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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))

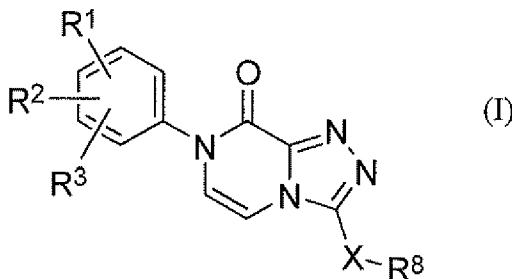
— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

**Published:**

— with international search report (Art. 21(3))

(88) Date of publication of the international search report:  
10 May 2012

(54) Title: TRIAZOLOPYRAZINONES AS P2X7 RECEPTOR ANTAGONISTS



(57) Abstract: The invention provides certain 3,7-disubstituted-[1,2,4]triazolo[4,3-a]pyrazin-8(7H)-ones of the Formula (I), and their pharmaceutically acceptable salts, wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>8</sup>, and X are as defined herein. The invention also provides pharmaceutical compositions comprising such compounds, and methods of using the compounds for treating pain or an inflammatory disease.

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## INTERNATIONAL SEARCH REPORT

PCT/US 11/51923

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - C07D 471/06 (2012.01)

USPC - 548/262.4

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 471/06 (2012.01)

USPC - 548/262.4

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Patent, Non-Patent Literature. USPC -514/249; 514/383; 544/350. Term limited and structure searches.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

ChemSpider; USPTO - PubWEST; FPO; Google; Google Scholar

Search terms: triazolopyrazinone, triazolopyrazine, [1,2,4]Triazolo[4,3-a]pyrazin-8(7H)-one

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2010/0120761 A1 (Berdini et. al.) 13 May 2010 (13.05.2010) pg 2, 7; para [0075], [0076], [0095]	1-4, 8-12
A	US 5,602,075 A (Benko et al.) 11 February 1997 (11.02.1997) col 5-8, Table I	1-4, 8-12
A	WO 2008/138842 A1 (Andrews et al.) 20 November 2008 (20.11.2008) para [0018]	1-4, 8-12
A	WO 2008/124153 A1 (Ihle et al.) 16 October 2008 (16.10.2008) pg 6; pg 22 ln 10-13	1-4, 8-12

 Further documents are listed in the continuation of Box C.

\* 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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

21 January 2012 (21.01.2012)

Date of mailing of the international search report

15 FEB 2012

Name and mailing address of the ISA/US

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## INTERNATIONAL SEARCH REPORT

PCT/US 11/51923

**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.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
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.: 5-7 and 13-15  
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:

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 additional fees, this Authority did not invite payment of additional fees.
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.:

**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.