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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 June 2015 (25.06.2015)

WIPO | PCT

(10) International Publication Number
WO 2015/095755 A1

(51) International Patent Classification:
A61K 47/48 (2006.01)

(21) International Application Number:
PCT/US2014/071593

(22) International Filing Date:
19 December 2014 (19.12.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/918,539 19 December 2013 (19.12.2013) US
103144705 19 December 2014 (19.12.2014) TW

(71) Applicant: **SEATTLE GENETICS, INC.** [US/US]; 21823 30th Drive SE, Bothell, Washington 98021 (US).

(72) Inventors: **KOLAKOWSKI, Robert**; 21823 30th Drive SE, Bothell, Washington 98021 (US). **JEFFREY, Scott**; 21823 30th Drive SE, Bothell, Washington 98021 (US). **BURKE, Patrick**; 21823 30th Drive SE, Bothell, Washington 98021 (US).

(74) Agents: **CASTELLINO, Angelo** et al.; Seattle Genetics, Inc., 21823 30th Drive Southeast, Bothell, Washington 98021 (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, 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).

[Continued on next page]

(54) Title: METHYLENE CARBAMATE LINKERS FOR USE WITH TARGETED-DRUG CONJUGATES

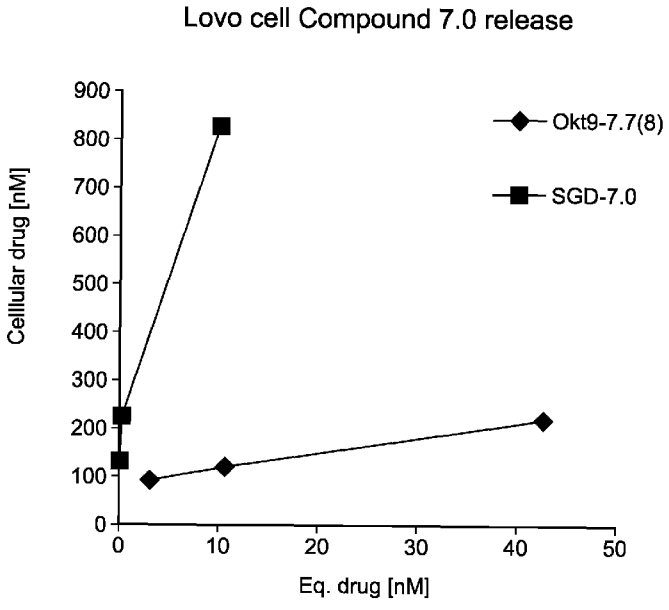


Fig. 3

(57) Abstract: The present invention provides Ligand-Drug Conjugates and Drug-Linker Compounds comprising a methylene carbamate unit. The invention provides inter alia, Ligand-Drug Conjugates, wherein the Ligand-Drug Conjugate is comprised of a Self-immolative Assembly Unit having a methylene carbamate unit for conjugation of a drug to a targeting ligand, methods of preparing and using them, and intermediates thereof. The Ligand-Drug Conjugates of the present invention are stable in circulation, yet capable of inflicting cell death once free drug is released from a Conjugate in the vicinity or within tumor cells.

WO 2015/095755 A1

Declarations under Rule 4.17:

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

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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))*