



(51) International Patent Classification:

C12Q 1/70 (2006.01) C12M 1/12 (2006.01)

C12Q 1/24 (2006.01) C12R 1/92 (2006.01)

(21) International Application Number:

PCT/US2011/045905

(22) International Filing Date:

29 July 2011 (29.07.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/372,243 10 August 2010 (10.08.2010) US

(71) Applicant (for all designated States except US): EMD MILLIPORE CORPORATION [US/US]; 290 Concord Road, Billerica, MA 01821 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KAS, Onur, Y. [US/US]; c/o Millipore Corporation, 290 Concord Road, Billerica, MA 01821 (US). KOZLOV, Mikhail [US/US]; c/o Millipore Corporation, 290 Concord Road, Billerica, MA 01821 (US). TKACIK, Gabriel [US/US]; c/o Millipore Corporation, 290 Concord Road, Billerica, MA 01821 (US). MOYA, Wilson [US/US]; c/o Millipore Corporation, 290 Concord Road, Billerica, MA 01821 (US). GODDARD, Philip [US/US]; c/o Millipore Corporation, 290 Concord Road, Billerica, MA 01821 (US). LEON, Sherry [US/US]; c/o Millipore Corporation, 290 Concord Road, Billerica, MA 01821 (US). HAO, Jibin [US/US]; c/o Mil-

lipore Corporation, 290 Concord Road, Billerica, MA 01821 (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, 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, 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).

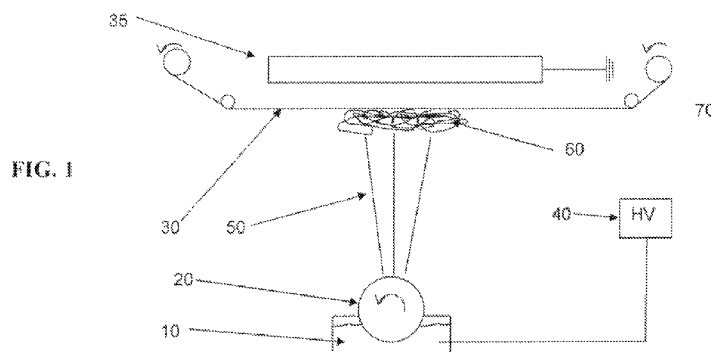
Published:

— with international search report (Art. 21(3))

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

14 June 2012

(54) Title: METHOD FOR RETROVIRUS REMOVAL



(57) Abstract: A method for removing retroviruses from liquid samples and a nanofiber containing liquid filtration medium that simultaneously exhibits high liquid permeability and high microorganism intention is disclosed. Retroviruses are removed from a liquid by passing the liquid through a porous nanofiber containing filtration medium having a retrovirus LRV greater than about 6, and the nanofiber(s) has a diameter from about 10 nm to about 100 nm. The filtration medium can be in the form of a fibrous electrospun polymeric nanofiber liquid filtration medium mat.