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Declaration under Rule 4.17:

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

Published:

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(88) Date of publication of the international search report:
3 July 2008

(54) Title: INHIBITORS OF UNDECAPRENYL PYROPHOSPHATE SYNTHASE

(57) Abstract: The present invention relates to compounds that are selective and/or potent inhibitors of UPPS. In addition to compounds which inhibit UPPS, the invention also provides pharmaceutical compositions comprising these compounds and methods of using these compounds for treating bacterial disease, such as bacterial infection.



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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/074298

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61P31/04 A61K31/00 A61K31/366 A61K31/435 A61K31/166

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)

A61K

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 practical, search terms used)

EPO-Internal, WPI Data, EMBASE, BIOSIS, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 94/05649 A (PFIZER [US]; DUTTON CHRIS J [GB]; SUTCLIFFE JOYCE [US]; YANG BINGWEI []) 17 March 1994 (1994-03-17) page 1, line 23 - line 37 page 2, line 1 - line 2 page 2, line 19 - line 20 page 2, line 30 - line 33 page 5, line 23	1-150, 152-167
X	CH 578 534 A5 (CIBA GEIGY AG) 13 August 1976 (1976-08-13) column 1, line 20 - line 27 column 3, line 55 - line 68 column 4, line 33 - line 61 column 8, line 58 - line 59	1-150, 152-167
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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 document 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

20 December 2007

Date of mailing of the international search report

31/03/2008

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/074298

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ICHIKAWA ET AL: "Synthesis of coumarin derivatives. XXIII. Synthesis and antibacterial activity of derivatives of 3-substituted-7-amino-4-hydroxycoumarins" CHEMICAL AND PHARMACEUTICAL BULLETIN, TOKYO, JP, vol. 17, no. 11, 25 November 1969 (1969-11-25), pages 2384-2388, XP009093003 ISSN: 0009-2363 page 1, paragraph 1-3 table 1	1-150, 152-167
X	----- WO 00/21544 A (SMITHKLINE BEECHAM CORP [US]) 20 April 2000 (2000-04-20) page 2, line 14 - line 18 -----	1-150, 152-167

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/074298

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.:
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:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.

2. As all searchable claims could be searched without effort justifying an 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 reportcovers 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.:

see annex

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-150 and 152-167

Methods of treating bacterial disease by administering an Upps inhibitor. Upps inhibitors containing a hydroxydicarbonyl moiety. Pharmaceutical compositions comprising said compounds.

2. claim: 151

Method for identifying an activity-enhanced UPPS inhibitor.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2007/074298

Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
WO 9405649	A	17-03-1994	CA 2143207 A1	17-03-1994
			EP 0658158 A1	21-06-1995
			FI 933443 A	02-03-1994
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CH 578534	A5	13-08-1976	BE 814843 A1	12-11-1974
WO 0021544	A	20-04-2000	JP 2002527049 T	27-08-2002
			US 6537774 B1	25-03-2003