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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number
WO 2005/045015 A3

(51) International Patent Classification[7]: C12N 15/10, 9/12, 15/54, C12Q 1/68

(21) International Application Number:
PCT/GB2004/004643

(22) International Filing Date:
3 November 2004 (03.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0325650.0	3 November 2003 (03.11.2003)	GB
0410871.8	14 May 2004 (14.05.2004)	GB

(71) Applicant *(for all designated States except US)*: **MEDICAL RESEARCH COUNCIL** [GB/GB]; 20 Park Crescent, London WIB 1AL (GB).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **HOLLIGER, Philipp** [CH/GB]; MRC Laboratory of Molecular Biology, Hills Road, Cambridge CB2 2QH (GB). **GHADESSY, Farid** [GB/SG]; 10B Keng Chin Road, Villa Margaux, Singapore 258712 (SG). **D'ABBADIE, Marc** [FR/GB]; MRC laboratory of Molecular Biology, Hills Road, Cambridge CB2 2QH (GB).

(74) Agents: **SOAMES, Candida, Jane** et al.; D. Young & Co., 120 Holborn, London EC1N 2DY (GB).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, 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, 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, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, LU, MC, 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).

Declaration under Rule 4.17:
— *of inventorship (Rule 4.17(iv)) for US only*

Published:
— *with international search report*

(88) Date of publication of the international search report:
22 December 2005

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.

WO 2005/045015 A3

(54) Title: POLYMERASE

(57) Abstract: The present invention relates to DNA polymerases. In particular the invention relates to a method for the generation of DNA polymerases exhibiting a relaxed substrate specificity. Uses of mutant polymerases produced using the methods of the invention are also described.