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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
21 November 2013 (21.11.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/173761 A2

(51) International Patent Classification:
C07K 16/24 (2006.01) *C12N 15/11* (2006.01)

(21) International Application Number:
PCT/US2013/041656

(22) International Filing Date:
17 May 2013 (17.05.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/649,147 18 May 2012 (18.05.2012) US
61/792,619 15 March 2013 (15.03.2013) US

(71) Applicant: **AMGEN INC.** [US/US]; One Amgen Center Drive, Thousand Oaks, California 91320-1799 (US).

(72) Inventors: **SMITH, Dirk E.**; 11633 Meadowmeer Circle NE, Bainbridge Island, Washington 98110 (US). **FOLTZ, Ian**; 2108 Knightswood Place, Burnaby, BC V5A 4B9 (CA). **KING, Chadwick T.**; 1325 Moody Avenue, North Vancouver, BC V7L 3T5 (CA). **LIM, Ai Ching**; 7105 82nd Avenue SE, Mercer Island, Washington 98040 (US). **CLARK, Rutilio**; 5335 Old Mill Road NE, Bainbridge Island, Washington 98110 (US). **COMEAU, Michael R.**; 1044 High School Road NE, Bainbridge Island, Washington 98110 (US). **KETCHEM, Randal R.**; 6332 152nd Street SE, Snohomish, Washington 98296 (US). **SHI, Donghui**; 3198 Rickey Court, Thousand Oaks, California 91362 (US). **MIN, Xiaoshan**; 2108 Clarice Lane, Burlingame, California 94010 (US). **WANG, Zhulun**; 660 Glenbrook Drive, Palo Alto, California 94306 (US).

(74) Agent: **WRONA, Thomas J.**; Amgen Inc., 1201 Amgen Court W., Seattle, Washington 98119-3105 (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, 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,

[Continued on next page]

(54) Title: ST2 ANTIGEN BINDING PROTEINS

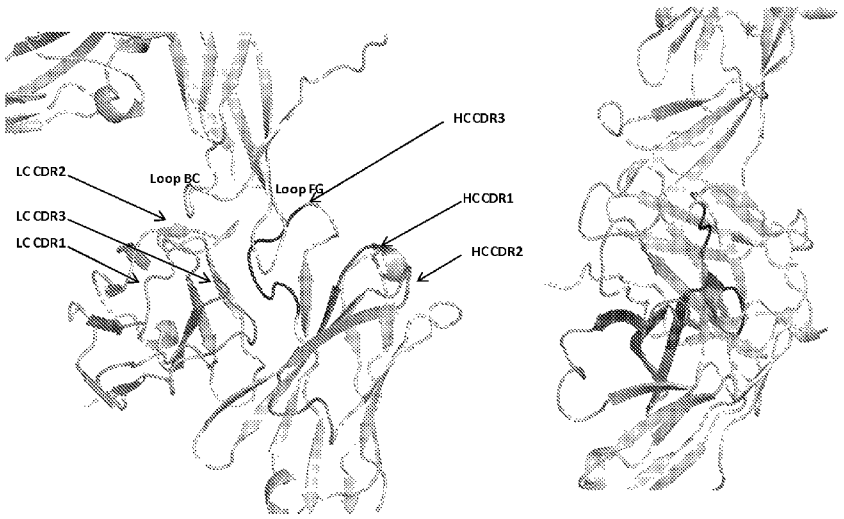


FIG. 8

(57) Abstract: Described herein are compositions and methods related to antigen binding proteins that bind to human ST2, including antibodies. In particular embodiments, the disclosure provides fully human anti-ST2 antibodies and derivatives and variants thereof. Further provided are nucleic acids encoding such antibodies and antibody fragments, variants, and derivatives. Also, provided are methods of making and using such antibodies including methods of treating and preventing autoimmune and inflammatory disorders.

WO 2013/173761 A2

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).

Declarations under Rule 4.17:

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

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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))*