

## CORRECTED VERSION

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
20 February 2025 (20.02.2025)

WIPO | PCT

(10) International Publication Number  
**WO 2025/038920 A8**



## (51) International Patent Classification:

*C07D 471/04* (2006.01) *A61P 25/24* (2006.01)  
*C07D 487/04* (2006.01) *A61P 25/08* (2006.01)  
*C07D 497/04* (2006.01) *A61P 25/04* (2006.01)  
*C07D 513/04* (2006.01)

## (21) International Application Number:

PCT/US2024/042649

## (22) International Filing Date:

16 August 2024 (16.08.2024)

## (25) Filing Language:

English

## (26) Publication Language:

English

## (30) Priority Data:

63/520,171 17 August 2023 (17.08.2023) US  
63/567,980 21 March 2024 (21.03.2024) US

(71) Applicant: **XENON PHARMACEUTICALS INC.**  
[CA/CA]; 200-3650 Gilmore Way, Burnaby, BC V5G 4W8 (CA).

(72) Inventors: **CLARK, Michael Phillip**; c/o Xenon Pharmaceuticals, Inc., 3650 Gilmore Way, Burnaby, BC V5G 4W8 (CA). **DEHNHARDT, Christopher Martin**; c/o Xenon Pharmaceuticals, Inc., 3650 Gilmore Way, Burnaby, BC V5G 4W8 (CA). **ZENOVA, Alla Yurevna**; c/o Xenon Pharmaceuticals, Inc., 3650 Gilmore Way, Burnaby, BC V5G 4W8 (CA). **SAYYAD, Ashik Ajij**; c/o Xenon Pharmaceuticals, Inc., 3650 Gilmore Way, Burnaby, BC V5G 4W8 (CA). **SUN, Shaoyi**; c/o Xenon Pharmaceuticals, Inc., 3650 Gilmore Way, Burnaby, BC V5G 4W8 (CA). **WANG, Hong**; c/o Xenon Pharmaceuticals, Inc., 3650 Gilmore Way,

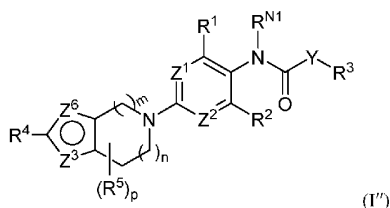
Burnaby, BC V5G 4W8 (CA). **BARIGYE, Stephen Jones**; c/o Xenon Pharmaceuticals, Inc., 3650 Gilmore Way, Burnaby, BC V5G 4W8 (CA). **CHARIFSON, Paul Scott**; c/o Xenon Pharmaceuticals, Inc., 3650 Gilmore Way, Burnaby, BC V5G 4W8 (CA). **DARAMWAR, Pankaj Pandharinath**; c/o Xenon Pharmaceuticals, Inc., 3650 Gilmore Way, Burnaby, BC V5G 4W8 (CA).

(74) Agent: **HAMZIK, Philip J.** et al.; Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA 02210-2206 (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, 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,

(54) Title: HETEROARYL AMINE COMPOUNDS AND USES THEREOF



(57) Abstract: Provided herein are compounds, including compounds of any of the formulae described herein (e.g., Formula (I), e.g., Formula (I'')), and pharmaceutically acceptable salts, stereoisomers, tautomers, solvates, hydrates, isotopically labeled derivatives, and prodrugs thereof. Compounds provided herein can act as potentiators of voltage-gates potassium channels (e.g., Kv7 potassium channels such as Kv7.2/Kv7.3) and are therefore useful in the treatment and/or prevention of diseases, disorders, and conditions (e.g., diseases, disorders, and conditions associated with Kv7 potassium channel dysfunction).

[Continued on next page]

WO 2025/038920 A8

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))*

**(48) Date of publication of this corrected version:**

24 April 2025 (24.04.2025)

**(15) Information about Correction:**

see Notice of 24 April 2025 (24.04.2025)