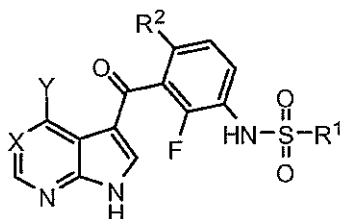


CLAIMS

What is claimed is:

1. A compound having the chemical structure of Formula I,



Formula I

or a pharmaceutically acceptable salt, hydrate or solvate thereof,

wherein:

X is $-N=$ or $-C(R^5)=$;

Y is selected from the group consisting of fluoro, chloro, bromo, iodo, lower alkyl, lower alkoxy, haloalkyl, CN, $-OH$, cycloalkyl, $-OR^8$, and $-N(R^3)(R^4)$; wherein:

R^3 is hydrogen and R^4 is selected from the group consisting of (i) hydrogen, $-OR^8$ and lower alkyl optionally substituted with one or more R^{11} ; (ii) cycloalkyl or cycloalkylalkyl, each of which is optionally substituted with one or more R^{12} ; (iii) heterocycloalkyl or heterocycloalkylalkyl, each of which is optionally substituted with one or more R^{13} ; (iv) aryl or arylalkyl, each of which is optionally substituted with one or more R^{14} , optionally, wherein the two adjacent R^{14} groups on the aryl ring are taken together to form a 5 or 6-membered hetero cyclic aromatic ring having from 1-4 heteroatoms selected from O or N; and (v) heteroaryl or heteroarylalkyl, each of which is optionally substituted with one or more R^{15} ; or

R^3 and R^4 are both lower alkyl; or

R^3 and R^4 combine with the nitrogen atom to which they are attached to form a 3-7 membered ring having 0-1 additional ring heteroatom selected from O, N or S, wherein the nitrogen or sulfur atom is optionally oxidized;

R^1 is selected from the group consisting of lower alkyl, haloalkyl, haloalkoxy, fluoro substituted lower alkyl, cycloalkyl optionally substituted with one or more R^7 , heterocycloalkyl, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, aryl optionally substituted with one or more R^6 and heteroaryl optionally substituted with one or more R^7 ;

R^2 is hydrogen, fluoro, chloro, or lower alkyl optionally substituted with one or more fluorine;

R^5 is selected from the group consisting of hydrogen, fluoro, chloro, $-CN$, lower alkyl optionally substituted with one or more R^{16} , and lower alkoxy optionally substituted with one or more R^{17} ;

- each R^6 , when present, is independently selected from the group consisting of fluoro, chloro, -CN, -NO₂, lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, -C(O)-O- R^{15} , -N(H)-C(O)- R^{16} , and heteroaryl optionally substituted with one or more lower alkyl; or two R^5 on adjacent carbons combine to form a fused heterocycloalkyl optionally substituted with one or more lower alkyl;
- each R^7 , when present, is independently selected from the group consisting of lower alkyl, fluoro substituted lower alkyl, lower alkoxy, -C(O)-O- R^{20} , and heteroaryl optionally substituted with one or more lower alkyl;
- R^8 is hydrogen, lower alkyl optionally substituted with one or more fluorine, or, when R^8 is a C₂₋₆ alkyl, said alkyl may optionally be substituted with one or more R^{21} ; cycloalkyl optionally substituted with one or more R^{21} , or heterocycloalkyl optionally substituted with one or more R^{21} ;
- each R^{11} , when present, is independently selected from the group consisting of fluoro, -OH, lower alkoxy, fluoro substituted lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, cycloalkyl optionally substituted with one or more R^{12} , heterocycloalkyl optionally substituted with one or more R^{13} , aryl optionally substituted with one or more R^{14} , and heteroaryl optionally substituted with one or more R^{15} ;
- each R^{12} , when present, is independently selected from the group consisting of fluoro, lower alkyl, fluoro substituted lower alkyl, -OH, lower alkoxy, fluoro substituted lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, -N(H)-C(O)- R^{22} , -N(H)-S(O)₂- R^{23} , C(O)- R^{24} , and S(O)₂- R^{25} ;
- each R^{13} , when present, is independently selected from the group consisting of fluoro, -OH, lower alkoxy, fluoro substituted lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, -N(H)-C(O)- R^{26} , -N(H)-S(O)₂- R^{27} , C(O)- R^{28} , S(O)₂- R^{29} , and lower alkyl optionally substituted with one or more R^{30} ;
- each R^{14} and R^{15} , when present, are independently selected from the group consisting of fluoro, chloro, -OH, -NH₂, -CN, -NO₂, -N(H)-C(O)- R^{31} , -N(H)-S(O)₂- R^{32} , C(O)- R^{33} , S(O)₂- R^{34} , lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, aryl optionally substituted with one or more R^{35} , and heteroaryl optionally substituted with one or more R^{36} ;
- each R^{16} , when present, is independently fluoro, -OH, lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, or heterocycloalkylamino;
- each R^{17} , when present, is independently fluoro, -OH, lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, or heterocycloalkylamino;

each R^{18} and R^{20} , when present, are independently hydrogen, lower alkyl or fluoro substituted lower alkyl;
each R^{19} , R^{22} , R^{23} , R^{26} , R^{27} , R^{31} and R^{32} , when present, are independently lower alkyl or fluoro substituted lower alkyl;
each R^{21} , when present, is fluoro, -OH, lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, or heterocycloalkylamino;
each R^{24} , R^{25} , R^{28} , R^{29} , R^{33} , and R^{34} , when present, are independently lower alkyl, fluoro substituted lower alkyl, -OH, lower alkoxy, fluoro substituted lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, or heterocycloalkylamino;
each R^{30} , when present, is independently fluoro, aryl optionally substituted with one or more R^{35} or heteroaryl optionally substituted with one or more R^{36} ; and
each R^{35} and R^{36} , when present, are independently selected from the group consisting of fluoro, chloro, -OH, -NH₂, -CN, -NO₂, lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, mono-alkylamino, di-alkylamino, cycloalkylamino, and heterocycloalkylamino.

2. The compound of claim 1, wherein:

X is -N= or -C(R^5)=, wherein R^5 is selected from the group consisting of hydrogen, fluoro, chloro, -CN, lower alkyl and lower alkoxy, wherein the lower alkyl or lower alkoxy is optionally substituted with from one or three groups selected from fluoro, -OH, lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, or heterocycloalkylamino;

Y is selected from the group consisting of fluoro, chloro, bromo, iodo, lower alkyl, lower alkoxy, haloalkyl, CN, -OH, cycloalkyl, -OR⁸, and -N(R^3)(R^4); wherein:

R^3 is hydrogen and R^4 is selected from the group consisting of (i) hydrogen, -OR⁸ and lower alkyl optionally substituted with from one to three R^{11} ; (ii) cycloalkyl or cycloalkylalkyl, each of which is optionally substituted with from one to three R^{12} ; (iii) heterocycloalkyl or heterocycloalkylalkyl, each of which is optionally substituted with from one to three R^{13} ; (iv) aryl or arylalkyl, each of which is optionally substituted with from one to three R^{14} optionally, wherein the two adjacent R^{14} groups on the aryl ring are taken together to form a 5 or 6-membered heterocyclic aromatic ring having from 1-4 heteroatoms selected from O or N; and (v) heteroaryl or heteroarylalkyl, each of which is optionally substituted with from one to three R^{15} ; or

R^3 and R^4 are both lower alkyl; or

R^3 and R^4 are combined with the nitrogen atom to which they are attached to form a three to seven membered ring having 0-1 additional ring heteroatom selected from O, N or S, wherein the nitrogen or sulfur atom is optionally oxidized;

R^1 is selected from the group consisting of lower alkyl, haloalkyl, haloalkoxy, fluoro substituted lower alkyl, cycloalkyl optionally substituted with from one to three R^7 , heterocycloalkyl, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, aryl optionally substituted with from one to three R^6 and heteroaryl optionally substituted with one to three R^7 ;

R^2 is hydrogen, fluoro, chloro, or lower alkyl optionally substituted with from one to five fluorine atoms;

each R^6 , when present, is independently selected from the group consisting of fluoro, chloro, -CN, -NO₂, lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, -C(O)-O- R^{15} , -N(H)-C(O)- R^{16} , and heteroaryl optionally substituted with one or more lower alkyl; or two R^5 on adjacent carbons combine to form a fused heterocycloalkyl optionally substituted with one or more lower alkyl;

each R^7 , when present, is independently selected from the group consisting of lower alkyl, fluoro substituted lower alkyl, lower alkoxy, -C(O)-O- R^{20} , and heteroaryl optionally substituted with one or more lower alkyl;

R^8 is hydrogen, lower alkyl optionally substituted with one or more fluorine, or, when R^8 is a C₂₋₆ alkyl, said alkyl may optionally be substituted with one or more R^{21} ; cycloalkyl optionally substituted with one or more R^{21} , or heterocycloalkyl optionally substituted with one or more R^{21} ;

each R^{11} , when present, is independently selected from the group consisting of fluoro, -OH, lower alkoxy, fluoro substituted lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, cycloalkyl optionally substituted with one or more R^{12} , heterocycloalkyl optionally substituted with one or more R^{13} , aryl optionally substituted with one or more R^{14} , and heteroaryl optionally substituted with one or more R^{15} ;

each R^{12} , when present, is independently selected from the group consisting of fluoro, lower alkyl, fluoro substituted lower alkyl, -OH, lower alkoxy, fluoro substituted lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, -N(H)-C(O)- R^{22} , -N(H)-S(O)₂- R^{23} , C(O)- R^{24} , and S(O)₂- R^{25} ;

each R^{13} , when present, is independently selected from the group consisting of fluoro, -OH, lower alkoxy, fluoro substituted lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, -N(H)-C(O)- R^{26} , -N(H)-S(O)₂- R^{27} , C(O)- R^{28} , S(O)₂- R^{29} , and lower alkyl optionally substituted with one or more R^{30} ;

each R^{14} and R^{15} , when present, are independently selected from the group consisting of fluoro, chloro, -OH, -NH₂, -CN, -NO₂, -N(H)-C(O)- R^{31} , -N(H)-S(O)₂- R^{32} , C(O)- R^{33} , S(O)₂- R^{34} , lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, aryl optionally substituted with one to three R^{35} , and heteroaryl optionally substituted with one to three R^{36} ;

each R^{18} and R^{20} , when present, are independently hydrogen, lower alkyl or fluoro substituted lower alkyl;

each R^{19} , R^{22} , R^{23} , R^{26} , R^{27} , R^{31} and R^{32} , when present, are independently lower alkyl or fluoro substituted lower alkyl;

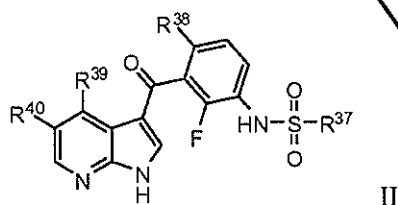
each R^{21} , when present, is fluoro, -OH, lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, or heterocycloalkylamino;

each R^{24} , R^{25} , R^{28} , R^{29} , R^{33} , and R^{34} , when present, are independently lower alkyl, fluoro substituted lower alkyl, -OH, lower alkoxy, fluoro substituted lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, or heterocycloalkylamino;

each R^{30} , when present, is independently fluoro, aryl optionally substituted with one or more R^{35} or heteroaryl optionally substituted with one to three R^{36} ; and

each R^{35} and R^{36} , when present, are independently selected from the group consisting of fluoro, chloro, -OH, -NH₂, -CN, -NO₂, lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, mono-alkylamino, di-alkylamino, cycloalkylamino, and heterocycloalkylamino.

3. The compound of claim 1 or 2, having Formula II:



wherein:

R^{37} is selected from the group consisting of lower alkyl, fluoro substituted lower alkyl, cycloalkyl, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, phenyl optionally substituted with one or more R^{41} and heteroaryl optionally substituted with one or more R^{42} ;

R^{38} is hydrogen, fluoro, chloro, or lower alkyl optionally substituted with one or more fluorine;

R^{39} and R^{40} are each independently selected from the group consisting of fluoro, chloro, -CN, -OH, -NH₂, lower alkoxy, lower alkyl optionally substituted with one or more R^{43} , lower alkenyl optionally substituted with C(O)-O- R^{44} , lower alkynyl optionally substituted with lower alkyl optionally substituted with one or more fluorine, or, on a non-alkynyl carbon thereof, R^{45} , lower alkoxy optionally substituted with R^{46} , mono-alkylamino, di-alkylamino, cycloalkylamino, cycloalkylalkyl-NH-, heterocycloalkylamino and heterocycloalkylalkyl-NH-;

each R^{41} , when present, is independently selected from the group consisting of halogen, -CN, -NO₂, lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, -C(O)-O- R^{47} , -N(H)-C(O)- R^{48} , and heteroaryl optionally substituted with one or more lower alkyl; or two R^{41} on adjacent carbons combine to form a fused heterocycloalkyl optionally substituted with one or more lower alkyl;

each R^{42} , when present, is independently selected from the group consisting of lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, -C(O)-O- R^{49} , and heteroaryl optionally substituted with one or more lower alkyl;

each R^{43} , when present, is independently selected from the group consisting of fluoro, -OH, lower alkoxy, mono-alkylamino, di-alkylamino, cycloalkylamino, and heterocycloalkylamino;

each R^{44} , when present, is independently hydrogen or lower alkyl optionally substituted with one or more fluorine;

each R^{45} , when present, is independently selected from the group consisting of -OH, lower alkoxy, mono-alkylamino, di-alkylamino, cycloalkylamino, and heterocycloalkylamino;

each R^{46} , when present, is independently selected from the group consisting of -OH, lower alkoxy, mono-alkylamino, di-alkylamino, cycloalkylamino, and heterocycloalkylamino;

each R^{47} , when present, is independently hydrogen or lower alkyl optionally substituted with one or more fluorine;

each R^{48} , when present, is independently lower alkyl optionally substituted with one or more fluorine; and

each R^{49} , when present, is independently hydrogen or lower alkyl optionally substituted with one or more fluorine.

4. The compound of claim 3, wherein R^{37} is lower alkyl, fluoro substituted lower alkyl or phenyl, optionally substituted with from 1-3 R^{41} groups.

5. The compound of claim 4, wherein R³⁷ is lower alkyl, fluoro substituted lower alkyl or phenyl substituted with from 1-3 groups selected from fluoro, chloro, -CN, -NO₂, lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, -C(O)-O-R⁴⁷ or -N(H)-C(O)-R⁴⁸.

6. The compound of claim 5, wherein R³⁷ is lower alkyl or phenyl substituted with from 1-2 groups selected from fluoro, chloro, -CN, -NO₂, lower alkyl, fluoro substituted lower alkyl, lower alkoxy or fluoro substituted lower alkoxy.

7. The compound of claim 3, wherein R³⁸ is H, -F or fluoro substituted lower alkyl.

8. The compound of claim 3, wherein R³⁹ is fluoro, chloro, -CN, -OH, -NH₂, lower alkoxy, lower alkyl optionally substituted with one or more R⁴³, cycloalkylamino, cycloalkylalkyl-NH-, heterocycloalkylamino and heterocycloalkylalkyl-NH-.

9. The compound of claim 3, wherein R⁴⁰ is H, lower alkyl optionally substituted with one or more R⁴³, halogen, lower alkoxy or -CN.

10. The compound of any of claims 3-9, wherein R³⁷ is lower alkyl or phenyl optionally substituted with 1-2 members selected from CF₃ or halogen.

11. The compound of claim 10, wherein R³⁷ is propyl, 2-trifluoromethylphenyl, 3-trifluoromethylphenyl, 4-trifluoromethylphenyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl or 2,5-difluoro-substituted phenyl.

12. The compound of claim 11, wherein R³⁷ is propyl, 4-trifluoromethylphenyl, 2-fluorophenyl, 3-fluorophenyl or 2,5-difluoro-substituted phenyl.

13. The compound of any of claims 3-9, wherein R³⁸ is H, F or CF₃.

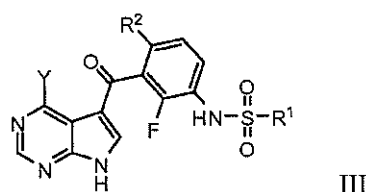
14. The compound of any of claims 3-9, wherein R³⁸ is F.

15. The compound of any of claims 3-9, wherein R³⁹ is fluoro, chloro, -CN, -OH, -NH₂, lower alkyl optionally substituted with fluoro, lower alkoxy, cycloalkylamino, cycloalkylalkyl-NH-, heterocycloalkylamino and heterocycloalkylalkyl-NH-.

16. The compound of claim 15, wherein R³⁹ is fluoro, chloro, -CN, -OH, -NH₂, CH₃, CH₃O-, CF₃, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclobutylmethyl,

cyclopentylmethyl, cyclohexylmethyl, cyclopropylamino, cyclobutylamino, cyclopentylamino, cyclohexylamino, cyclopropylmethylamino, cyclobutylmethylamino, cyclopentylmethylamino, cyclohexylmethylamino, 2-tetrahydrofuranylamino, 3-tetrahydrofuranylamino or 4-tetrahydropyranylamino.

17. The compound of claim 1 or 2, having Formula III:



18. The compound of any of claims 1, 2 or 17, wherein X is selected from the group consisting of -N=, -CH=, -C(CH₃)=, -C(OCH₃)=, -C(F)=, -C(CN)=, -C(CH₂OH)= and -C(Cl)=.

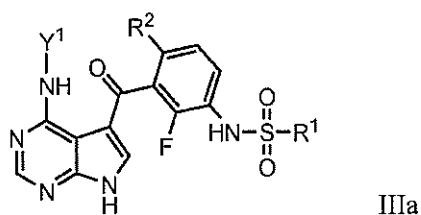
19. The compound of any of claims 1, 2 or 17, wherein X is -N=, -CH=, -C(CH₃)=, -C(F)= or -C(CN)=.

20. The compound of any of claims 1, 2 or 17, wherein X is -N=.

21. The compound of any of claims 1, 2 or 17, wherein Y is fluoro, chloro, bromo, iodo, lower alkyl, lower alkoxy, haloalkyl, CN, -OH, cycloalkyl, -OR⁸ or -NH(R⁴).

22. The compound of any of claims 1, 2 or 17, wherein Y is CH₃, ethyl, methoxy, ethoxy, isobutyl, CN, OH, F, Cl, Br, I, NH₂, butyloxy, 2-methylpropoxy, 4-tetrahydropyranyloxy, 2-tetrahydrofuranyloxy, 3-tetrahydrofuranyloxy, alkoxyamino or HO-NH-.

23. The compound of claims 1 or 2, having Formula IIIa:



wherein Y¹ is lower alkyl optionally substituted with from one to three R¹¹, cycloalkyl, cycloalkylalkyl, aryl, arylalkyl, heterocycloalkyl, heterocycloalkylalkyl, heteroaryl or heteroarylalkyl, wherein:

- (v) the cycloalkyl and cycloalkylalkyl are each optionally substituted with from one to three R¹²;
- (vi) the heterocycloalkyl and heterocycloalkylalkyl are each optionally substituted with from one to three R¹³;
- (vii) the aryl and arylalkyl are each optionally substituted with from one to three R¹⁴ optionally, wherein the two adjacent R¹⁴ groups on the aryl ring are taken together to form a 5 or 6-membered hetero aromatic ring having from 1-4 heteroatoms selected from O or N; and
- (viii) the heteroaryl and heteroarylalkyl are each optionally substituted with from one to three R¹⁵.

24. The compound of claim 23, wherein Y¹ is selected from lower alkyl, halogen substituted lower alkyl, 2-hydroxyethyl, cyclopropylamino, cyclobutyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentyl, cyclopentylmethyl, cyclohexylmethyl, cyclohexyl, 2-oxetanyl, 2-oxetanylmethyl, 3-oxetanyl, 3-oxetanylmethyl, 2-tetrahydrofuranyl, 3-tetrahydrofuranyl, 2-tetrahydropyranyl, 3-tetrahydropyranyl, 4-tetrahydropyranyl, 2-tetrahydrofuranylmethyl, 3-tetrahydrofuranylmethyl, 2-tetrahydropyranylmethyl, 3-tetrahydropyranylmethyl, 4-tetrahydropyranylmethyl, 1-methyl-2-aziridinyl, 1-methyl-2-aziridinylmethyl, 1-methyl-2-azetidyl, 1-methyl-2-azetidylmethyl, 1-methyl-3-azetidyl, 1-methyl-3-azetidylmethyl, 1-methyl-2-pyrrolidinyl, 1-methyl-2-pyrrolidinylmethyl, 1-methyl-3-pyrrolidinyl, 1-methyl-3-pyrrolidinylmethyl, 1-methyl-2-piperidinyl, 1-methyl-2-piperidinylmethyl, 1-methyl-3-piperidinyl, 1-methyl-3-piperidinylmethyl, 1-methyl-4-piperidinyl, 1-methyl-4-piperidinylmethyl, 1-methylsulfonyl-2-piperidinyl, 1-methylsulfonyl-2-piperidinylmethyl, 1-methylsulfonyl-3-piperidinyl, 1-methylsulfonyl-3-piperidinylmethyl, 1-methylsulfonyl-4-piperidinyl, 1-methylsulfonyl-4-piperidinylmethyl, 1,1-dioxo-4-thianyl, 1,1-dioxo-4-thianylmethyl, phenyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, 2-benzyl, 2-fluorobenzyl, 3-fluorobenzyl, 4-fluorobenzyl, 2-pyridyl, 2-pyridylmethyl, 3-pyridyl, 3-pyridylmethyl, 4-pyridyl, 4-pyridylmethyl, 2-chlorophenyl, 3-chlorophenyl, 4-chlorophenyl, 2-dimethylaminophenyl, 3-dimethylaminophenyl, 4-dimethylaminophenyl, 2-dimethylaminobenzyl, 3-dimethylaminobenzyl, 4-dimethylaminobenzyl, 2-hydroxyphenyl, 3-hydroxyphenyl, 4-hydroxyphenyl, 2-hydroxybenzyl, 3-hydroxybenzyl, 4-hydroxybenzyl, 2-carboxyphenyl, 3-carboxyphenyl, 4-carboxyphenyl, 2-carboxybenzyl, 3-carboxybenzyl, 4-carboxybenzyl, 2-methoxycarbonylphenyl, 3-methoxycarbonylphenyl, 4-methoxycarbonylphenyl, 2-methoxycarbonylbenzyl, 3-methoxycarbonylbenzyl, 4-methoxycarbonylbenzyl, 1-alkyl-4-pyrazolyl, 1-alkyl-4-pyrazolylmethyl, 3-

pyridazinyl, pyridazinylmethyl, 4-pyridazinyl, 4-pyridazinylmethyl, triazolyl, triazolylmethyl, tetrazolyl, tetrazolylmethyl, 2,1,3,-benzoxadiazolyl, 2,1,3,-benzoxadiazol-5-yl, 2,1,3,-benzoxadiazolyl-methyl, 2,1,3,-benzoxadiazol-5ylmethyl, 2,1,3,-benzothiadiazolyl, 2,1,3,-benzothiadiazol-5-yl, 2,1,3,-benzothiadiazolyl-methyl, 2,1,3,-benzothiadiazol-5ylmethyl, 1H-1,2,4-triazol-5-yl, 1H-1,2,4-triazol-5-methyl, 2-oxobenzimidazol-4-yl, 2-oxobenzimidazol-4-methyl, 2-oxobenzimidazol-5-yl, 2-oxobenzimidazol-5-methyl, 1,1,-dioxo-thiolan-3-yl, 1,1-dioxothiolan-3-methyl, 3-(2-methyl-1,2,3,4-tetrazol-5-yl)phenyl, 3-(2-methyl-1,2,3,4-tetrazol-5-yl)benzyl, 3-(5-methyl-1,2,3,4-tetrazol-1-yl)phenyl, 3-(1,2,4-triazol-5-yl)phenyl, 3-(1,2,4-triazol-5-yl)benzyl, 3-3-methyl-4H-1,2,4-triazol-5-methyl or 2-(3-methyl-4H-1,2,4-triazol-5-yl)ethyl.

25. The compound of any of claims 17-23 or 24, wherein R² is H or F.

26. The compound of any of claims 17-23 or 24, wherein R¹ is lower alkyl, cycloalkyl optionally substituted with 1-2 groups selected from halogen or lower alkyl, heterocycloalkyl, heteroaryl optionally substituted with lower alkyl or lower alkoxy, phenyl optionally substituted with 1-2 substituents selected from lower alkyl, halogen, lower alkoxy, haloalkyl, haloalkoxy or CN.

27. The compound of claim 26, wherein R¹ is methyl, propyl, isobutyl, 2-methylpropyl, CF₃, CF₃CH₂-, CHF₂CH₂-, 4-trifluorophenyl, 2-trifluorophenyl, 3-trifluorophenyl, 3,5-dimethylphenyl, 4-propylphenyl, 3-fluoro-4-methoxyphenyl, 2-cyanophenyl, 3-cyanophenyl, 4-cyanophenyl, 4-fluoro-3-methoxyphenyl, 2,5-difluorophenyl, 2,6-difluorophenyl, 2,4-difluorophenyl, 2-pyridyl, 3-pyridyl, 5-methoxy-2-pyridyl, 3-methoxy-2-pyridyl, 4-methoxy-2-pyridyl, 6-methyl-2-pyridyl, 5-methyl-2-pyridyl, 4-methyl-2-pyridyl, 3-methyl-2-pyridyl, dialkylamino, 1-pyrrolidinyl, 1-piperidinyl, 4-morpholinyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, 4,4-difluorocyclohexyl, 1-methyl-4-pyrazolyl, 1-ethyl-4-pyrazolyl, 1-methyl-3-pyrazolyl, 1-ethyl-3-pyrazolyl, 6-methyl-3-pyridyl, 5-methyl-3-pyridyl, 4-methyl-3-pyridyl or 2-methyl-3-pyridyl.

28. The compound of claim 27, wherein R¹ is 2-fluorophenyl, 3-fluorophenyl, 2,5-difluorophenyl or 4-lower alkyl-substituted phenyl, wherein lower alkyl is optionally substituted with one or more fluorine.

29. The compound of any of claims 17-22, wherein Y is -NR³R⁴, wherein R³ and R⁴ are combined with the nitrogen atom to which they are attached to form a three to seven membered ring having 0-1 additional heteroatom selected from O, N or S, wherein the nitrogen and sulfur atoms are optionally oxidized.

30. The compound of claim 29, wherein Y is 1-aziridinyl, 1-azetidiny, 1-pyrrolidinyl, 1-piperidinyl, 1-morpholinyl or 1-azepanyl.

31. A compound selected from the group consisting of:

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (**P-1001**),

Propane-1-sulfonic acid [3-(4-ethoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-amide (**P-1002**),

2-Methyl-propane-1-sulfonic acid [2,4-difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-amide (**P-1003**),

2-Methyl-propane-1-sulfonic acid [2,4-difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-amide (**P-1004**),

N-[2,4-Difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-propyl-benzenesulfonamide (**P-1005**),

N-[3-(4-Ethoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-trifluoromethyl-benzenesulfonamide (**P-1006**),

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-propyl-benzenesulfonamide (**P-1007**),

N-[2,4-Difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-ethyl-benzenesulfonamide (**P-1008**),

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-isopropyl-benzenesulfonamide (**P-1009**),

N-[2,4-Difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-isopropyl-benzenesulfonamide (**P-1010**),

N-[2,4-Difluoro-3-(4-hydroxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (**P-1012**),

Propane-1-sulfonic acid [2,4-difluoro-3-(4-isobutyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-amide (**P-1014**),

N-[2,4-Difluoro-3-(4-isobutyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (**P-1015**),

N-[3-(4-Chloro-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-trifluoromethyl-benzenesulfonamide (**P-1016**),

6-Methoxy-pyridine-3-sulfonic acid [2,4-difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-amide (**P-1018**),

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-ethylbenzenesulfonamide (**P-1019**),

N-[2,4-Difluoro-3-[4-(tetrahydro-pyran-4-yloxy)-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl]-phenyl]-4-trifluoromethyl-benzenesulfonamide (**P-1021**),

Propane-1-sulfonic acid [2,4-difluoro-3-(4-hydroxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-amide (**P-1022**),

N-[3-(4-Cyano-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-trifluoromethyl-benzenesulfonamide (**P-1023**),

N-[2,4-Difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-3,5-dimethyl-benzenesulfonamide (**P-1025**),

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-3,5-dimethyl-benzenesulfonamide (**P-1027**),

N-[2,4-Difluoro-3-(4-isobutoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (**P-1028**),

N-[2,4-Difluoro-3-(4-isopropyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (**P-1029**),

N-[2,4-Difluoro-3-(4-hydroxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-propyl-benzenesulfonamide (**P-1030**),

Propane-1-sulfonic acid [3-(4-chloro-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-amide (**P-1033**),

N-[3-(4-Chloro-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-propyl-benzenesulfonamide (**P-1034**),

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-3-fluoro-4-methoxy-benzenesulfonamide (**P-1036**),

N-[3-(4-Ethoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-propyl-benzenesulfonamide (**P-1038**),

N-[3-(4-Cyclopropylmethoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-trifluoromethyl-benzenesulfonamide (**P-1053**),

N-[2,4-Difluoro-3-(4-hydroxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-2-fluoro-benzenesulfonamide (**P-1070**),

N-[3-(4-Chloro-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-2-fluoro-benzenesulfonamide (**P-1071**),

N-[3-(4-Cyclopropyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-2,5-difluoro-

benzenesulfonamide (P-1107),
N-[3-(4-Cyclopropylmethoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-2,5-difluoro-benzenesulfonamide (P-1181),
N-[2,4-Difluoro-3-(4-isopropyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-2,5-difluoro-benzenesulfonamide (P-1182),
N-[2,4-Difluoro-3-(4-hydroxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-2,5-difluoro-benzenesulfonamide (P-1183),
N-[3-(4-Chloro-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-2,5-difluoro-benzenesulfonamide (P-1184),
Propane-1-sulfonic acid [2,4-difluoro-3-(4-trifluoromethyl-1H-pyrrolo[2,3-b]pyridine-3-carbonyl)-phenyl]-amide (P-2015),
N-[2,4-Difluoro-3-(4-trifluoromethyl-1H-pyrrolo[2,3-b]pyridine-3-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-2016),
N-[2,4-Difluoro-3-(4-trifluoromethyl-1H-pyrrolo[2,3-b]pyridine-3-carbonyl)-phenyl]-benzenesulfonamide (P-2017), and
any pharmaceutically acceptable salt thereof.

32. A composition comprising a compound of any of claims 1-31 and a pharmaceutically acceptable excipient or carrier.

33. A pharmaceutical composition comprising a compound of any of claims 1-31 and another drug.

34. A kit comprising a compound according to any of claims 1-31 or a composition according to Claim 32 or 33.

35. A method for treating a Raf protein kinase mediated disease or condition in a subject in need thereof, said method comprising administering to said subject an effective amount of a compound according to any one of claims 1-31 or a composition of claims 32 or 33.

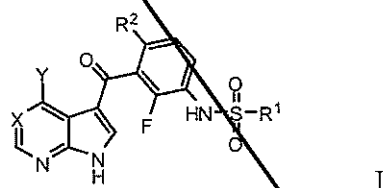
36. A method for treating a Raf protein kinase mediated disease or condition in a subject in need thereof, said method comprising administering to said subject an effective amount of a compound according to any one of claims 1-31 and another drug or a pharmaceutically acceptable salt thereof.

37. The method of claim 35 or 36, wherein the disease or condition is selected from the group consisting of multi-infarct dementia, head injury, spinal cord injury, Alzheimer's disease (AD), Parkinson's disease, seizures and epilepsy; neoplastic diseases including, but not limited to, melanoma, glioma, glioblastoma multiforme, pilocytic astrocytoma sarcoma, carcinoma (e.g. gastrointestinal, liver, biliary tract, bile duct (cholangiocarcinoma), colorectal, lung, gallbladder, breast, pancreatic, thyroid, renal, ovarian, adrenocortical, prostate), lymphoma (e.g. histiocytic lymphoma) neurofibromatosis, gastrointestinal stromal tumors, acute myeloid leukemia, myelodysplastic syndrome, leukemia, tumor angiogenesis, neuroendocrine tumors such as medullary thyroid cancer, carcinoid, small cell lung cancer, Kaposi's sarcoma, and pheochromocytoma; pain of neuropathic or inflammatory origin, including, but not limited to, acute pain, chronic pain, cancer-related pain, and migraine; cardiovascular diseases including, but not limited to, heart failure, ischemic stroke, cardiac hypertrophy, thrombosis (e.g. thrombotic microangiopathy syndromes), atherosclerosis, and reperfusion injury; inflammation and/or proliferation including, but not limited to, psoriasis, eczema, arthritis and autoimmune diseases and conditions, osteoarthritis, endometriosis, scarring, vascular restenosis, fibrotic disorders, rheumatoid arthritis, inflammatory bowel disease (IBD); immunodeficiency diseases, including, but not limited to, organ transplant rejection, graft versus host disease, and Kaposi's sarcoma associated with HIV; renal, cystic, or prostatic diseases, including, but not limited to, diabetic nephropathy, polycystic kidney disease, nephrosclerosis, glomerulonephritis, prostate hyperplasia, polycystic liver disease, tuberous sclerosis, Von Hippel Lindau disease, medullary cystic kidney disease, nephronophthisis, and cystic fibrosis; metabolic disorders, including, but not limited to, obesity; infection, including, but not limited to *Helicobacter pylori*, *Hepatitis* and *Influenza* viruses, fever, HIV and sepsis; pulmonary diseases including, but not limited to, chronic obstructive pulmonary disease (COPD) and acute respiratory distress syndrome (ARDS); genetic developmental diseases, including, but not limited to, Noonan's syndrome Costello syndrome, (faciocutaneoskeletal syndrome), LEOPARD syndrome, cardio-faciocutaneous syndrome (CFC), and neural crest syndrome abnormalities causing cardiovascular, skeletal, intestinal, skin, hair and endocrine diseases; and diseases associated with muscle regeneration or degeneration, including, but not limited to, sarcopenia, muscular dystrophies (including, but not limited to, Duchenne, Becker, Emery-Dreifuss, Limb-Girdle, Facioscapulohumeral, Myotonic, Oculopharyngeal, Distal and Congenital Muscular Dystrophies), motor neuron diseases (including, but not limited to, amyotrophic lateral sclerosis, infantile progressive spinal muscular atrophy, intermediate spinal muscular atrophy, juvenile spinal muscular atrophy, spinal bulbar muscular atrophy, and adult spinal muscular atrophy), inflammatory myopathies (including, but not limited to, dermatomyositis, polymyositis, and inclusion body myositis), diseases of the neuromuscular junction (including, but not limited to,

myasthenia gravis, Lambert-Eaton syndrome, and congenital myasthenic syndrome), myopathies due to endocrine abnormalities (including, but not limited to, hyperthyroid myopathy and hypothyroid myopathy) diseases of peripheral nerve (including, but not limited to, Charcot-Marie-Tooth disease, Dejerine-Sottas disease, and Friedreich's ataxia), other myopathies (including, but not limited to, myotonia congenita, paramyotonia congenita, central core disease, nemaline myopathy, myotubular myopathy, and periodic paralysis), and metabolic diseases of muscle (including, but not limited to, phosphorylase deficiency, acid maltase deficiency, phosphofructokinase deficiency, debrancher enzyme deficiency, mitochondrial myopathy, carnitine deficiency, carnitine palmitoyl transferase deficiency, phosphoglycerate kinase deficiency, phosphoglycerate mutase deficiency, lactate dehydrogenase deficiency, and myoadenylate deaminase deficiency).

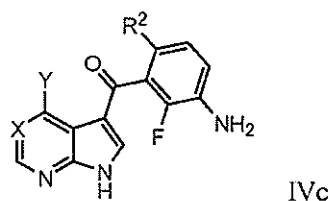
38. The method of claim 37 wherein the disease or condition is selected from the group consisting of melanoma, glioma, glioblastoma multiforme, pilocytic astrocytoma, colorectal cancer, thyroid cancer, lung cancer, ovarian cancer, prostate cancer, liver cancer, gallbladder cancer, gastrointestinal stromal tumors, biliary tract cancer, testicular cancer, and cholangiocarcinoma.

39. A method for preparing a compound of Formula I according to claim 1

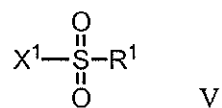


said method comprising:

contacting a compound of Formula IVc:



with a compound of Formula V:



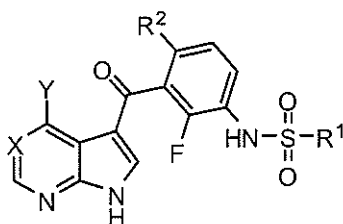
under conditions sufficient to form the compound of Formula I, wherein:

X¹ is a halogen.

40. The method of claim 39, wherein X is -N=, -CH=, -C(CH₃)=, -C(OCH₃)=, -C(F)=, -C(CN)=, -C(CH₂OH)= or -C(Cl)=.

CLAIMS

1. A compound having the chemical structure of Formula I,



Formula I

or a pharmaceutically acceptable salt, hydrate or solvate thereof,

wherein:

X is -N=

Y is -N(R³)(R⁴); wherein:

R³ is hydrogen and R⁴ is selected from the group consisting of (i) hydrogen, -OR⁸ and lower alkyl optionally substituted with one or more R¹¹; (ii) cycloalkyl optionally substituted with one or more R¹²; (iii) heterocycloalkyl optionally substituted with one or more R¹³; (iv) aryl optionally substituted with one or more R¹⁴; and (v) heteroaryl optionally substituted with one or more R¹⁵; or

R³ and R⁴ are both lower alkyl; or

R³ and R⁴ combine with the nitrogen atom to which they are attached to form cycloalkylamino;

R¹ is selected from the group consisting of lower alkyl, haloalkyl, haloalkoxy, fluoro substituted lower alkyl, cycloalkyl optionally substituted with one or more R⁷, heterocycloalkyl, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, aryl optionally substituted with one or more R⁶ and heteroaryl optionally substituted with one or more R⁷;

R² is hydrogen, fluoro, chloro, or lower alkyl optionally substituted with one or more fluorine;

each R⁶, when present, is independently selected from the group consisting of fluoro, chloro, -CN, -NO₂, lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted

lower alkoxy, $-C(O)-O-R^{18}$, $-N(H)-C(O)-R^{19}$, and heteroaryl optionally substituted with one or more lower alkyl;

each R^7 , when present, is independently selected from the group consisting of lower alkyl, fluoro substituted lower alkyl, lower alkoxy, $-C(O)-O-R^{20}$, and heteroaryl optionally substituted with one or more lower alkyl;

R^8 is hydrogen, lower alkyl optionally substituted with one or more fluorine, or, when R^8 is a C_{2-6} alkyl, said alkyl may optionally be substituted with one or more R^{21} ; cycloalkyl optionally substituted with one or more R^{21} , or heterocycloalkyl optionally substituted with one or more R^{21} ;

each R^{11} , when present, is independently selected from the group consisting of fluoro, $-OH$, lower alkoxy, fluoro substituted lower alkoxy, $-NH_2$, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, cycloalkyl optionally substituted with one or more R^{12} , heterocycloalkyl optionally substituted with one or more R^{13} , aryl optionally substituted with one or more R^{14} , and heteroaryl optionally substituted with one or more R^{15} ;

each R^{12} , when present, is independently selected from the group consisting of fluoro, lower alkyl, fluoro substituted lower alkyl, $-OH$, lower alkoxy, fluoro substituted lower alkoxy, $-NH_2$, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, $-N(H)-C(O)-R^{22}$, $-N(H)-S(O)_2-R^{23}$, $C(O)-R^{24}$, and $S(O)_2-R^{25}$;

each R^{13} , when present, is independently selected from the group consisting of fluoro, $-OH$, lower alkoxy, fluoro substituted lower alkoxy, $-NH_2$, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, $-N(H)-C(O)-R^{26}$, $-N(H)-S(O)_2-R^{27}$, $C(O)-R^{28}$, $S(O)_2-R^{29}$, and lower alkyl optionally substituted with one or more R^{30} ;

each R^{14} and R^{15} , when present, are independently selected from the group consisting of fluoro, chloro, $-OH$, $-NH_2$, $-CN$, $-NO_2$, $-N(H)-C(O)-R^{31}$, $-N(H)-S(O)_2-R^{32}$, $C(O)-R^{33}$, $S(O)_2-R^{34}$, lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, mono-alkylamino, di-alkylamino, cycloalkylamino, heterocycloalkylamino, aryl optionally substituted with one or more R^{35} , and heteroaryl optionally substituted with one or more R^{36} ;

each R^{18} and R^{20} , when present, are independently hydrogen, lower alkyl or fluoro substituted lower alkyl;

each R^{19} , R^{22} , R^{23} , R^{26} , R^{27} , R^{31} and R^{32} , when present, are independently lower alkyl or fluoro substituted lower alkyl;

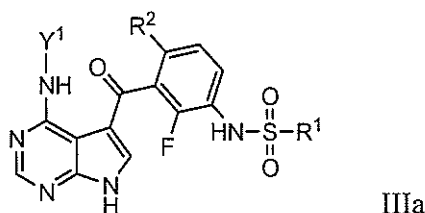
each R^{21} , when present, is fluoro, -OH, lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, or heterocycloalkylamino;

each R^{24} , R^{25} , R^{28} , R^{29} , R^{33} , and R^{34} , when present, are independently lower alkyl, fluoro substituted lower alkyl, -OH, lower alkoxy, fluoro substituted lower alkoxy, -NH₂, mono-alkylamino, di-alkylamino, cycloalkylamino, or heterocycloalkylamino;

each R^{30} , when present, is independently fluoro, aryl optionally substituted with one or more R^{35} or heteroaryl optionally substituted with one or more R^{36} ; and

each R^{35} and R^{36} , when present, are independently selected from the group consisting of fluoro, chloro, -OH, -NH₂, -CN, -NO₂, lower alkyl, fluoro substituted lower alkyl, lower alkoxy, fluoro substituted lower alkoxy, mono-alkylamino, di-alkylamino, cycloalkylamino, and heterocycloalkylamino.

2. The compound of claim 1, wherein Y is -NH(R^4).
3. The compound of claim 1, wherein Y is alkoxyamino or HO-NH-.
4. The compound of claims 1, having Formula IIIa:



wherein Y^1 is lower alkyl optionally substituted with from one to three R^{11} , cycloalkyl, aryl, heterocycloalkyl or heteroaryl, wherein:

- (i) the cycloalkyl is optionally substituted with from one to three R^{12} ;
- (ii) the heterocycloalkyl is optionally substituted with from one to three R^{13} ;
- (iii) the aryl is optionally substituted with from one to three R^{14} ; and
- (iv) the heteroaryl is optionally substituted with from one to three R^{15} .

5. (Currently amended) The compound of claim 4, wherein Y^1 is selected from lower alkyl, fluoro substituted lower alkyl, 2-hydroxyethyl, cyclobutyl, cyclopropylmethyl,

cyclobutylmethyl, cyclopentyl, cyclopentylmethyl, cyclohexylmethyl, cyclohexyl, 2-oxetanyl, 2-oxetanylmethyl, 3-oxetanyl, 3-oxetanylmethyl, 2-tetrahydrofuranyl, 3-tetrahydrofuranyl, 2-tetrahydropyranyl, 3-tetrahydropyranyl, 4-tetrahydropyranyl, 2-tetrahydrofuranylmethyl, 3-tetrahydrofuranylmethyl, 2-tetrahydropyranylmethyl, 3-tetrahydropyranylmethyl, 4-tetrahydropyranylmethyl, 1-methyl-2-aziridinyl, 1-methyl-2-aziridinylmethyl, 1-methyl-2-azetidiny, 1-methyl-2-azetidinylmethyl, 1-methyl-3-azetidiny, 1-methyl-3-azetidinylmethyl, 1-methyl-2-pyrrolidinyl, 1-methyl-2-pyrrolidinylmethyl, 1-methyl-3-pyrrolidinyl, 1-methyl-3-pyrrolidinylmethyl, 1-methyl-2-piperidinyl, 1-methyl-2-piperidinylmethyl, 1-methyl-3-piperidinyl, 1-methyl-3-piperidinylmethyl, 1-methyl-4-piperidinyl, 1-methyl-4-piperidinylmethyl, 1-methylsulfonyl-2-piperidinyl, 1-methylsulfonyl-2-piperidinylmethyl, 1-methylsulfonyl-3-piperidinyl, 1-methylsulfonyl-3-piperidinylmethyl, 1-methylsulfonyl-4-piperidinyl, 1-methylsulfonyl-4-piperidinylmethyl, 1,1-dioxo-4-thianyl, 1,1-dioxo-4-thianylmethyl, phenyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, 2-benzyl, 2-fluorobenzyl, 3-fluorobenzyl, 4-fluorobenzyl, 2-pyridyl, 2-pyridylmethyl, 3-pyridyl, 3-pyridylmethyl, 4-pyridyl, 4-pyridylmethyl, 2-chlorophenyl, 3-chlorophenyl, 4-chlorophenyl, 2-dimethylaminophenyl, 3-dimethylaminophenyl, 4-dimethylaminophenyl, 2-dimethylaminobenzyl, 3-dimethylaminobenzyl, 4-dimethylaminobenzyl, 2-hydroxyphenyl, 3-hydroxyphenyl, 4-hydroxyphenyl, 2-hydroxybenzyl, 3-hydroxybenzyl, 4-hydroxybenzyl, 2-carboxyphenyl, 3-carboxyphenyl, 4-carboxyphenyl, 2-carboxybenzyl, 3-carboxybenzyl, 4-carboxybenzyl, 2-methoxycarbonylphenyl, 3-methoxycarbonylphenyl, 4-methoxycarbonylphenyl, 2-methoxycarbonylbenzyl, 3-methoxycarbonylbenzyl, 4-methoxycarbonylbenzyl, 1-alkyl-4-pyrazolyl, 1-alkyl-4-pyrazolylmethyl, 3-pyridazinyl, pyridazinylmethyl, 4-pyridazinyl, 4-pyridazinylmethyl, triazolyl, triazolylmethyl, tetrazolyl, tetrazolylmethyl, 2,1,3-benzoxadiazolyl, 2,1,3-benzoxadiazol-5-yl, 2,1,3-benzoxadiazolyl-methyl, 2,1,3-benzoxadiazol-5ylmethyl, 2,1,3-benzothiadiazolyl, 2,1,3-benzothiadiazol-5-yl, 2,1,3-benzothiadiazolyl-methyl, 2,1,3-benzothiadiazol-5ylmethyl, 1H-1,2,4-triazol-5-yl, 1H-1,2,4-triazol-5-methyl, 2-oxobenzimidazol-4-yl, 2-oxobenzimidazol-4-methyl, 2-oxobenzimidazol-5-yl, 2-oxobenzimidazol-5-methyl, 1,1,-dioxo-thiolan-3-yl, 1,1-dioxothioloan-3-methyl, 3-(2-methyl-1,2,3,4-tetrazol-5-yl)phenyl, 3-(2-methyl-1,2,3,4-tetrazol-5-yl)benzyl, 3-(5-methyl-1,2,3,4-tetrazol-1-yl)phenyl, 3-(1,2,4-triazol-5-yl)phenyl, 3-(1,2,4-triazol-5-yl)benzyl, 3-3-methyl-4H-1,2,4-triazol-5-methyl or 2-(3-methyl-4H-1,2,4-triazol-5-yl)ethyl.

6. The compound of claim 1, wherein R² is H or F.
7. The compound of claim 1, wherein R¹ is lower alkyl, cycloalkyl optionally substituted with 1-2 lower alkyl groups, heterocycloalkyl, heteroaryl optionally substituted with lower alkyl or lower alkoxy, phenyl optionally substituted with 1-2 substituents selected from lower alkyl, fluoro, chloro, lower alkoxy, fluoro substituted lower alkyl, fluoro substituted lower alkoxy or CN.
8. The compound of claim 7, wherein R¹ is methyl, propyl, isobutyl, 2-methylpropyl, CF₃, CF₃CH₂-, CHF₂CH₂-, 4-trifluorophenyl, 2-trifluorophenyl, 3-trifluorophenyl, 3,5-dimethylphenyl, 4-propylphenyl, 3-fluoro-4-methoxyphenyl, 2-cyanophenyl, 3-cyanophenyl, 4-cyanophenyl, 4-fluoro-3-methoxyphenyl, 2,5-difluorophenyl, 2,6-difluorophenyl, 2,4-difluorophenyl, 2-pyridyl, 3-pyridyl, 5-methoxy-2-pyridyl, 3-methoxy-2-pyridyl, 4-methoxy-2-pyridyl, 6-methyl-2-pyridyl, 5-methyl-2-pyridyl, 4-methyl-2-pyridyl, 3-methyl-2-pyridyl, 1-pyrrolidinyl, 1-piperidinyl, 4-morpholinyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, 4,4-difluorocyclohexyl, 1-methyl-4-pyrazolyl, 1-ethyl-4-pyrazolyl, 1-methyl-3-pyrazolyl, 1-ethyl-3-pyrazolyl, 6-methyl-3-pyridyl, 5-methyl-3-pyridyl, 4-methyl-3-pyridyl or 2-methyl-3-pyridyl.
9. The compound of claim 8, wherein R¹ is 2-fluorophenyl, 3-fluorophenyl, 2,5-difluorophenyl or 4-lower alkyl-substituted phenyl, wherein lower alkyl is optionally substituted with one or more fluoro.
10. The compound of claim 4, wherein Y is 1-aziridinyl, 1-azetidiny, 1-pyrrolidinyl, 1-piperidinyl, 1-morpholinyl or 1-azepanyl.
11. A compound selected from the group consisting of:
N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-1001),
Propane-1-sulfonic acid [3-(4-ethoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluorophenyl]-amide (P-1002),
2-Methyl-propane-1-sulfonic acid [2,4-difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-amide (P-1003),
2-Methyl-propane-1-sulfonic acid [2,4-difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-amide (P-1004),

N-[2,4-Difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-propyl-benzenesulfonamide (P-1005),

N-[3-(4-Ethoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-1006),

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-propyl-benzenesulfonamide (P-1007),

N-[2,4-Difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-ethyl-benzenesulfonamide (P-1008),

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-isopropyl-benzenesulfonamide (P-1009),

N-[2,4-Difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-isopropyl-benzenesulfonamide (P-1010),

N-[2,4-Difluoro-3-(4-hydroxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-1012),

Propane-1-sulfonic acid [2,4-difluoro-3-(4-isobutyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-amide (P-1014),

N-[2,4-Difluoro-3-(4-isobutyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-1015),

N-[3-(4-Chloro-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-1016),

6-Methoxy-pyridine-3-sulfonic acid [2,4-difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-amide (P-1018),

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-ethyl-benzenesulfonamide (P-1019),

N-{2,4-Difluoro-3-[4-(tetrahydro-pyran-4-yloxy)-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl]-phenyl}-4-trifluoromethyl-benzenesulfonamide (P-1021),

Propane-1-sulfonic acid [2,4-difluoro-3-(4-hydroxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-amide (P-1022),

N-[3-(4-Cyano-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-1023),

N-[2,4-Difluoro-3-(4-methoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-3,5-dimethyl-benzenesulfonamide (P-1025),

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-3,5-dimethyl-benzenesulfonamide (P-1027),

N-[2,4-Difluoro-3-(4-isobutoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-1028),

N-[2,4-Difluoro-3-(4-isopropyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-1029),

N-[2,4-Difluoro-3-(4-hydroxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-4-propyl-benzenesulfonamide (P-1030),

Propane-1-sulfonic acid [3-(4-chloro-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-amide (P-1033),

N-[3-(4-Chloro-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-propyl-benzenesulfonamide (P-1034),

N-[2,4-Difluoro-3-(4-methyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-3-fluoro-4-methoxy-benzenesulfonamide (P-1036),

N-[3-(4-Ethoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-propyl-benzenesulfonamide (P-1038),

N-[3-(4-Cyclopropylmethoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-1053),

N-[2,4-Difluoro-3-(4-hydroxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-2-fluoro-benzenesulfonamide (P-1070),

N-[3-(4-Chloro-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-2-fluoro-benzenesulfonamide (P-1071),

N-[3-(4-Cyclopropyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-2,5-difluoro-benzenesulfonamide (P-1107),

N-[3-(4-Cyclopropylmethoxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-2,5-difluoro-benzenesulfonamide (P-1181),

N-[2,4-Difluoro-3-(4-isopropyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-2,5-difluoro-benzenesulfonamide (P-1182),

N-[2,4-Difluoro-3-(4-hydroxy-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-phenyl]-2,5-difluoro-benzenesulfonamide (P-1183),

N-[3-(4-Chloro-7H-pyrrolo[2,3-d]pyrimidine-5-carbonyl)-2,4-difluoro-phenyl]-2,5-difluoro-benzenesulfonamide (P-1184),

Propane-1-sulfonic acid [2,4-difluoro-3-(4-trifluoromethyl-1H-pyrrolo[2,3-b]pyridine-3-carbonyl)-phenyl]-amide (P-2015),

N-[2,4-Difluoro-3-(4-trifluoromethyl-1H-pyrrolo[2,3-b]pyridine-3-carbonyl)-phenyl]-4-trifluoromethyl-benzenesulfonamide (P-2016),

N-[2,4-Difluoro-3-(4-trifluoromethyl-1H-pyrrolo[2,3-b]pyridine-3-carbonyl)-phenyl]-benzenesulfonamide (P-2017),

or a pharmaceutically acceptable salt thereof.

12. A composition comprising a compound of claim 1 and a pharmaceutically acceptable excipient or carrier.

13. A pharmaceutical composition comprising a compound of claim 1 and another drug.

14. A kit comprising a compound according to Claim 1.

15. A pharmaceutical composition comprising a compound of claim 11 and a pharmaceutically acceptable excipient or carrier.