

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
08 June 2023 (08.06.2023)



(10) International Publication Number
WO 2023/102022 A1

(51) International Patent Classification:

C07D 211/52 (2006.01)	C07D 405/14 (2006.01)
C07D 401/04 (2006.01)	C07D 409/14 (2006.01)
A61P 13/00 (2006.01)	C07D 413/04 (2006.01)
A61P 35/00 (2006.01)	C07D 413/14 (2006.01)
A61K 31/451 (2006.01)	C07D 471/04 (2006.01)
A61K 31/454 (2006.01)	C07D 487/04 (2006.01)
C07D 401/10 (2006.01)	C07D 498/04 (2006.01)
C07D 401/14 (2006.01)	A61K 31/4545 (2006.01)

(21) International Application Number:

PCT/US2022/051364

(22) International Filing Date:

30 November 2022 (30.11.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/284,166	30 November 2021 (30.11.2021)	US
63/286,165	06 December 2021 (06.12.2021)	US
63/310,832	16 February 2022 (16.02.2022)	US

(71) Applicant: **VERTEX PHARMACEUTICALS INCORPORATED** [US/US]; 50 Northern Avenue, Boston, Massachusetts 02210 (US).

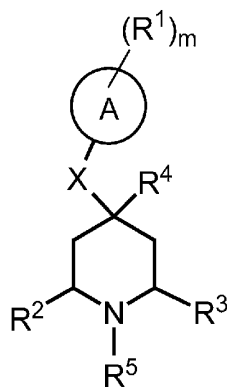
(72) Inventors: **DAKIN, Leslie A.**; 50 Northern Avenue, Boston, Massachusetts 02210 (US). **BRODNEY, Michael A.**; 50 Northern Avenue, Boston, Massachusetts 02210 (US). **DOLGIKH, Elena**; 50 Northern Avenue, Boston, Massachusetts 02210 (US). **OLSEN, Jessica H.**; 50 Northern Avenue, Boston, Massachusetts 02210 (US). **SENTER, Timothy J.**; 50 Northern Avenue, Boston, Massachusetts 02210 (US). **SHIMIZU, Akira J.**; 50 Northern Avenue, Boston, Massachusetts 02210 (US). **STONE, Steven D.**; 50 Northern Avenue, Boston, Massachusetts 02210 (US). **DANIEL, Kevin B.**; 50 Northern Avenue, Boston, Massachusetts 02210 (US). **GARCIA BARRANTES, Pedro M.**; 50 Northern Avenue, Boston, Massachusetts 02210 (US). **MEDEK, Ales**; 50 Northern Avenue, Boston, Massachusetts 02210 (US). **TSAY, Charlene**; 50 Northern Avenue, Boston, Massachusetts 02210 (US).

(74) Agent: **MCDONELL, Leslie A.**; 901 New York Avenue, NW, Washington, District of Columbia 20001 (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,

(54) Title: 4-PHENYL-2-(1H-1,2,3-TRIAZOL-4-YL)PIPERIDIN-4-OL DERIVATIVES AS INHIBITORS OF APOLI AND METHODS OF USING SAME

(57) Abstract: The disclosure provides at least one compound, tautomer, deuterated derivative, or pharmaceutically acceptable salt chosen from compounds of Formula (I), tautomers thereof, deuterated derivatives of those compounds or tautomers, and pharmaceutically acceptable salts of any of the foregoing, compositions comprising the same, and methods of using the same, including uses in treating APOLI-mediated diseases, including pancreatic cancer, focal segmental glomerulosclerosis (FSGS), and/or non-diabetic kidney disease (NDKD).



Formula (I)

WO 2023/102022 A1

[Continued on next page]

LY, MA, MD, 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, CV, 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, 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).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

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