



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C12N 15/49, 15/86, 15/64	A1	(11) International Publication Number: WO 99/31251 (43) International Publication Date: 24 June 1999 (24.06.99)
(21) International Application Number: PCT/US98/25719 (22) International Filing Date: 11 December 1998 (11.12.98) (30) Priority Data: 08/989,394 12 December 1997 (12.12.97) US (71) Applicant: CELL GENESYS, INC. [US/US]; 342 Lakeside Drive, Foster City, CA 94404 (US). (72) Inventors: NALDINI, Luigi; Cell Genesys, Inc., 342 Lakeside Drive, Foster City, CA 94404 (US). DULL, Thomas; Cell Genesys, Inc., 342 Lakeside Drive, Foster City, CA 94404 (US). FARSON, Deborah, A.; Cell Genesys, Inc., 342 Lakeside Drive, Foster City, CA 94404 (US). WITT, Rochelle; Cell Genesys, Inc., 342 Lakeside Drive, Foster City, CA 94404 (US). (74) Agents: NAKAMURA, Dean, H. et al.; Sughrue, Mion, Zinn, MacPeak & Seas, PLLC, Suite 800, 2100 Pennsylvania Avenue, N.W., Washington, DC 20037-3213 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: METHOD AND MEANS FOR PRODUCING HIGH TITER, SAFE, RECOMBINANT LENTIVIRUS VECTORS		
(57) Abstract Lentiviral vectors modified at the 5' LTR or both the 5' and 3' LTR's are useful in the production of recombinant lentivirus vectors. Such vectors can be produced in the absence of a functional tat gene. Multiple transformation of the host cell with the vector carrying the transgene enhances virus production.		