

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
11 November 2021 (11.11.2021)



(10) International Publication Number
WO 2021/224629 A1

(51) International Patent Classification:

A61K 39/00 (2006.01) *A61P 35/02* (2006.01)
A61K 35/17 (2015.01) *C07K 19/00* (2006.01)
C12N 5/10 (2006.01) *C12N 15/86* (2006.01)

(21) International Application Number:

PCT/GB2021/051099

(22) International Filing Date:

06 May 2021 (06.05.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2006820.1 07 May 2020 (07.05.2020) GB

(71) Applicant: AUTOLUS LIMITED [GB/GB]; The MediaWorks, 191 Wood Lane, London W12 7FP (GB).

(72) Inventors: SRIVASTAVA, Saket; c/o Autolus Limited, The MediaWorks, 191 Wood Lane, London W12 7FP (GB). CORDOBA, Shaun; c/o Autolus Limited, The MediaWorks, 191 Wood Lane, London W12 7FP (GB). ONUOHA, Shimobi; c/o Autolus Limited, The MediaWorks, 191 Wood Lane, London W12 7FP (GB). THOMAS, Simon; c/o Autolus Limited, The MediaWorks, 191 Wood Lane, London W12 7FP (GB). PULÉ, Martin; c/o Autolus Limited, The MediaWorks, 191 Wood Lane, London W12 7FP (GB).

ited, The MediaWorks, 191 Wood Lane, London W12 7FP (GB).

(74) Agent: D YOUNG & CO LLP; 120 Holborn, London EC1N 2DY (GB).

(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,

(54) Title: CELL

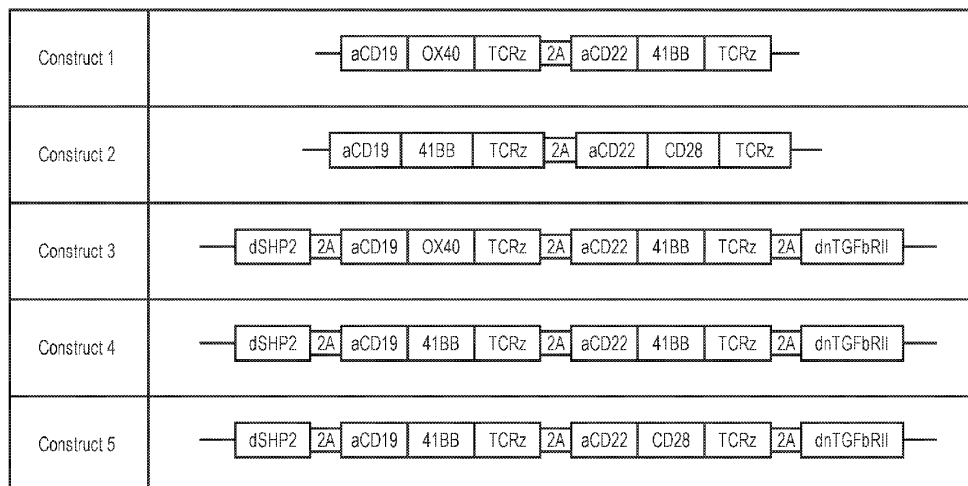


FIG. 11

(57) Abstract: The present invention relates to a cell which co-expresses: (i) a first chimeric antigen receptor (CAR) at the cell surface, comprising an antigen-binding domain which binds to CD19; (ii) a second CAR at the cell surface, comprising an antigen-binding domain which binds to CD22; (iii) dominant negative SHP2 (dSHP2); and (iv) dominant negative TGFβ receptor II (dnTGFβRII).

[Continued on next page]

WO 2021/224629 A1

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

Published:

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