



(51) International Patent Classification:

C07C 229/08 (2006.01) A61K 31/223 (2006.01)
C07C 229/22 (2006.01) A61P 25/00 (2006.01)

(21) International Application Number:

PCT/US2014/045731

(22) International Filing Date:

8 July 2014 (08.07.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/843,549 8 July 2013 (08.07.2013) US
62/010,098 10 June 2014 (10.06.2014) US

(71) Applicants: **AUSPEX PHARMACEUTICALS, INC.** [US/US]; 3366 North Torrey Pines Court, Suite 225, La Jolla, CA 92037 (US). **THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY, DEPT. OF HEALTH & HUMAN SERVICES** [US/US]; Office Of Technology Transfer, National Institutes Of Health, 6011 Executive Boulevard, Suite 325, MSC 7660, Bethesda, MD 20892 (US).

(72) Inventors: **GOLDSTEIN, David, S.**; 6011 Executive Boulevard, Suite 325, MSC 7660, Bethesda, MD 20892 (US). **HOLMES, Courtney**; 6011 Executive Boulevard, Suite 325, MSC 7660, Bethesda, MD 20892 (US). **ALKEN, Rudolf-Geisbert**; 3366 North Torrey Pines Court, Suite 225, La Jolla, CA 92037 (US). **SCHNEIDER, Frank**; 3366 North Torrey Pines Court, Suite 225, La

Jolla, CA 92037 (US). **ZHANG, Chengzhi**; 3366 North Torrey Pines Court, Suite 225, La Jolla, CA 92037 (US).

(74) Agent: **BENNETT, Dennis A.**; Global Patent Group LLC, 1005 N. Warson Road, Suite 404, St. Louis, MO 63132 (US).

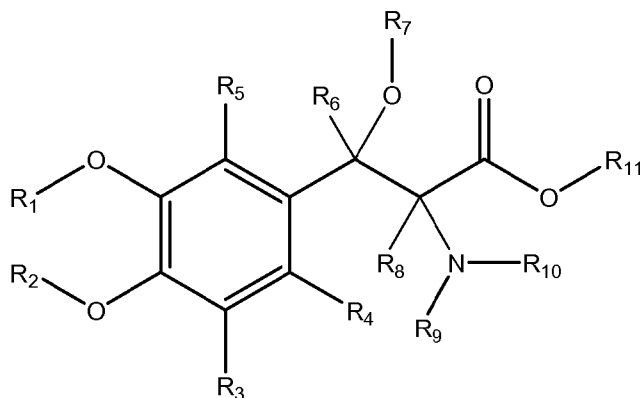
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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, 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, KM, ML, MR, NE, SN, TD, TG).

Published:

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

(54) Title: DIHYDROXYPHENYL NEUROTRANSMITTER COMPOUNDS, COMPOSITIONS AND METHODS



Formula I

(57) Abstract: The present invention relates to new dihydroxyphenyl modulators of neurotransmitter levels, pharmaceutical compositions thereof, and methods of use thereof.