

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
14 April 2022 (14.04.2022)



(10) International Publication Number
WO 2022/074459 A3

(51) International Patent Classification:

C07D 471/04 (2006.01) C07F 5/02 (2006.01)
A61K 31/506 (2006.01) A61P 29/00 (2006.01)
A61K 31/5377 (2006.01) A61P 37/00 (2006.01)
A61K 31/496 (2006.01) A61P 35/00 (2006.01)
A61K 31/4545 (2006.01) A61P 1/16 (2006.01)

(21) International Application Number:

PCT/IB2021/000693

(22) International Filing Date:

04 October 2021 (04.10.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/088,219 06 October 2020 (06.10.2020) US

(71) Applicant: ILDONG PHARMACEUTICAL CO., LTD.

[KR/KR]; 2, Baumoc-ro 27-gil, Seocho-gu, Seoul 06752 (KR).

(72) Inventors: **CHOI, Sung-Ku**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **LEE, Yoon-Suk**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **KWON, Sung-Wook**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **KIM, Kyung-Sun**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **KIM, Jeong-Geun**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **KIM, Jeong-Ah**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **MOON, An-Na**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **PARK, Sun-Young**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **BAN, Jun-Su**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **SONG, Dong-Keun**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **JANG, Kyu-Sic**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **JUNG, Ju-Young**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR). **LEE, Soo-Jin**; 20, Samsung 1-ro 1-gil, Hwaseong-si, Gyeonggi-do 18449 (KR).

(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))

(88) Date of publication of the international search report:

02 June 2022 (02.06.2022)

(54) Title: AUTOTAXIN INHIBITOR COMPOUNDS

(57) Abstract: The present disclosure provides autotaxin (ATX) inhibitor compounds and compositions including said compounds. The present disclosure also provides methods of using said compounds and compositions for inhibiting ATX. Also provided are methods of preparing said compounds and compositions, and synthetic precursors of said compounds.



WO 2022/074459 A3