

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 August 2021 (05.08.2021)



(10) International Publication Number
WO 2021/154648 A2

(51) International Patent Classification:

C12Q 1/6806 (2018.01) C12N 15/10 (2006.01)
C12Q 1/6834 (2018.01)

(21) International Application Number:

PCT/US2021/014919

(22) International Filing Date:

25 January 2021 (25.01.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/966,351 27 January 2020 (27.01.2020) US

(71) Applicant: **ILLUMINA, INC.** [US/US]; 5200 Illumina Way, San Diego, California 92122 (US).

(72) Inventors: **CHEN, Tyler**; 5200 Illumina Way, San Diego, California 92122 (US). **DAGGUMATI, Pallavi**; 5200 Illumina Way, San Diego, California 92122 (US). **KHURANA, Tarun Kumar**; 5200 Illumina Way, San Diego, California 92122 (US). **WU, Yir-Shyuan**; 5200 Illumina Way, San Diego, California 92122 (US).

(74) Agent: **DIERKER, Julia Church** et al.; Dierker & Kavanaugh, P.C., 3331 W. Big Beaver Road, Suite 109, Troy, Michigan 48084 (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, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to the identity of the inventor (Rule 4.17(i))

(54) Title: KIT, SYSTEM, AND FLOW CELL

(57) Abstract: An example of a kit includes a library preparation fluid, a sample fluid, and an enrichment fluid. The library preparation fluid includes library preparation beads, where each library preparation bead includes a first solid support, and a transposome attached to the first solid support. The fluid includes a genomic deoxyribonucleic acid sequence. The enrichment fluid includes target capture beads, where each target capture bead includes a second solid support, and capture probes attached to the second solid support. Each of the capture probes includes a single stranded deoxyribonucleic acid sequence that is complementary to a targeted region of the genomic deoxyribonucleic acid in the sample fluid.

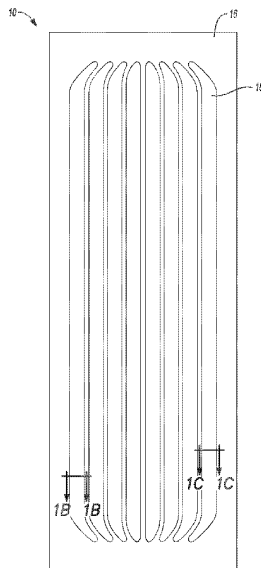


Fig-1A

WO 2021/154648 A2

[Continued on next page]

Published:

- *without international search report and to be republished
upon receipt of that report (Rule 48.2(g))*