

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 3000BCPCT	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/IB2018/051973	International filing date (<i>day/month/year</i>) 23 March 2018	(Earliest) Priority Date (<i>day/month/year</i>) 23 March 2017
Applicant JACOBIO PHARMACEUTICALS CO.,LTD. et al		

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.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2018/051973

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: **131-134**
because they relate to subject matter not required to be searched by this Authority, namely:
[1] Claims 131-134 relate to a method for treating diseases mediated by SHP2, which belong to a method for the treatment of the human/animal body (Rule 39.1(iv) PCT).
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB2018/051973

A. CLASSIFICATION OF SUBJECT MATTER

C07D 241/18(2006.01)i; C07D 241/20(2006.01)i; C07D 401/14(2006.01)i; C07D 401/04(2006.01)i; C07D 491/107(2006.01)i; C07D 498/10(2006.01)i; C07D 471/10(2006.01)i; A61K 31/497(2006.01)i; A61P 35/00(2006.01)i; A61P 35/02(2006.01)i

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)

C07D241/-; C07D401/-; C07D491/-; C07D471/-; C07D498/-; A61K31/-; A61P35/-

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)

VEN; WPI; EPODOC; CNKI; CAPLUS; REG, MARPAT, SHP2, src w homology, protein w tyrosine w phosphatase, pyrazin +, piperidin+, search the structure in claim 1

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	WO 2018013597 A1 (REVOLUTION MEDICINES INC.) 18 January 2018 (2018-01-18) claims, examples	1-130
X	WO 2016203406 A1 (NOVARTIS AG) 22 December 2016 (2016-12-22) claims 1, 4-14, examples	1-130
X	WO 2015107495 A1 (NOVARTIS AG) 23 July 2015 (2015-07-23) examples, claims	1-130
A	WO 2015107494 A1 (NOVARTIS AG) 23 July 2015 (2015-07-23) claims, examples	1-130

☐ 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

03 June 2018

Date of mailing of the international search report

11 July 2018

Name and mailing address of the ISA/CN

**STATE INTELLECTUAL PROPERTY OFFICE OF THE
P.R.CHINA
6, Xitucheng Rd., Jimen Bridge, Haidian District, Beijing
100088
China**

Authorized officer

LIU Fang

Facsimile No. (86-10)62019451

Telephone No. (86-10)62086357

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/IB2018/051973

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
WO	2018013597	A1	18 January 2018	WO	2018013597	A4	05 April 2018
WO	2016203406	A1	22 December 2016	EP	3310774	A1	25 April 2018
				CN	107922388	A	17 April 2018
WO	2015107495	A1	23 July 2015	PH	12016501336	A1	15 August 2016
				DO	P2016000177	A	30 September 2016
				PE	00112017	A1	25 March 2017
				CA	2935695	A1	23 July 2015
				AP	201609299	A0	30 June 2016
				AU	2015207757	A1	07 July 2016
				TW	201612170	A	01 April 2016
				AU	2015207757	B8	11 May 2017
				SV	2016005245	A	21 November 2016
				CR	20160328	A	10 November 2016
				KR	20160103137	A	31 August 2016
				JP	2017502993	A	26 January 2017
				SG	11201605272S	A	30 August 2016
				EP	3094628	A1	23 November 2016
				US	2017015680	A1	19 January 2017
				UY	35957	A	31 August 2015
				CL	2016001790	A1	30 December 2016
				CN	105916845	A	31 August 2016
				AU	2015207757	A8	11 May 2017
				EA	201691442	A1	30 December 2016
				AU	2015207757	B2	06 April 2017
				MX	2016009223	A	05 October 2016
				AP	201609299	D0	30 June 2016
WO	2015107494	A1	23 July 2015	JP	2017502994	A	26 January 2017
				CN	105899493	A	24 August 2016
				US	2017001975	A1	05 January 2017
				EP	3094629	A1	23 November 2016
				US	9815813	B2	14 November 2017
				US	2018065949	A1	08 March 2018