

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
09 April 2020 (09.04.2020)



(10) International Publication Number
WO 2020/072821 A9

(51) International Patent Classification:

C07K 14/54 (2006.01) A61K 38/20 (2006.01)

(21) International Application Number:

PCT/US2019/054570

(22) International Filing Date:

03 October 2019 (03.10.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/740,813 03 October 2018 (03.10.2018) US
62/810,038 25 February 2019 (25.02.2019) US
62/848,512 15 May 2019 (15.05.2019) US

(71) Applicant: **XENCOR, INC.** [US/US]; 111 West Lemon Avenue, Monrovia, CA 91016 (US).

(72) Inventors: **BERNETT, Matthew**; c/o Xencor, Inc., 111 West Lemon Avenue, Monrovia, CA 91016 (US). **DESJARLAIS, John, R.**; c/o Xencor, Inc., 111 West Lemon Avenue, Monrovia, CA 91016 (US). **VARMA, Rajat**; c/o Xencor, Inc., 111 West Lemon Avenue, Monrovia, CA 91016 (US). **LIU, Ke**; c/o Xencor, Inc., 111 West

Lemon Avenue, Monrovia, CA 91016 (US). **HASSAN-ZADEH-KIABI, Nargess**; c/o Xencor, Inc., 111 West Lemon Avenue, Monrovia, CA 91016 (US). **RASHID, Rumana**; c/o Xencor, Inc., 111 West Lemon Avenue, Monrovia, CA 91016 (US).

(74) Agent: **NG, Jennifer, K.** et al.; Morgan, Lewis & Bockius, LLP, One Market, Spear Street Tower, San Francisco, CA 94105 (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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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,

(54) Title: IL-12 HETERODIMERIC FC-FUSION PROTEINS

Figure 8A

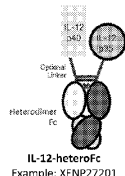


Figure 8B

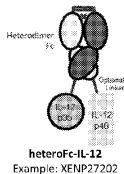


Figure 8C

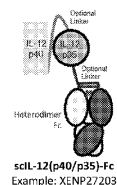


Figure 8D

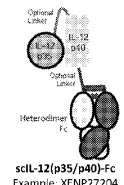


Figure 8E

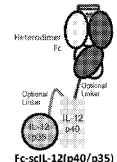
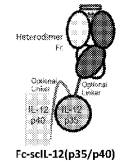


Figure 8F



(57) Abstract: The present invention provides novel IL-12 Fc fusion proteins, methods of making and using the same. The IL-12 Fc fusion proteins are useful for treatment of cancer and can be used in combination with checkpoint blockade.

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))*
- *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))*

(48) Date of publication of this corrected version:

22 May 2020 (22.05.2020)

(15) Information about Correction:

see Notice of 22 May 2020 (22.05.2020)