

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
17 September 2020 (17.09.2020)



(10) International Publication Number
WO 2020/186006 A1

(51) International Patent Classification:

C07D 277/28 (2006.01) A61K 31/437 (2006.01)
C07D 471/04 (2006.01) A61K 31/506 (2006.01)
C07D 417/12 (2006.01) A61P 35/00 (2006.01)
C07D 417/14 (2006.01) A61P 37/00 (2006.01)
A61K 31/426 (2006.01) A61P 25/28 (2006.01)

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).

(21) International Application Number:

PCT/US2020/022293

(22) International Filing Date:

12 March 2020 (12.03.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/816,998 12 March 2019 (12.03.2019) US

(71) Applicant: **CYTEIR THERAPEUTICS, INC.** [US/US];
128 Spring Street, Building A, Suite 510, Lexington, Massachusetts 02421 (US).

(72) Inventors: **LAPIERRE, Jean-Marc**; 1 Alexandra Drive, Pelham, New Hampshire 03076 (US). **MCCOMAS, Casey Cameron**; 470 Springview Lane, Phoenixville, Pennsylvania 19460 (US). **VACCA, Joseph**; 733 Indian Creek Road, Telford, Pennsylvania 18969 (US).

(74) Agent: **PAVAO, Matthew** et al.; 1299 Pennsylvania Ave. Suite 700, Washington, District of Columbia 20004 (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.

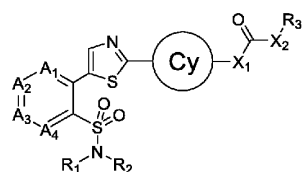
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

Published:

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

(54) Title: RAD51 INHIBITORS

[Formula I]



(I),

(57) Abstract: This application is directed to inhibitors of RAD51 represented by the following structural formula, (I), and methods for their use, such as to treat cancer, autoimmune diseases, immune deficiencies, or neurodegenerative diseases.

WO 2020/186006 A1