

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
23 June 2022 (23.06.2022)



(10) International Publication Number
WO 2022/127871 A1

(51) International Patent Classification:

C07K 16/40 (2006.01) A61P 35/00 (2006.01)

Published:

— with international search report (Art. 21(3))

(21) International Application Number:

PCT/CN2021/138845

(22) International Filing Date:

16 December 2021 (16.12.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PCT/CN2020/137164

17 December 2020 (17.12.2020) CN

(71) Applicant: **PARASOL BIOTECH LTD.** [CN/CN]; Anhui Puyuan Biotechnology Park, Gao Xin District, Yanzhihe Road No. 58, Hefei, Anhui 230088 (CN).

(72) Inventors: **HE, Ling**; Room 6, Unit 1, Building 3, No. 18 Taibainan Road, Yanta District, Xian, Shaanxi 710065 (CN). **WANG, Lin**; Room 1104, Building 17, Ziguoyuan, Wanghucheng Residential Quater, Baohe District, Hefei, Anhui 230051 (CN). **WANG, Wei**; Room 604, Building A23, No. 1988 Yungu Road, Baohe District, Hefei, Anhui 230092 (CN).

(74) Agent: **AFD CHINA INTELLECTUAL PROPERTY LAW OFFICE**; Tower B, 21st Fl., Suite 2108, 38 Xueqing Road, Haidian, Beijing 100083 (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, 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: GUCY2C BINDING MOLECULES AND USES THEREOF

(57) Abstract: Provided are single domain antibodies that bind to GUCY2C, and chimeric antigen receptors comprising same. Further provided are engineered immune effector cells (such as T cells) comprising the chimeric antigen receptors. Pharmaceutical compositions, kits and methods of treating a disease or disorder are also provided.

WO 2022/127871 A1