

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
25 July 2024 (25.07.2024)



(10) International Publication Number
WO 2024/153128 A1

(51) International Patent Classification:

C07D 487/06 (2006.01) A61K 31/519 (2006.01)
C07D 487/16 (2006.01) A61P 35/00 (2006.01)

(21) International Application Number:

PCT/CN2024/072763

(22) International Filing Date:

17 January 2024 (17.01.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PCT/CN2023/072921
18 January 2023 (18.01.2023) CN
PCT/CN2023/093297
10 May 2023 (10.05.2023) CN
PCT/CN2024/071750
11 January 2024 (11.01.2024) CN

(71) Applicant (for CN only): **SHANGHAI ANTENGENE CORPORATION LIMITED** [CN/CN]; Suite 1206-1209, Block B, Zhongshan Soho Plaza, 1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN).

(71) Applicant (for all designated States except CN): **ANTENGENE DISCOVERY LIMITED** [CN/CN]; Suite 1206-1209, Block B, Zhongshan Soho Plaza, 1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN).

(72) Inventors: **ZHANG, Ming**; Suite 1206-1209, Block B, Zhongshan Soho Plaza, 1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN). **KONG, Ya**; Suite 1206-1209, Block B, Zhongshan Soho Plaza, 1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN). **JIANG, Lulu**; Suite 1206-1209, Block B, Zhongshan Soho Plaza, 1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN). **JIANG, Bin**; Suite 1206-1209, Block B, Zhongshan Soho Plaza, 1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN). **DAI, Guoqiang**; Suite 1206-1209, Block B, Zhongshan Soho Plaza, 1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN). **HE, Yulong**; Suite 1206-1209, Block B, Zhongshan Soho Plaza, 1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN). **HOU, Bing**; Suite 1206-1209, Block B, Zhongshan Soho Plaza, 1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN). **SHAN, Bo**; Suite 1206-1209, Block B, Zhongshan Soho Plaza,

1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN). **MEI, Jay**; Suite 1206-1209, Block B, Zhongshan Soho Plaza, 1065, West Zhongshan Road, Changning District, Shanghai 200051 (CN).

(74) Agent: **JUN HE LAW OFFICES**; 20/F, China Resources Building 8 Jianguomenbei Avenue, Dongcheng District, Beijing 100005 (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, 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))

(54) Title: PRMT5 INHIBITING COMPOUNDS AND USES THEREOF

(57) Abstract: Provided herein are novel PRMT5 and/or MTA-cooperative PRMT5 inhibiting compounds, or pharmaceutically acceptable salts thereof. The present application also provides pharmaceutical compositions comprising one or more of the compounds, or pharmaceutically acceptable salts thereof as an active ingredient, and the use of the compounds, or pharmaceutically acceptable salts thereof in the treatment of diseases or disorders, including cancers.

WO 2024/153128 A1