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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
11 October 2012 (11.10.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/138785 A1

(51) International Patent Classification:
G01N 33/574 (2006.01)

(21) International Application Number:
PCT/US2012/032206

(22) International Filing Date:
4 April 2012 (04.04.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/471,678 4 April 2011 (04.04.2011) US
61/590,787 25 January 2012 (25.01.2012) US

(71) Applicant *(for all designated States except US)*: **NESTEC SA** [CH/CH]; Avenue Nestlé 55, CH-1800 Vevey (CH).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **KIM, Phillip** [US/US]; 28 Exeter, Irvine, California 92612 (US). **SINGH, Sharat** [US/US]; 8171 Top of the Morning Way, Rancho Santa Fe, California 92127 (US).

(74) Agents: **HAO, Joe C.** et al.; Kilpatrick Townsend & Stockton LLP, Two Embarcadero Center, Eighth Floor, San Francisco, California 94111-3834 (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, 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, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

Published:

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

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(54) **Title**: METHODS FOR PREDICTING AND IMPROVING THE SURVIVAL OF GASTRIC CANCER PATIENTS

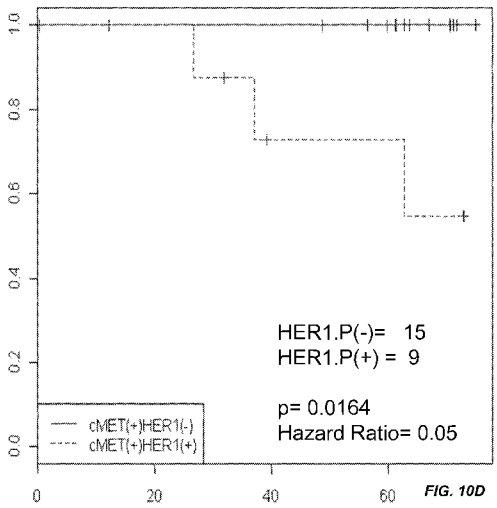


FIG. 10D

(57) **Abstract**: The present invention provides assays and methods for predicting the post-operative survival of a subject having an early stage gastric cancer after tumor surgery. The present invention also provides methods for treating a subject having an early stage gastric cancer by administering a combination therapy tailored to the signal transduction biomarkers that are activated in the cancer. In particular embodiments, the methods of the invention rely on the detection of the activation state or level of a specific combination of signal transducer analytes in a cancer cell obtained from the subject. Thus, the methods of the invention are particularly useful for predicting the survival or prognosis of a subject having an early stage gastric cancer and for guiding both pre- and post-operative treatment decisions by identifying subjects who would benefit from combination therapy as opposed to monotherapy.

WO 2012/138785 A1