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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 May 2007 (24.05.2007)

PCT

(10) International Publication Number
WO 2007/059188 A1

(51) International Patent Classification:
A61K 39/395 (2006.01) *A61K 31/00* (2006.01)
A61P 19/02 (2006.01) *C07K 16/28* (2006.01)

(21) International Application Number:
PCT/US2006/044290

(22) International Filing Date:
14 November 2006 (14.11.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/737,291 15 November 2005 (15.11.2005) US
60/864,463 6 November 2006 (06.11.2006) US

(71) Applicants *(for all designated States except US)*: **F. HOFFMAN - LA ROCHE AG** [CH/CH]; Grenzacherstrasse 124, CH-4002 Basel (CH). **BIOGEN IDEC INC.** [US/US]; 14 Cambridge Center, Cambridge, MA 02142 (US). **GENENTECH, INC.** [US/US]; 1 DNA Way, South San Francisco, CA 94080 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **TOTORITIS, Mark** [US/US]; 15797 Caminito Cantaras, Del Mar, CA 92014 (US). **SHAW, Timothy, Mark** [GB/GB]; 3 Brackenhill, Berkhamsted, Hertfordshire (GB). **AGARWAL, Sunil** [US/US]; 4 Wildflower Court, Corte Madera, CA 94925 (US). **YOCUM, David** [US/US]; 1149 Shoreline Drive, San Mateo, CA 94404 (US). **KELMAN, Ariella** [US/US]; 1732 Jackson Street, #204, South San Francisco, CA 94109 (US).

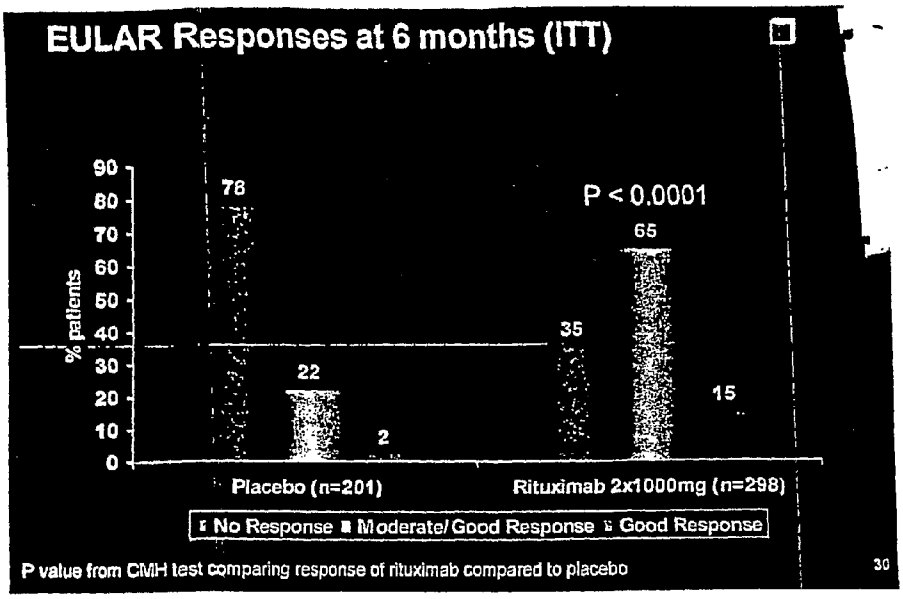
(74) Agents: **DREGER, Ginger, R.** et al.; HELLER EHRMAN LLP, 275 MIDDLEFIELD ROAD, Menlo Park, CA 94025-3506 (US).

(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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: METHOD FOR TREATING JOINT DAMAGE



(57) Abstract: Methods of treating joint damage in a subject eligible for treatment are provided involving administering an antagonist that binds to a B-cell surface marker, such as CD20 antibody, to the subject in an amount effective to slow progression of the joint damage as measured by radiography. Further provided are articles of manufacture useful for such methods.

WO 2007/059188 A1

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*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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.