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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
12 May 2016 (12.05.2016)

WIPO | PCT

(10) International Publication Number
WO 2016/073690 A1

(51) International Patent Classification:
C12N 15/10 (2006.01) *C12N 9/22* (2006.01)
C12N 9/00 (2006.01)

(21) International Application Number:
PCT/US2015/059194

(22) International Filing Date:
5 November 2015 (05.11.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/075,713 5 November 2014 (05.11.2014) US
62/242,935 16 October 2015 (16.10.2015) US

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

(72) Inventors: **GLOECKNER, Christian**; Wolfstrasse 10A, 53111 Bonn (DE). **KIA, Amirali**; 5200 Illumina Way, San Diego, CA 92122 (US). **HE, Molly**; 5200 Illumina Way, San Diego, CA 92122 (US). **OSOTHPRAROP, Trina Faye**; 5200 Illumina Way, San Diego, CA 92122 (US). **STEEMERS, Frank, J.**; 5200 Illumina Way, San Diego, CA 92122 (US). **GUNDERSON, Kevin, L.**; 5200 Illumina Way, San Diego, CA 92122 (US). **AMINI, Sasan**; 626 Poplar Avenue, Redwood City, CA 94061 (US). **JENDRISAK, Jerome**; 726 Post Road, Madison, WI 53713 (US).

(74) Agents: **CHOWDHURY, Kajal** et al.; 5200 Illumina Way, San Diego, CA 92122 (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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, 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, 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, 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,

[Continued on next page]

(54) Title: TRANSPOSASE COMPOSITIONS FOR REDUCTION OF INSERTION BIAS

(57) Abstract: Presented herein are methods and compositions for tagmentation of nucleic acids. The methods are useful for generating tagged DNA fragments that are qualitatively and quantitatively representative of the target nucleic acids in the sample from which they are generated.

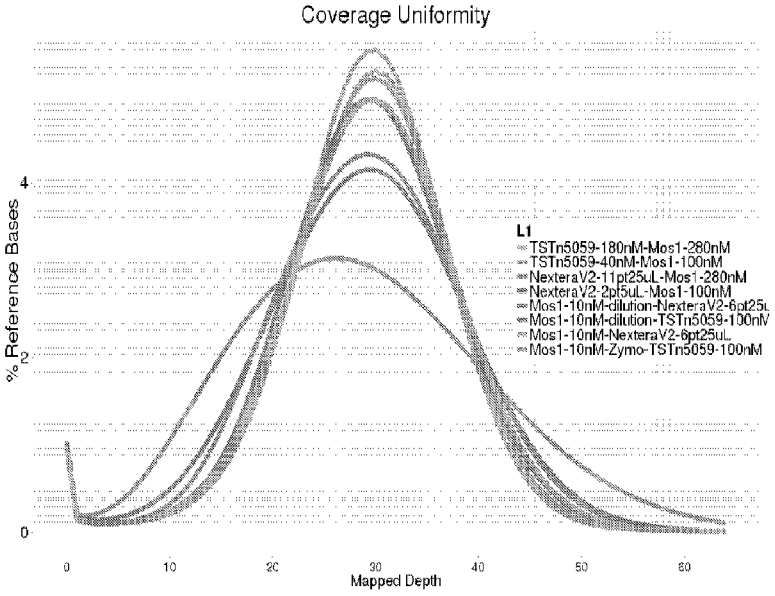


Figure 26

WO 2016/073690 A1

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 applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

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