

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
26 October 2023 (26.10.2023)



(10) International Publication Number
WO 2023/205680 A1

(51) International Patent Classification:

C07D 471/04 (2006.01) A61P 35/00 (2006.01)
C07D 471/16 (2006.01) A61K 31/519 (2006.01)
C07D 487/04 (2006.01) A61K 31/437 (2006.01)

(21) International Application Number:

PCT/US2023/065937

(22) International Filing Date:

19 April 2023 (19.04.2023)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

63/333,104 20 April 2022 (20.04.2022) US
63/405,050 09 September 2022 (09.09.2022) US
63/426,139 17 November 2022 (17.11.2022) US
63/439,734 18 January 2023 (18.01.2023) US

(71) Applicant: SYNNOVATION THERAPEUTICS, INC.

[US/US]; 200 Powder Mill Road E500-1801, Wilmington,
Delaware 19803 (US).

(72) Inventors: QI, Chao; c/o Synnovation Therapeutics, Inc.,

200 Powder Mill Road E500-1801, Wilmington, Delaware
19803 (US). YOU, Lin; c/o Synnovation Therapeutics, Inc.,
200 Powder Mill Road E500-1801, Wilmington, Delaware
19803 (US). ZHOU, Fei; c/o Synnovation Therapeutics,
Inc., 200 Powder Mill Road E500-1801, Wilmington,
Delaware 19803 (US). LI, Yu; c/o Synnovation Thera-
peutics, Inc., 200 Powder Mill Road E500, Wilmington,
Delaware 19803 (US). ZHENG, Hewen; c/o Synnovation
Therapeutics, Inc., 200 Powder Mill Road E500, Wilming-
ton, Delaware 19803 (US). BAI, Yu; c/o Synnovation Ther-
apeutics, Inc., 200 Powder Mill Road E500, Wilmington,
Delaware 19803 (US). PAN, Jun; c/o Synnovation Ther-
apeutics, Inc., 200 Powder Mill Road E500, Wilmington,
Delaware 19803 (US). WU, Liangxing; c/o Synnovation
Therapeutics, Inc., 200 Powder Mill Road E500, Wilming-
ton, Delaware 19803 (US). YAO, Wenqing; c/o Synnova-
tion Therapeutics, Inc., 200 Powder Mill Road E500, Wilm-
ington, Delaware 19803 (US).

(74) Agent: DAVEY, Evan A. et al.; Fish & Richardson P.C.,

P.O. Box 1022, Minneapolis, Minnesota 55440-1022 (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,
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))

(54) Title: PI3K α INHIBITORS

(57) Abstract: The present disclosure provides compounds, compositions, and methods useful for inhibiting PI3K α , and/or treating a
disease, disorder, or condition associated with PI3K α , and/or treating cancer.

WO 2023/205680 A1