

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference CIE150004PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/CN2015/000055	International filing date (<i>day/month/year</i>) 28 January 2015	(Earliest) Priority Date (<i>day/month/year</i>) 29 January 2014
Applicant GLAXOSMITHKLINE INTELLECTUAL PROPERTY DEVELOPMENT LIMITED 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/CN2015/000055

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.: **16,18-20**
because they relate to subject matter not required to be searched by this Authority, namely:
[1] methods for treatment of the human/animal body by therapy.
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/CN2015/000055

A. CLASSIFICATION OF SUBJECT MATTER

C07D 487/04(2006.01)i; A61K 31/519(2006.01)i; A61P 25/16(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)

C07D487/-; A61K31/-; A61P25/-

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)

CNPAT,CNKI,WPI,EPODOC,STN(Registry,CAPlus):lrrk2,leucine rich repeat kinase,parkinson,pyrrolo+,+pyrimidine+

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2012062783 A1 (HOFFMANN LA ROCHE) 18 May 2012 (2012-05-18) examples, description pages 1-2, Claims 1-25	1-15, 17
A	WO 2014001973 A1 (PFIZER) 03 January 2014 (2014-01-03) description pages 1-3, claims 1-19	1-15, 17
A	WO 2013079496 A1 (HOFFMANN LA ROCHE) 06 June 2013 (2013-06-06) description pages 1-2, claims 29, 30, 37 and 38	1-15, 17
A	WO 2011038572 A1 (GLAXO GROUP LTD ET AL.) 07 April 2011 (2011-04-07) the whole documents	1-15, 17
A	WO 2013139882 A1 (HOFFMANN LA ROCHE) 26 September 2013 (2013-09-26) the whole documents	1-15, 17

☐ 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

27 March 2015

Date of mailing of the international search report

21 April 2015

Name and mailing address of the ISA/CN

STATE INTELLECTUAL PROPERTY OFFICE OF THE
P.R.CHINA(ISA/CN)
6,Xitucheng Rd., Jimen Bridge, Haidian District, Beijing
100088, China

Authorized officer

ZHANG,Dan

Facsimile No. (86-10)62019451

Telephone No. (86-10)62086317

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/CN2015/000055

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
WO	2012062783	A1	18 May 2012	AU	2011328139	A1	04 April 2013
				MX	2013005199	A	28 June 2013
				EP	2638031	A1	18 September 2013
				KR	20130093657	A	22 August 2013
				CA	2812669	A1	18 May 2012
				CN	103313978	A	18 September 2013
				US	2012157427	A1	21 June 2012
				SG	189043	A1	31 May 2013
				TW	201302733	A	16 January 2013
				JP	2013545741	A	26 December 2013
				AR	083813	A1	27 March 2013
				MA	34644	B1	02 November 2013
				US	8815882	B2	26 August 2014
				IL	225234	D0	27 June 2013
WO	2014001973	A1	03 January 2014	CA	2878054	A1	03 January 2014
				AU	2013282869	A1	15 January 2015
				US	2014005183	A1	02 January 2014
				UY	34883	A	31 January 2014
WO	2013079496	A1	06 June 2013	EP	2785381	A1	08 October 2014
				HK	1197192	A2	09 January 2015
				CN	104093426	A	08 October 2014
				US	2013156700	A1	20 June 2013
				JP	2015500216	A	05 January 2015
				MX	2014006209	A	08 August 2014
				KR	20140097470	A	06 August 2014
				CA	2856002	A1	06 June 2013
WO	2011038572	A1	07 April 2011	SG	179120	A1	30 May 2012
				EP	2483254	A1	08 August 2012
				MX	2012003778	A	01 June 2012
				AU	2010302842	B2	08 May 2014
				EP	2483254	A4	27 February 2013
				EA	201270480	A1	30 August 2013
				KR	20120081609	A	19 July 2012
				AU	2010302842	A1	12 April 2012
				US	2012184553	A1	19 July 2012
				CA	2775753	A1	07 April 2011
				EP	2483254	B1	13 August 2014
				ES	2512727	T3	24 October 2014
				US	8778939	B2	15 July 2014
				JP	2013505969	A	21 February 2013
WO	2013139882	A1	26 September 2013	GB	201204985	D0	02 May 2012