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2018/071232

A. CLASSIFICATION OF SUBJECT MATTER  
INV. C07K14/31 B01D15/38 B01J20/289  
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 B01D  
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.
A	WO 2017/009421 A1 (SCIL PROTEINS GMBH [DE]) 19 January 2017 (2017-01-19) the whole document	1-15
A	WO 2016/079033 A1 (GE HEALTHCARE BIOPROCESS R&D AB [SE]) 26 May 2016 (2016-05-26) the whole document	1-15
A	WO 2015/005859 A1 (GE HEALTHCARE BIO SCIENCES AB [SE]) 15 January 2015 (2015-01-15) the whole document	1-15
A	EP 2 690 173 A1 (KANEKA CORP [JP]) 29 January 2014 (2014-01-29) the whole document	1-15
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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>4 September 2018</b>	Date of mailing of the international search report <b>14/09/2018</b>
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>Brenz Verca, Stefano</b>

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2018/071232

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	WO 2018/029157 A1 (NAVIGO PROTEINS GMBH [DE]) 15 February 2018 (2018-02-15) page 19, lines 30-34; sequences 53,54 page 15, line 33 - page 16, line 3 page 18, lines 26-27 page 20, line 1 page 21, lines 16-28 page 17, lines 33-34 -----	1-15

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2018/071232

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
WO 2017009421	A1	19-01-2017	CA 2991812 A1	19-01-2017
			CN 107922483 A	17-04-2018
			EP 3322721 A1	23-05-2018
			KR 20180031012 A	27-03-2018
			WO 2017009421 A1	19-01-2017
-----				
WO 2016079033	A1	26-05-2016	AU 2015348640 A1	27-04-2017
			AU 2015348641 A1	27-04-2017
			BR 112017008106 A2	06-03-2018
			CN 107001432 A	01-08-2017
			CN 107001448 A	01-08-2017
			DE 112015005181 T5	24-08-2017
			EP 3221338 A1	27-09-2017
			EP 3221347 A1	27-09-2017
			JP 2017533924 A	16-11-2017
			JP 2017536819 A	14-12-2017
			KR 20170078693 A	07-07-2017
			KR 20170085502 A	24-07-2017
			SG 11201702796W A	30-05-2017
			SG 11201703053P A	30-05-2017
			US 2017334954 A1	23-11-2017
			WO 2016079033 A1	26-05-2016
			WO 2016079034 A1	26-05-2016
-----				
WO 2015005859	A1	15-01-2015	CN 105377880 A	02-03-2016
			CN 105377881 A	02-03-2016
			EP 3019519 A1	18-05-2016
			EP 3019520 A1	18-05-2016
			JP 2016523959 A	12-08-2016
			JP 2016525100 A	22-08-2016
			US 2016159855 A1	09-06-2016
			US 2016159857 A1	09-06-2016
			US 2016207966 A1	21-07-2016
			US 2017320922 A1	09-11-2017
			US 2018244729 A1	30-08-2018
			WO 2015005859 A1	15-01-2015
			WO 2015005862 A1	15-01-2015
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EP 2690173	A1	29-01-2014	EP 2690173 A1	29-01-2014
			JP 2017070289 A	13-04-2017
			JP WO2012133349 A1	28-07-2014
			US 2014107315 A1	17-04-2014
			WO 2012133349 A1	04-10-2012
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WO 2018029157	A1	15-02-2018	WO 2018029157 A1	15-02-2018
			WO 2018029158 A1	15-02-2018
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