

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
04 February 2021 (04.02.2021)



(10) International Publication Number
WO 2021/019386 A1

(51) International Patent Classification:

C07K 16/30 (2006.01) A61K 39/00 (2006.01)
C07K 16/40 (2006.01) C07K 14/725 (2006.01)

(21) International Application Number:

PCT/IB2020/056966

(22) International Filing Date:

23 July 2020 (23.07.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/878,958	26 July 2019 (26.07.2019)	US
62/898,635	11 September 2019 (11.09.2019)	US
62/910,645	04 October 2019 (04.10.2019)	US
63/030,522	27 May 2020 (27.05.2020)	US

(71) Applicant: JANSSEN BIOTECH, INC. [US/US];
800/850 Ridgeview Drive, Horsham, Pennsylvania 19044
(US).

(72) Inventors: BRITTINGHAM, Raymond; 1400 McKean Road, Spring House, Pennsylvania 19477 (US). GANESAN, Rajkumar; 1400 McKean Road, Spring House, Pennsylvania 19477 (US). LA PORTE, Sherry; 1400 McKean Road, Spring House, Pennsylvania 19477 (US). LEE, John; 1400 McKean Road, Spring House, Pennsylvania 19477 (US). LUO, Jinquan; 1400 McKean Road, Spring House, Pennsylvania 19477 (US). MCDEVITT, Theresa; 1400 McKean Road, Spring House, Pennsylvania 19477 (US). SHEN, Fei; 1400 McKean Road, Spring House, Pennsylvania 19477 (US). SINGH, Sanjaya; 1400 McKean Road, Spring House, Pennsylvania 19477 (US). SONG, Degang; 1400 MCKEAN ROAD, SPRING HOUSE, Pennsylvania 19477 (US). VENKATARAMANI, Sathyadevi; 1400 McKean Road, Spring House, Pennsylvania 19477 (US). YI, Fang; 1400 McKean Road, Spring House, Pennsylvania 19477 (US). ZHAO, Yonghong; 1400 McKean Road, Spring House, Pennsylvania 19477 (US).

(74) Agent: SHIRTZ, Joseph F. et al.; Johnson & Johnson, One Johnson & Johnson Plaza, New Brunswick, New Jersey 08933 (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).

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))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(54) Title: ANTI-HK2 CHIMERIC ANTIGEN RECEPTOR (CAR)

(57) Abstract: The present disclosure provides for chimeric antigen receptors (CARs) that specifically target a human Kallikrein-2 (hK2), and immunoresponsive cells comprising such CARs, for the treatment of cancer.

WO 2021/019386 A1