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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
16 October 2014 (16.10.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/168993 A1

(51) International Patent Classification:
A61K 31/122 (2006.01) *G01N 33/53* (2006.01)
A61P 35/02 (2006.01)

(21) International Application Number:
PCT/US2014/033402

(22) International Filing Date:
8 April 2014 (08.04.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/809,840 8 April 2013 (08.04.2013) US

(71) Applicant: **BERG LLC** [US/US]; 1845 Elm Hill Pike, Nashville, TN 37210 (US).

(72) Inventors: **NARAIN, Niven, Rajin**; 73 Fresh Pond Parkway, Cambridge, MA 02138 (US). **SARANGARAJAN, Rangaprasad**; 454 Central Street, Boylston, MA 01505 (US).

(74) Agents: **HANLEY, Elizabeth, A.** et al.; McCarter & English, LLP, 265 Franklin Street, Boston, MA 02110 (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).

Published:

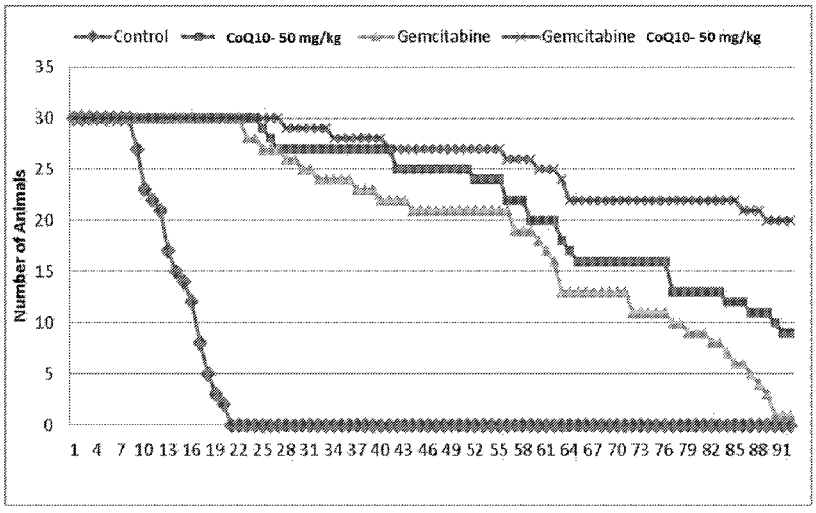
— *with international search report (Art. 21(3))*

— *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))*

WO 2014/168993 A1

(54) Title: TREATMENT OF CANCER USING COENZYME Q10 COMBINATION THERAPIES

Figure 1



(57) Abstract: Presented herein are methods for the treatment of oncological disorders by the co¬ administration of CoQ10 formulations and chemo therapeutic agents and/or surgery. The CoQ10 formulations may be at least one of intravenous, topical, or by inhalation. The chemo therapeutic agents may be at least one of antimetabolites or anthracyc lines. Co-administration of the CoQ10 formulations may be prior to, concurrent or substantially concurrent with, intermittent with or subsequent to the administration of the chemotherapy.