



- (51) **International Patent Classification:**
C12Q 1/68 (2006.01) **G01N 33/68** (2006.01)
G01N 33/564 (2006.01)
- (21) **International Application Number:**
PCT/US2012/037375
- (22) **International Filing Date:**
10 May 2012 (10.05.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/484,607 10 May 2011 (10.05.2011) US
61/505,026 6 July 2011 (06.07.2011) US
61/553,909 31 October 2011 (31.10.2011) US
61/566,509 2 December 2011 (02.12.2011) US
61/636,575 20 April 2012 (20.04.2012) US
- (71) **Applicant (for all designated States except US):** **NESTEC SA** [US/US]; 9410 Carroll Park Drive, San Diego, CA 92121-5201 (US).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** **SINGH, Sharat** [US/US]; 8171 Top of the Morning Way, Rancho Santa Fe, California 92127 (US). **HOE, Nicholas** [US/US]; 9072 Renato Street, San Diego, California 92129 (US). **LOCK-TON, Steve** [US/US]; 3319 Mount Tami Lane, San Diego, CA 92111 (US). **HAUENSTEIN, Scott** [US/US]; 3565 Caminito el Rincon #211, San Diego, California 92130

(US). **OHRMUND, Linda** [US/US]; 3519 Tennyson Street, San Diego, California 92106 (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, 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))

(54) **Title:** METHODS OF DISEASE ACTIVITY PROFILING FOR PERSONALIZED THERAPY MANAGEMENT

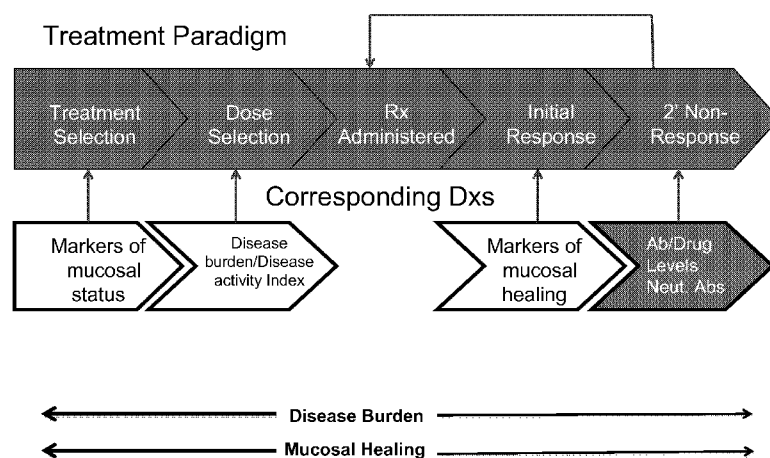


FIG. 24

(57) **Abstract:** The present invention provides methods for personalized therapeutic management of a disease in order to optimize therapy and/or monitor therapeutic efficacy. In particular, the present invention comprises measuring an array of one or a plurality of biomarkers at a plurality of time points over the course of therapy with a therapeutic agent to determine a mucosal healing index for selecting therapy, optimizing therapy, reducing toxicity, and/or monitoring the efficacy of therapeutic treatment. In certain instances, the therapeutic agent is a TNFa inhibitor for the treatment of a TNFa-mediated disease or disorder.