

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 December 2007 (13.12.2007)

PCT

(10) International Publication Number
WO 2007/143096 A3

(51) International Patent Classification:
A61K 31/4745 (2006.01) A61P 35/00 (2006.01)

(21) International Application Number:
PCT/US2007/012947

(22) International Filing Date: 1 June 2007 (01.06.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/810,249 2 June 2006 (02.06.2006) US

(71) Applicant (for all designated States except US): **XANTHUS PHARMACEUTICALS, INC.** [US/US]; 300 Technology Square, 5th Floor, Cambridge, MA 02139 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CAPIZZI, Robert, L.** [US/US]; 2027 Spruce Street, Philadelphia, PA 19103 (US). **DROUIN, Michel** [CA/CA]; 1308-12 Jardins De Merici, Quebec, G1S 4Z8 (CA).

(74) Agents: **BROOK, David, E.** et al.; Hamilton, Brook, Smith & Reynolds, P.c., 530 Virginia Road, P.o.box 9133, Concord, MA 01742-9133 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

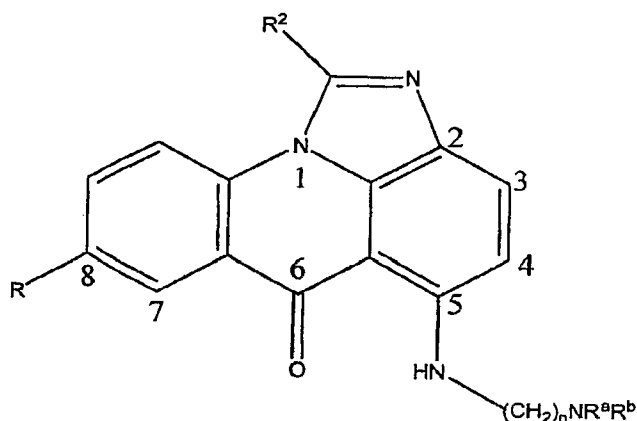
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
27 March 2008

(54) Title: COMPOUNDS FOR TREATING CANCERS



(57) Abstract: A method of treating a patient suffering from a cancer, such as ovarian, renal, head & neck, hepatocellular, thyroid, esophageal, large bowel, pancreatic, mesothelioma, carcinoma, sarcoma and melanoma, comprising administering a therapeutically effective amount of a compound of formula (I) or a pharmaceutically acceptable salt thereof. Definitions for the variables are provided herein.

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/012947

A. CLASSIFICATION OF SUBJECT MATTER
 INV. A61K31/4745 A61P35/00

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 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, BIOSIS, CHEM ABS Data, EMBASE, BEILSTEIN Data, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KUSNIERCZYK H ET AL: "Experimental antitumor activity and toxicity of the selected triazolo- and imidazoacridinones." ARCHIVUM IMMUNOLOGIAE ET THERAPIAE EXPERIMENTALIS 1994, vol. 42, no. 5-6, 1994, pages 415-423, XP008085902 ISSN: 0004-069X the whole document ----- -/--	1-8



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

22 November 2007

Date of mailing of the international search report

12/02/2008

Name and mailing address of the ISA/

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

Jakobs, Andreas

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/012947

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SKLADANOWSKI A ET AL: "Inhibition of DNA topoisomerase II by imidazoacridinones, new antineoplastic agents with strong activity against solid tumors." MOLECULAR PHARMACOLOGY MAY 1996, vol. 49, no. 5, May 1996 (1996-05), pages 772-780, XP008085899 ISSN: 0026-895X the whole document	1-8,31, 32,55,56
X	EP 0 502 668 A (BRITISH TECH GROUP [GB]) 9 September 1992 (1992-09-09) abstract page 4, lines 9-19; examples 1-16	1-8,31, 32,55,56
X	MAZERSKA ZOFIA ET AL: "C-1311: Atineoplastic" DRUGS OF THE FUTURE, vol. 23, no. 7, July 1998 (1998-07), pages 702-706, XP002459524 ISSN: 0377-8282 the whole document	1-8,31, 32,55,56
E	WO 2007/092436 A (XANTHUS PHARMACEUTICALS INC. [US]; AJAMI ALFRED M [US]) 16 August 2007 (2007-08-16) abstract page 5, line 1 - page 13, line 1 page 32, paragraph 2 page 33, paragraph 3; claim 93	1-9, 31-33, 55,56
X,Y	ALAMI NEZHA ET AL: "Comparative in vitro analysis of C1311 activity in a panel of colorectal cell lines against standard colon cancer chemotherapies." PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH ANNUAL MEETING, vol. 45, March 2004 (2004-03), page 475, XP001536829 & 95TH ANNUAL MEETING OF THE AMERICAN-ASSOCIATION-FOR-CANCER-RESEARCH; ORLANDO, FL, USA; MARCH 27 -31, 2004 ISSN: 0197-016X abstract	1-9, 31-33, 55,56
Y	ALAMI ET AL: "IN VITRO AND IN VIVO ACTIVITY OF C1311 AND PACLITAXEL IN THREE CANCER TUMOR MODELS" PROCEEDINGS OF THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH, NEW YORK, NY, US, vol. 45, March 2004 (2004-03), pages 1069-1070, XP001536830 ISSN: 0197-016X abstract	1-9, 31-33, 55,56

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/012947

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:

Although claims 1-9,31-33,55,56 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 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: 1-8,31,32,55,56 (partially) 9,33

Use of a compound of formula (I) in relation to the treatment of ovarian cancer.

2. claims: 1-8,31,32,55,56 (partially) 10,34

Use of a compound of formula (I) in relation to the treatment of renal cancer

3. claims: 1-8,31,32,55,56 (partially) 20,44

Use of a compound of formula (I) in relation to the treatment of head and neck cancer.

4. claims: 1-8,31,32,55,56 (partially) 21,45

Use of a compound of formula (I) in relation to the treatment of hepatocellular cancer.

5. claims: 1-8,31,32,55,56 (partially) 19,43

Use of a compound of formula (I) in relation to the treatment of thyroid cancer.

6. claims: 1-8,24,28,31,32,48,52,55,56 (partially)
22,26,29,46,50,53

Use of a compound of formula (I) in relation to the treatment of esophageal cancer and esophageal carcinoma.

7. claims: 1-8,24,28,31,32,48,55,56 (partially) 27,51

Use of a compound of formula (I) in relation to the treatment of large bowel adenocarcinoma

8. claims: 1-8,31,32,55,56 (partially) 23,47

Use of a compound of formula (I) in relation to the treatment of pancreatic cancer.

9. claims: 1-8,31,32,55,56 (partially) 25,49

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Use of a compound of formula (I) in relation to the treatment of non small cell lung carcinoma.

10. claims: 1-8,31,32,55,56 (partially) 30,54

Use of a compound of formula (I) in relation to the treatment of mesothelioma.

11. claims: 1-8,31,32,55,56 (partially) 11-16,35-40

Use of a compound of formula (I) in relation to the treatment of sarcoma.

12. claims: 1-8,31,32,55,56 (partially) 17,18,41,42

Use of a compound of formula (I) in relation to the treatment of melanoma, including metastatic malignant melanoma.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/012947

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