(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
30 June 2011 (30.06.2011)

PCT

(10) International Publication Number
WO 2011/079327 A1

(51) International Patent Classification:
A61K 31/4155 (2006.01) *C07D 403/14* (2006.01)
A61P 31/14 (2006.01)

(21) International Application Number:
PCT/US2010/062168

(22) International Filing Date:
27 December 2010 (27.12.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/290,030 24 December 2009 (24.12.2009) US
61/316,998 24 March 2010 (24.03.2010) US

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

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **LIU, Bingcan** [CA/CA]; 204 St. Aubin Street, Montreal, Québec H4M 2H9 (CA). **POISSON, Carl** [CA/CA]; 1170 de Louvain Est Street, Montreal, Quebec H2M 1B5 (CA). **KONG, Laval Chan Chun** [CA/CA]; 27 Levere Street, Kirkland, Québec H9J 3X8 (CA). **DAS, Sanjoy Kumar** [CA/CA]; 4451 King Street, Pierrefonds, Québec H9H 2G2 (CA). **YANNOPOULOS, Constantin** [CA/CA]; 55 Poncelet Street, Notre-Dame de l'Ile Perrot, Québec J7V 8X3 (CA). **CADILHAC, Caroline** [CA/CA]; 4376 Oxford, Montreal, Québec H4A 2Y6 (CA). **REDDY, T. Jagadeerswar** [CA/CA]; 12546 Bedford, Pierrefonds, Québec H9A 3K5 (CA). **VAILLANCOURT, Louis** [CA/CA]; 2775 rue des Futaies, Mascouche, Québec J7K 4B8 (CA). **FALARDEAU, Guy** [CA/CA]; 5635 Cleroux Boulevard, Laval, Québec H7X 4A5 (CA). **PEREIRA, Oswy W.** [CA/CA]; 12 Daudelin Street, Kirkland, Québec H9J 1L8 (CA). **BUBENIK, Monica** [CA/CA]; 2775 Rue des Futaies, Mascouche, Québec J7K 4B8 (CA). **MAXWELL, John** [US/US]; 69 Gilford Road, Hingham, Massachusetts 02043 (US).

(74) Agents: **DAVIS, Steven, G.** et al.; McCarter & English, LLP, 265 Franklin Street, Boston, MA 02110 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

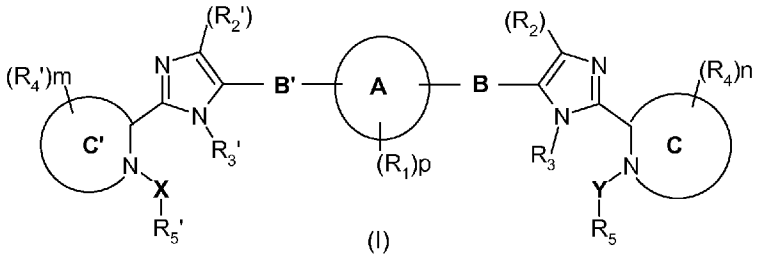
— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

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

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(54) Title: ANALOGUES FOR THE TREATMENT OR PREVENTION OF FLAVIVIRUS INFECTIONS



(57) Abstract: Compounds represented by Formula I: (I) or pharmaceutically acceptable salts thereof, wherein A, B, B', X, Y, R1, R_2, R_2', R_3, R_3', R_4, R_4', R_5, R_5'm, n, or p are as defined herein, are useful for treating flaviviridae viral infections.

WO 2011/079327 A1