

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
30 September 2021 (30.09.2021)



(10) International Publication Number
WO 2021/195067 A1

(51) International Patent Classification:

C07K 16/28 (2006.01) *A61P 35/02* (2006.01)
A61K 39/395 (2006.01)

(21) International Application Number:

PCT/US2021/023655

(22) International Filing Date:

23 March 2021 (23.03.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/993,080 23 March 2020 (23.03.2020) US

(71) Applicant: **CYTOARM CO. LTD.** [CN/CN]; 9F, No. 136,
Sec 2, Keelung Road, Xinyi District, Taipei City 110 (TW).

(72) Inventor; and

(71) Applicant: **CHEN, Michael** [US/CN]; No. 12, Ln. 11, Jin-
fu Street, Zhudong Township, Hsinchu County 310 (TW).

(72) Inventors: **CHUANG, Kuo-Hsiang**; c/o Cytoarm Co. Ltd.,
9F, No. 136, Sec. 2, Keelung Road, Xinyi District, Taipei
City 110 (TW). **CHEN, Yi-Jou**; c/o Cytoarm Co. Ltd., 9F,
No. 136, Sec. 2, Keelung Road, Xinyi District, Taipei City
110 (TW).

(74) Agent: **CHEN, Yahua**; c/o McDermott Will & Emery LLP,
500 North Capitol Street, NW, Washington, DC 20001
(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).

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))

(54) Title: BI-SPECIFIC ANTIBODIES FOR USE IN PRODUCING ARMED IMMUNE CELLS

(57) Abstract: Bispecific antibodies capable of binding to CD3 and a tumor
associated antigen, immune cells armed with such bispecific antibodies,
and therapeutic uses thereof in cancer treatment. Also provided herein are
methods for producing immune cells armed with the bispecific antibodies.

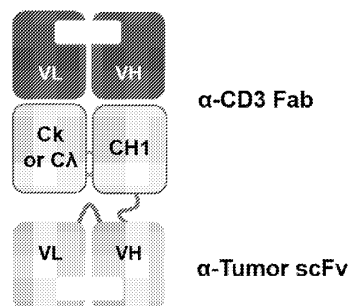


FIG. 1A

WO 2021/195067 A1