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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 April 2015 (09.04.2015)

WIPO | PCT

(10) International Publication Number
WO 2015/049589 A1

(51) International Patent Classification:
A61K 38/21 (2006.01) *A61P 35/00* (2006.01)
A61K 48/00 (2006.01)

(21) International Application Number:
PCT/IB2014/002824

(22) International Filing Date:
3 October 2014 (03.10.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/887,258 4 October 2013 (04.10.2013) US

(71) Applicant: **ENGENEIC MOLECULAR DELIVERY PTY LTD** [AU/AU]; Building 2, 25 Sirius Road, Lane Cove West, Sydney, New South Wales 2066 (AU).

(72) Inventors: **BRAHMBHATT, Himanshu**; c/o Engeneic Molecular Delivery PTY LTD, Building 2, 25 Sirius Road, Lane Cove West, Sydney, New South Wales 2066 (AU). **MACDIARMID, Jennifer**; c/o Engeneic Molecular Delivery PTY LTD, Building 2, 25 Sirius Road, Lane Cove West, Sydney, New South Wales 2066 (AU).

(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, 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, 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).

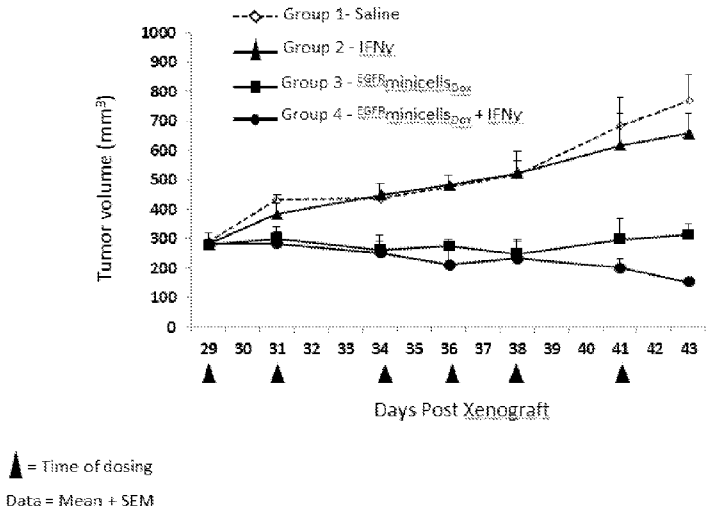
Published:

— *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: COMBINATION TUMOR TREATMENT WITH DRUG-LOADED, BISPECIFIC LIGAND-TARGETED MINICELLS AND INTERFERON-GAMMA

FIGURE 2



(57) Abstract: Compositions and methods are provided for cancer treatments. The methodology entails, for instance, administering to a cancer patient a first composition comprising a plurality of bacterially derived intact minicells or intact killed bacterial cells, each of which encompasses an anti-neoplastic agent and carries a bispecific ligand on the surface, the ligand having specificity for a mammalian cell component, and a second composition comprising interferon-gamma (IFN- gamma) or an agent that increases the expression of IFN-gamma in the subject. The compositions include the first composition and the second composition as described, optionally with additional anti-neoplastic agents.

WO 2015/049589 A1