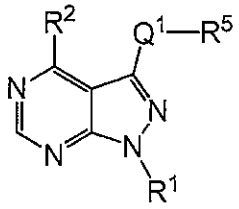
WHAT IS CLAIMED IS:

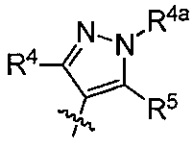
1. A compound of Formula I:



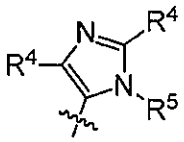
I

or a pharmaceutically acceptable salt thereof, wherein:

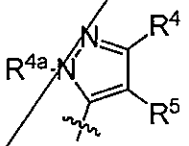
"-Q^1-R^5" is $Q^{1a}R^5$, $Q^{1b}R^5$, or $Q^{1c}R^5$:



$Q^{1a}R^5$,



$Q^{1b}R^5$, or



$Q^{1c}R^5$;

R^1 is hydrogen, $(C_1$-$C_6)$alkyl, $(C_3$-$C_4)$alkenyl, $(C_3$-$C_4)$alkynyl, $-CF_3$, $-CHF_2$, $-CH_2F$, or $(C_3$-$C_{15})$cycloalkyl;

R^2 is $-NHR^3$ or $-N(R^3)_2$;

each R^3 is independently selected from the group consisting of $(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$haloalkyl, $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$alkynyl, and $(C_3$-$C_{15})$cycloalkyl, each optionally substituted with 1, 2, 3, 4, or 5 independently selected R^9;

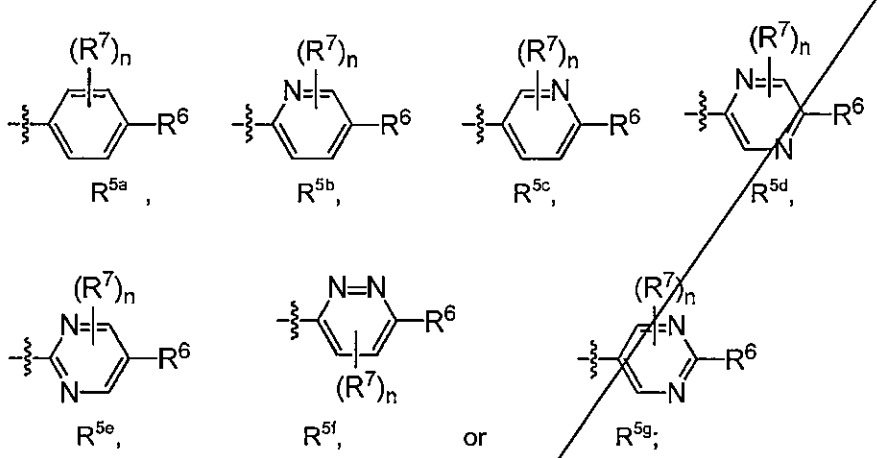
or when R^2 is $-N(R^3)_2$ both of said R^3 may be taken together with the nitrogen atom to which they are attached to form a 4- to 6-membered heterocyclic ring optionally containing one or two oxo groups (O=) and optionally substituted with one to three substituents each independently selected from the group consisting of fluoro, chloro, bromo, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, -O-$(C_1$-$C_6)$alkyl, NH_2, -NH-$(C_1$-$C_6)$alkyl, -N[$(C_1$-$C_6)$alkyl]$_2$, $(C_1$-$C_6)$alkyl, $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$alkynyl, -(C=O)-R^8, -(C=O)-OR^8, -(C=O)-$N(R^8)_2$, -O-(C=O)-R^8, $-OR^8$, -O-(C=O)-OR^8, $-SR^8$, -S(O)R^8, $-S(O)_2R^8$, $-S(O)_2N(R^8)_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -O-(C=O)-$N(R^8)_2$, -NH-(C=O)-$N(R^8)_2$, -N[$(C_1$-$C_6)$alkyl](C=O)-R^8, -N[$(C_1$-$C_6)$alkyl](C=O)-OR^8, -N[$(C_1$-$C_6)$alkyl](C=O)-$N(R^8)_2$, $(C_3$-$C_{15})$cycloalkyl, $(C_6$-$C_{10})$aryl, $(C_1$-$C_{14})$heterocyclic, and $(C_1$-$C_{13})$heteroaryl; wherein each of said $(C_3$-$C_{15})$cycloalkyl and $(C_1$-$C_{14})$heterocyclic may optionally contain one double or triple bond and may optionally contain one to two oxo (O=) groups, and wherein each of said $(C_3$-$C_{15})$cycloalkyl, $(C_6$-$C_{10})$aryl, $(C_1$-$C_{14})$heterocyclic, and $(C_1$-$C_{13})$heteroaryl is optionally substituted with one to three substituents each independently selected from fluoro, chloro, bromo, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, -O-$(C_1$-$C_6)$alkyl, -O-$(C_1$-

C_6)haloalkyl, NH_2, -NH-(C_1-C_6)alkyl, -N[(C_1-C_6)alkyl]$_2$, (C_1-C_6)alkyl, (C_1-C_6)haloalkyl, (C_2-C_6)alkenyl, and (C_2-C_6)alkynyl;

each R^4 is independently selected from the group consisting of hydrogen, halo, (C_1-C_6)alkyl, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, $-CF_3$, $-CHF_2$, $-CH_2F$, and (C_3-C_{15})cycloalkyl;

R^{4a} is hydrogen, (C_1-C_6)alkyl, (C_3-C_4)alkenyl, (C_3-C_4)alkynyl, $-CF_3$, $-CHF_2$, $-CH_2F$, or (C_3-C_{15})cycloalkyl;

R^5 is R^{5a}, R^{5b}, R^{5c}, R^{5d}, R^{5e}, R^{5f}, or R^{5g}:



R^{5a}, R^{5b}, R^{5c}, R^{5d}, R^{5e}, R^{5f}, or R^{5g};

where n is 0, 1, 2, 3, or 4;

R^6 is selected from the group consisting of hydrogen, halo, (C_1-C_6)alkyl, $-CF_3$, $-CHF_2$, $-CH_2F$, $-CF_2$-(C_1-C_6)alkyl, $-SF_5$, -CN, -(C_1-C_6)alkyl-CN, $-NO_2$, -(C=O)-R^8, -(C=O)-OR^8, -OR^8, -O-(C=O)-N(R^8)$_2$, -SR^8, -S(O)R^8, -S(O)$_2$$R^8$, NH_2, -NH-(C_1-C_6)alkyl, -N[(C_1-C_6)alkyl]$_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -N[(C_1-C_6)alkyl](C=O)-R^8, -N[(C_1-C_6)alkyl](C=O)-OR^8, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, (C_3-C_{15})cycloalkyl, (C_1-C_{14})heterocyclic, (C_6-C_{10})aryl, and (C_1-C_{13})heteroaryl; wherein each of said (C_3-C_{15})cycloalkyl and (C_1-C_{14})heterocyclic optionally contains one double or triple bond and optionally contains one to two oxo (O=) groups;

each R^7 is independently selected from the group consisting of halo, (C_1-C_6)alkyl, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -O-(C_1-C_6)alkyl and (C_3-C_{15})cycloalkyl;

or R^6 and an adjacent R^7, together with the two carbon atoms to which they are attached, form a 5- or 6-membered heteroaryl or a 5- or 6-membered heterocyclic ring, each optionally substituted with one to three substituents each independently selected from fluoro, chloro, bromo, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, -O-(C_1-C_6)alkyl, -O-(C_1-C_6)haloalkyl, (C_1-C_6)alkyl, and (C_1-C_6)haloalkyl;

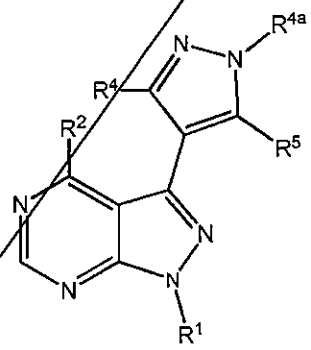
or two adjacent R^7, together with the two carbon atoms to which they are attached, form a 5- or 6-membered heteroaryl or a 5- or 6-membered heterocyclic ring, each optionally substituted with one to three substituents each independently selected from fluoro, chloro,

bromo, -CN, -CF_3, -CHF_2, -CH_2F, -OH, -O-(C_1-C_6)alkyl, -O-(C_1-C_6)haloalkyl, (C_1-C_6)alkyl, and (C_1-C_6)haloalkyl;

each R^8 wherever it occurs is independently selected from the group consisting of hydrogen, (C_1-C_6)alkyl, (C_3-C_{15})cycloalkyl, -(C_1-C_6)alkyl-(C_3-C_{15})cycloalkyl, -CF_3, -CH_2F, and -CHF_2; and

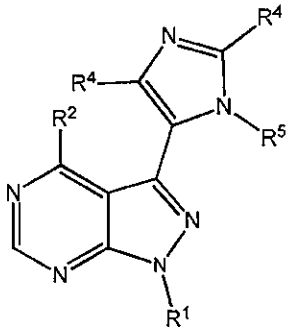
each R^9 is independently selected from the group consisting of halo, -CF_3, -CHF_2, -CH_2F, -CF_2-(C_1-C_6)alkyl, -CN, -(C_1-C_6)alkyl-CN, -NO_2, -(C=O)-R^8, -(C=O)-OR^8, -OR^8, -O-(C=O)-$N(R^8)_2$, -SR^8, -S(O)R^8, -$S(O)_2R^8$, NH_2, -NH-(C_1-C_6)alkyl, -N[(C_1-C_6)alkyl]$_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -N[(C_1-C_6)alkyl](C=O)-R^8, -N[(C_1-C_6)alkyl](C=O)-OR^8, (C_1-C_6)alkyl, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, (C_3-C_{15})cycloalkyl, (C_1-C_{14})heterocyclic, (C_6-C_{10})aryl, and (C_1-C_{13})heteroaryl; wherein each of said (C_3-C_{15})cycloalkyl and (C_1-C_{14})heterocyclic may optionally contain one double or triple bond and one to two oxo (O=) groups; and wherein each of said (C_3-C_{15})cycloalkyl, (C_1-C_{14})heterocyclic, (C_6-C_{10})aryl, and (C_1-C_{13})heteroaryl moieties may be optionally substituted with one to three substituents independently selected from (C_1-C_6)alkyl, (C_1-C_6)alkoxy, halo, and -CF_3.

2. A compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein the compound is a compound of Formula Ia:



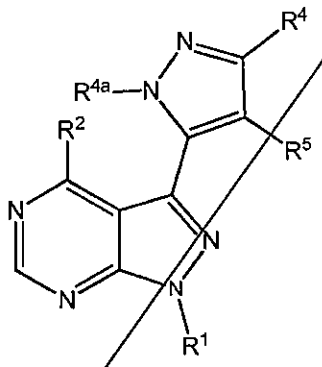
Ia.

3. A compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein the compound is a compound of Formula Ib:



Ib.

4. A compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein the compound is a compound of Formula Ic:



Ic.

5. A compound according to any one of Claims 1-4, or a pharmaceutically acceptable salt thereof, wherein R^1 is $(C_1\text{-}C_6)$alkyl.

6. A compound according to any one of Claims 1-4, or a pharmaceutically acceptable salt thereof, wherein R^1 is methyl.

7. A compound according to any one of Claims 1-6, or a pharmaceutically acceptable salt thereof, wherein:

R^2 is $-N(R^3)_2$;

each R^3 is independently selected from $(C_1\text{-}C_6)$alkyl;

or both of said R^3 may be taken together with the nitrogen atom to which they are attached to form a 4- to 6-membered heterocyclic ring optionally containing one or two oxo groups (O=) and optionally substituted with one to three substituents each independently

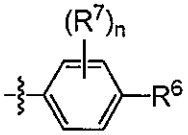
selected from the group consisting of fluoro, chloro, bromo, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, $-O-(C_1-C_6)$alkyl, NH_2, $-NH-(C_1-C_6)$alkyl, $-N[(C_1-C_6)alkyl]_2$, (C_1-C_6)alkyl, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, $-(C=O)-R^8$, $-(C=O)-OR^8$, $-(C=O)-N(R^8)_2$, $-O-(C=O)-R^8$, $-OR^8$, $-O-(C=O)-OR^8$, $-SR^8$, $-S(O)R^8$, $-S(O)_2R^8$, $-S(O)_2N(R^8)_2$, $-NH-(C=O)-R^8$, $-NH-(C=O)-OR^8$, $-O-(C=O)-N(R^8)_2$, $-NH-(C=O)-N(R^8)_2$, $-N[(C_1-C_6)alkyl](C=O)-R^8$, $-N[(C_1-C_6)alkyl](C=O)-OR^8$, $-N[(C_1-C_6)alkyl](C=O)-N(R^8)_2$, (C_3-C_{15})cycloalkyl, (C_6-C_{10})aryl, (C_1-C_{14})heterocyclic, and (C_1-C_{13})heteroaryl; wherein each of said (C_3-C_{15})cycloalkyl and (C_1-C_{14})heterocyclic may optionally contain one double or triple bond and may optionally contain one to two oxo (O=) groups, and wherein each of said (C_3-C_{15})cycloalkyl, (C_6-C_{10})aryl, (C_1-C_{14})heterocyclic, and (C_1-C_{13})heteroaryl is optionally substituted with one to three substituents each independently selected from fluoro, chloro, bromo, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, $-O-(C_1-C_6)$alkyl, $-O-(C_1-C_6)$haloalkyl, NH_2, $-NH-(C_1-C_6)$alkyl, $-N[(C_1-C_6)alkyl]_2$, (C_1-C_6)alkyl, (C_1-C_6)haloalkyl, (C_2-C_6)alkenyl, and (C_2-C_6)alkynyl.

8. A compound according to any one of Claims 1-6, or a pharmaceutically acceptable salt thereof, wherein R^2 is $-NHR^3$; and R^3 is (C_1-C_6)alkyl.

9. A compound according to any one of Claims 1-8, or a pharmaceutically acceptable salt thereof, wherein each R^4 is hydrogen.

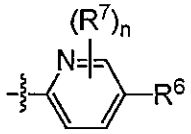
10. A compound according to any one of Claims 1-9, or a pharmaceutically acceptable salt thereof, wherein R^{4a} is (C_1-C_6)alkyl.

11. A compound according to any one of Claims 1-10, or a pharmaceutically acceptable salt thereof, wherein R^5 is R^{5a}:



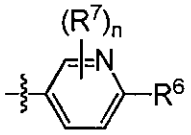
R^{5a}.

12. A compound according to any one of Claims 1-10, or a pharmaceutically acceptable salt thereof, wherein R^5 is R^{5b}:



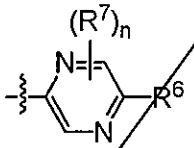
R^{5b}.

13. A compound according to any one of Claims 1-10, or a pharmaceutically acceptable salt thereof, wherein R^5 is R^{5c}:



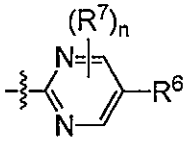
R^{5c}.

14. A compound according to any one of Claims 1-10, or a pharmaceutically acceptable salt thereof, wherein R^5 is R^{5d}:



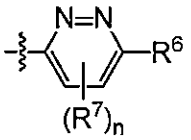
R^{5d}.

15. A compound according to any one of Claims 1-10, or a pharmaceutically acceptable salt thereof, wherein R^5 is R^{5e}:



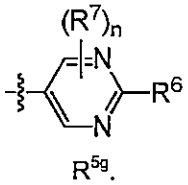
R^{5e}.

16. A compound according to any one of Claims 1-10, or a pharmaceutically acceptable salt thereof, wherein R^5 is R^{5f}:



R^{5f}.

17. A compound according to any one of Claims 1-10, or a pharmaceutically acceptable salt thereof, wherein R^5 is R^{5g}:



R^{5g}.

18. A compound according to any one of Claims 1-17, or a pharmaceutically acceptable salt thereof, wherein:

R^6 is selected from the group consisting of hydrogen, halo, $(C_1$-$C_6)$alkyl, $-CF_3$, $-CHF_2$, $-CH_2F$, $-CF_2$-$(C_1$-$C_6)$alkyl, $-SF_5$, -CN, -$(C_1$-$C_6)$alkyl-CN, $-NO_2$, -(C=O)-R^8, -(C=O)-OR^8, $-OR^8$, -O-(C=O)-$N(R^8)_2$, $-SR^8$, $-S(O)R^8$, $-S(O)_2R^8$, NH_2, -NH-$(C_1$-$C_6)$alkyl, $-N[(C_1$-$C_6)$alkyl$]_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, $-N[(C_1$-$C_6)$alkyl](C=O)-R^8, $-N[(C_1$-$C_6)$alkyl](C=O)-OR^8, $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$alkynyl, $(C_3$-$C_{15})$cycloalkyl, $(C_1$-$C_{14})$heterocyclic, $(C_6$-$C_{10})$aryl, and $(C_1$-$C_{13})$heteroaryl; wherein each of said $(C_3$-$C_{15})$cycloalkyl and $(C_1$-$C_{14})$heterocyclic optionally contains one double or triple bond and optionally contains one to two oxo (O=) groups; and

each R^7 is independently selected from the group consisting of halo, $(C_1$-$C_6)$alkyl, $(C_2$-$C_4)$alkenyl, $(C_2$-$C_6)$alkynyl, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -O-$(C_1$-$C_6)$alkyl and $(C_3$-$C_{15})$cycloalkyl.

19. A compound according to any one of Claims 1-18, or a pharmaceutically acceptable salt thereof, wherein R^6 is hydrogen, halo, $-CF_3$, $-CHF_2$, or $-CH_2F$.

20. A compound according to any one of Claims 1-18, or a pharmaceutically acceptable salt thereof, wherein R^6 is -(C=O)-R^8, -(C=O)-OR^8, $-OR^8$, -O-(C=O)-$N(R^8)_2$, $-SR^8$, $-S(O)R^8$, $-S(O)_2R^8$, NH_2, -NH-$(C_1$-$C_6)$alkyl, $-N[(C_1$-$C_6)$alkyl$]_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -O-(C=O)-$N(R^8)_2$, $-N[(C_1$-$C_6)$alkyl]-(C=O)-R^8, or $-N[(C_1$-$C_6)$alkyl]-(C=O)-OR^8.

21. A compound according to any one of Claims 1-18, or a pharmaceutically acceptable salt thereof, wherein R^6 is $(C_1$-$C_6)$alkyl or $(C_3$-$C_{15})$cycloalkyl.

22. A compound according to any one of Claims 1-18, or a pharmaceutically acceptable salt thereof, wherein R^6 is $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$alkynyl, $(C_1$-$C_{14})$heterocyclic, $(C_6$-$C_{10})$aryl, or $(C_1$-$C_{13})$heteroaryl.

23. A compound according to any one of Claims 1-18, or a pharmaceutically acceptable salt thereof, wherein R^6 is halo, $(C_1$-$C_6)$alkyl, $-CF_3$, $-CHF_2$, $-OR^8$, $(C_3$-$C_{15})$cycloalkyl.

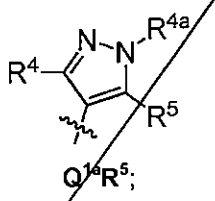
24. A compound according to any one of Claims 1-23, or a pharmaceutically acceptable salt thereof, wherein each R^7 is independently selected from the group consisting of halo and $(C_1$-$C_6)$alkyl.

25. A compound according to any one of Claims 1-24, or a pharmaceutically acceptable salt thereof, wherein each R^8 wherever it occurs is independently selected from the group consisting of $(C_1$-$C_6)$alkyl and $-(C_1$-$C_6)$alkyl-$(C_3$-$C_{15})$cycloalkyl.

26. A compound according to any one of Claims 1-25, or a pharmaceutically acceptable salt thereof, wherein n is 0, 1, or 2.

27. A compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein:

"$-Q^1$-R^{5}" is $Q^{1a}R^5$:



$Q^{1a}R^5$;

R^1 is $(C_1$-$C_6)$alkyl;

each R^3 is independently selected from the group consisting of $(C_1$-$C_6)$alkyl, $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$alkynyl, and $(C_3$-$C_{15})$cycloalkyl, each optionally substituted with 1, 2, or 3 independently selected R^9;

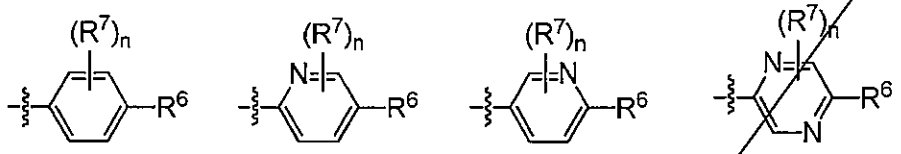
or when R^2 is $-N(R^3)_2$ both of said R^3 may be taken together with the nitrogen atom to which they are attached to form a 4- to 6-membered heterocyclic ring optionally containing one or two oxo groups (O=), and optionally may be substituted with one to three substituents each independently selected from the group consisting of fluoro, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, $-O$-$(C_1$-$C_6)$alkyl, NH_2, $-NH$-$(C_1$-$C_6)$alkyl, $-N[(C_1$-$C_6)$alkyl$]_2$, $(C_1$-$C_6)$alkyl, $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$alkynyl, $-(C=O)$-R^8, $-(C=O)$-OR^8, $-(C=O)$-$N(R^8)_2$ $-O$-$(C=O)$-R^8, $-OR^8$, $-O$-$(C=O)$-OR^8, $-SR^8$, $-S(O)R^8$, $-S(O)_2R^8$, $-S(O)_2N(R^8)_2$, $-NH$-$(C=O)$-R^8, $-NH$-$(C=O)$-OR^8, $-O$-$(C=O)$-$N(R^8)_2$, $-NH$-$(C=O)$-$N(R^8)_2$, $-N[(C_1$-$C_6)$alkyl$](C=O)$-R^8, $-N[(C_1$-$C_6)$alkyl$](C=O)$-OR^8, $-N[(C_1$-$C_6)$alkyl$](C=O)$-$N(R^8)_2$, $(C_3$-$C_{15})$cycloalkyl, $(C_6$-$C_{10})$aryl, $(C_1$-$C_{14})$heterocyclic, and $(C_1$-$C_{13})$heteroaryl; wherein each of said $(C_3$-$C_{15})$cycloalkyl and $(C_1$-$C_{14})$heterocyclic optionally contains one double or triple bond and optionally contains one to two oxo (O=) groups, and wherein each of said $(C_3$-$C_{15})$cycloalkyl,

$(C_6\text{-}C_{10})$aryl, $(C_1\text{-}C_{14})$heterocyclic, and $(C_1\text{-}C_{13})$heteroaryl is optionally substituted with one to three substituents each independently selected from fluoro, chloro, bromo, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, $-O-(C_1\text{-}C_6)$alkyl, $-O-(C_1\text{-}C_6)$haloalkyl, NH_2, $-NH-(C_1\text{-}C_6)$alkyl, $-N[(C_1\text{-}C_6)\text{alkyl}]_2$, $(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$haloalkyl, $(C_2\text{-}C_6)$alkenyl, and $(C_2\text{-}C_6)$alkynyl;

R^4 is hydrogen;

R^{4a} is $(C_1\text{-}C_6)$alkyl; and

R^5 is R^{5a}, R^{5b}, R^{5c}, or R^{5d}:

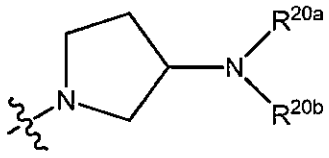


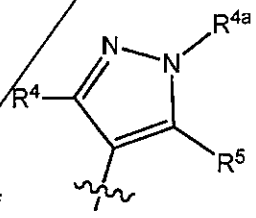
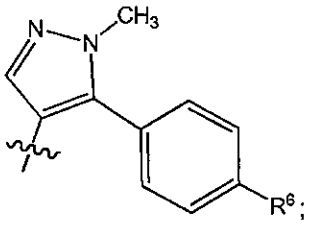
R^{5a}, R^{5b}, R^{5c}, or R^{5d},

where n is 0, 1, 2, 3, or 4.

28. A compound of Formula Ia according to Claim 2, or a pharmaceutically acceptable salt thereof, wherein:

R^1 is methyl, $-CF_3$, $-CHF_2$, or $-CH_2F$;

R^2 is $-N(R^3)_2$, wherein both of said R^3 are taken together with the nitrogen atom to which they are attached to form an optionally substituted 4- to 6-membered heterocyclic ring that is a moiety of ;

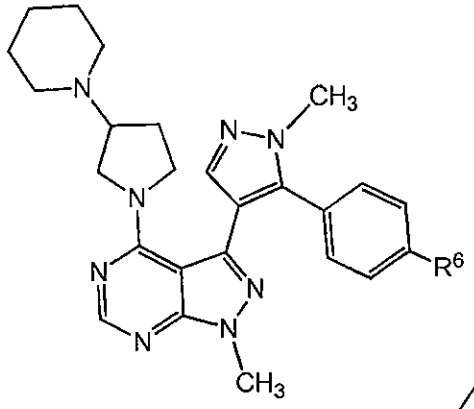
the "$Q^{1a}R^5$" moiety of  is a moiety of ;

each of R^{20a} and R^{20b} is independently $(C_1\text{-}C_3)$alkyl;

or R^{20a} and R^{20b}, together with the nitrogen atom to which they are attached, form a 5- or 6-membered heterocyclic ring ; and

R^6 is methyl, ethyl, or Cl.

29. A compound of Formula Ia according to Claim 2, or a pharmaceutically acceptable salt thereof, wherein the compound of Formula Ia or a pharmaceutically acceptable salt thereof is a compound of Formula Id:

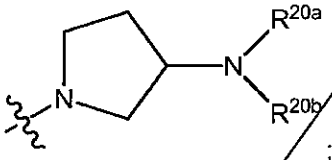


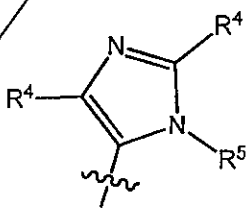
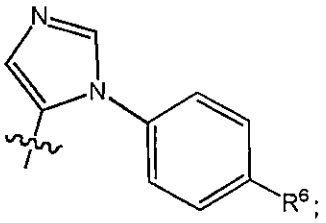
Id

or a pharmaceutically acceptable salt thereof, wherein R^6 is methyl or ethyl.

30. A compound of Formula Ib according to Claim 3, or a pharmaceutically acceptable salt thereof, wherein:

R^1 is methyl, $-CF_3$, $-CHF_2$, or $-CH_2F$;

R^2 is $-N(R^3)_2$, wherein both of said R^3 are taken together with the nitrogen atom to which they are attached to form an optionally substituted 4- to 6-membered heterocyclic ring that is a moiety of ;

the "$Q^{1b}R^{5}$" moiety of  is a moiety of ;

each of R^{20a} and R^{20b} is independently $(C_1\text{-}C_3)$alkyl;

or R^{20a} and R^{20b}, together with the nitrogen atom to which they are attached, form a 5- or 6-membered heterocyclic ring; and

R^6 is methyl, ethyl, or Cl.

31. A compound according to Claim 1 wherein said compound is:

4-(azetidin-1-yl)-1-methyl-3-[1-methyl-5-(4-methylphenyl)-1H-pyrazol-4-yl]-1H-pyrazolo[3,4-d]pyrimidine;

3-[5-(4-cyclopropylphenyl)-1-methyl-1H-pyrazol-4-yl]-4-(3-fluoroazetidin-1-yl)-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-1-methyl-3-{1-methyl-5-[5-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-4-yl}-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-3-{5-[4-(difluoromethyl)phenyl]-1-methyl-1H-pyrazol-4-yl}-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

3-[5-(4-ethylphenyl)-1-methyl-1H-pyrazol-4-yl]-4-(3-fluoroazetidin-1-yl)-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-3-[5-(4-ethylphenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

methyl (1-{3-[5-(4-cyclopropylphenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidin-4-yl}azetidin-3-yl)carbamate;

4-(azetidin-1-yl)-3-[5-(4-cyclopropylphenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-3-[5-(3-fluoro-4-methoxyphenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-1-methyl-3-{1-methyl-5-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl}-1H-pyrazolo[3,4-d]pyrimidine;

4-(3,3-difluoroazetidin-1-yl)-1-methyl-3-{1-methyl-5-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl}-1H-pyrazolo[3,4-d]pyrimidine;

4-(3-fluoroazetidin-1-yl)-1-methyl-3-{1-methyl-5-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl}-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-3-[5-(4-bromophenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

4-(3,3-difluoroazetidin-1-yl)-3-[5-(4-ethylphenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

3-[5-(4-cyclopropylphenyl)-1-methyl-1H-pyrazol-4-yl]-4-(3,3-difluoroazetidin-1-yl)-1-methyl-1H-pyrazolo[3,4-d]pyrimidine; or

3-{5-[4-(difluoromethyl)phenyl]-1-methyl-1H-pyrazol-4-yl}-4-(3-fluoroazetidin-1-yl)-1-methyl-1H-pyrazolo[3,4-d]pyrimidine,

or a pharmaceutically acceptable salt thereof.

32. A compound of Formula Id according to Claim 29 wherein said compound is 1-methyl-3-[1-methyl-5-(4-methylphenyl)-1*H*-pyrazol-4-yl]-4-[(3*S*)-3-(piperidin-1-yl)pyrrolidin-1-yl]-1*H*-pyrazolo[3,4-*d*]pyrimidine, or a pharmaceutically acceptable salt thereof.

33. A pharmaceutical composition comprising a compound of Formula I according to any one of Claims 1-32 or a pharmaceutically acceptable salt thereof.

34. A method for the treatment of cognitive impairment associated with schizophrenia in a human, comprising administering to said human a therapeutically effective amount of a compound of Formula I according to any one of Claims 1-32 or a pharmaceutically acceptable salt thereof.

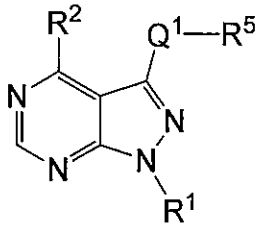
35. A method for inhibiting an activity of CYP3A4, comprising contacting the CYP3A4 with a compound of Formula Id according to Claim 29 or the compound of Claim 32, or a pharmaceutically acceptable salt thereof.

36. A method for selectively inhibiting an activity of CYP3A4, comprising contacting the CYP3A4 with a compound of Formula Id according to Claim 29 or the compound of Claim 32, or a pharmaceutically acceptable salt thereof, in the presence of CYP3A5.

37. A method for determining the relative contributions of CYP3A4 versus CYP3A5 to the metabolism of a compound comprising using a compound of Formula Id according to Claim 29 or the compound of Claim 32.

WHAT IS CLAIMED IS:

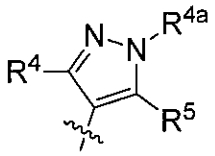
1. A compound of Formula I:



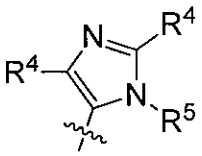
I

or a pharmaceutically acceptable salt thereof, wherein:

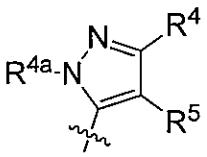
"-Q^1-R^5" is $Q^{1a}R^5$, $Q^{1b}R^5$, or $Q^{1c}R^5$:



$\mathbf{Q^{1a}R^5}$,



$\mathbf{Q^{1b}R^5}$, or



$\mathbf{Q^{1c}R^5}$;

R^1 is hydrogen, (C_1-C_6)alkyl, (C_3-C_4)alkenyl, (C_3-C_4)alkynyl, -CF_3, -CHF_2, -CH_2F, or (C_3-C_{15})cycloalkyl;

R^2 is -NHR^3 or -$N(R^3)_2$;

each R^3 is independently selected from the group consisting of (C_1-C_6)alkyl, (C_1-C_6)haloalkyl, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, and (C_3-C_{15})cycloalkyl, each optionally substituted with 1, 2, 3, 4, or 5 independently selected R^9;

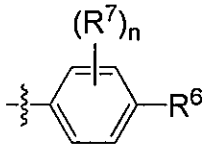
or when R^2 is -$N(R^3)_2$ both of said R^3 may be taken together with the nitrogen atom to which they are attached to form a 4- to 6-membered heterocyclic ring optionally containing one or two oxo groups (O=) and optionally substituted with one to three substituents each independently selected from the group consisting of fluoro, chloro, bromo, -CN, -CF_3, -CHF_2, -CH_2F, -OH, -O-(C_1-C_6)alkyl, NH_2, -NH-(C_1-C_6)alkyl, -N[(C_1-C_6)alkyl]$_2$, (C_1-C_6)alkyl, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, -(C=O)-R^8, -(C=O)-OR^8, -(C=O)-N$(R^8)_2$, -O-(C=O)-R^8, -OR^8, -O-(C=O)-OR^8, -SR^8, -S(O)R^8, -$S(O)_2R^8$, -$S(O)_2N(R^8)_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -O-(C=O)-N$(R^8)_2$, -NH-(C=O)-N$(R^8)_2$, -N[(C_1-C_6)alkyl](C=O)-R^8, -N[(C_1-C_6)alkyl](C=O)-OR^8, -N[(C_1-C_6)alkyl](C=O)-N$(R^8)_2$, (C_3-C_{15})cycloalkyl, (C_6-C_{10})aryl, (C_1-C_{14})heterocyclic, and (C_1-C_{13})heteroaryl; wherein each of said (C_3-C_{15})cycloalkyl and (C_1-C_{14})heterocyclic may optionally contain one double or triple bond and may optionally contain one to two oxo (O=) groups, and wherein each of said (C_3-C_{15})cycloalkyl, (C_6-C_{10})aryl, (C_1-

C_{14})heterocyclic, and (C_1-C_{13})heteroaryl is optionally substituted with one to three substituents each independently selected from fluoro, chloro, bromo, -CN, -CF_3, -CHF_2, -CH_2F, -OH, -O-(C_1-C_6)alkyl, -O-(C_1-C_6)haloalkyl, NH_2, -NH-(C_1-C_6)alkyl, -N[(C_1-C_6)alkyl]$_2$, (C_1-C_6)alkyl, (C_1-C_6)haloalkyl, (C_2-C_6)alkenyl, and (C_2-C_6)alkynyl;

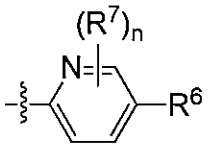
each R^4 is independently selected from the group consisting of hydrogen, halo, (C_1-C_6)alkyl, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, -CF_3, -CHF_2, -CH_2F, and (C_3-C_{15})cycloalkyl;

R^{4a} is hydrogen, (C_1-C_6)alkyl, (C_3-C_4)alkenyl, (C_3-C_4)alkynyl, -CF_3, -CHF_2, -CH_2F, or (C_3-C_{15})cycloalkyl;

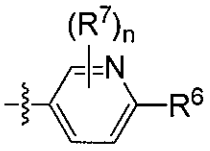
R^5 is R^{5a}, R^{5b}, R^{5c}, R^{5d}, R^{5e}, R^{5f}, or R^{5g}:



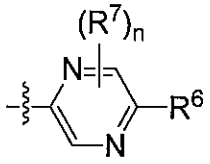
R^{5a},



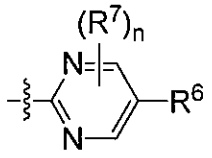
R^{5b},



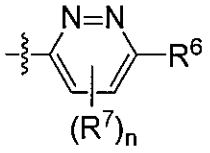
R^{5c},



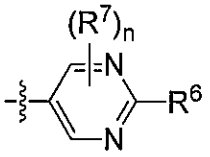
R^{5d},



R^{5e},



R^{5f}, or



R^{5g};

where n is 0, 1, 2, 3, or 4;

R^6 is selected from the group consisting of hydrogen, halo, (C_1-C_6)alkyl, -CF_3, -CHF_2, -CH_2F, -CF_2-(C_1-C_6)alkyl, -SF_5, -CN, -(C_1-C_6)alkyl-CN, -NO_2, -(C=O)-R^8, -(C=O)-OR^8, -OR^8, -O-(C=O)-N(R^8)$_2$, -SR^8, -S(O)R^8, -$S(O)_2R^8$, NH_2, -NH-(C_1-C_6)alkyl, -N[(C_1-C_6)alkyl]$_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -N[(C_1-C_6)alkyl](C=O)-R^8, -N[(C_1-C_6)alkyl](C=O)-OR^8, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, (C_3-C_{15})cycloalkyl, (C_1-C_{14})heterocyclic, (C_6-C_{10})aryl, and (C_1-C_{13})heteroaryl; wherein each of said (C_3-C_{15})cycloalkyl and (C_1-C_{14})heterocyclic optionally contains one double or triple bond and optionally contains one to two oxo (O=) groups;

each R^7 is independently selected from the group consisting of halo, (C_1-C_6)alkyl, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, -CN, -CF_3, -CHF_2, -CH_2F, -O-(C_1-C_6)alkyl and (C_3-C_{15})cycloalkyl;

or R^6 and an adjacent R^7, together with the two carbon atoms to which they are attached, form a 5- or 6-membered heteroaryl or a 5- or 6-membered heterocyclic ring, each optionally substituted with one to three substituents each independently selected from fluoro,

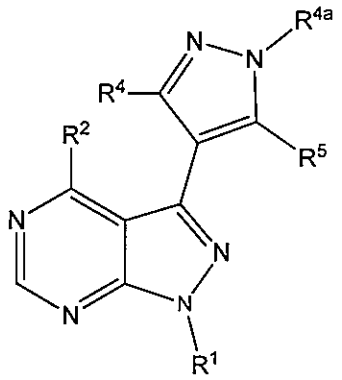
chloro, bromo, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, -O-$(C_1$-$C_6)$alkyl, -O-$(C_1$-$C_6)$haloalkyl, $(C_1$-$C_6)$alkyl, and $(C_1$-$C_6)$haloalkyl;

or two adjacent R^7, together with the two carbon atoms to which they are attached, form a 5- or 6-membered heteroaryl or a 5- or 6-membered heterocyclic ring, each optionally substituted with one to three substituents each independently selected from fluoro, chloro, bromo, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, -O-$(C_1$-$C_6)$alkyl, -O-$(C_1$-$C_6)$haloalkyl, $(C_1$-$C_6)$alkyl, and $(C_1$-$C_6)$haloalkyl;

each R^8 wherever it occurs is independently selected from the group consisting of hydrogen, $(C_1$-$C_6)$alkyl, $(C_3$-$C_{15})$cycloalkyl, -$(C_1$-$C_6)$alkyl-$(C_3$-$C_{15})$cycloalkyl, $-CF_3$, $-CH_2F$, and $-CHF_2$; and

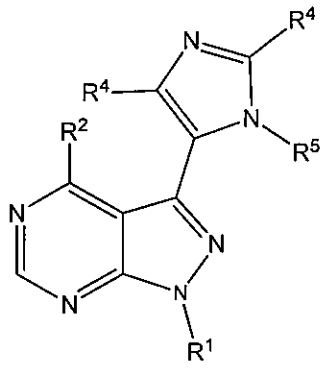
each R^9 is independently selected from the group consisting of halo, $-CF_3$, $-CHF_2$, $-CH_2F$, $-CF_2$-$(C_1$-$C_6)$alkyl, -CN, -$(C_1$-$C_6)$alkyl-CN, $-NO_2$, -(C=O)-R^8, -(C=O)-OR^8, $-OR^8$, -O-(C=O)-$N(R^8)_2$, $-SR^8$, -S(O)R^8, $-S(O)_2R^8$, NH_2, -NH-$(C_1$-$C_6)$alkyl, -N[$(C_1$-$C_6)$alkyl]$_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -N[$(C_1$-$C_6)$alkyl](C=O)-R^8, -N[$(C_1$-$C_6)$alkyl](C=O)-OR^8, $(C_1$-$C_6)$alkyl, $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$alkynyl, $(C_3$-$C_{15})$cycloalkyl, $(C_1$-$C_{14})$heterocyclic, $(C_6$-$C_{10})$aryl, and $(C_1$-$C_{13})$heteroaryl; wherein each of said $(C_3$-$C_{15})$cycloalkyl and $(C_1$-$C_{14})$heterocyclic may optionally contain one double or triple bond and one to two oxo (O=) groups; and wherein each of said $(C_3$-$C_{15})$cycloalkyl, $(C_1$-$C_{14})$heterocyclic, $(C_6$-$C_{10})$aryl, and $(C_1$-$C_{13})$heteroaryl moieties may be optionally substituted with one to three substituents independently selected from $(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkoxy, halo, and $-CF_3$.

2. A compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein the compound is a compound of Formula Ia:

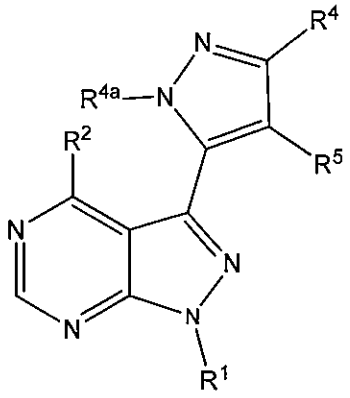


Ia.

3. A compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein the compound is a compound of Formula Ib or Ic:



Ib



Ic.

4. A compound according to any one of Claims 1-3, or a pharmaceutically acceptable salt thereof, wherein R^1 is $(C_1\text{-}C_6)$alkyl.

5. A compound according to any one of Claims 1-3, or a pharmaceutically acceptable salt thereof, wherein R^1 is methyl.

6. A compound according to any one of Claims 1-5, or a pharmaceutically acceptable salt thereof, wherein:

R^2 is $-N(R^3)_2$;

each R^3 is independently selected from $(C_1\text{-}C_6)$alkyl;

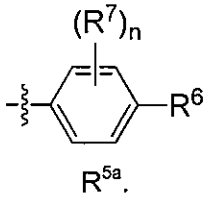
or both of said R^3 may be taken together with the nitrogen atom to which they are attached to form a 4- to 6-membered heterocyclic ring optionally containing one or two oxo groups (O=) and optionally substituted with one to three substituents each independently selected from the group consisting of fluoro, chloro, bromo, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, -O-$(C_1\text{-}C_6)$alkyl, NH_2, -NH-$(C_1\text{-}C_6)$alkyl, $-N[(C_1\text{-}C_6)\text{alkyl}]_2$, $(C_1\text{-}C_6)$alkyl, $(C_2\text{-}C_6)$alkenyl, $(C_2\text{-}C_6)$alkynyl, $-(C{=}O)\text{-}R^8$, $-(C{=}O)\text{-}OR^8$, $-(C{=}O)\text{-}N(R^8)_2$, -O-(C=O)-R^8, $-OR^8$, -O-(C=O)-OR^8, $-SR^8$, $-S(O)R^8$, $-S(O)_2R^8$, $-S(O)_2N(R^8)_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -O-(C=O)-$N(R^8)_2$, -NH-(C=O)-$N(R^8)_2$, $-N[(C_1\text{-}C_6)\text{alkyl}](C{=}O)$-

R^8, -N[$(C_1$-$C_6)$alkyl](C=O)-OR^8, -N[$(C_1$-$C_6)$alkyl](C=O)-N$(R^8)_2$, $(C_3$-$C_{15})$cycloalkyl, $(C_6$-$C_{10})$aryl, $(C_1$-$C_{14})$heterocyclic, and $(C_1$-$C_{13})$heteroaryl; wherein each of said $(C_3$-$C_{15})$cycloalkyl and $(C_1$-$C_{14})$heterocyclic may optionally contain one double or triple bond and may optionally contain one to two oxo (O=) groups, and wherein each of said $(C_3$-$C_{15})$cycloalkyl, $(C_6$-$C_{10})$aryl, $(C_1$-$C_{14})$heterocyclic, and $(C_1$-$C_{13})$heteroaryl is optionally substituted with one to three substituents each independently selected from fluoro, chloro, bromo, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -OH, -O-$(C_1$-$C_6)$alkyl, -O-$(C_1$-$C_6)$haloalkyl, NH_2, -NH-$(C_1$-$C_6)$alkyl, -N[$(C_1$-$C_6)$alkyl]$_2$, $(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$haloalkyl, $(C_2$-$C_6)$alkenyl, and $(C_2$-$C_6)$alkynyl.

7. A compound according to any one of Claims 1-6, or a pharmaceutically acceptable salt thereof, wherein R^2 is -N$(R^3)_2$; and both of said R^3 may be taken together with the nitrogen atom to which they are attached to form an azetidinyl, pyrrolidinyl, or piperidinyl ring, each optionally substituted with one to three substituents each independently selected from the group consisting of fluoro, -CN, -O-$(C_1$-$C_6)$alkyl, -N[$(C_1$-$C_6)$alkyl]$_2$, $(C_1$-$C_6)$alkyl, -S$(O)_2R^8$, -S$(O)_2$N$(R^8)_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -N[$(C_1$-$C_6)$alkyl](C=O)-R^8, $(C_1$-$C_{14})$heterocyclic (for example, a 5-, 6-, or 7-membered heterocyclic ring such as pyrrolidinyl or piperidinyl), and $(C_1$-$C_{13})$heteroaryl (for example, a 5-membered heteroaryl such as pyrazolyl or isoxazolyl); and wherein each of said $(C_1$-$C_{14})$heterocyclic, and $(C_1$-$C_{13})$heteroaryl is optionally substituted with one to three substituents each independently selected from $(C_1$-$C_6)$alkyl; and each R^8 wherever it occurs is independently selected from the group consisting of $(C_1$-$C_6)$alkyl and -$(C_1$-$C_6)$alkyl-$(C_3$-$C_{15})$cycloalkyl [for example -$(C_1$-$C_2)$alkyl-$(C_3$-$C_6)$cycloalkyl such as cyclopropylmethyl].

8. A compound according to any one of Claims 1-7, or a pharmaceutically acceptable salt thereof, wherein each R^4 is hydrogen and R^{4a} is $(C_1$-$C_6)$alkyl.

9. A compound according to any one of Claims 1-8, or a pharmaceutically acceptable salt thereof, wherein R^5 is R^{5a}:



R^{5a}.

10. A compound according to any one of Claims 1-9, or a pharmaceutically acceptable salt thereof, wherein:

R^6 is selected from the group consisting of hydrogen, halo, $(C_1$-$C_6)$alkyl, $-CF_3$, $-CHF_2$, $-CH_2F$, $-CF_2$-$(C_1$-$C_6)$alkyl, $-SF_5$, -CN, -$(C_1$-$C_6)$alkyl-CN, $-NO_2$, -(C=O)-R^8, -(C=O)-OR^8, $-OR^8$, -O-(C=O)-$N(R^8)_2$, $-SR^8$, -S(O)R^8, $-S(O)_2R^8$, NH_2, -NH-$(C_1$-$C_6)$alkyl, -N[$(C_1$-$C_6)$alkyl]$_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -N[$(C_1$-$C_6)$alkyl](C=O)-R^8, -N[$(C_1$-$C_6)$alkyl](C=O)-OR^8, $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$alkynyl, $(C_3$-$C_{15})$cycloalkyl, $(C_1$-$C_{14})$heterocyclic, $(C_6$-$C_{10})$aryl, and $(C_1$-$C_{13})$heteroaryl; wherein each of said $(C_3$-$C_{15})$cycloalkyl and $(C_1$-$C_{14})$heterocyclic optionally contains one double or triple bond and optionally contains one to two oxo (O=) groups; and

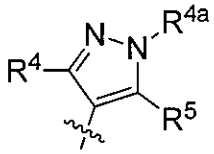
each R^7 is independently selected from the group consisting of halo, $(C_1$-$C_6)$alkyl, $(C_2$-$C_4)$alkenyl, $(C_2$-$C_6)$alkynyl, -CN, $-CF_3$, $-CHF_2$, $-CH_2F$, -O-$(C_1$-$C_6)$alkyl and $(C_3$-$C_{15})$cycloalkyl.

11. A compound according to any one of Claims 1-10, or a pharmaceutically acceptable salt thereof, wherein R^6 is halo, $(C_1$-$C_6)$alkyl, $-CF_3$, $-CHF_2$, $-OR^8$, or $(C_3$-$C_{15})$cycloalkyl.

12. A compound according to any one of Claims 1-11, or a pharmaceutically acceptable salt thereof, wherein each R^7 is independently selected from the group consisting of halo and $(C_1$-$C_6)$alkyl; and n is 0, 1, or 2.

13. A compound according to Claim 1, or a pharmaceutically acceptable salt thereof, wherein:

"$-Q^1$-R^{5}" is $Q^{1a}R^5$:



$Q^{1a}R^5$;

R^1 is $(C_1$-$C_6)$alkyl;

each R^3 is independently selected from the group consisting of $(C_1$-$C_6)$alkyl, $(C_2$-$C_6)$alkenyl, $(C_2$-$C_6)$alkynyl, and $(C_3$-$C_{15})$cycloalkyl, each optionally substituted with 1, 2, or 3 independently selected R^9;

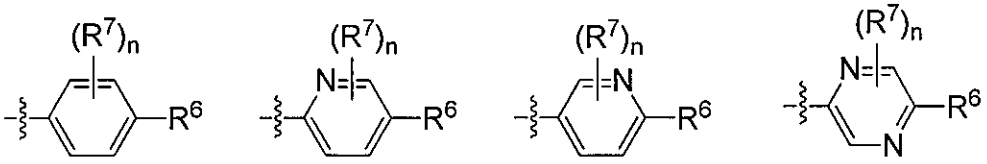
or when R^2 is $-N(R^3)_2$ both of said R^3 may be taken together with the nitrogen atom to which they are attached to form a 4- to 6-membered heterocyclic ring optionally containing one or two oxo groups (O=), and optionally may be substituted with one to three substituents each

independently selected from the group consisting of fluoro, -CN, -CF_3, -CHF_2, -CH_2F, -OH, -O-(C_1-C_6)alkyl, NH_2, -NH-(C_1-C_6)alkyl, -N[(C_1-C_6)alkyl]$_2$, (C_1-C_6)alkyl, (C_2-C_6)alkenyl, (C_2-C_6)alkynyl, -(C=O)-R^8, -(C=O)-OR^8, -(C=O)-N(R^8)$_2$ -O-(C=O)-R^8, -OR^8, -O-(C=O)-OR^8, -SR^8, -S(O)R^8, -S(O)$_2R^8$, -S(O)$_2$N(R^8)$_2$, -NH-(C=O)-R^8, -NH-(C=O)-OR^8, -O-(C=O)-N(R^8)$_2$, -NH-(C=O)-N(R^8)$_2$, -N[(C_1-C_6)alkyl](C=O)-R^8, -N[(C_1-C_6)alkyl](C=O)-OR^8, -N[(C_1-C_6)alkyl](C=O)-N(R^8)$_2$, (C_3-C_{15})cycloalkyl, (C_6-C_{10})aryl, (C_1-C_{14})heterocyclic, and (C_1-C_{13})heteroaryl; wherein each of said (C_3-C_{15})cycloalkyl and (C_1-C_{14})heterocyclic optionally contains one double or triple bond and optionally contains one to two oxo (O=) groups, and wherein each of said (C_3-C_{15})cycloalkyl, (C_6-C_{10})aryl, (C_1-C_{14})heterocyclic, and (C_1-C_{13})heteroaryl is optionally substituted with one to three substituents each independently selected from fluoro, chloro, bromo, -CN, -CF_3, -CHF_2, -CH_2F, -OH, -O-(C_1-C_6)alkyl, -O-(C_1-C_6)haloalkyl, NH_2, -NH-(C_1-C_6)alkyl, -N[(C_1-C_6)alkyl]$_2$, (C_1-C_6)alkyl, (C_1-C_6)haloalkyl, (C_2-C_6)alkenyl, and (C_2-C_6)alkynyl;

R^4 is hydrogen;

R^{4a} is (C_1-C_6)alkyl; and

R^5 is R^{5a}, R^{5b}, R^{5c}, or R^{5d}:

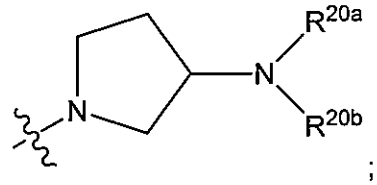


R^{5a}, R^{5b}, R^{5c}, or R^{5d},

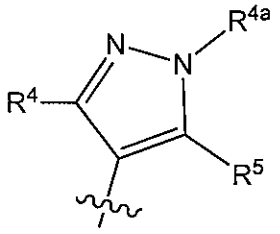
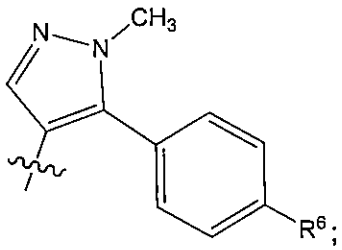
where n is 0, 1, 2, 3, or 4.

14. A compound of Formula Ia according to Claim 2, or a pharmaceutically acceptable salt thereof, wherein:

R^1 is methyl, -CF_3, -CHF_2, or -CH_2F;

R^2 is -N(R^3)$_2$, wherein both of said R^3 are taken together with the nitrogen atom to which they are attached to form an optionally substituted 4- to 6-membered heterocyclic ring that is a moiety of 

;

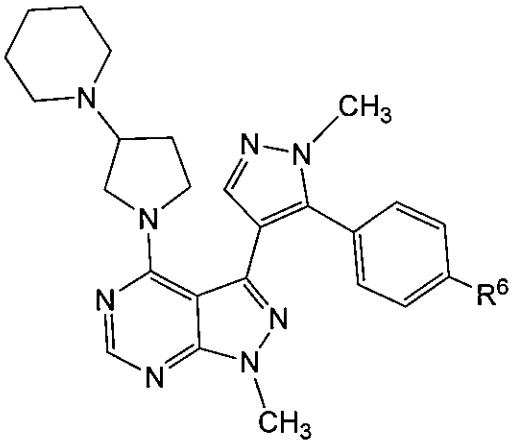
the "$Q^{1a}R^{5}$" moiety of  is a moiety of ;

each of R^{20a} and R^{20b} is independently $(C_1\text{-}C_3)$alkyl;

or R^{20a} and R^{20b}, together with the nitrogen atom to which they are attached, form a 5- or 6-membered heterocyclic ring ; and

R^6 is methyl, ethyl, or Cl.

15. A compound of Formula Ia according to Claim 2, or a pharmaceutically acceptable salt thereof, wherein the compound of Formula Ia or a pharmaceutically acceptable salt thereof is a compound of Formula Id:



Id

or a pharmaceutically acceptable salt thereof, wherein R^6 is methyl or ethyl.

16. A compound according to Claim 1 wherein said compound is:

4-(azetidin-1-yl)-1-methyl-3-[1-methyl-5-(4-methylphenyl)-1H-pyrazol-4-yl]-1H-pyrazolo[3,4-d]pyrimidine;

3-[5-(4-cyclopropylphenyl)-1-methyl-1H-pyrazol-4-yl]-4-(3-fluoroazetidin-1-yl)-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-1-methyl-3-{1-methyl-5-[5-(trifluoromethyl)pyridin-2-yl]-1H-pyrazol-4-yl}-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-3-{5-[4-(difluoromethyl)phenyl]-1-methyl-1H-pyrazol-4-yl}-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

3-[5-(4-ethylphenyl)-1-methyl-1H-pyrazol-4-yl]-4-(3-fluoroazetidin-1-yl)-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-3-[5-(4-ethylphenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

methyl (1-{3-[5-(4-cyclopropylphenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidin-4-yl}azetidin-3-yl)carbamate;

4-(azetidin-1-yl)-3-[5-(4-cyclopropylphenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-3-[5-(3-fluoro-4-methoxyphenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-1-methyl-3-{1-methyl-5-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl}-1H-pyrazolo[3,4-d]pyrimidine;

4-(3,3-difluoroazetidin-1-yl)-1-methyl-3-{1-methyl-5-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl}-1H-pyrazolo[3,4-d]pyrimidine;

4-(3-fluoroazetidin-1-yl)-1-methyl-3-{1-methyl-5-[4-(trifluoromethyl)phenyl]-1H-pyrazol-4-yl}-1H-pyrazolo[3,4-d]pyrimidine;

4-(azetidin-1-yl)-3-[5-(4-bromophenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

4-(3,3-difluoroazetidin-1-yl)-3-[5-(4-ethylphenyl)-1-methyl-1H-pyrazol-4-yl]-1-methyl-1H-pyrazolo[3,4-d]pyrimidine;

3-[5-(4-cyclopropylphenyl)-1-methyl-1H-pyrazol-4-yl]-4-(3,3-difluoroazetidin-1-yl)-1-methyl-1H-pyrazolo[3,4-d]pyrimidine; or

3-{5-[4-(difluoromethyl)phenyl]-1-methyl-1H-pyrazol-4-yl}-4-(3-fluoroazetidin-1-yl)-1-methyl-1H-pyrazolo[3,4-d]pyrimidine,

or a pharmaceutically acceptable salt thereof.

17. A compound of Formula Id according to Claim 15 wherein said compound is 1-methyl-3-[1-methyl-5-(4-methylphenyl)-1*H*-pyrazol-4-yl]-4-[(3*S*)-3-(piperidin-1-yl)pyrrolidin-1-yl]-1*H*-pyrazolo[3,4-*d*]pyrimidine, or a pharmaceutically acceptable salt thereof.

18. A pharmaceutical composition comprising a compound of Formula I according to any one of Claims 1-17 or a pharmaceutically acceptable salt thereof.

19. A compound of Formula I according to any one of Claims 1-17 or a pharmaceutically acceptable salt thereof for use in the treatment of cognitive impairment associated with schizophrenia, psychosis, schizophrenia, anxiety, depression, neuropathic pain, inflammatory pain, sepsis, or endotoxicosis in a human.

20. Use of a compound of Formula I according to any one of Claims 1-17 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of cognitive impairment associated with schizophrenia, psychosis, schizophrenia, anxiety, depression, neuropathic pain, inflammatory pain, sepsis, or endotoxicosis in a human.

21. A compound of Formula Id according to Claim 15 or the compound of Claim 17, or a pharmaceutically acceptable salt thereof for use in inhibiting an activity of CYP3A4 *in vitro* by contacting the CYP3A4 with the compound or salt.

22. Use of a compound of Formula Id according to Claim 15 or the compound of Claim 17, or a pharmaceutically acceptable salt thereof in the preparation of a composition for inhibiting an activity of CYP3A4 *in vitro*, comprising contacting the CYP3A4 with the compound or salt.