

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
24 September 2020 (24.09.2020)



(10) International Publication Number
WO 2020/190765 A3

(51) International Patent Classification:

C07D 239/94 (2006.01) A61K 31/496 (2006.01)
C07D 405/04 (2006.01) A61K 31/517 (2006.01)
C07D 405/10 (2006.01) A61K 31/519 (2006.01)
C07D 491/056 (2006.01) A61K 31/5377 (2006.01)
A61K 31/4025 (2006.01) A61K 35/00 (2006.01)

(21) International Application Number:

PCT/US2020/022743

(22) International Filing Date:

13 March 2020 (13.03.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/819,322 15 March 2019 (15.03.2019) US
62/904,241 23 September 2019 (23.09.2019) US

(71) Applicant: **THE REGENTS OF THE UNIVERSITY OF CALIFORNIA** [US/US]; 1111 Franklin Street, Twelfth Floor, Oakland, California 94607-5200 (US).

(72) Inventors: **NATHANSON, David A.**; 10889 Wilshire Blvd. Suite 920, Los Angeles, California 90095-7191 (US). **JUNG, Michael E.**; 10889 Wilshire Blvd. Suite 920, Los Angeles, California 90095-7191 (US). **TSANG, Jonathan**; 10889 Wilshire Blvd. Suite 920, Los Angeles, California 90095-7191 (US). **URNER, Lorenz**; 10889 Wilshire Blvd. Suite 920, Los Angeles, California 90095-7191 (US). **CLARK, Peter M.**; 10889 Wilshire Blvd. Suite 920, Los Angeles, California 90095-7191 (US). **CLOUGHESY, Timothy F.**; 10889 Wilshire Blvd. Suite 920, Los Angeles, California 90095-7191 (US). **KIM, Gyudong**; 10889 Wilshire Blvd. Suite 920, Los Angeles, California 90095-7191 (US).

(74) Agent: **HALSTEAD, David P.** et al.; Foley Hoag LLP, 155 Seaport Boulevard, Boston, Massachusetts 02210-2600 (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, IR, IS, 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:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report (Art. 21(3))
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

26 November 2020 (26.11.2020)

(54) Title: COMPOSITIONS AND METHODS FOR TREATING CANCER

(57) Abstract: The present disclosure relates to compounds that are capable penetrating to the blood brain barrier to modulate the activity of EGFR tyrosine kinase. The disclosure further relates to methods of treating Glioblastoma and other EGFR mediated cancers. The disclosure further relates to methods of treating Glioblastoma and other EGFR mediated cancers that have been determined to have altered glucose metabolism in the presence of inhibitors. The present disclosure also provides methods of administering to a subject a glucose metabolism inhibitor and a cytoplasmic p53 stabilizer.

WO 2020/190765 A3