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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 September 2014 (18.09.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/145187 A1

(51) International Patent Classification:
A61K 9/127 (2006.01) *A61K 31/4375* (2006.01)

(21) International Application Number:
PCT/US2014/029907

(22) International Filing Date:
15 March 2014 (15.03.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/792,850 15 March 2013 (15.03.2013) US

(71) Applicants: **TAIWAN LIPOSOME COMPANY, LTD.**; 2F. No. 3 Yuanqu Street, Nangang District, Taipei City 11503 (TW). **TLC BIOPHARMACEUTICALS, INC.** [US/US]; 432 North Canal Street, #20, South San Francisco, CA 94080 (US).

(72) Inventors: **KAN, Pei**; 2F. No. 3 Yuanqu Street, Nangang District, Taipei City, 11503 (TW). **TSENG, Yun-Long**; 2F. No. 3 Yuanqu Street, Nangang District, Taipei City, 11503 (TW). **OU, Han, Chun**; 2F. No. 3 Yuanqu Street, Nangang District, Taipei City, 11503 (TW).

(74) Agents: **CHOI, Wendy, A.** et al.; Ballard Spahr LLP, 999 Peachtree Street, Suite 1000, Atlanta, GA 30309 (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:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

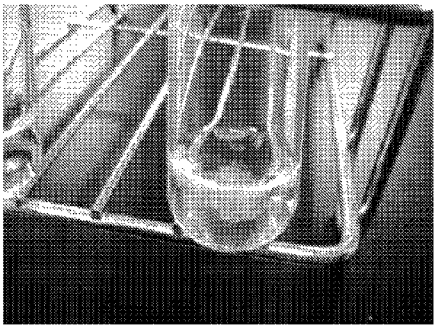
Published:

— *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: CONTROLLED DRUG RELEASE LIPOSOME COMPOSITION

FIGURE 1



(57) Abstract: The present invention relates to a pharmaceutical composition comprising at least one liposome, at least one polyvalent counterion donor or a pharmaceutically acceptable salt thereof, at least one monovalent counterion donor or a pharmaceutically acceptable salt thereof, and an amphipathic therapeutic agent. The present invention also relates to methods of inhibiting cancer cell growth, comprising administering the pharmaceutical composition described herein.

WO 2014/145187 A1