

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
17 July 2025 (17.07.2025)



(10) International Publication Number
WO 2025/151608 A1

(51) International Patent Classification:

A61K 47/64 (2017.01) C07D 207/456 (2006.01)
A61K 31/40 (2006.01) A61P 35/00 (2006.01)

(21) International Application Number:

PCT/US2025/010902

(22) International Filing Date:

09 January 2025 (09.01.2025)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

202410042053.3 10 January 2024 (10.01.2024) CN
202510022398.7 07 January 2025 (07.01.2025) CN

(71) Applicant: SYSTIMMUNE, INC. [US/US]; 15318 NE 95th St, Redmond, Washington 98052 (US).

(72) Inventors: ZHU, Yi; 15318 NE 95th St, Redmond, 98052 (US). WAN, Weili; 139 Baili Road, Wenjiang District, Chengdu, Sichuan 611130 (CN). YU, Tianzi; 139 Baili Road, Wenjiang District, Chengdu, Sichuan 611130 (CN).

(74) Agent: WAN, Feng; EpiMED LLC, 10398 NE 17th St. Unit 306, Bellevue, Washington 98004 (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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, UY, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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: CONNECTING UNITS FOR LIGAND-DRUG CONJUGATES AND METHODS OF MAKING AND USING THEREOF

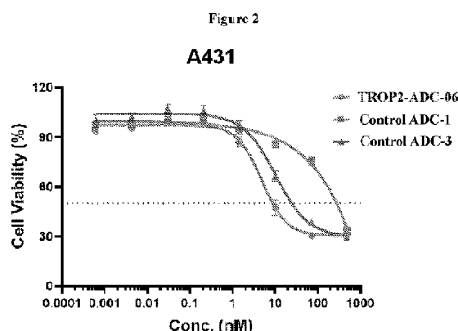


FIG. 2A

(57) Abstract: The application relates to, among others, self-stabilizing bridged ring connecting units and their application in antibody-drug conjugates, linker-drug compounds prepared by incorporating said linkers, and ligand-drug conjugates with stable quality and excellent homogeneity. The application also discloses methods for the preparation the linkers, linker-drug compounds, and ligand-drug conjugates, as well as the application of the linker-drug compounds, and ligand-drug conjugates in the treatment of tumors, infections, and immune diseases.

WO 2025/151608 A1