

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
3 June 2010 (03.06.2010)

(10) International Publication Number
WO 2010/062396 A3

PCT

(51) International Patent Classification:

C07K 14/005 (2006.01) *A61K 39/12* (2006.01)
C12N 15/33 (2006.01) *A61P 31/12* (2006.01)
C12N 15/63 (2006.01)

(21) International Application Number:

PCT/US2009/006294

(22) International Filing Date:

24 November 2009 (24.11.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/118,206 26 November 2008 (26.11.2008) US
61/201,118 5 December 2008 (05.12.2008) US

(71) Applicant (for all designated States except US): **GOVERNMENT OF THE UNITED STATES OF AMERICA**, as represented by **THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES** [US/US]; 6011 Executive Boulevard, Suite 325, Rockville, MD 20852 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **NABEL, Gary, J.** [US/US]; 2520 30th St. NW, Washington, DC 20008 (US). **AKAHATA, Wataru** [JP/US]; 11317 Palisades Ct., Kensington, MD 20895 (US).

(74) Agents: **CORLESS, Peter, F.** et al.; Edwards Angell Palmer & Dodge LLP, P.O. Box 55874, Boston, MA 02205 (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, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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))

(88) Date of publication of the international search report:

9 December 2010

(54) Title: VIRUS LIKE PARTICLE COMPOSITIONS AND METHODS OF USE

(57) Abstract: The invention features compositions and methods for the prevention or treatment of one or more strains of Chikungunya virus, as well as other alphavirus-mediated diseases.



WO 2010/062396 A3