

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
01 May 2025 (01.05.2025)



(10) International Publication Number
WO 2025/090605 A1

(51) International Patent Classification:

A61K 31/4025 (2006.01) A61P 11/00 (2006.01)
A61K 31/495 (2006.01) A61P 35/00 (2006.01)
A61K 45/06 (2006.01)

(21) International Application Number:

PCT/US2024/052562

(22) International Filing Date:

23 October 2024 (23.10.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/592,886	24 October 2023 (24.10.2023)	US
63/631,430	08 April 2024 (08.04.2024)	US
63/634,874	16 April 2024 (16.04.2024)	US
63/654,667	31 May 2024 (31.05.2024)	US

(71) Applicants: UNIVERSITY OF HOUSTON SYSTEM

[US/US]; 4800 Calhoun Road, Houston, Texas 77204 (US). **TRACT PHARMACEUTICALS, INC.** [US/US]; 29 South Main Street, Ste. 305, West Hartford, Connecticut 06107 (US).

(72) Inventors: **XIAN, Wa**; 5 Saint Christopher Ct., Sugar

Land, Texas 77479 (US). **MCKEON, Frank**; 5 Saint Christopher Ct., Sugar Land, Texas 77479 (US). **VINCENT, Matthew**; 12 Quimby Lane, Amesbury, Massachusetts 01913 (US). **RUSSELL, Richard E.**; c/o Tract Phar-

maceuticals, Inc., 29 South Main Street, Ste. 305, West Hartford, Connecticut 06107 (US).

(74) Agent: **VETTER, Michael L.** et al.; CHOATE, HALL & STEWART LLP, Two International Place, Boston, Massachusetts 02110 (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).

(54) Title: COMBINATION OF IAP INHIBITORS AND CELLULAR KINASE INHIBITORS, SUCH AS PONATINIB, FOR USE IN THE TREATMENT OF CANCER OR PULMONARY DISEASES, SUCH AS COPD, CYSTIC FIBROSIS, PULMONARY FIBROSIS AND COVID-19

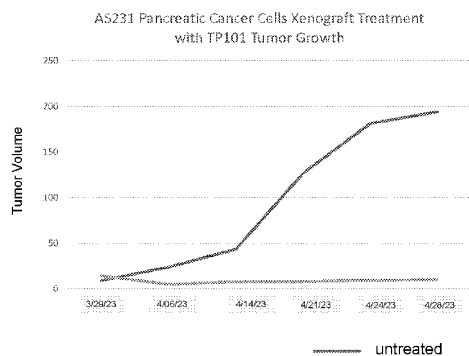


Figure 6A

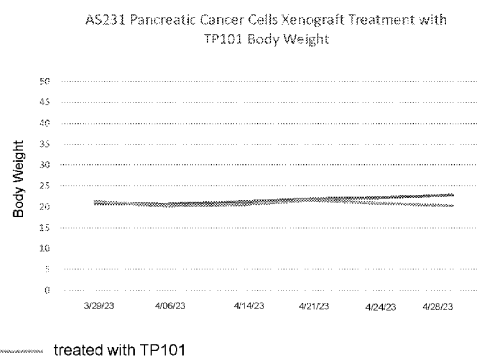


Figure 6B

(57) Abstract: The present disclosure provides compounds, pharmaceutically acceptable compositions thereof, and methods of using the same.

[Continued on next page]

Published:

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