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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
12 April 2007 (12.04.2007)

PCT

(10) International Publication Number
WO 2007/039705 A1

(51) International Patent Classification:
C12Q 1/68 (2006.01)

(21) International Application Number:
PCT/GB2005/004036

(22) International Filing Date: 20 October 2005 (20.10.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PCT/GB2005/03823
5 October 2005 (05.10.2005) GB

(71) Applicants *(for all designated States except US)*: **ASTRAZENECA UK LIMITED** [GB/GB]; 15 Stanhope Gate, London W1K 1LN (GB). **NATIONAL CANCER CENTER** [JP/JP]; 1-1, Tsukji 5-chome, Chuo-ku, Tokyo 104-0045 (JP).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **NISHIO, Kazuto** [JP/JP]; Pharmacology Division, National Cancer Center Rese, arch Institute, 1-1, Tsukji 5-Chome, Tokyo 104-0045 (JP). **KIMURA, Hideharu** [JP/JP]; Shien-Lab, Medical Oncology, National Cancer Center Hospital, 1-1, Tsukji 5-chome, Chuo-ku, Tokyo 104-0045 (JP). **KASAHARA, Kazuo** [JP/JP]; Kanazawa University Hospital, Takara-machi 13-1, Kanazawa, Ishikawa (JP).

(74) Agents: **MASCHIO, Antonio** 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, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, 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, LT, LU, LV, 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).

Published:
— *with international search report*

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.

(54) **Title:** METHOD TO PREDICT OR MONITOR THE RESPONSE OF A PATIENT TO AN ERBB RECEPTOR DRUG

(57) **Abstract:** The invention provides a method for detecting ErbB receptor mutations comprising the steps of providing a bio-fluid sample from a patient; extracting DNA from said sample; and screening said DNA for the presence of one or more mutations that alter tyrosine kinase activity in the receptor.

WO 2007/039705 A1