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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
21 March 2013 (21.03.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/038191 A2

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

(21) International Application Number:
PCT/GB2012/052268

(22) International Filing Date:
13 September 2012 (13.09.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1116092.6 16 September 2011 (16.09.2011) GB

(71) Applicant *(for all designated States except US)*: **BIOCEROS B.V.** [NL/NL]; Yalelaan 46, NL-3584 CM Utrecht (NL).

(71) Applicant *(for MN only)*: **BASSETT, Richard Simon** [GB/GB]; Potter Clarkson, 58 The Ropewalk, Nottingham NG1 5DD (GB).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **SIMONS, Petrus Johannes** [NL/NL]; Leidsestraat 43, NL-2182DH Hillegom (NL). **BOON, Louis** [NL/NL]; Orchideelaan 137, NL-1171MG Badhoevedorp (NL).

(74) Agent: **CM. Jansen, c.s.**; c/o Vereenigde, Johan de Wittlaan 7, 2517 JR Den Haag (NL).

(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, 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, PA, 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).

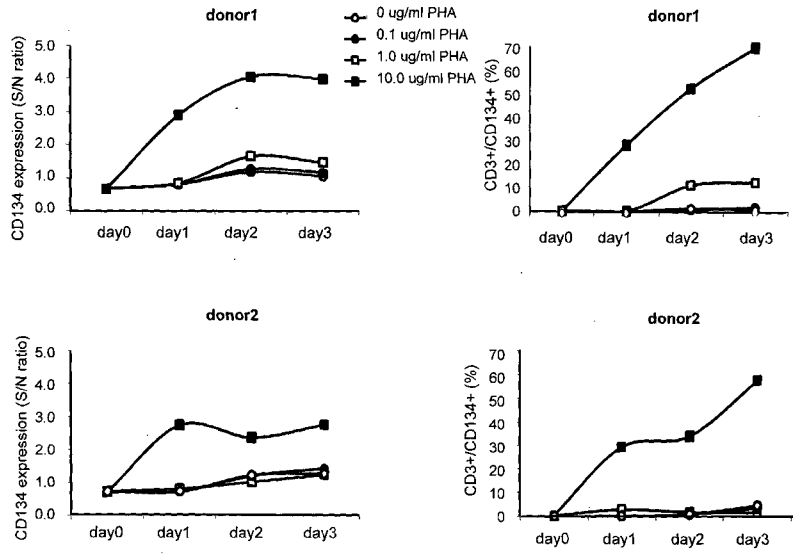
Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

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

(54) **Title**: ANTI-CD134 (OX40) ANTIBODIES AND USES THEREOF

Figure 1



(57) **Abstract**: The invention provides antibodies that specifically bind to human CD134. Invention anti-human CD134 antibodies specifically bind to the extracellular domain of human CD134, including non-OX40 ligand (OX40L) binding domains on human CD134, which is expressed on e.g. activated human conventional effector CD4 and/or CD8 T lymphocytes (Teffs) and on activated human suppressive regulatory CD4 T lymphocytes (Tregs). Invention anti-human CD134 antibodies are useful (e.g. to empower Teffs anti-cancer effector function and/or to inhibit Tregs suppressive function) for cancer treatment.

WO 2013/038191 A2