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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
19 March 2015 (19.03.2015)

WIPO | PCT

(10) International Publication Number
WO 2015/038984 A3

(51) **International Patent Classification**:
*C07K 16/28* (2006.01)

(21) **International Application Number**:
PCT/US2014/055526

(22) **International Filing Date**:
12 September 2014 (12.09.2014)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
61/960,253 12 September 2013 (12.09.2013) US

(71) **Applicant**: **HALOZYME, INC.** [US/US]; 11388 Sorrento Valley Roa, San Diego, CA 92121 (US).

(72) **Inventors**: **WEI, Ge**; 11530 Miro Circle, San Diego, CA 92131 (US). **FROST, Gregory, Ian**; 13662 Mercado Drive, Del Mar, CA 92014 (US). **SHEPARD, Harold, Michael**; 13225 Bavarian Dr., San Diego, CA 92129 (US). **THANOS, Christopher, D.**; 38 Meadow Hill Drive, Tiburon, CA 94920 (US).

(74) **Agents**: **SEIDMAN, Stephanie, L.** et al.; Mckenna Long & Aldridge LLP, 4435 Eastgate Mall, Sutie 400, San Digeo, CA 92121 (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, 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, ST, 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 the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

**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))*

(88) **Date of publication of the international search report**:
7 May 2015

WO 2015/038984 A3

(54) **Title**: MODIFIED ANTI-EPIDERMAL GROWTH FACTOR RECEPTOR ANTIBODIES AND METHODS OF USE THEREOF

(57) **Abstract**: Provided herein are modified anti-EGFR antibodies and nucleic acid molecules encoding modified anti-EGFR antibodies. Also provided are methods of treatment and uses using modified anti-EGFR antibodies. The modified anti-EGFR antibodies may exhibit a ratio of binding activity for EGFR at pH 6.0-6.5 compared to pH 7.4 that is greater than 1.0.