

(43) International Publication Date
3 May 2012 (03.05.2012)

PCT

(10) International Publication Number
WO 2012/055014 A1

(51) International Patent Classification:

C07C 59/90 (2006.01) **C07C 323/52** (2006.01)
A61K 31/192 (2006.01) **C07C 323/62** (2006.01)
A61K 31/196 (2006.01) **C07C 59/68** (2006.01)
A61K 31/222 (2006.01) **C07C 59/84** (2006.01)
A61K 31/235 (2006.01) **C07C 62/38** (2006.01)
C07C 217/84 (2006.01) **C07C 65/32** (2006.01)
C07C 229/18 (2006.01) **C07C 69/92** (2006.01)
C07C 323/20 (2006.01)

(21) International Application Number:

PCT/CA2011/001176

(22) International Filing Date:

26 October 2011 (26.10.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/407,068 27 October 2010 (27.10.2010) US

(71) Applicant (for all designated States except US):

PROMETIC BIOSCIENCES INC. [CA/CA]; 531, boulevard des Prairies, Building 15, Laval, Quebec H7V 1B7 (CA).

(72) Inventors; and

(75) **Inventors/Applicants (for US only):** **ZACHARIE, Boulos** [CA/AD]; 3202 Honoré de Balzac Street, Laval, Quebec H7P 5Y3 (CA). **PENNEY, Christopher** [CA/CA]; 12787, Joron Street, Pierrefonds, Quebec H8Z 3K7 (CA). **ABBOTT, Shaun** [CA/CA]; 9, de l'Église Avenue, Pointe-Claire, Quebec H9S 5J1 (CA). **GAGNON, Lyne** [CA/CA]; 1973, De la Victoire Street, Laval, Quebec H7M 3E5 (CA). **GROUX, Brigitte** [CA/CA]; 5078, Fabre Street, Montreal, Quebec H2J 3W4 (CA). **LAU-**

RIN, Pierre [CA/CA]; 2250, Chemin Sunset, Ville Mont-Royal, Quebec H3R 2Y6 (CA).

(74) **Agent: LECLAIRE, France;** Prometic Life Sciences Inc., 531, boulevard des Prairies, Building 15, Laval, Quebec H7V 1B7 (CA).

(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, 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, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, 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, ML, MR, NE, SN, TD, TG).

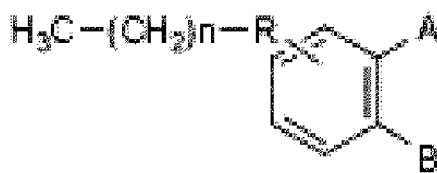
Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report (Art. 21(3))

(54) Title: PHENYLKETONE CARBOXYLATE COMPOUNDS AND PHARMACEUTICAL USES THEREOF



(I)

(57) **Abstract:** Phenylketone carboxylate compounds of Formula I, wherein $n=2-6$; $R=C(O)$; $-OC(O)-$ or $-CH(OH)-$; A is $(CH_2)_mCOOH$, $W(CH_2)_mCOOH$ or $YCH(COOH)((CH_2)_pCH_3)$ when B is Ft B is $(CH_2)_mCOOH$, $W(CH_2)_mCOOH$ or $YCH(COOH)((CH_2)_pCH_3)$ when A is Ft or A and B form a 5-7 membered cycloalkyl substituted with $COOFt$ $W=0$, S or NFt $Y=0, S, NH$ or CH_2 ; $m=0-2$; $p=1-7$; have been prepared. These compounds and their pharmaceutically acceptable salts have beneficial therapeutic effects to prevent or treat a condition related to (i) blood disorders, (ii) inflammation related diseases, (iii) renal disorders and/or renal disorders complications, or (iv) fibrosis-related organ dysfunction.