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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 January 2008 (17.01.2008)

PCT

(10) International Publication Number
WO 2008/008770 A3

(51) International Patent Classification:
A61K 31/375 (2006.01)

(21) International Application Number:
PCT/US2007/073142

(22) International Filing Date: 10 July 2007 (10.07.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/806,871	10 July 2006 (10.07.2006)	US
11/774,652	9 July 2007 (09.07.2007)	US

(71) Applicant *(for all designated States except US)*: **CARME COSMECEUTICAL SCIENCES, INC.** [US/US]; 831 Latour Court, Napa, California 94558 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **SZUCOVA, Lucie** [CZ/CZ]; Velke Kunetice 154, 790 52 Velke Kunetice (CZ). **ZATLOUKAL, Marek** [CZ/CZ]; Revolucni 18a, 787 01 Sumperk (CZ). **SPICHAL, Lukas** [CZ/CZ]; Na strelnici 30, 772 00 Olomouc (CZ). **FROHLICH, Ludek** [CZ/CZ]; Na vozovce 39, 779 00 Olomouc (CZ). **DOLEZAL, Karel** [CZ/CZ]; Voskovcova 8, 779 00 Olomouc (CZ). **STRNAD, Miroslav** [CZ/CZ]; Zapadni 25, 779 00 Olomouc (CZ). **MASSINO, Frank J.** [US/US]; 86 South Newport Drive, Napa, California 94558 (US).

(74) Agent: **KRATZ, Rudy**; Fitch, Even, Tabin & Flannery, 120 South LaSalle Street, Suite 1600, Chicago, Illinois 60603 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, 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, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, 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, MT, 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*

(88) Date of publication of the international search report:
10 April 2008

(54) Title: 6, 9-DISUBSTITUTED PURINE DERIVATIVES AND THEIR USE FOR TREATING SKIN

(57) Abstract: The present invention provides methods and compositions for countering the adverse effects of aging on mammalian cells in vitro and in vivo, especially human skin cells and human skin, and treatment of hyperproliferative and related skin diseases in mammals by administering compositions containing 6,9-disubstituted purine derivatives.

WO 2008/008770 A3