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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
1 November 2012 (01.11.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/149038 A1

(51) International Patent Classification:
A61K 39/21 (2006.01) *C07K 14/16* (2006.01)

(21) International Application Number:
PCT/US2012/035026

(22) International Filing Date:
25 April 2012 (25.04.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/478,857 25 April 2011 (25.04.2011) US

(71) Applicants *(for all designated States except US)*: **ADVANCED BIOSCIENCE LABORATORIES, INC.** [US/US]; 9800 Medical Center Drive, Building D, Rockville, MD 20850 (US). **THE GOVERNMENT OF THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES** [US/US]; National Institutes Of Health, Office Of Technology Transfer, 6001 Executive Blvd, Suite 325, Rockville, MD 20852 (US). **HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT OF MILITARY MEDICINE** [US/US]; 6720-a Rockledge Drive, Suite 100, Bethesda, MD 20817 (US).

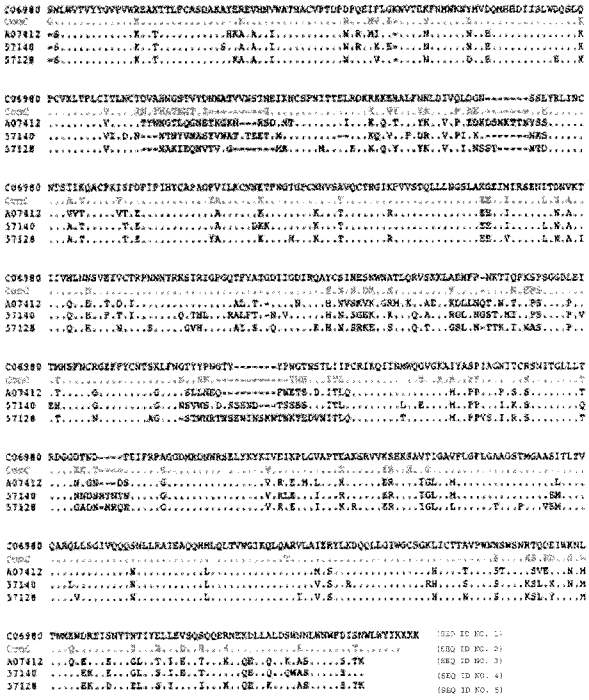
(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **KALYANARAMAN, Vaniambadi** [US/US]; 6050 California Circle, Apt. 101, Rockville, MD 20852 (US). **WHITNEY, Stephen** [US/US]; 2910 Lindell Court, Silver Springs, MD 20902 (US). **VANCOTT, Thomas, C.** [US/US]; 21428 Denit Estates Drive, Brookeville, MD 20833 (US). **POLONIS, Victoria** [US/US]; 1340 Locksley Lane, Silver Spring, MD 20904 (US). **ALVING, Carl** [US/US]; 7118 Glenbrook Road, Bethesda, MD 20814 (US). **MATYAS, Gary, R.** [US/US]; 1845 Snowberry Way, Olney, MD 20832 (US). **RAO, Mangala** [US/US]; 607 Hyde Road, Silver Spring, MD 20902 (US). **MAROVICH, Mary** [US/US]; 8713 Ridge Road, Bethesda, MD 20817 (US). **MCCUTCHAN, Francine** [US/US]; 1430 First Avenue North #2, Seattle, WA 98019 (US). **TOVANABUTRA, Sodsai** [US/US]; 8 Silver Kettle Court, Gaithersburg, MD 20878 (US).

[Continued on next page]

(54) Title: TRUNCATED HIV ENVELOPE PROTEINS (ENV), METHODS AND COMPOSITIONS RELATED THERETO

FIGURE 51



(57) Abstract: The instant application provides methods and related compositions pertaining to novel HIV envelope proteins. In some embodiments, the invention relates to methods and compositions for the preparation, production, and administration of isolated novel HIV envelope nucleic acid and protein sequences suitable, for example, as vaccines against HIV.

WO 2012/149038 A1

SANDERS-BUELL, Eric [US/US]; 1824 Horseback Trail, Vienna, VA 22182 (US).

(74) **Agents**: **EHRHARD, Kathleen** et al.; Frommer Lawrence & Haug LLP, 745 Fifth Avenue, New York, NY 10151 (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, QA, RO, RS, RU, RW, 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, RW, 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).

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))*