

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
04 June 2020 (04.06.2020)



(10) International Publication Number
WO 2020/112796 A1

(51) International Patent Classification:

A61P 35/00 (2006.01) C07K 16/28 (2006.01)
A61K 35/17 (2015.01) C12N 5/0783 (2010.01)
C07K 14/725 (2006.01) A61K 39/00 (2006.01)

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

(21) International Application Number:

PCT/US2019/063282

(22) International Filing Date:

26 November 2019 (26.11.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/774,209 01 December 2018 (01.12.2018) US
62/816,187 10 March 2019 (10.03.2019) US
62/931,487 06 November 2019 (06.11.2019) US

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:

- with international search report (Art. 21(3))
- with sequence listing part of description (Rule 5.2(a))

(71) Applicant: ALLOGENE THERAPEUTICS, INC.
[US/US]; 210 E. Grand Avenue, South San Francisco, California 94080 (US).

(72) Inventors: CHANG, David; c/o Allogene Therapeutics, Inc., 210 E. Grand Avenue, South San Francisco, California 94080 (US). BALAKUMARAN, Arun; c/o Allogene Therapeutics, Inc., 210 E. Grand Avenue, South San Francisco, California 94080 (US). KONTO, Cyril Alkis; c/o Allogene Therapeutics, Inc., 210 E. Grand Avenue, South San Francisco, California 94080 (US).

(74) Agent: CHANG, Y. Elaine et al.; Allogene Therapeutics, Inc., Legal IP, 210 E. Grand Avenue, South San Francisco, California 94080 (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, 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,

(54) Title: CHIMERIC ANTIGEN RECEPTORS TARGETING B-CELL MATURATION ANTIGEN AND METHODS OF USE THEREOF

(57) Abstract: Provided herein are BCMA CARs and CAR-T cells, methods of making, and using the same. In some embodiments, particular dosing regimens, redosing regimens, and combination regimens with lymphodepletion are provided, for the treatment and clinical management of multiple myeloma in subjects in need thereof.



WO 2020/112796 A1