

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
16 December 2021 (16.12.2021)



(10) International Publication Number
WO 2021/250614 A1

(51) International Patent Classification:

C07D 487/20 (2006.01) A61P 35/00 (2006.01)
A61K 31/519 (2006.01) A61P 35/04 (2006.01)

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

(21) International Application Number:

PCT/IB2021/055124

Published:

— with international search report (Art. 21(3))
— in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(22) International Filing Date:

10 June 2021 (10.06.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/037,898 11 June 2020 (11.06.2020) US

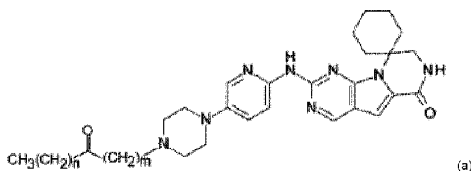
(71) Applicant: LUNELLA BIOTECH, INC. [CA/CA]; 145 Richmond Road, Ottawa, Ontario K1Z 1A1 (CA).

(72) Inventors: LISANTI, Michael P.; 842 Wilmslow Road, Flat 27, Philip Godlee Lodge, Didsbury Village Greater Manchester M20 2DS (GB). SOTGIA, Federica; 842 Wilmslow Road, Flat 27, Philip Godlee Lodge, Didsbury Village Greater Manchester M20 2DS (GB). KAN-GASMETSA, Jussi; 119 Clay Farm Drive, Cambridge CB2 9BX (GB).

(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, IT, 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).

(54) Title: SELECTIVE CDK4/6 INHIBITOR CANCER THERAPEUTICS



(57) Abstract: This disclosure describes embodiments of selective and potent CDK 4/6 inhibitors that show advantageous inhibition of cancer growth, even at low concentrations. As described herein, compounds of the present approach comprise substituted pyridinylpiperazine-pyrazolopyrimidine compounds having a fatty acid moiety. The compounds described herein may be used as pharmaceutical compounds for anti-cancer therapies, and are useful for the treatment, prevention and/or amelioration of cancer. Formula (a)

WO 2021/250614 A1