PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : A61K 9/107, 9/19, A61P 31/10

A1

(11) International Publication Number: WO 00/51564

(43) International Publication Date: 8 September 2000 (08.09.00)

(21) International Application Number: PCT/US00/05546

(22) International Filing Date: 2 March 2000 (02.03.00)

(30) Priority Data:
60/122,623 3 March 1999 (03.03.99) US

(71) Applicant *(for all designated States except US)*: ELI LILLY AND COMPANY [US/US]; Lilly Corporate Center, Indianapolis, IN 46285 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: MILTON, Nathaniel [US/US]; 6388 Kentstone Drive, Indianapolis, IN 46268 (US). MODER, Kenneth, Philip [US/US]; 160 Drury Lane, West Lafayette, IN 47906 (US). SABATOWSKI, James, Lawrence [US/US]; 243 Sandcastle Drive, Holland, MI 49424 (US). SWEETANA, Stephanie, Ann [US/US]; 4112 Saratoga Drive, Bloomington, IN 47408 (US).

(74) Agents: LEHNHARDT, Susan, K. et al.; Morrison & Foerster LLP, 1290 Avenue of the Americas, New York, NY 10104-0012 (US).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, 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 the receipt of amendments.

(54) Title: ECHINOCANDIN PHARMACEUTICAL FORMULATIONS CONTAINING MICELLE-FORMING SURFACTANTS

(57) Abstract

Pharmaceutical formulations are described comprising an echinocandin compound or echinocandin/carbohydrate complex and a pharmaceutically acceptable micelle-forming surfactant in a non-toxic aqueous solvent such that the solubilization of the echinocandin compound is optimized and the ability to freeze-dry the solution is maintained. Both the solution and freeze-dried formulations have increased stability. A bulking agent, tonicity agent buffer and/or a stabilizing agent may optionally be added to the formulations to further enhance the stability of the formulation.