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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
1 November 2007 (01.11.2007)

PCT

(10) International Publication Number
WO 2007/123961 A3

(51) International Patent Classification:
C12N 7/02 (2006.01)

(21) International Application Number:
PCT/US2007/009510

(22) International Filing Date: 19 April 2007 (19.04.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/793,376 20 April 2006 (20.04.2006) US

(71) Applicant *(for all designated States except US)*: **WYETH** [US/US]; Five Giralda Farms, Madison, NJ 07940 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **KANG, Yun** [CN/US]; 79 Fellswood Drive, Livingston, NJ 07039 (US). **CUTLER, Mark, William** [US/US]; 104 Natalie Court, Bloomingdale, NJ 07403 (US). **OUATTARA, Amadou, Affrey** [US/US]; 114 Seminole Avenue, New Milford, NJ 07646 (US). **SYVERTSEN, Kristen, Elissa** [US/US]; 12 Tappan Landing Road, Unit 52B, Tarrytown, NY 10951 (US).

(74) Agents: **BAK, Mary, E.** et al.; Howson and Howson, 501 Office Center Drive, Suite 210, Fort Washington, PA 19034 (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, 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, 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:
6 March 2008

(54) Title: PURIFICATION PROCESSES FOR ISOLATING PURIFIED VESICULAR STOMATITIS VIRUS FROM CELL CULTURE

(57) Abstract: Novel purification processes for obtaining vesicular stomatitis virus (VSV) of improved purity from mammalian cell culture are described herein. More particularly, in certain embodiments, a process is described for purifying VSV from cell culture fluid of a mammalian cell culture infected with VSV, the process comprising: clarifying the cell culture fluid by low-speed centrifugation and recovering the VSV in the supernatant; filtering the supernatant through a 0.2 to 0.45 μm filter and recovering the VSV in the filtered solution; loading the VSV filtered solution onto a anion exchange membrane adsorber equilibrated with a first pH buffered salt solution, eluting the VSV from the anion exchange membrane adsorber with a second pH buffered salt solution and recovering the eluted VSV fractions; purifying the recovered VSV by tangential flow filtration (TFF) using a TFF membrane having a molecular weight cutoff between 300 kDa and 1,000 kDa and recovering the VSV in the retentate, and filtering the VSV retentate through a 0.2 to 0.22 μm filter and recovering the VSV in the filtered solution.

WO 2007/123961 A3