

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 February 2008 (07.02.2008)

PCT

(10) International Publication Number
WO 2008/016399 A1

(51) International Patent Classification:
C12Q 1/68 (2006.01) *C12P 19/34* (2006.01)

(21) International Application Number:
PCT/US2007/009151

(22) International Filing Date: 13 April 2007 (13.04.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/404,695 14 April 2006 (14.04.2006) US

(71) Applicant (for all designated States except US): **HELICOS BIOSCIENCES CORPORATION** [US/US]; One Kendall Square, Cambridge, MA 02139 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HARRIS, Timothy, D.** [US/US]; 1387 Church Road, Toms River, NJ 08755 (US).

(74) Agent: **LINNIK, Konstantin, M.**; Cooley Godward Kronish LLP, Patent Group, 777 6th Street, NW, Suite 1100, Washington, DC 20001 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(54) Title: METHODS FOR INCREASING ACCURACY OF NUCLEIC ACID SEQUENCING

(57) Abstract: The invention provides methods for improving the accuracy of a sequencing-by-synthesis reaction by sequencing at least a portion of a template and at least a portion of template complementary sequence.



WO 2008/016399 A1