

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
22 December 2022 (22.12.2022)



(10) International Publication Number
WO 2022/266240 A1

(51) International Patent Classification:

A61K 31/10 (2006.01) A61P 35/00 (2006.01)
C07C 317/10 (2006.01)

(21) International Application Number:

PCT/US2022/033657

(22) International Filing Date:

15 June 2022 (15.06.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/211,070 16 June 2021 (16.06.2021) US
63/211,071 16 June 2021 (16.06.2021) US

(71) Applicant: **ONCONOVA THERAPEUTICS, INC.**
[US/US]; 12 Penns Trail, Newtown, Pennsylvania 18940
(US).

(72) Inventors: **FRUCHTMAN, Steven**; 12 Penns Trail, New-
town, Pennsylvania 18940 (US). **PARRIS, Matthew**; 12
Penns Trail, Newtown, Pennsylvania 18940 (US).

(74) Agent: **OH, YOUNG IN**; Wilson Sonsini Goodrich
& Rosati, 650 Page Mill Road, Palo Alto, California
94304-1050 (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, 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, 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.

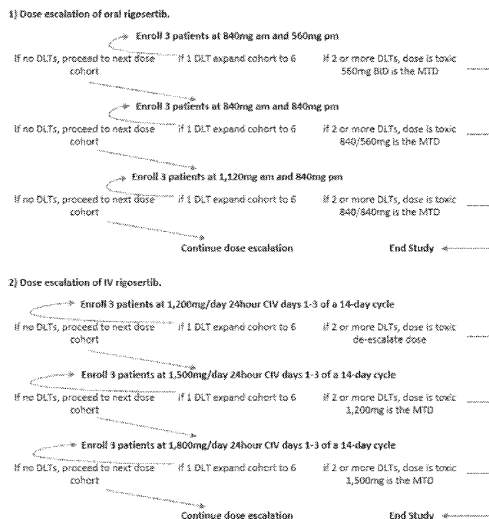
(84) Designated States (unless otherwise indicated, for every

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).

Declarations under Rule 4.17:

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

(54) Title: METHODS AND COMPOSITIONS FOR TREATING CANCER



All doses given in combination with standard dose CPI.
Standard 3+3 rules apply for determination of toxic dose, MTD and RP2D.

FIG. 1

(57) Abstract: RAS proteins are frequently mutated in human cancers. Disclosed herein are compounds that disrupt RAS effectors and inhibits Ras/Raf/MEK/ERK pathway signaling. Further disclosed herein are methods of using compounds in combination with checkpoint inhibitors to treat cancer.

WO 2022/266240 A1

[Continued on next page]

Published:

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