

(43) International Publication Date
18 May 2012 (18.05.2012)(10) International Publication Number
WO 2012/064910 A1

(51) International Patent Classification:

C07D 471/10 (2006.01) A61K 31/437 (2006.01)
A61K 31/519 (2006.01) A61P 9/08 (2006.01)

(21) International Application Number:

PCT/US2011/060081

(22) International Filing Date:

10 November 2011 (10.11.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/413,077 12 November 2010 (12.11.2010) US
61/425,034 20 December 2010 (20.12.2010) US

(71) Applicant (for all designated States except US): **MERCK SHARP & DOHME CORP.** [US/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BELL, Ian, M.** [GB/US]; 770 Sumneytown Pike, West Point, Pennsylvania 19486 (US). **FRALEY, Mark, E.** [US/US]; 770 Sumneytown Pike, West Point, Pennsylvania 19486 (US). **GALLICCHIO, Steven, N.** [US/US]; 770 Sumneytown Pike, West Point, Pennsylvania 19486 (US). **GINNETTI, Anthony** [US/US]; 770 Sumneytown Pike, West Point, Pennsylvania 19486 (US). **MITCHELL, Helen, J.** [CA/US]; 770 Sumneytown Pike, West Point, Pennsylvania 19486 (US). **PAONE, Daniel, V.** [US/US]; 770 Sumneytown Pike, West Point, Pennsylvania 19486 (US). **STAAS, Donnette, D.** [US/US]; 770 Sumneytown Pike, West Point, Pennsylvania 19486 (US). **WANG, Cheng**

[US/US]; 770 Sumneytown Pike, West Point, Pennsylvania 19486 (US). **ZARTMAN, C. Blair** [US/US]; 770 Sumneytown Pike, West Point, Pennsylvania 19486 (US). **STEVENSON, Heather, E.** [US/US]; 330 W. 6th Avenue, Conshohocken, Pennsylvania 19428 (US).

(74) Common Representative: **MERCK SHARP & DOHME CORP.**; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US).

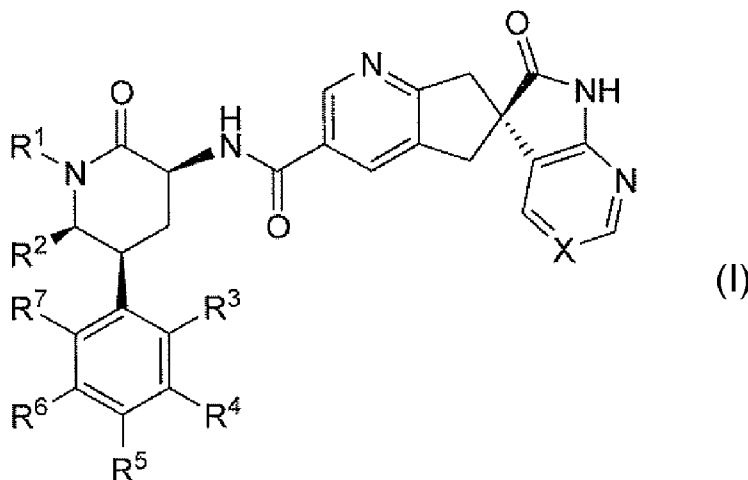
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, 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:

[Continued on next page]

(54) Title: PIPERIDINONE CARBOXAMIDE AZAINDANE CGRP RECEPTOR ANTAGONISTS



(57) Abstract: The present invention is directed to piperidinone carboxamide azaindane derivatives of formula I which are antagonists of CGRP receptors and useful in the treatment or prevention of diseases in which the CGRP is involved, such as migraine. The invention is also directed to pharmaceutical compositions comprising these compounds and the use of these compounds and compositions in the prevention or treatment of such diseases in which CGRP is involved.



-
- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
- Published:**
- *with international search report (Art. 21(3))*