

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

(19) World Intellectual Property
Organization
International Bureau



(10) International Publication Number
WO 2023/179773 A1

(43) International Publication Date
28 September 2023 (28.09.2023)

(51) International Patent Classification:

C12N 15/113 (2010.01) *A61P 31/14* (2006.01)
A61K 31/7125 (2006.01)

(21) International Application Number:

PCT/CN2023/083768

(22) International Filing Date:

24 March 2023 (24.03.2023)

Published:

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

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/269,903 25 March 2022 (25.03.2022) US
63/382,171 03 November 2022 (03.11.2022) US

(71) Applicants: **HANSOHO BIO LLC** [US/US]; Hansoh Bio, 9900 Medical Center Drive, Ste 200, Rockville, Maryland 20850 (US). **SHANGHAI HANSOHO BIOMEDICAL CO., LTD.** [CN/CN]; Building 2, No.3728 Jinke Road, Zhangjiang Hi-Tech Park, Pudong New Area, Shanghai 201203 (CN). **JIANGSU HANSOHO PHARMACEUTICAL GROUP CO., LTD.** [CN/CN]; Economic And Technological Development Zone, Lianyungang, Jiangsu 222047 (CN).

(72) Inventors: **GUAN, Xiaoyang**; Hansoh Bio, 9900 Medical Center Drive, Ste 200, Rockville, Maryland 20850 (US). **ZHU, Hugh Y.**; Hansoh Bio, 9900 Medical Center Drive, Ste 200, Rockville, Maryland 20850 (US). **ZONG, Hong**; Hansoh Bio, 9900 Medical Center Drive, Ste 200, Rockville, Maryland 20850 (US).

(74) Agent: **GE CHENG & CO., LTD.** et al.; Level 10, Tower E3, The Towers, Oriental Plaza, No.1, East Chang An Avenue, Dongcheng District, Beijing 100738 (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, 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, 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,

(54) Title: BICYCLIC HETEROCYCLES AND THEIR LIGANDS FOR TARGETED DELIVERY OF THERAPEUTIC AGENTS

(57) Abstract: the present invention provides novel bicyclic heterocycles and their targeting ligands which can conjugate to a therapeutic agent, for use as medicament. The preparation method thereof, pharmaceutical compositions comprising the therapeutic compounds, and the pharmaceutical uses are disclosed.

WO 2023/179773 A1