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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
19 May 2011

(54) Title: COMPOUNDS, COMPOSITIONS AND METHODS FOR MODULATING URIC ACID LEVELS

(57) Abstract: Described herein are compounds useful in the reduction of blood uric acid levels, formulations containing them and methods of making and using them. In some embodiments, the compounds described herein are used in the treatment or prevention of disorders related to aberrant levels of uric acid.



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A. CLASSIFICATION OF SUBJECT MATTER*C07D 333/10(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)

C07D 333/10; C07D 413/10; A61K 31/381

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)

CAPLUS, eKOMPASS(KIPO internal)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GAGNON, A. et al. `Investigation on the role of the tetrazole in the binding of thiotetrazolylacetanilides with HIV-1 wild type and K103N/Y181C double mutant reverse transcriptases`, Bioorganic & Medicinal Chemistry Letters (2009), 19(4), 1199-1205, Available online 24 December 2008, CODEN: BMCLE8; ISSN: 0960-894X	1-3, 10-12, 14
X	See compounds 21, 34	5-9, 13, 15, 31-33
A	US 2008-0027048 A1 (MIYATA, J. et al.) 31 January 2008 See entire document	1-3, 5-15, 31-33



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 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

25 MARCH 2011 (25.03.2011)

Date of mailing of the international search report

28 MARCH 2011 (28.03.2011)

Name and mailing address of the ISA/KR

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2010/035573

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.: 16-30
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 16-30 pertain to a method for treatment of the human by therapy, and thus relate to a subject matter which this International Searching Authority is not required, under Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT, to search.
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).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Claims 1-3(partly), 5-15(partly) and 31-33(partly) relate to aromatic heterocyclic compounds represented by 12 different formulas written in claim 3 (Formula II - A ~ VI) or a pharmaceutical composition comprising the compounds.

Claims 1-2(partly), 4-15(partly) and 31-33(partly) relate to aromatic heterocyclic compounds represented by 22 different formulas written in claim 4 (Formula VII- A ~ IX- F) or a pharmaceutical composition comprising the compounds.

Therefore it is considered that there are 34 different inventions claimed according to the structure of the aromatic heterocyclic compounds.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-3(partly), 5-15(partly) and 31-33(partly) (the invention relating to a compound represented by Formula (II - A) or a pharmaceutical composition comprising the compound)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2010/035573Patent document
cited in search reportPublication
datePatent family
member(s)Publication
date

US 2008-0027048 A1

31.01.2008

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09.05.2007

EP 1783124 A4

08.07.2009

US 7612108 B2

03.11.2009

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02.03.2006