

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 01-3543-WO-1	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2024/055766	International filing date (day/month/year) 6 March 2024 (06-03-2024)	(Earliest) Priority Date (day/month/year) 13 March 2023 (13-03-2023)
Applicant BOEHRINGER INGELHEIM INTERNATIONAL 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 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 43.6bis(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
PCT/EP2024/055766

A. CLASSIFICATION OF SUBJECT MATTER					
INV.	A61P9/10	A61P13/12	A61P25/28	A61P31/00	A61P35/00
	C07D401/04	C07D401/14	C07D471/04	C07D487/04	A61K31/4545
	A61K31/519	A61K31/501			
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) A61P C07D					
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, CHEM ABS Data, 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	MARIA JIMENEZ-SANCHEZ ET AL: "sirna screen identifies QPCT as a druggable target for Huntington's disease", NATURE CHEMICAL BIOLOGY, vol. 11, no. 5, 1 May 2015 (2015-05-01), pages 347-354, XP055479437, New York ISSN: 1552-4450, DOI: 10.1038/nchembio.1790 cited in the application page 351; figure 3				1-16
	-/--				
☒ 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 10 April 2024			Date of mailing of the international search report 18/04/2024		
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 Brandstetter, T		

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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.
	& Jimenez-Sanchez Maria ET AL: "Supplementary information: siRNA screen identifies QPCT as a druggable target for Huntington's disease", Nature Chemical Biology, 6 April 2015 (2015-04-06), pages 347-354, XP093067541, DOI: 10.1038/nchembio.1790 Retrieved from the Internet: URL: http://www.nature.com/articles/nchembio.1790 [retrieved on 2023-07-26] figure 11a -----	
A	WO 2018/178384 A1 (PROBIODRUG AG [DE]) 4 October 2018 (2018-10-04) cited in the application claims 1, 28-32 page 123 - page 125; compounds 1094, 1095 -----	1-16
A	WO 2022/086920 A1 (BLACKSMITH MEDICINES INC [US]) 28 April 2022 (2022-04-28) cited in the application claims 1, 34-45 compounds 3, 6 -----	1-16
X,P	WO 2024/020517 A1 (858 THERAPEUTICS INC [US]; VEAL JAMES M [US] ET AL.) 25 January 2024 (2024-01-25) claims 1, 39, 40-42, 59 paragraph [00467]; examples 24-27, 30, 33, 38, 39, 53, 56, 57, 59, 66-71, etc. paragraph [00477] paragraph [00522] paragraph [00613] paragraph [00419] paragraph [00432] paragraph [00447] paragraph [00467] pages 65-66 -----	1-6, 9-16

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Information on patent family members

International application No

PCT/EP2024/055766

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2018178384 A1	04-10-2018	AU 2018246382 A1	17-10-2019
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		WO 2024020517 A1	25-01-2024