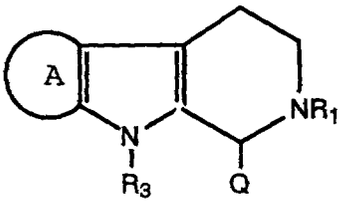
Claims

1. A compound selected from the group consisting of Formula I



I

wherein:

Q is hydrogen or $(CHR_2)R_4$

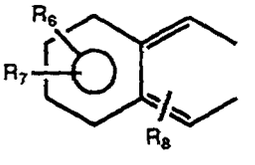
R_1 is hydrogen or C_1-C_3 alkyl;

R_2 is hydrogen or C_1-C_6 alkyl;

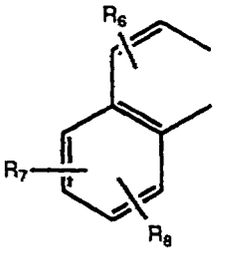
R_3 is hydrogen or C_1-C_3 alkyl;

R_4 is C_5-C_8 cycloalkyl, substituted C_5-C_8 cycloalkyl, C_5-C_8 cycloalkenyl, substituted C_5-C_8 cycloalkenyl, bicyclic or substituted bicyclic;

A is selected from the group consisting of

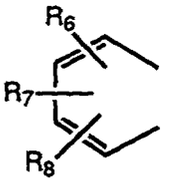


(IIa)



(IIIa)

, and



(IVa)

;

wherein

R_6 and R_7 are, independently, hydrogen, C_1-C_6 alkyl,

C_2-C_6 alkenyl, halo, halo(C_1-C_6)alkyl, halo(C_2-C_6)alkenyl, COR_5, C_1-C_{10} alkanoyl, $CO_2R_{5'}$, (C_1-C_6 alkyl)$_m$amino, NO_2, $-SR_5$, or OR_5;

m is 1 or 2;

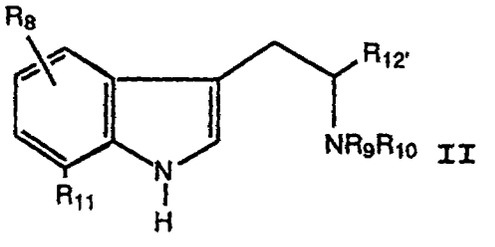
R_5 is independently hydrogen or C_1-C_4 alkyl;

$R_{5'}$ is C_1-C_4 alkyl;

R_8 is independently selected from the group consisting of an R_6 group, substituted C_3-C_8 cycloalkyl, C_3-C_8 cycloalkyl, C_3-C_8 cycloalkyl-(C_1-C_3)alkyl, C_5-C_8 cycloalkenyl, substituted C_5-C_8 cycloalkenyl, C_5-C_8 cycloalkenyl-(C_1-C_3)alkyl, C_7-C_{20} arylalkyl; or

R_6 and R_7 together with the carbon atoms of group A form a 5- to 8-member carbon ring;,

a compound of Formula **II**



II

wherein R_8 is selected from the group consisting of hydrogen, C_1-C_6 alkyl, C_2-C_6 alkenyl, halo, halo(C_2-C_6)alkyl, halo(C_1-C_6)alkenyl, COR_5, C_1-C_{10} alkanoyl, $CO_2R_{5'}$, (C_1-C_6 alkyl)$_m$amino, NO_2, $-SR_5$, OR_5, substituted C_3-C_8 cycloalkyl, C_3-C_8 cycloalkyl, C_3-C_8 cycloalkyl-(C_1-C_3)alkyl, C_5-C_8 cycloalkenyl, substituted C_5-C_8 cycloalkenyl, C_5-C_8 cycloalkenyl-(C_1-C_3)alkyl, and C_7-C_{20} arylalkyl;

R_5 is independently hydrogen or C_1-C_4 alkyl;

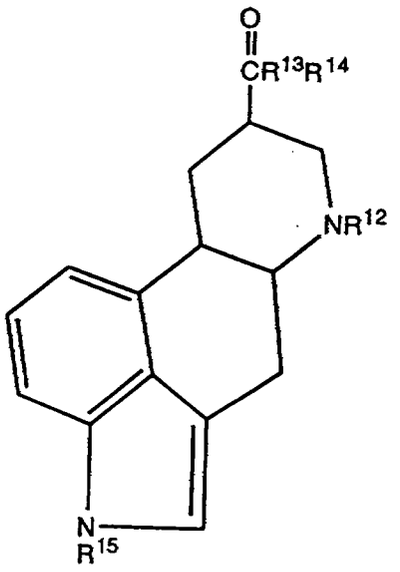
$R_{5'}$ is C_1-C_4 alkyl;

R_9 and R_{10} are independently selected from the group consisting of hydrogen, C_1-C_6 alkyl, substituted C_3-C_8 cycloalkyl, C_3-C_8 cycloalkyl, C_3-C_8 cycloalkyl-(C_1-C_3)alkyl, C_5-C_8 cycloalkenyl-(C_1-C_3)alkyl, C_7-C_{20} arylalkyl;

R_{11} is selected from the group consisting of C_1-C_4 alkyl, $OR_{5'}$, fluoro, bromo, iodo, and chloro;

$R_{12'}$ is selected from the group consisting of hydrogen, and C_1-C_4 alkyl;

a compound of Formula **III**



III

wherein:

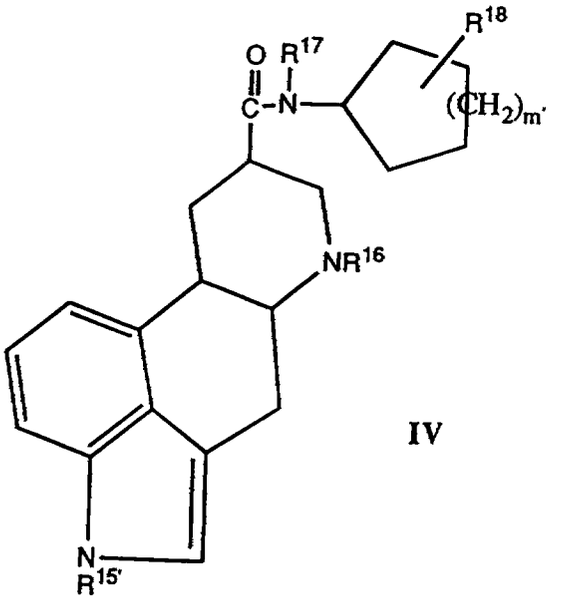
R^{12} is C_1-C_4 alkyl or allyl;

R^{13} is -O- or -N(R^{15})-;

R^{15} is hydrogen or C_1-C_4 alkyl;

R^{14} is C_1-C_4 alkyl, hydroxy C_1-C_4 alkyl, C_3-C_7 cycloalkyl, and C_3-C_7 cycloalkyl substituted with hydroxy or methoxy;

a compound of Formula IV



IV

wherein:

$R^{15'}$ is C_1-C_4 alkyl;

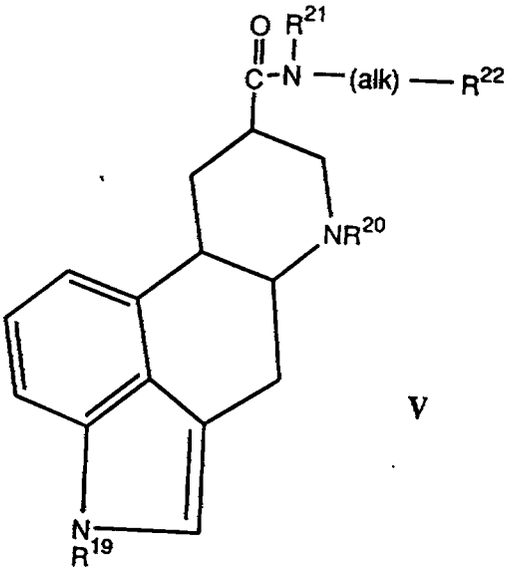
R^{16} is allyl or C_1-C_4 straight chain alkyl;

R^{17} is hydrogen or C_1-C_4 straight chain alkyl;

R^{18} is hydrogen, C_1-C_4 alkyl, hydroxy, or C_1-C_4 alkyloxy;

m' is 0, 1, 2, or 3;

a compound of Formula V



V

wherein:

R^{19} is C_1-C_4 alkyl;

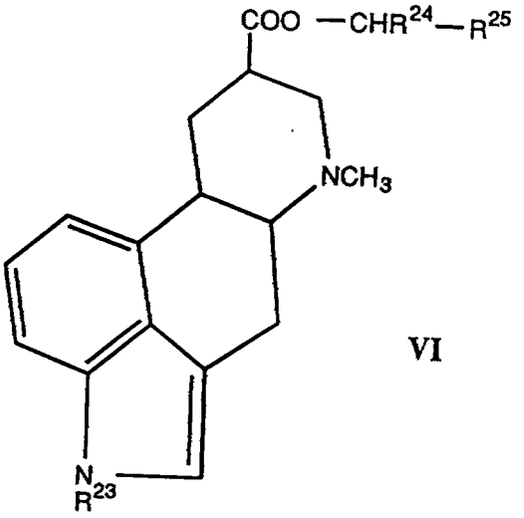
R^{20} is allyl or C_1-C_4 straight chain alkyl;

R^{21} is hydrogen or C_1-C_4 straight chain alkyl;

R^{22} is pyridinyl or imidazolyl;

alk is a divalent organic radical derived from a straight or branched C_1-C_5 alkane;

a compound of Formula **VI**



VI

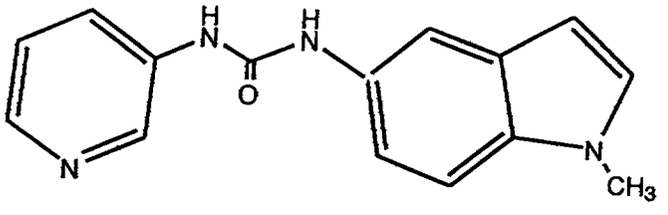
wherein:

R^{23} is C_1-C_3 alkyl or allyl;

R^{24} is C_1-C_3 hydroxyalkyl or C_1-C_3 dihydroxyalkyl;

R^{25} is hydrogen or CH_3;

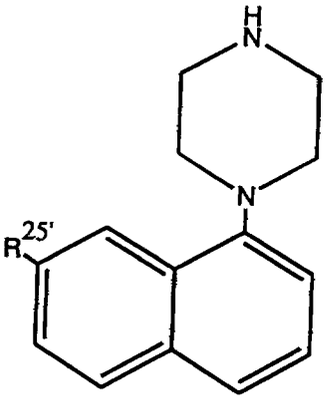
a compound of Formula **VII**



VII

;

a compound of Formula **VIII**

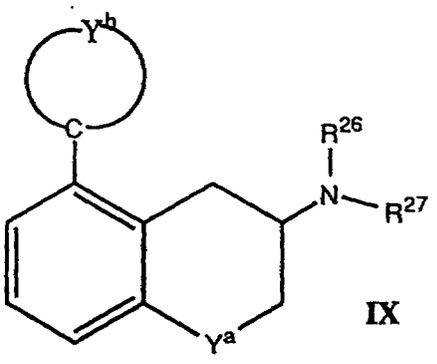


VIII

;

$R^{25'}$ is hydrogen or methoxy;

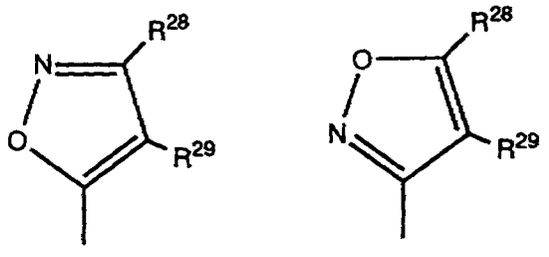
a compound of Formula **IX**

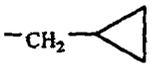


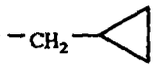
IX

wherein:

Y^b, in combination with the carbon atom to which it is joined, defines a substituted or unsubtituted aromatic heterocyclic 5-membered ring selected from the group consisting of



R^{26} is hydrogen, C_1-C_3 alkyl, allyl, or ;

R^{27} is hydrogen, C_1-C_3 alkyl, allyl, , or $(CH_2)_{n'}$-X";

n' is 1 to 5;

X" is an optionally substituted phenyl, C_1-C_3 alkoxy, or C_1-C_3 alkylthio;

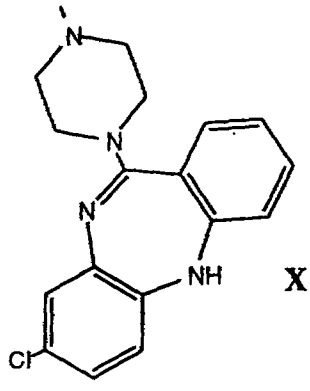
R^{28} and R^{29} are independently hydrogen, C_1-C_3 alkyl, C_1-C_3 alkoxy, hydroxy, C_1-C_3 alkylthio, halo, CN, phenyl; or together are $-(CH_2)_{p"}-$;

p" is 3 to 6;

Y^a is $-CH_2-$, $-O-$, $-S(O)_{m"}-$;

m" is 0, 1, or 2; and

a compound of the Formula **X**



X

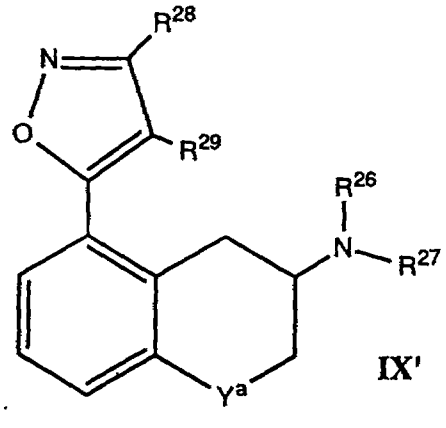
;

or

a pharmaceutically acceptable salt or solvate thereof for use in treating a mammal suffering from or susceptible to a condition associated with abnormal or dysfunctional 5-HT_{2B} receptor stimulation.

AA AD
2. A compound of **Claim** 1 wherein the compound is selected from the group consisting of Formula **I**, **II**, and **IX**.

AB AA
3. A compound of **Claim** 2 wherein the compound of Formula **IX** has the following structure:



IX'

Wherein R^{26}, R^{27}, R^{28}, R^{29}, and Y^a are as defined *supra*.

AC AA
4. A compound of **Claim** 2 wherein the compound is selected from the group consisting of 2-(di-n-propylamino)-8-(isothiazol-3-yl)-1,2,3,4-tetrahydronaphthalene, 2-ethylamino-8-(isoxazol-3-yl)-1,2,3,4-tetrahydronaphthalene, 2-(N-methyl-N-benzylamino)-8-(5-n-propyl-1,2,3-oxadiazol-4-yl)-1,2,3,4-tetrahydronaphthalene, 2-diallylamino-8-(pyrazol-3-yl)-1,2,3,4-tetrahydronaphthalene, 2-diethylamino-8-(1,3,4-oxadiazol-2-yl)-1,2,3,4-

tetrahydronaphthalene, 2-(di-n-propylamino)-8-(3-methoxypyrid-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-benzylmethylamino-8-(3-methoxypyrid-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-benzylmethylamino-8-(benzofuran-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-dimethylamino-8-(1,3,5-triazin-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-cyclopropylmethylamino)-8-(oxazol-4-yl)-1,2,3,4-tetrahydronaphthalene, 2-ethylamino-8-(1,2,3-oxadiazol-4-yl)-thio-1,2,3,4-tetrahydronaphthalene, 2-n-butylamino-8-(5-methoxypyrimidin-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-n-propylamino)-8-(5-chlorooxazol-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-n-propylamino)-8-(pyrimidin-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-n-propylamino)-8-(2-aminopyrimidin-4-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-n-propylamino)-8-(3-phenyl-1,2,4-oxadiazol-5-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-n-propylamino)-8-(3-methyl-1,2,4-oxadiazol-5-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-n-propylamino)-8-(pyrazin-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-n-propylamino)-6-(bromopyrazin-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-n-propylamino)-8-(benzothiazol-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-n-propylamino)-8-(benzoxazol-2-yl)-1,2,3,4-tetrahydronaphthalene, 2-(di-n-propylamino)-8-(indol-3-yl)-1,2,3,4-tetrahydronaphthalene, 3-(di-n-propylamino)-5-(isoxazol-2-yl)-1,2,3,4-tetrahydronaphthalene, 3-(di-n-propylamino)-5-(isoxazol-2-yl)-chromane, 5-(isoxazol-5-yl)-3-(dipropylamino)chromane, 5-(3-methylisoxazol-5-yl)-3-(dipropylamino)chromane, 5-(4-methylisoxazol-5-yl)-3-(dipropylamino)chromane, 5-(3,4-dimethylisoxazol-5-yl)-3-(dipropylamino)chromane, 5-(3-methylisoxazol-5-yl)-3-(dipropylamino)thiochromane, 5-(4-methylisoxazol-5-yl)-3-(dipropylamino)thiochromane, 5-(3,4-dimethylisoxazol-5-yl)-3-(dipropylamino)thiochromane, and 8-(4,5,6,7-tetrahydrobenz[c]isoxazol-1-yl)-2-(dimethylamino)tetrahydronaphthalene; or a pharmaceutical salt or solvate thereof.

AA 5. A compound of Claim 2 wherein the compound is a compound of Formula I or II.

46 44

6. A compound of **Claim** 5 wherein the compound is selected from the group consisting of 7-bromo-8-methyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6-isopropyl-8-methoxy-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 5-chloro-8-ethoxy-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6-chloro-7-methyl-8-fluoro-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 5-dimethylamino-8-hydroxy-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6-nitro-8-butyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 7-cyclohexyl-8-hydroxy-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6-[3-methyl-cyclohexyl]-8-methyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6-benzyl-8-fluoro-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 5-cyclohexylmethyl-8-chloro-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6-carboxyl-8-bromo-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6-ethoxy-8-isopropyl-3-methyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6,8-dichloro-4-naphthylmethyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6,8-dimethyl-3,4-dimethyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 7,8-difluoro-2(N)-methyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6,8-dibutyl-2(N)-cyclopropylmethyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6,8-dibromo-2(N)-cyclohexenylmethyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 8-chloro-2(N)-benzyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 8-fluoro-4-methyl-2(N)-cyclohexyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, 6-methylamine-8-chloro-3-isopropyl-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole, and 6-chloromethyl-8-chloro-1,2,3,4-tetrahydro-9H-pyrido[3,4b]-indole; or a pharmaceutical salt or solvate thereof.

43

48 49 7. A compound as claimed in any one of **Claims** 1 to 6 wherein the compound is selected from the group consisting of Formula **III**, **IV**, **V**, and **VI**.

50 8. A compound selected from the group consisting of Formula **I**, **II**, **III**, **IV**, **V**, **VI**, **VII**, **VIII**, **IX**, and **X** *supra*.; or a pharmaceutically acceptable salt or solvate thereof; for use in blocking a $5HT_{2B}$ receptor in a mammal.

51 8. A compound selected from the group consisting of Formula **I**, **II**, **III**, **IV**, **V**, **VI**, **VII**, **VIII**, and **IX** *supra*.; or a pharmaceutically acceptable salt or solvate thereof