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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
2 September 2010 (02.09.2010)

PCT

(10) International Publication Number
WO 2010/099379 A1

(51) International Patent Classification:
C07D 401/14 (2006.01) *A61K 31/517* (2006.01)
C07D 403/12 (2006.01) *A61P 35/00* (2006.01)
C07D 405/14 (2006.01)

(21) International Application Number:
PCT/US2010/025500

(22) International Filing Date:
26 February 2010 (26.02.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/156,447 27 February 2009 (27.02.2009) US
61/294,083 11 January 2010 (11.01.2010) US
61/294,490 13 January 2010 (13.01.2010) US

(71) Applicant *(for all designated States except US)*: **AMBIT BIOSCIENCES CORPORATION** [US/US]; 4215 Sorrento Valley Boulevard, San Diego, CA 92121 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **LIU, Gang** [US/US]; 4215 Sorrento Valley Boulevard, San Diego, CA 92121 (US). **CHAO, Qi** [US/US]; 7696 Marker Road, San Diego, CA 92130 (US). **HADD, Michael, J.** [US/US]; 4215 Sorrento Valley Boulevard, San Diego, CA 92121 (US). **HOLLADAY, Mark, W.** [US/US]; 4215 Sorrento Valley Boulevard, San Diego, CA 92121 (US). **ABRAHAM, Sunny** [IN/US]; 4215 Sorrento Valley Boulevard, San Diego, CA 92121 (US). **SETTI, Eduardo** [AR/US]; 804 North Delaware Street, San Mateo, CA 94401 (US).

(74) Agents: **RIEGER, Dale, L.** et al.; Jones Day, 222 East 41st Street, New York, NY 10017-6702 (US).

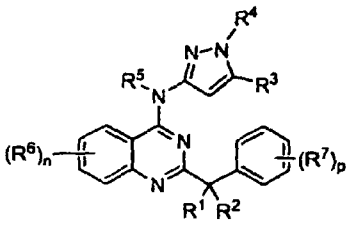
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, 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, PE, PG, PH, PL, PT, RO, RS, RU, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report (Art. 21(3))*

WO 2010/099379 A1

(54) Title: JAK KINASE MODULATING QUINAZOLINE DERIVATIVES AND METHODS OF USE THEREOF



(I)

(57) Abstract: Provided herein are quinazoline compounds for treatment of JAK kinase mediated diseases, including JAK2 kinase-, JAK3 kinase- or TYK2 kinase-mediated diseases. Also provided are pharmaceutical compositions comprising the compounds and methods of using the compounds and compositions. (I).