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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 April 2006 (27.04.2006)

PCT

(10) International Publication Number
WO 2006/043083 A2

(51) International Patent Classification:
A61K 47/48 (2006.01) *A61K 51/12* (2006.01)

(21) International Application Number:
PCT/GB2005/004074

(22) International Filing Date: 21 October 2005 (21.10.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0423565.1 22 October 2004 (22.10.2004) GB

(71) Applicant *(for all designated States except US)*: **ALGETA ASA** [NO/NO]; Kjelsåsveien 172A, N-0884 Oslo (NO).

(71) Applicant *(for GB only)*: **GODDARD, Christopher** [GB/GB]; Frank B. Dehn & Co., 179 Queen Victoria Street, London EC4V 4EL (GB).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **LARSEN, Roy** [NO/NO]; Algeta AS, Kjelsåsveien 172A, N-0884 Oslo (NO). **JONASDOTTIR, Thora, Johanna** [NO/NO]; Heggeveien 8 L, N-481 Hagan (NO).

(74) Agent: **GODDARD, Christopher**; FRANK B. DEHN & CO., 179 Queen Victoria Street, London, EC4V 4EL (GB).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2006/043083 A2

(54) Title: CYTOTOXIC FORMULATION FOR COMBINATION THERAPY

(57) Abstract: The present invention relates to cytotoxic agents comprising liposomes wherein the liposomes enclose a solution comprising at least one alpha emitting radionuclide and at least one other therapeutic agent, particularly a chemotherapeutic. The invention also provides methods for the formation of such cytotoxic agents, methods of therapy, especially cancer therapy employing the agents and methods for their use in the manufacture of medicaments.