

CORRECTED VERSION

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
3 December 2015 (03.12.2015)



(10) International Publication Number
WO 2015/184145 A8

(51) International Patent Classification:
A01N 43/58 (2006.01)

(21) International Application Number:
PCT/US2015/032990

(22) International Filing Date:
28 May 2015 (28.05.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/003,798 28 May 2014 (28.05.2014) US
62/088,200 5 December 2014 (05.12.2014) US

(71) Applicant: EISAI R&D MANAGEMENT CO., LTD.
[JP/JP]; 6-10, Koishikawa 4-chome, Tokyo, 112-8088 (JP).

(72) Inventors; and

(71) Applicants (for US only): COX, David [US/US]; 41
Hunters Run, Oakland, NJ 07436 (US). KREMER, Alton
[US/US]; 10 Bernhard Drive, Weston, CT 06883 (US).
MCGONIGLE, Sharon [IE/US]; 70 Chestnut Street, An-

dover, MA 01810 (US). WU, Jiayi [US/US]; 26 Saint Paul
Street, Apt. #4, Brookline, MA 02446-6537 (US).

(74) Agent: MICHAUD, Susan M.; Clark & Elbing LLP, 101
Federal Street, 15th Floor, Boston, MA 02110 (US).

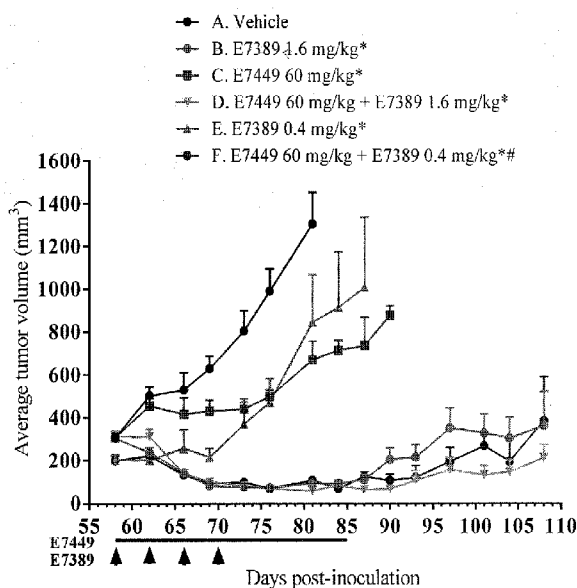
(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, 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,

[Continued on next page]

(54) Title: USE OF ERIBULIN AND POLY (ADP RIBOSE) POLYMERASE (PARP) INHIBITORS AS COMBINATION THER-
APY FOR THE TREATMENT OF CANCER

Figure 1



(57) Abstract: The invention features methods for treating cancer in a patient in need thereof by administering eribulin, in combination with one or more PARP inhibitors, and, optionally, a platinum-based antineoplastic drug, and kits therefor. The invention is based in part on the observation that combinations of eribulin mesylate, a PARP inhibitor (e.g., E7449), and, optionally, a platinum-based antineoplastic drug (e.g., carboplatin), show improved (e.g., synergistic) antitumor effects. Therefore, the present invention features methods of preventing and treating cancer (e.g., homologous recombination (HR)-deficient cancer) by the use of combinations of eribulin (e.g., eribulin mesylate) and one or more PARP inhibitors (e.g., E7449 or a pharmaceutically acceptable salt thereof (e.g., the tartrate salt), optionally in combination with a platinum-based antineoplastic drug (e.g., carboplatin).



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))*

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))*

(48) Date of publication of this corrected version:

4 February 2016

(15) Information about Correction:

see Notice of 4 February 2016