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(74) Agent: RIEGER, Dale, L.; Jones Day, 222 East 41st Street, New York, NY 10017-6702 (US).

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(71) Applicant (for all designated States except US): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 1111 Franklin Street, 5th Floor, Oakland, CA 94607-5200 (US).

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(72) Inventors; and

(75) Inventors/Applicants (for US only): BEADLE, James, R. [US/US]; 11723 Petenwell Road, San Diego, CA 92131 (US). HOSTETLER, Karl, Y. [US/US]; 14024 Rue Saint Raphael, Del Mar, CA 92014 (US). VALIAEVA, Nadejda [US/US]; STEIN CLINICAL RESEARCH BUILDING, 9500 Gilman Drive, La Jolla, CA 92037 (US).

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: 1-[2-(PHOSPHONOMETHOXY)ETHYL]-CYTOSINE AND ANALOGS THEREOF

(57) Abstract: Compounds and compositions are provided for treatment, prevention, or amelioration of a variety of medical disorders associated with viral infections. The compounds provided herein are substituted and unsubstituted phosphonomethoxyethyl cytosine and lipophilic esters thereof.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2005/014839

A. CLASSIFICATION OF SUBJECT MATTER
INV. C07F9/38 A61K31/513 A61P31/20

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)
C07F A61K A61P

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, CHEM ABS Data, WPI Data, PAJ, BEILSTEIN Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>HOLY ET AL: "Structure-Antiviral Activity Relationship in the Series of Pyrimidine and Purine N-[2-(2-Phosphonomethoxy)ethyl] Nucleotide Analogues. 1. Derivatives Substituted at the Carbon Atoms of the Base"</p> <p>JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 42, 1999, pages 2064-2086, XP002215041 ISSN: 0022-2623 Scheme 2</p> <p align="center">----- -/--</p>	1-15, 22-26

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

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European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Stroeter, Thomas

INTERNATIONAL SEARCH REPORT

International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BULLER R M ET AL: "Efficacy of oral active ether lipid analogs of cidofovir in a lethal mousepox model" VIROLOGY, ACADEMIC PRESS, ORLANDO, US, vol. 318, no. 2, 20 January 2004 (2004-01-20), pages 474-481, XP004490185 ISSN: 0042-6822 figure 1	1-15, 22-26
Y	----- WO 01/39724 A (THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, SAN DIEGO; HOSTETLER, KAR) 7 June 2001 (2001-06-07) claims 1-15; examples 6,8 -----	1-15, 22-26

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2005/014839

Box 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:

Although claims 23-25 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
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 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 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.:

see annex

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- 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: 1-15 (each complete) and claims 22-26 (each partial)

Compounds (and subject-matter referring to these compounds)
of formula (I)

2. claims: 16-21 (each complete) and claims 22-26 (each partial)

Compounds (and subject-matter referring to these compounds)
of formula (II)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2005/014839

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0139724	A	07-06-2001	
		AU 1949701 A	12-06-2001
		CA 2393410 A1	07-06-2001
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		EP 1233770 A2	28-08-2002
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		MX PA02005490 A	10-09-2004
