



(51) International Patent Classification:

C07D 405/14 (2006.01) *C07D 413/12* (2006.01)
A61K 31/4427 (2006.01) *C07D 417/12* (2006.01)
C07D 405/12 (2006.01) *C07D 307/81* (2006.01)
C07D 409/14 (2006.01) *A61P 35/00* (2006.01)

(21) International Application Number:

PCT/US2014/045479

(22) International Filing Date:

3 July 2014 (03.07.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/842,856 3 July 2013 (03.07.2013) US
 61/879,070 17 September 2013 (17.09.2013) US
 61/904,843 15 November 2013 (15.11.2013) US
 61/975,171 4 April 2014 (04.04.2014) US

(71) Applicant: **KARYOPHARM THERAPEUTICS INC.**
[US/US]; 2 Mercer Road, Natick, MA 01760 (US).(72) Inventors: **BALOGLU, Erkan**; 8 Benjamin Terrace, Stoneham, MA 02180 (US). **SHACHAM, Sharon**; 15 Bontempo Road, Newton, MA 02459 (US). **SENAPEDIS, William**; 364 Washington Street, Unit 6a, Brighton, MA 02135 (US). **MCCAULEY, Dilara**; 85 Gore Street, Cambridge, MA 02141 (US). **LANDESMAN, Yosef**; 260 Tappan Street, Brookline, MA 02445 (US). **GOLAN, Gali**; 192 Har Yeela Street, 99770 Mesilat Zion (IL). **KALID, Ori**; Dror 30/2, 37025 Pardes Hanna (IL). **SHECHTER, Sharon**; 18 Ivy Lane, Andover, MA 01810 (US).(74) Agents: **ABELLEIRA, Susan, M.** et al.; Hamilton, Brook, Smith & Reynolds, P.C., 530 Virginia Rd, P.O. Box 9133, Concord, MA 01742-9133 (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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, 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, 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:

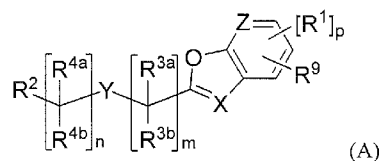
— of inventorship (Rule 4.17(iv))

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))

(54) Title: SUBSTITUTED BENZOFURANYL AND BENZOXAZOLYL COMPOUNDS AND USES THEREOF



(57) Abstract: The invention generally relates to substituted benzofuranyl and substituted benzoxazolyl compounds, and more particularly to a compound represented by Structural Formula (A) : or a pharmaceutically acceptable salt thereof, wherein the variables are as defined and described herein. The invention also includes the synthesis and use of a compound of Structural Formula (A), or a pharmaceutically acceptable salt or composition thereof, e.g., in the treatment of cancer (e.g., mantle cell lymphoma), and other diseases and disorders.