



(51) International Patent Classification:

A61K 31/454 (2006.01) A61K 35/17 (2015.01)

A61K 31/5377 (2006.01) A61P 35/00 (2006.01)

(21) International Application Number:

PCT/US2021/029503

(22) International Filing Date:

27 April 2021 (27.04.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/016,983 28 April 2020 (28.04.2020) US

(71) Applicant: JUNO THERAPEUTICS, INC. [US/US]; 400 Dexter Ave. N, Suite 1200, Seattle, Washington 98109 (US).

(72) Inventor; and

(71) Applicant: PORTS, Michael [US/US]; 400 Dexter Ave. N, Suite 1200, Seattle, Washington 98109 (US).

(74) Agent: POTTER, Karen et al.; Morrison & Foerster LLP, 12531 High Bluff Drive, Suite 100, San Diego, California 92130-2040 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available):

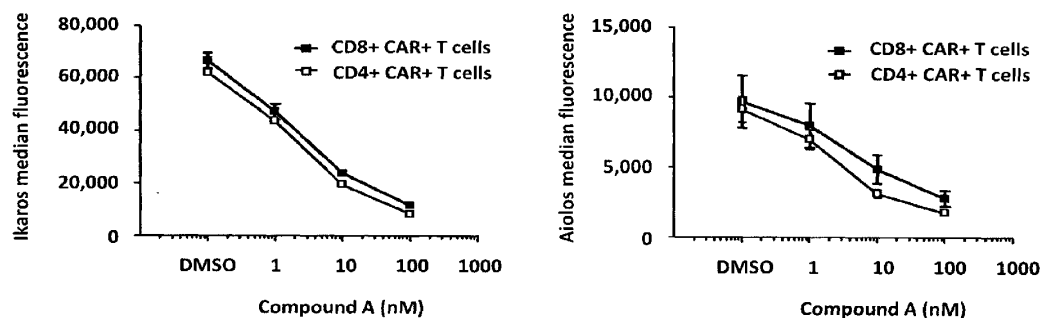
AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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).

(54) Title: COMBINATION OF BCMA-DIRECTED T CELL THERAPY AND AN IMMUNOMODULATORY COMPOUND

FIG. 1



(57) **Abstract:** Provided herein are methods, compositions and uses for treating subjects with diseases and conditions, such as those involving or associated with B cell maturation antigen (BCMA), involving administration of a T cell therapy, such as a BCMA-targeted T cell therapy, e.g. anti-BCMA CAR T cells, in combination with (S)-3-[4-(4-morpholin-4-ylmethyl)-benzyloxy]-1-oxo-1,3-dihydro-isoindol-2-yl]-piperidine-2, 6-dione, or a pharmaceutically acceptable salt, solvate, hydrate, stereoisomer, tautomer or racemic mixtures thereof, and compositions thereof, or in combination with (S)-4-(4-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-4-yl)oxymethyl)benzyl)piperazin-1-yl)-3-fluorobenzonitrile, or a pharmaceutically acceptable salt, solvate, hydrate, stereoisomer, tautomer or racemic mixtures thereof, and compositions thereof. The T cell therapy includes cells that express recombinant receptors such as chimeric antigen receptors (CARs) directed against BCMA. In some embodiments, the disease or condition is a multiple myeloma, such as relapsed or refractory multiple myeloma.

[Continued on next page]

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *with sequence listing part of description (Rule 5.2(a))*

(88) Date of publication of the international search report:

09 December 2021 (09.12.2021)