20030808190

27/02/03

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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
7 March 2002 (07.03.2002)

PCT

(10) International Publication Number
WO 02/018609 A3

(51) International Patent Classification[7]: C12N 15/87, 15/86, A61K 48/00

(21) International Application Number: PCT/US01/27091

(22) International Filing Date: 29 August 2001 (29.08.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/653,088 31 August 2000 (31.08.2000) US

(71) Applicant: VIRXSYS [US/US]; Suite 1A, 200 Perry Parkway, Gaithersburg, MD 20877 (US).

(72) Inventors: HUMEAU, Laurent; Apartment A, 410 Christopher Avenue, Gaithersburg, MD 20879 (US). HAN, Wei; Apartment 202, 18300 Feathertree Way, Montgomery Village, MD 20886 (US). LU, Xiaobin; 14656 Keeneland Circle, Gaithersburg, MD 20878 (US). STEPUSHKIN, Vladimir; 10009 Damascus Hill Court, Damascus, MD 20872 (US). LESHER, Mechelle; Apartment 105, 6980 Rooks Court, Frederick, MD 21703 (US). DAVIS, Brian; 423 West Side Drive, Apartment 201, Gaithersburg, MD 20878 (US). CHANG, Yung-Nien; 11 Watkins Glen Court, Cockeysville, MD 21030 (US). DROPULIC, Boro; 12637 Golden Oak Drive, Ellicott City, MD 21042 (US).

(74) Agents: LAU, Kawai et al.; Morrison & Foerster LLP, Suite 500, 3811 Valley Centre Drive, San Diego, CA 92130-2332 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, 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, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, 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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
16 January 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



162162



ACTION

WO 02/018609 A3

(54) Title: METHODS FOR STABLE TRANSDUCTION OF CELLS WITH VIRAL VECTORS

(57) Abstract: The present invention provides methods, as well as compositions related thereto, for the efficient transduction of cells using viral vectors. The efficiency of transduction is increased by contacting the cell to be transduced with one or more molecules that bind the cell surface. Contact with a cell surface binding molecule may occur before, after, or simultaneously with contact between the viral vector and the cell. The transduced vectors may be constructed to express a gene of interest, permitting the transduced cells to be used as therapeutic and prophylactic agents.