(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 30 August 2007 (30.08.2007)

(10) International Publication Number WO 2007/098270 A3

(51) International Patent Classification:

A61K 31/497 (2006.01) A61P 31/12 (2006.01) A61K 31/60 (2006.01) C07D 403/02 (2006.01)

(21) International Application Number:

PCT/US2007/004995

(22) International Filing Date:

27 February 2007 (27.02.2007)

(25) Filing Language:

(26) Publication Language: English

(30) Priority Data:

60/777,221 27 February 2006 (27.02.2006)

(71) Applicant (for all designated States except US): VERTEX PHARMACEUTICALS INCORPORATED [US/US]; 130 Waverly Street, Cambridge, MA 02139-4242 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): CONNELLY. Patrick, R. [US/US]; 15 Lovers Lane, Harvard, MA 01451 (US).

(74) Agent: O'BRIEN, Jonathan, P.; Miller, Canfield, Paddock And Stone, 444 West Michigan Avenue, Kalamazoo, MI 49007 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, 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, LV, LY, MA, MD, 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, 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

(88) Date of publication of the international search report: 25 October 2007

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: CO-CRYSTALS COMPRISING VX-950 AND PHARMACEUTICAL COMPOSITIONS COMPRISING THE SAME

(57) Abstract: The invention relates to compositions and co-crystals each comprising VX-950 and a co-crystal former selected from the group consisting of salicylic acid, 4-amino salicylic acid, and oxalic acid. Also within the scope of this invention are methods of making and using the same.

INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/004995

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61K31/497 A61K31/60 A61P31/12 C07D403/02 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 C07D 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, CHEM ABS Data, EMBASE C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. WO 2005/123076 A (VERTEX PHARMA [US] 1-20 MURPHY MAURA [US]; DINEHART KIRK [US]; HURTER PATR) 29 Décember 2005 (2005-12-29) pages 14,17,27 WO 02/18369 A2 (LILLY CO ELI [US]; BABINE Υ 1 - 20ROBERT EDWARD [US]; CHEN SHU HUI [US]; LAMAR) 7 March 2002 (2002-03-07) cited in the application pages 32,79 Υ WO 2005/042570 A (VERTEX PHARMA [US]; LIN 1 - 20CHAO [US]; LIN KAI [US]) 12 May 2005 (2005-05-12) pages 21,28 X Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents : '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 "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "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 *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) '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 docu-ments, such combination being obvious to a person skilled *O* document referring to an oral disclosure, use, exhibition or in the art document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 23 July 2007 03/08/2007 Authorized officer 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 ni, Renard, Delphine Fax: (+31-70) 340-3016

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/004995

		PCT/US2007/004995							
C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT									
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.							
Y	WO 2006/007448 A (TRANSFORM PHARMACEUTICALS INC [US]; MCMAHON JENNIFER [US]; PETERSON MA) 19 January 2006 (2006-01-19) pages 6-10 pages 74,76 pages 49-51	1-20							
Υ :.'	VISHWESHWAR P ET AL: "Pharmaceutical co-crystals" JOURNAL OF PHARMACEUTICAL SCIENCES 2006 UNITED STATES, vol. 95, no. 3, 2006, pages 499-516, XP000244334 ISSN: 0022-3549 1520-6017 page 502 pages 510-511	1-20							
Ρ,Υ	WO 2007/016589 A (VERTEX PHARMA [US]; LYONS STEVE [US]; PERNI ROBERT B [US]) 8 February 2007 (2007-02-08) page 17; claims 41,66	1-20							
	·								
ļ									

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2007/004995

Patent document cited in search report		Publication date	Patent family member(s)			Publication date	
WO 2005123076	A	29-12-2005	AR AU CA CN EP KR	049297 2005253957 2569310 1988885 1765283 20070030270	A1 A1 A A2	12-07-2006 29-12-2005 29-12-2005 27-06-2007 28-03-2007 15-03-2007	
W0 0218369	A2	07-03-2002	AR AU BR CA CN CZ EP HR HU JP MX NO NZ PL SK	2419607 1451014 20030595 1320540 20030139 0300855 2004517047 PA03001780	A A1 A A3 A2 A2 A2 T A A	27-08-2003 13-03-2002 27-09-2005 07-03-2002 22-10-2003 18-06-2003 25-06-2003 30-04-2005 28-10-2003 10-06-2004 04-06-2003 16-04-2003 27-04-2007 10-01-2005 03-11-2004	
WO 2005042570	A	12-05-2005	AU CA EP KR	2004285019 2551074 1678202 20060120166	A1 A1	12-05-2005 12-05-2005 12-07-2006 24-11-2006	
WO 2006007448	Α	19-01-2006	EP	1765379	A 2	28-03-2007	
WO 2007016589	Α	08-02-2007	NONE				