

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
28 March 2019 (28.03.2019)



(10) International Publication Number
WO 2019/057122 A1

(51) International Patent Classification:

C07K 16/18 (2006.01) C07K 19/00 (2006.01)
C07K 16/46 (2006.01) A61K 38/17 (2006.01)
C07K 16/30 (2006.01)

(21) International Application Number:

PCT/CN2018/106766

(22) International Filing Date:

20 September 2018 (20.09.2018)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PCT/CN2017/103030

22 September 2017 (22.09.2017) CN

(71) Applicant (for CN only): **WUXI BIOLOGICS (SHANGHAI) CO., LTD.** [CN/CN]; No. 299 Fute Zhong Road, Pudong New District, Shanghai 200131 (CN).

(71) Applicant (for all designated States except CN): **WUXI BIOLOGICS IRELAND LIMITED** [IE/IE]; One Spencer Dock, North Wall Quay, Dublin 1 (IE).

(72) Inventors: **XU, Jianqing**; No. 299 Fute Zhong Road, Pudong New District, Shanghai 200131 (CN). **WANG, Zhuozhi**; No. 299 Fute Zhong Road, Pudong New District, Shanghai 200131 (CN). **LI, Jing**; No. 299 Fute Zhong Road, Pudong New District, Shanghai 200131 (CN).

(74) Agent: **CCPIT PATENT AND TRADEMARK LAW OFFICE**; 8th Floor, Vantone New World Plaza, 2 Fuchengmenwai Street, Xicheng District, Beijing 100037 (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,

(54) Title: NOVEL BISPECIFIC POLYPEPTIDE COMPLEXES

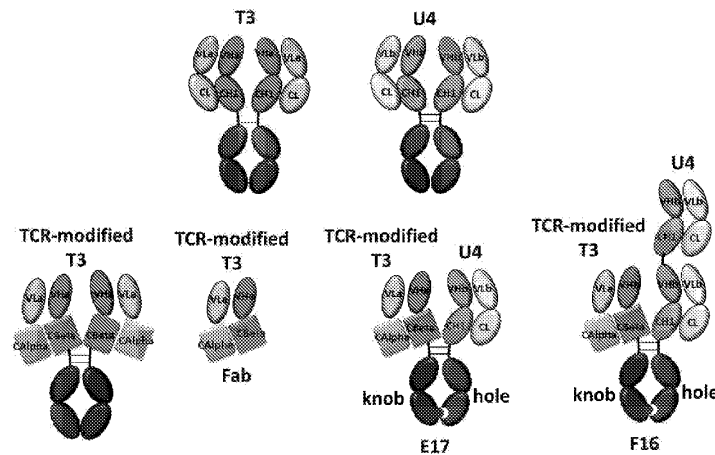


Figure 1

(57) Abstract: A polypeptide complex comprises antibody variable regions of the heavy chain and light chain respectively fused to TCR constant regions. A bispecific antigen binding polypeptide complex contains a first antigen-binding moiety of the polypeptide complex and a second antigen-binding moiety. A method comprises producing the polypeptide complex or the bispecific antigen binding polypeptide complex. A method of treating disease or disorder comprises using the polypeptide complex or the bispecific antigen binding polypeptide complex. A polynucleotide encodes the polypeptide complex and/or the bispecific antigen binding polypeptide complex. A vector or a host cell contains the polynucleotide. A composition and a pharmaceutical composition comprise the polypeptide complex and/or the bispecific antigen binding polypeptide complex.

[Continued on next page]

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 sequence listing part of description (Rule 5.2(a))