

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
14 July 2022 (14.07.2022)



(10) International Publication Number
WO 2022/150732 A3

(51) International Patent Classification:

C12N 15/113 (2010.01) A61K 39/395 (2006.01)
A61K 48/00 (2006.01) C07K 14/705 (2006.01)

(21) International Application Number:

PCT/US2022/011878

(22) International Filing Date:

10 January 2022 (10.01.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/136,074	11 January 2021 (11.01.2021)	US
63/136,611	12 January 2021 (12.01.2021)	US
63/263,001	25 October 2021 (25.10.2021)	US
63/263,508	03 November 2021 (03.11.2021)	US

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(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).

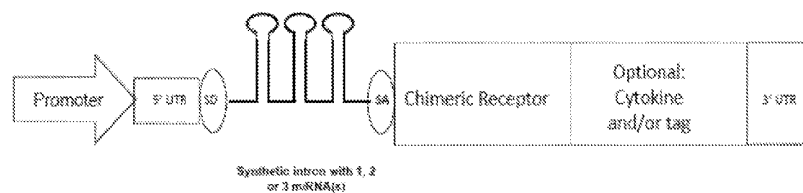
Published:

- 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:

25 August 2022 (25.08.2022)

(54) Title: CHIMERIC RECEPTOR THERAPY



(57) Abstract: A non-naturally occurring polynucleotide encoding a miRNA that inhibits the expression of an immune checkpoint protein. The polynucleotide may further encode a chimeric receptor, a cytokine, and/or a cell tag. A vector comprising the aforementioned polynucleotide. A modified immune effector cell comprising the aforementioned polynucleotide. Compositions and kits comprising the aforementioned polynucleotide and/or cell. A method for treating a subject suffering from a disease or disorder, comprising administering the aforementioned cell to a subject in need thereof. The use of the aforementioned cell in the manufacture of a medicament for the treatment of a disease or disorder. A method for the detection of a disease or disorder associated with the overexpression of an antigen in a subject. A method for the treatment of a disease or disorder comprising the serial administration of polynucleotides encoding a chimeric antigen receptor or a cell comprising the same.



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