



(51) International Patent Classification:

A61P 37/02 (2006.01) C12Q 1/68 (2006.01)
C12Q 1/00 (2006.01)

(21) International Application Number:

PCT/US2013/063384

(22) International Filing Date:

4 October 2013 (04.10.2013)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/710,656 5 October 2012 (05.10.2012) US
61/860,422 31 July 2013 (31.07.2013) US

(71) Applicant (for all designated States except AL, AT, BE, BG, CH, CN, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IN, IR, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR): **GENENTECH, INC.** [US/US]; 1 DNA Way, South San Francisco, California 94080 (US).

(71) Applicant (for AL, AT, BE, BG, CH, CN, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IN, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR only): **F. HOFFMANN-LA ROCHE AG** [CH/CH]; Grenzacherstrasse 124, CH-4070 Basel (CH).

(72) Inventors: **KEIR, Mary**; c/o Genentech, Inc., 1 DNA Way, South San Francisco, California 94080 (US). **TEW,**

Gaik Wei; c/o Genentech, Inc., 1 DNA Way, South San Francisco, California 94080 (US).

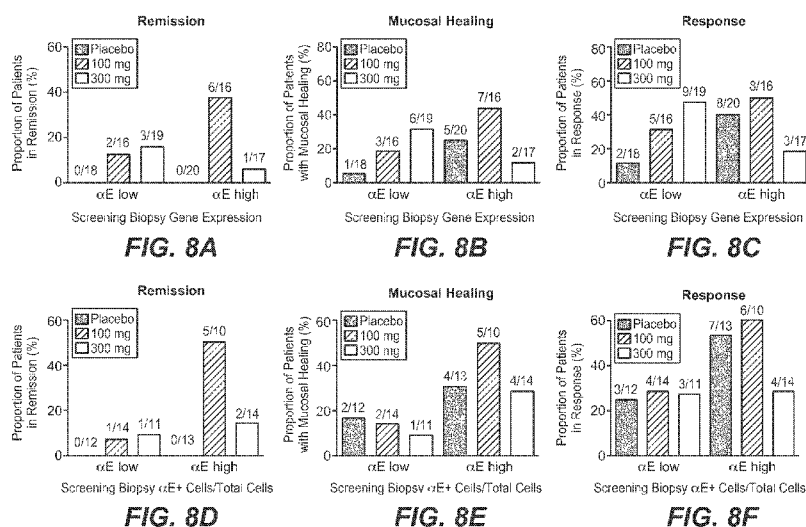
(74) Agents: **DAVIS, Jennifer L.** et al.; Genentech, Inc., 1 DNA Way, MS-49, South San Francisco, California 94080 (US).

(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, BN, 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, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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, KM, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: METHODS FOR DIAGNOSING AND TREATING INFLAMMATORY BOWEL DISEASE



(57) Abstract: Biomarkers predictive of responsiveness to integrin beta7 antagonists, including anti-beta7 integrin subunit antibodies, and methods of using such biomarkers are provided. In addition, methods of treating gastrointestinal inflammatory disorders such as inflammatory bowel diseases including ulcerative colitis and Crohn's disease are provided. Also provided are methods of using such predictive biomarkers for the treatment of inflammatory bowel diseases including ulcerative colitis and Crohn's disease.



Published:

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

— with sequence listing part of description (Rule 5.2(a))