



(43) International Publication Date
7 April 2016 (07.04.2016)

(10) International Publication Number
WO 2016/054218 A1

- (51) **International Patent Classification:**
C07K 16/28 (2006.01) *A61P 37/06* (2006.01)
- (21) **International Application Number:**
PCT/US2015/053233
- (22) **International Filing Date:**
30 September 2015 (30.09.2015)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
62/057,981 30 September 2014 (30.09.2014) US
- (71) **Applicant:** BRISTOL-MYERS SQUIBB COMPANY
[US/US]; Route 206 and Province Line Road, Princeton,
New Jersey 08543 (US).
- (72) **Inventors:** VALENCIA, Xavier; 7 Leslie Court, Prin-
ceton, NJ 08540 (US). THROUP, John P.; c/o Bris-
tol-Myers Squibb Company, Route 206 and Province Line
Road, Princeton, New Jersey 08543 (US). NADLER,
Steven G.; c/o Bristol-Myers Squibb Company, Route 206
and Province Line Road, Princeton, New Jersey 08543
(US). SUCHARD, Suzanne J.; c/o Bristol-Myers Squibb
Company, Route 206 and Province Line Road, Princeton,
New Jersey 08543 (US). DUCHESNE, Dominique; c/o
Bristol-Myers Squibb Company, Route 206 and Province
Line Road, Princeton, New Jersey 08543 (US). LIU,
Xiaoni; c/o Bristol-Myers Squibb Company, Route 206
and Province Line Road, Princeton, New Jersey 08543
(US). SHI, Rong; c/o Bristol-Myers Squibb Company,
Route 206 and Province Line Road, Princeton, New Jersey
08543 (US). SHEVELL, Diane E.; c/o Bristol-Myers
Squibb Company, Route 206 and Province Line Road,
Princeton, New Jersey 08543 (US). XIE, Jenny H.; c/o
Bristol-Myers Squibb Company, Route 206 and Province
Line Road, Princeton, New Jersey 08543 (US). HON-

CZARENKO, Marek; c/o Bristol-Myers Squibb Com-
pany, Route 206 and Province Line Road, Princeton, New
Jersey 08543 (US).

(74) **Agents:** GUO, Z. Angela et al.; Bristol-Myers Squibb
Company, Route 206 and Province Line Road, Princeton,
New Jersey 08543 (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:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report (Art. 21(3))

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

(54) **Title:** METHODS OF TREATING SYSTEMIC LUPUS ERYTHEMATOSUS USING A DOMAIN ANTIBODY DIRECTED AGAINST CD28

(57) **Abstract:** Methods of treating autoimmune diseases, such as systemic lupus erythematosus using domain antibodies that specifically bind human CD28 are provided. The methods may comprise at least one administration cycle comprising one dose of the domain antibody. The method reduces symptoms of systemic lupus erythematosus compared to placebo.



WO 2016/054218 A1