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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
15 December 2005 (15.12.2005)

PCT

(10) International Publication Number
WO 2005/117830 A1

(51) International Patent Classification[7]: A61K 9/10, 9/06, 9/12

(21) International Application Number: PCT/GB2005/002217

(22) International Filing Date: 6 June 2005 (06.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0412530.8	4 June 2004 (04.06.2004)	GB
0500807.3	14 January 2005 (14.01.2005)	GB
0507811.8	18 April 2005 (18.04.2005)	GB

(71) Applicant *(for all designated States except US)*: **CAMURUS AB** [SE/SE]; Ideon, Gamma 1, Sölvegatan 41, S-223 70 Lund (SE).

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

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **THURESSON, Krister** [SE/SE]; Camurus AB, Ideon, Gamma 1, Sölvegatan 41, S-223 70 Lund (SE). **TIBERG, Fredrik** [SE/SE]; Camurus AB, Ideon, Gamma 1, Sölvegatan 41, S-223 70 Lund (SE). **JOHANSSON, Markus** [SE/SE]; Camurus AB, Ideon, Gamma 1, Sölvegatan 41, S-223 70 Lund (SE). **HARWIGSSON, Ian** [SE/SE]; Camurus AB, Ideon, Gamma 1, Sölvegatan 41, S-223 70 Lund (SE). **JOABSSON, Fredrik** [SE/SE]; Camurus AB, Ideon, Gamma 1, Sölvegatan 41, S-223 70 Lund (SE). **JOHNSSON, Markus** [SE/SE]; Camurus AB, Ideon, Gamma 1, Sölvegatan 41, S-223 70 Lund (SE).

(74) Agent: **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, 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, 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:

— *with international search report*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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 2005/117830 A1

(54) Title: LIQUID DEPOT FORMULATIONS

(57) Abstract: The present invention relates to pre-formulations comprising low viscosity, non-liquid crystalline, mixtures of: a) at least one neutral diacyl lipid and/or at least one tocopherol; b) at least one phospholipid; c) at least one biocompatible, oxygen containing, low viscosity organic solvent; wherein at least one bioactive agent is dissolved or dispersed in the low viscosity mixture and wherein the pre-formulation forms, or is capable of forming, at least one liquid crystalline phase structure upon contact with an aqueous fluid. The preformulations are suitable for generating parenteral, non-parenteral and topical depot compositions for sustained release of active agents. The invention additionally relates to a method of delivery of an active agent comprising administration of a preformulation of the invention, a method of treatment comprising administration of a preformulation of the invention and the use of a preformulation of the invention in a method for the manufacture of a medicament.