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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 December 2014 (18.12.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/198817 A1

(51) International Patent Classification:
C07K 16/28 (2006.01) *A61P 35/00* (2006.01)
A61K 47/48 (2006.01)

(21) International Application Number:
PCT/EP2014/062207

(22) International Filing Date:
12 June 2014 (12.06.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
13172111.0 14 June 2013 (14.06.2013) EP

(71) Applicant: **BAYER PHARMA AKTIENGESELLSCHAFT** [DE/DE]; Müllerstraße 178, 13353 Berlin (DE).

(72) Inventors: **VOTSMEIER, Christian**; Pellenzstraße 25, 50823 Köln (DE). **HAMMER, Stefanie**; Neue Welt 12, 10247 Berlin (DE). **GRITZAN, Uwe**; Schirmerstraße 20, 50823 Köln (DE). **BORKOWSKI, Sandra**; Käthestr. 9, 16540 Hohen Neuendorf (DE). **ZUBOV, Dmitry**; Kippdorf 78, 42857 Remscheid (DE). **LINDEN, Lars**; Bruchstr. 72, 40235 Düsseldorf (DE). **CHRISTIAN, Sven**; Scharnhorststrasse 16, 10115 Berlin (DE). **HARRENGA, Axel**; Paul-Ehrlich-Str. 10, 42113 Wuppertal (DE). **BIRKENFELD, Jörg**; Kurfürstenstr. 3, 60486 Frankfurt am Main (DE). **FREIBERG, Christoph**; Lipkenskothen 10, 42113 Wuppertal (DE). **GOLFIER, Sven**; Stölpchenweg 12E, 14109 Berlin (DE). **EICKER, Andrea**; Ruckes 101, 41238 Mönchengladbach (DE). **GREVEN, Simone**; Am Schneckenacker 45, 41541 Dormagen (DE). **STELTE-LUDWIG, Beatrix**; Görtzheide 10f, 42489 Wülfrath (DE). **RASCHKE, Marian**; Eschengraben 11, 13189 Berlin (DE).

(74) Agent: **BIP PATENTS**; c/o Bayer Intellectual Property GmbH, Alfred-Nobel-Str. 10, 40789 Monheim am Rhein (DE).

(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).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

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))*

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

(54) Title: ANTI-TWEAKR ANTIBODIES AND USES THEREOF

(57) Abstract: The present invention provides recombinant antigen-binding regions and antibodies and functional fragments containing such antigen-binding regions that are specific for the TWEAKR (TNFRSF12A, FN14). The antibodies, accordingly, can be used to treat tumors and other disorders and conditions associated with expression of the TWEAKR. The invention also provides nucleic acid sequences encoding the foregoing antibodies, vectors containing the same, pharmaceutical compositions and kits with instructions for us.

WO 2014/198817 A1