

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
11 June 2020 (11.06.2020)

WIPO | PCT

(10) International Publication Number
WO 2020/114491 A9

(51) International Patent Classification:

C12N 5/10 (2006.01) *A61P 35/00* (2006.01)
C07K 7/06 (2006.01)

NOLOGIES CO., LTD. [CN/CN]; Building 12, Block B,
No. 218 Sangtian Street, Suzhou Industrial Park, Suzhou,
Jiangsu 215000 (CN).

(21) International Application Number:

PCT/CN2019/123684

(72) **Inventors:** **HE, Jiaping**; 12th Floor, Building 1, No. 926
Yishan Road, Xuhui District, Shanghai 200233 (CN). **SUN,
Zhe**; 12th Floor, Building 1, No. 926 Yishan Road, Xuhui
District, Shanghai 200233 (CN). **ZHANG, Yongliang**;
12th Floor, Building 1, No. 926 Yishan Road, Xuhui Dis-
trict, Shanghai 200233 (CN). **LIN, Nanjing**; 12th Floor,
Building 1, No. 926 Yishan Road, Xuhui District, Shanghai
200233 (CN). **HE, Yan**; 12th Floor, Building 1, No. 926
Yishan Road, Xuhui District, Shanghai 200233 (CN). **LIU,
Xin**; 12th Floor, Building 1, No. 926 Yishan Road, Xuhui
District, Shanghai 200233 (CN). **LI, Chao**; 12th Floor,
Building 1, No. 926 Yishan Road, Xuhui District, Shanghai
200233 (CN). **LIU, Jinghua**; 12th Floor, Building 1, No.
926 Yishan Road, Xuhui District, Shanghai 200233 (CN).
LIU, Liping; 12th Floor, Building 1, No. 926 Yishan Road,
Xuhui District, Shanghai 200233 (CN). **SHEN, Lianjun**;
12th Floor, Building 1, No. 926 Yishan Road, Xuhui Dis-
trict, Shanghai 200233 (CN). **JIANG, Pengfei**; 12th Floor,
Building 1, No. 926 Yishan Road, Xuhui District, Shanghai

(22) International Filing Date:

06 December 2019 (06.12.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

201811501797.8 07 December 2018 (07.12.2018) CN
PCT/CN2019/073252
25 January 2019 (25.01.2019) CN
201910297171.8 12 April 2019 (12.04.2019) CN
PCT/CN2019/097996
26 July 2019 (26.07.2019) CN

(71) **Applicants:** **GRACELL BIOTECHNOLOGIES
(SHANGHAI) CO., LTD.** [CN/CN]; 12th Floor, Build-
ing 1, No. 926 Yishan Road, Xuhui District, Shang-
hai 200233 (CN). **SUZHOU GRACELL BIOTECH-**

(54) Title: COMPOSITIONS AND METHODS FOR IMMUNOTHERAPY

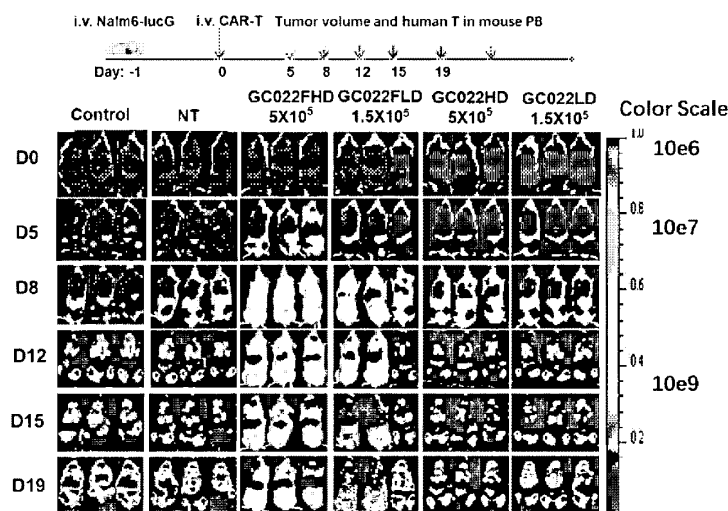


Figure 24G

(57) **Abstract:** The present disclosure provides compositions and methods for engineered cellular compositions and methods of immunotherapy utilizing the same. Compositions of the present disclosure for immune cell regulation comprise a chimeric antigen receptor polypeptide, a T cell receptor polypeptide, and combinations thereof.

[Continued on next page]

200233 (CN). **CAO, Wei**; 12th Floor, Building 1, No. 926
Yishan Road, Xuhui District, Shanghai 200233 (CN).

(74) **Agent: AFD CHINA INTELLECTUAL PROPERTY
LAW OFFICE**; Suite B 1601A, 8 Xue Qing Rd., Haidian,
Beijing 100192 (CN).

(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,
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 information concerning authorization of rectification
of an obvious mistake under Rule 91.3 (b) (Rule 48.2(i))*

(48) **Date of publication of this corrected version:**
06 August 2020 (06.08.2020)

(15) **Information about Correction:**
see Notice of 06 August 2020 (06.08.2020)