

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

(19) World Intellectual Property  
Organization  
International Bureau

(43) International Publication Date  
22 May 2020 (22.05.2020)



(10) International Publication Number  
**WO 2020/100027 A1**

(51) International Patent Classification:

C07D 471/04 (2006.01) A61K 31/4196 (2006.01)  
A61K 31/437 (2006.01) A61P 35/00 (2006.01)  
A61K 31/444 (2006.01)

(21) International Application Number:

PCT/IB2019/059702

(22) International Filing Date:

12 November 2019 (12.11.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

62/767,602 15 November 2018 (15.11.2018) US  
62/909,970 03 October 2019 (03.10.2019) US

(71) Applicant: **PFIZER INC.**, [US/US]; 235 East 42nd Street,  
New York, New York 10017 (US).

(72) Inventors: **GALLEGO, Rebecca Anne**; c/o Pfizer Inc.,  
10777 Science Center Drive, San Diego, California 92121  
(US). **NAIR, Sajiv Krishnan**; c/o Pfizer Inc., 10777  
Science Center Drive, San Diego, California 92121 (US).  
**KANIA, Robert Steven**; c/o Pfizer Inc., 10777 Science  
Center Drive, San Diego, California 92121 (US). **AH-  
MAD, Omar Khaled**; 160 Cambridgepark Drive, Apt. 371,  
Cambridge, Massachusetts 02140 (US). **JOHNSON, Ted  
William**; c/o Pfizer Inc., 10777 Science Center Drive, San  
Diego, California 92121 (US). **TUTTLE, Jamison Bryce**;  
c/o Pfizer Inc., 610 Main Street, Cambridge, Massachu-  
setts 02139 (US). **JALAIE, Mehran**; c/o Pfizer Inc., 10777  
Science Center Drive, San Diego, California 92121 (US).  
**MCTIGUE, Michele Ann**; c/o Pfizer Inc., 10777 Science  
Center Drive, San Diego, California 92121 (US). **ZHOU,**

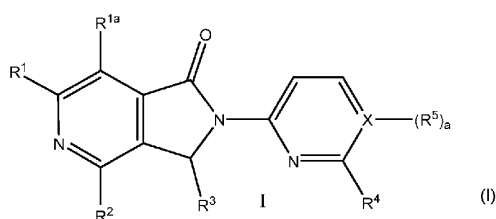
**Dahui**; c/o Pfizer Inc., 445 Eastern Point Road, Bldg. 98,  
Groton, Connecticut 06340 (US). **DEL BEL, Matthew L.**;  
c/o Pfizer Inc., 10777 Science Center Drive, San Diego,  
California 92121 (US). **ZHOU, Ru**; c/o Pfizer Inc., 10777  
Science Center Drive, San Diego, California 92121 (US).  
**HE, Mingying**; c/o Pfizer Inc., 10777 Science Center Drive,  
San Diego, California 92121 (US).

(74) Agent: **ZIELINSKI, Bryan C.**; Pfizer Inc., 235 East 42nd  
Street, MS 235/9/S20, New York, New York 10017 (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, SM, ST, SV, SY, TH, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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: 2,3-DIHYDRO-1H-PYRROLO[3,4-C]PYRIDIN-1-ONE DERIVATIVES AS HPK1 INHIBITORS FOR THE TREATMENT OF CANCER



(57) Abstract: This invention relates to 2,3-dihydro-1H-pyrrolo[3,4-c]pyridin-1-one derivatives of general Formula (I) and pharmaceutically acceptable salts thereof, as hematopoietic progenitor kinase 1 (HPK1) inhibitors, in which R<sup>1</sup>, R<sup>1a</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, and (R<sup>5</sup>)<sub>a</sub> are as defined herein, to pharmaceutical compositions comprising such compounds and to compositions for the treatment of abnormal cell growth, including cancer. A specific exemplary compound is e.g. 4-[(methylamino)methyl]-6-[methyl(propan-2-yl)amino]-2-[6-(4-propyl-4H-1,2,4-triazol-3-yl)pyridin-2-yl]-2,3-dihydro-1H-pyrrolo[3,4-c]pyridin-1-one. The present description discloses the preparation of exemplary compounds as well as pharmacological data thereof (e.g. pages 82 to 211; examples 1 to 188; tables 1 to 5).

[Continued on next page]

WO 2020/100027 A1

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

**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*