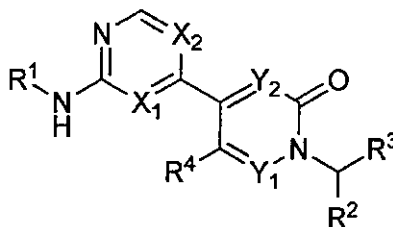


What is claimed is:

1. A compound selected from Formula I:



I

or a stereoisomer, tautomer, prodrug or pharmaceutically acceptable salt thereof, wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a, NR^bR^c, oxo, CN, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, (b) C₃-C₇ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e, oxide, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d;

R² is selected from (a) hydrogen, (b) C₁-C₆ alkyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (c) C₁-C₆ alkenyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-

C₃ alkyl) and N(C₁-C₃ alkyl)₂, (d) C₁-C₆ alkynyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (e) C₃-C₆ cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g, (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g, (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g;

R³ is selected from (a) (CR^hRⁱ)_x-phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) (CR^hRⁱ)_x-(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R⁴, R⁵, R⁶ and R⁷ is independently selected from hydrogen, halogen and C₁-C₃ alkyl;

each R^a, R^b, R^c, R^d and R^e are independently selected from hydrogen and C₁-C₆ alkyl;

R^f is selected from hydrogen and C₁-C₆ alkyl optionally substituted with one or more groups selected from oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂;

each R^g is C₁-C₆ alkyl;

R^h and Rⁱ are independently selected from hydrogen, OR^k and C₁-C₆ alkyl optionally substituted with OR^m;

each R^j is independently selected from halogen, CN, cyclopropyl, C₁-C₆ alkyl optionally substituted with halogen, and C₁-C₆ alkoxy optionally substituted with halogen;

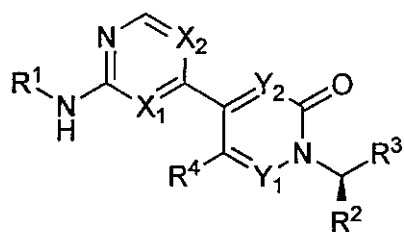
R^k and R^m are independently hydrogen or C₁-C₃ alkyl; and

x is 0 or 1.

2. The compound of Claim 1, wherein X₁ is selected from CH and N; and X₂ is selected from CR⁵ and N; wherein only one of X₁ and X₂ may be N.

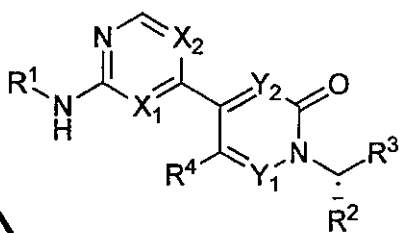
3. The compound of Claim 1 or 2, wherein Y₁ is selected from CR⁶ and N; and Y₂ is selected from CR⁷ and N; wherein only one of Y₁ and Y₂ may be N.

4. The compound of any one of Claims 1 to 3, wherein the compounds have the structure of Formula II:



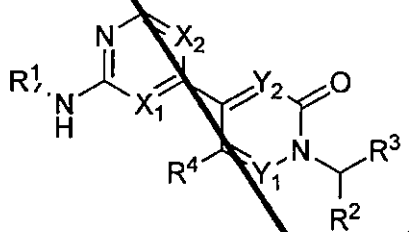
II

5. The compound of any one of Claims 1 to 3, wherein the compounds have the structure of Formula III:



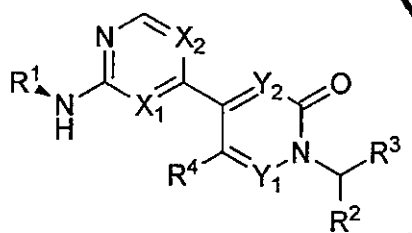
III

6. The compound of any one of Claims 1 to 5, wherein the compounds have the structure of Formula IV:



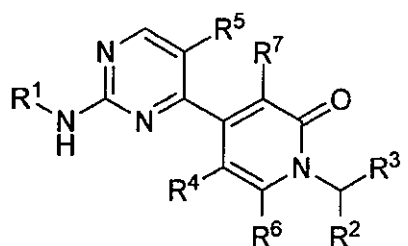
IV

7. The compound of any one of Claims 1 to 5, wherein the compounds have the structure of Formula V:



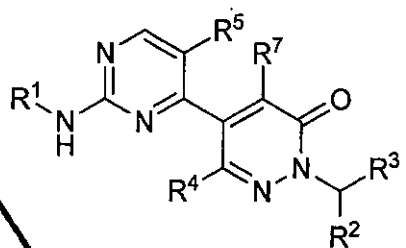
V

8. The compound of any one of Claims 1 to 7, wherein the compounds have the structure of Formula VI:



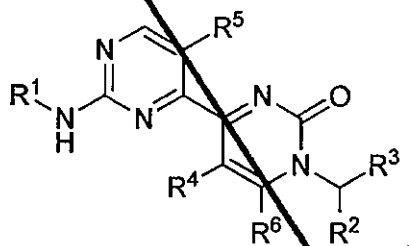
VI

9. The compound of any one of Claims 1 to 7, wherein the compounds have the structure of Formula VII:



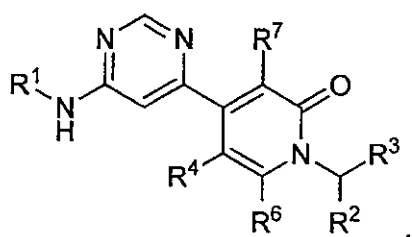
VII

10. The compound of any one of Claims 1 to 7, wherein the compounds have the structure of Formula VIII:



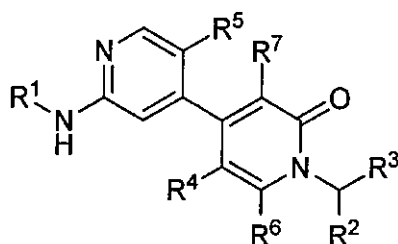
VIII

11. The compound of any one of Claims 1 to 7, wherein the compounds have the structure of Formula IX:



IX

12. The compound of any one of Claims 1 to 7, wherein the compounds have the structure of Formula X:



X

13. The compound of any one of Claims 1 to 12, wherein R^1 is selected from (a) C_1 - C_6 alkyl optionally substituted with one to six groups independently selected from halogen, OR^a , NR^bR^c , C_3 - C_6 cycloalkyl and a 3 to 7 membered heterocycle, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, $S(=O)$ and $S(=O)_2$, (b) C_3 - C_7 cycloalkyl optionally substituted with one to four groups independently selected from halogen and OR^a , (c) phenyl optionally substituted with one to four groups independently selected from halogen and C_1 - C_3 alkyl, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one to four groups independently selected from halogen, oxo, OR^a and C_1 - C_3 alkyl optionally substituted with OR^d , wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, $S(=O)$ and $S(=O)_2$, (e) a 5 to 6 membered heteroaryl optionally substituted with one to four groups independently selected from halogen, CN, OR^e , C_3 - C_6 cycloalkyl, oxide and C_1 - C_3 alkyl optionally substituted with one to three groups independently selected from hydroxyl, methoxy, oxo and halogen, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or two groups selected from C_1 - C_3 alkyl and oxo.

14. The compound of any one of Claims 1 to 12, wherein R^1 is selected from (a) C_1 - C_6 alkyl optionally substituted with one or more groups independently selected from halogen, OR^a , NR^bR^c , oxo, CN, C_3 - C_6 cycloalkyl and a 3 to 7 membered heterocycle, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, $S(=O)$ and $S(=O)_2$, (b) C_3 - C_7 cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted

with one or more groups independently selected from halogen and OR^d, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, S(=O) and S(=O)₂, (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^c, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d, wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, S(=O) and S(=O)₂.

15. The compound of any one of Claims 1 to 12, wherein R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one to six groups independently selected from halogen, OR^a, NR^bR^c, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, S(=O) and S(=O)₂, (b) C₃-C₇ cycloalkyl optionally substituted with one to four groups independently selected from halogen and OR^a, (c) phenyl optionally substituted with one to four groups independently selected from halogen and C₁-C₃ alkyl, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one to four groups independently selected from halogen, oxo, OR^a, and C₁-C₃ alkyl optionally substituted with OR^d, (e) a 5 to 6 membered heteroaryl optionally substituted with one to three groups independently selected from halogen, CN, OR^c, cyclopropyl, and C₁-C₃ alkyl optionally substituted with one to three groups independently selected from hydroxyl, methoxy, oxo and halogen, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or two groups selected from C₁-C₃ alkyl and oxo.

16. The compound of any one of Claims 1 to 15, wherein each R^a is independently selected from hydrogen and C₁-C₃ alkyl.

17. The compound of any one of Claims 1 to 16, wherein each R^a is independently selected from hydrogen and methyl.

18. The compound of any one of Claims 1 to 17, wherein each R^b and R^c are independently selected from hydrogen and C₁-C₃ alkyl.

19. The compound of any one of Claims 1 to 18, wherein each R^b and R^c are independently selected from hydrogen and methyl.

20. The compound of any one of Claims 1 to 19, wherein each R^d is independently

selected from hydrogen and C₁-C₃ alkyl.

21. The compound of any one of Claims 1 to 20, wherein each R^d is selected from hydrogen and methyl.

22. The compound of any one of Claims 1 to 21, wherein R¹ is selected from 1-hydroxypropan-2-yl, isopropyl, 1-hydroxybutan-2-yl, 1-cyclopropylethyl, 1-hydroxy-3-methoxypropan-2-yl, 1,3-difluoropropan-2-yl, 1-cyclopropyl-2-hydroxyethyl, oxetan-3-ylmethyl, 4-methoxybutan-2-yl, 4,4,4-trifluoro-1-hydroxybutan-2-yl, 1-aminopropan-2-yl, 3-hydroxycyclopentyl, 3,3-difluorocyclobutyl, 3-hydroxycyclobutyl, 2-chloro-4-fluorophenyl, 4-fluoro-2-methylphenyl, tetrahydropyran-4-yl, 3-fluorotetrahydropyran-4-yl, tetrahydrodioxothiopyran-4-yl, 1,1-dioxotetrahydrothiophen-3-yl, oxetan-3-yl, tetrahydrofuran-3-yl, 2,2-dimethyltetrahydropyran-4-yl, 2-methyltetrahydropyran-4-yl, pyrrolidin-3-yl, azetidin-3-yl, piperdin-3-yl, 2-(hydroxymethyl)tetrahydropyran-4-yl, 6-oxo-1,6-dihydropyridin-3-yl, 1-methylpyrazol-4-yl, 2-methylpyrimidin-4-yl, 6-methylpyrimidin-4-yl, 6-methoxypyrimidin-4-yl, 2-methylpyridin-4-yl, 1,3-dimethylpyrazol-4-yl, 2-methoxypyridin-4-yl, 1-methylpyrazol-3-yl, 6-methoxypyridin-3-yl, 2-ethylpyrimidin-4-yl, 6-methylpyridin-2-yl, 2-cyclopropylpyrimidin-4-yl, 5-fluoro-6-methylpyridin-2-yl, 5-cyclopropyl-1-methylpyrazol-4-yl, 5-bromo-2-methylpyridin-4-yl, 1,5-dimethylpyrazol-4-yl, 1,3-dimethylpyrazol-5-yl, 4-(2-hydroxypropan-2-yl)pyridin-2-yl, 1-ethyl-3-methylpyrazol-4-yl, 5-ethoxy-2-methylpyridin-4-yl, 1-isopropylpyrazol-4-yl, 4-methylimidazol-5-yl, 1-methylimidazol-5-yl, 1-ethylpyrazol-4-yl, 2-(2-hydroxypropan-2-yl)pyridin-4-yl, 1-methyl-4-cyanopyrazol-5-yl, 3-methylpyridin-4-yl, 1-ethyl-3-methylpyrazol-5-yl, 1-methylpyrazol-5-yl, 1,4-dimethylpyrazol-5-yl, 1-ethylpyrazol-5-yl, 3-isopropyl-1-methylpyrazol-5-yl, 3-methylpyrazol-4-yl, 3-ethyl-1-methylpyrazol-4-yl, 1,3,5-trimethylpyrazol-4-yl, 3,5-dimethylpyrazol-4-yl, 2-cyclopropyl-5-methoxypyridin-4-yl, 5-ethyl-1-methylpyrazol-4-yl, 4-(2-methoxypyridine 1-oxide), 5-methoxy-2-methylpyridin-4-yl, 5-methyl-1,3,4-oxadiazol-2-yl, 3-ethyl-1-methylpyrazol-5-yl, 1-(2-hydroxyethyl)-3-methylpyrazol-4-yl, 1-(2-hydroxyethyl)-5-methylpyrazol-4-yl, 1-methyl-3-(trifluoromethyl)pyrazol-4-yl, 1-methyl-3-(trifluoromethyl)pyrazol-5-yl, 1-methyl-1,2,3-triazol-5-yl, 2-methylpyridin-4-yl, 1-(2-hydroxyethyl)pyrazol-5-yl, methyl 4-picolinate, 4-picolinic acid, 1-cyclopropyl-5-methylpyrazol-4-yl, 1-cyclopropyl-3-methylpyrazol-4-yl, 2,3-dimethylpyridin-4-yl, 2,5-dimethylpyridin-4-yl, 1,3,4-oxadiazol-2-yl, 3-methylpyridazin-4-yl, pyridazin-4-yl, tetrazol-5-yl, 1-methyltetrazol-5-yl, 2-methyl-2,4,5,6-tetrahydrocyclopentapyrazol-3-yl, 3-oxo-2-oxabicyclo[2.2.1]heptan-5-yl and 2-oxabicyclo[2.2.1]heptan-5-yl.

23. The compound of any one of Claims 1 to 22, wherein R¹ is selected from

tetrahydropyran-4-yl, 3-fluorotetrahydropyran-4-yl, 2-(hydroxymethyl)tetrahydropyran-4-yl, 1,3-dimethylpyrazol-4-yl and 1-methylpyrazol-5-yl.

24. The compound of any one of Claims 1 to 23, wherein R^2 is selected from (a) hydrogen, (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (c) C_1 - C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, $S(=O)$ and $S(=O)_2$, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g , wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S.

25. The compound of any one of Claims 1 to 24, wherein R^f is hydrogen, methyl, $C(=O)C(CH_3)_2NH_2$ or $C(=O)CH_3$.

26. The compound of any one of Claims 1 to 25, wherein R^g is methyl.

27. The compound of any one of Claims 1 to 26, wherein R^2 is selected from hydrogen, methyl, ethyl, CH_2OH , CH_2CH_2OH , $CH_2CH(OH)CH_3$, $CH_2C(CH_3)_2OH$, CH_2OCH_3 , $C(=O)OH$, $CH_2OC(=O)C(CH_3)_2NH_2$, $CH_2OC(=O)CH_3$, CH_2NH_2 , methylene, phenyl, pyrrolidin-2-yl, pyrrolidin-3-yl, oxazol-5-yl and 1-methyl-pyrazol-4-yl.

28. The compound of any one of Claims 1 to 23, wherein R^2 is selected from (b) C_1 - C_6 alkyl optionally substituted with one or two groups selected from OR^f , oxo and NH_2 , (c) C_1 - C_6 alkenyl, (f) phenyl, (g) a 3 to 7 membered heterocycle, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, $S(=O)$ and $S(=O)_2$, and (h) a 5 to 6 membered heteroaryl optionally substituted with one R^g group, wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S.

29. The compound of any one of Claims 1 to 23 or 28, wherein R^2 is selected from methyl, ethyl, CH_2OH , CH_2CH_2OH , $CH_2CH(OH)CH_3$, $CH_2C(CH_3)_2OH$, CH_2OCH_3 , $C(=O)OH$, $CH_2OC(=O)C(CH_3)_2NH_2$, $CH_2OC(=O)CH_3$, CH_2NH_2 , methylene, phenyl, pyrrolidin-2-yl, pyrrolidin-3-yl, oxazol-5-yl and 1-methyl-pyrazol-4-yl.

30. The compound of any one of Claims 1 to 29, wherein R^2 is selected from CH_2OH , CH_2CH_2OH and 1-methyl-pyrazol-4-yl.

31. The compound of any one of Claims 1 to 30, wherein each R^j is independently

selected from halogen, methyl, CF₃, OCH₃, OCHF₂, CN and cyclopropyl.

32. The compound of any one of Claims 1 to 31, wherein R^b and Rⁱ are independently selected from hydrogen, OH and CH₂OH.

33. The compound of any one of Claims 1 to 32, wherein R³ is selected from phenyl, 3-chlorophenyl, 3-fluorophenyl, 4-chlorophenyl, 3-(trifluoromethyl)phenyl, 3-methylphenyl, 3-cyanophenyl, 3-methoxyphenyl, 2-chlorophenyl, 4-(difluoromethoxy)phenyl, 4-methoxyphenyl, 3,4-dichlorophenyl, 2,3-difluorophenyl, 3,5-dichlorophenyl, 3,4-difluorophenyl, 3,5-difluorophenyl, 2,3-dichlorophenyl, 2,4-dichlorophenyl, 4-chloro-3-fluorophenyl, 3-chloro-4-fluorophenyl, 3-fluoro-4-methoxyphenyl, 3-chloro-2-fluorophenyl, 3-chloro-5-fluorophenyl, 4-chloro-2-fluorophenyl, 5-chloro-2-fluorophenyl, 3-fluoro-5-methoxyphenyl, 2-fluoro-3-methoxyphenyl, 2-fluoro-5-methoxyphenyl, 3-methoxy-4-cyanophenyl, 4-chloro-3-methoxyphenyl, 4-fluoro-3-methoxyphenyl, 5-chloropyridin-3-yl, 1,3-dimethylpyrazol-5-yl, indolin-6-yl, indol-2-yl, indol-3-yl, indol-4-yl, indol-5-yl, indol-6-yl, indol-7-yl, 3-chloroindol-6-yl, 5-chloroindol-2-yl, 3-methylindol-6-yl, 1-methylindol-6-yl, 5-fluoroindol-2-yl, 2-methylindol-6-yl, 7-fluoroindol-2-yl, 3-methylindol-2-yl, 3-chloroindol-2-yl, 2-methylindol-3-yl, 6-chloroindol-2-yl, 3-cyclopropylindol-6-yl, 6-fluoroindol-2-yl, 2,3-dimethylindol-6-yl, 4-fluoroindol-2-yl, 7-fluoroindol-6-yl, 4-fluoroindol-6-yl, 5-fluoroindol-6-yl, indazol-6-yl, benzothiazol-2-yl, benzoimidazol-2-yl, 1-methylbenzoimidazol-2-yl, benzoimidazol-6-yl, benzooxazol-2-yl, 5-chlorobenzooxazol-2-yl, 6-chlorobenzooxazol-2-yl, pyrrolo[2,3-c]pyridin-2-yl, (4-methoxyphenyl)methyl, (4-fluorophenyl)methyl, (3-chlorophenyl)methyl, (4-chlorophenyl)methyl, (4-methylphenyl)methyl, (3-methoxyphenyl)methyl, (4-(trifluoromethyl)phenyl)methyl, (3-methylphenyl)methyl, (3-(trifluoromethyl)phenyl)methyl, (4-(trifluoromethoxy)phenyl)methyl, (4-cyanophenyl)methyl, (3-fluorophenyl)methyl, (3-(trifluoromethoxy)phenyl)methyl, (3,4-dichlorophenyl)methyl, (4-chloro-3-fluorophenyl)methyl and 1-(4-chloro-3-fluorophenyl)-1,2-dihydroxyethyl.

34. The compound of any one of Claims 1 to 33, wherein x is 0.

35. The compound of any one of Claims 1 to 34, wherein R³ is selected from phenyl, 3-chlorophenyl, 3-fluorophenyl, 4-chlorophenyl, 3-(trifluoromethyl)phenyl, 3-methylphenyl, 3-cyanophenyl, 3-methoxyphenyl, 2-chlorophenyl, 4-(difluoromethoxy)phenyl, 4-methoxyphenyl, 3,4-dichlorophenyl, 2,3-difluorophenyl, 3,5-dichlorophenyl, 3,4-difluorophenyl, 3,5-difluorophenyl, 2,3-dichlorophenyl, 2,4-dichlorophenyl, 4-chloro-3-fluorophenyl, 3-chloro-4-fluorophenyl, 3-fluoro-4-methoxyphenyl, 3-chloro-2-fluorophenyl, 3-chloro-5-fluorophenyl, 4-chloro-2-fluorophenyl,

5-chloro-2-fluorophenyl, 3-fluoro-5-methoxyphenyl, 2-fluoro-3-methoxyphenyl, 2-fluoro-5-methoxyphenyl, 3-methoxy-4-cyanophenyl, 4-chloro-3-methoxyphenyl, 4-fluoro-3-methoxyphenyl, 5-chloropyridin-3-yl, 1,3-dimethylpyrazol-5-yl, indolin-6-yl, indol-2-yl, indol-3-yl, indol-4-yl, indol-5-yl, indol-6-yl, indol-7-yl, 3-chloroindol-6-yl, 5-chloroindol-2-yl, 3-methylindol-6-yl, 1-methylindol-6-yl, 5-fluoroindol-2-yl, 2-methylindol-6-yl, 7-fluoroindol-2-yl, 3-methylindol-2-yl, 3-chloroindol-2-yl, 2-methylindol-3-yl, 6-chloroindol-2-yl, 3-cyclopropylindol-6-yl, 6-fluoroindol-2-yl, 2,3-dimethylindol-6-yl, 4-fluoroindol-2-yl, 7-fluoroindol-6-yl, 4-fluoroindol-6-yl, 5-fluoroindol-6-yl, indazol-6-yl, benzothiazol-2-yl, benzoimidazol-2-yl, 1-methylbenzoimidazol-2-yl, benzoimidazol-2-yl, benzooxazol-2-yl, 5-chlorobenzooxazol-2-yl, 6-chlorobenzooxazol-2-yl and pyrrolo[2,3-c]pyridin-2-yl.

36. The compound of any one of Claims 1 to 35, wherein R^3 is selected from 3-chlorophenyl, 3-fluorophenyl, 4-chlorophenyl, 3-(trifluoromethyl)phenyl, 3,4-dichlorophenyl, 2,3-difluorophenyl, 3,4-difluorophenyl, 3,5-difluorophenyl, 4-chloro-3-fluorophenyl, 3-chloro-4-fluorophenyl, 3-chloro-2-fluorophenyl and 3-chloro-5-fluorophenyl.

37. The compound of any one of Claims 1 to 35, wherein R^3 is selected from indol-2-yl, indol-3-yl, indol-4-yl, indol-5-yl, indol-6-yl, indol-7-yl, 3-chloroindol-6-yl, 5-chloroindol-2-yl, 3-methylindol-6-yl, 1-methylindol-6-yl, 5-fluoroindol-2-yl, 2-methylindol-6-yl, 7-fluoroindol-2-yl, 3-methylindol-2-yl, 3-chloroindol-2-yl, 2-methylindol-3-yl, 6-chloroindol-2-yl, 3-cyclopropylindol-6-yl, 6-fluoroindol-2-yl, 2,3-dimethylindol-6-yl and 4-fluoroindol-2-yl, 7-fluoroindol-6-yl, 4-fluoroindol-6-yl and 5-fluoroindol-6-yl.

38. The compound of any one of Claims 1 to 33, wherein x is 1.

39. The compound of any one of Claims 1 to 33 or 38, wherein R^3 is selected from (4-methoxyphenyl)methyl, (4-fluorophenyl)methyl, (3-chlorophenyl)methyl, (4-chlorophenyl)methyl, (4-methylphenyl)methyl, (3-methoxyphenyl)methyl, (4-(trifluoromethyl)phenyl)methyl, (3-methylphenyl)methyl, (3-(trifluoromethyl)phenyl)methyl, (4-(trifluoromethoxy)phenyl)methyl, (4-cyanophenyl)methyl, (3-fluorophenyl)methyl, (3-(trifluoromethoxy)phenyl)methyl, (3,4-dichlorophenyl)methyl, (4-chloro-3-fluorophenyl)methyl and 1-(4-chloro-3-fluorophenyl)-1,2-dihydroxyethyl.

40. The compound of any one of Claims 1 to 27 and 31 to 33, wherein R^2 is hydrogen.

41. The compound of any one of Claims 1 to 23, wherein:

R^2 is hydrogen or C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$;

x is 0; and

R^3 is a 9 to 10 membered heterocycle optionally substituted with one or more R^j groups, or a 9 to 10 membered heteroaryl optionally substituted with one or more R^j groups.

42. The compound of any one of Claims 1 to 12, wherein:

R^1 is selected from (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one to four groups independently selected from halogen, oxo, OR^a and C_1 - C_3 alkyl optionally substituted with OR^d , wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, $S(=O)$ and $S(=O)_2$, and (e) a 5 to 6 membered heteroaryl optionally substituted with one to four groups independently selected from halogen, CN, OR^e , C_3 - C_6 cycloalkyl, oxide and C_1 - C_3 alkyl optionally substituted with one to three groups independently selected from hydroxyl and halogen, wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S;

R^2 is selected from (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g , wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S; and

R^3 is phenyl optionally substituted with one or two R^j groups.

43. The compound of any one of Claims 1 to 12 or 42, wherein:

R^1 is selected from (d) a 3 to 7 membered saturated heterocycle optionally substituted with one or two groups independently selected from halogen and C_1 - C_3 alkyl optionally substituted with OH, wherein the heterocycle contains one heteroatom selected from the group consisting of O, N and $S(=O)_2$, and (e) a 5 to 6 membered heteroaryl optionally substituted with one to three groups independently selected from halogen, CN, OR^e , cyclopropyl and C_1 - C_3 alkyl optionally substituted with one to three groups independently selected from hydroxyl and halogen, wherein the heteroaryl contains one, two or three heteroatoms selected from the group consisting of O and N;

R^2 is selected from (b) C_1 - C_6 alkyl optionally substituted with one or two groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, and (h) a 5 to 6 membered heteroaryl optionally substituted with one R^g group, wherein the heteroaryl contains one or two heteroatoms selected from the group consisting of O, N and S; and

R^3 is phenyl optionally substituted with one or two R^j groups.

44. The compound of any one of Claims 1 to 12, 42 or 43, wherein R^1 is selected from tetrahydropyran-4-yl, 3-fluorotetrahydropyran-4-yl, 2-(hydroxymethyl)tetrahydropyran-

4-yl, 1,3-dimethylpyrazol-4-yl and 1-methylpyrazol-5-yl;

R^2 is selected from CH_2OH , $\text{CH}_2\text{CH}_2\text{OH}$ and 1-methyl-pyrazol-4-yl; and

R^3 is selected from 3-chlorophenyl, 3-fluorophenyl, 4-chlorophenyl, 3-(trifluoromethyl)phenyl, 3,4-dichlorophenyl, 2,3-difluorophenyl, 3,4-difluorophenyl, 3,5-difluorophenyl, 4-chloro-3-fluorophenyl, 3-chloro-4-fluorophenyl, 3-chloro-2-fluorophenyl and 3-chloro-5-fluorophenyl.

45. The compound of any one of Claims 1 to 12, wherein:

R^1 is selected from (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one to four groups independently selected from halogen, oxo, OR^a and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with OR^d , wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, $\text{S}(=\text{O})$ and $\text{S}(=\text{O})_2$, and (e) a 5 to 6 membered heteroaryl optionally substituted with one to four groups independently selected from halogen, CN, OR^e , $\text{C}_3\text{-C}_6$ cycloalkyl, oxide and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one to three groups independently selected from hydroxyl and halogen;

R^2 is selected from (b) $\text{C}_1\text{-C}_6$ alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $\text{NH}(\text{C}_1\text{-C}_3 \text{ alkyl})$ and $\text{N}(\text{C}_1\text{-C}_3 \text{ alkyl})_2$, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g , wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S; and

R^3 is a 9 to 10 membered heteroaryl optionally substituted with one or two R^j groups, wherein the heteroaryl contains one N heteroatom.

46. The compound of any one of Claims 1 to 12 or 45, wherein:

R^1 is selected from (d) a 3 to 7 membered saturated heterocycle optionally substituted with one or two groups independently selected from halogen and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with OH, wherein the heterocycle contains one heteroatom selected from the group consisting of O, N and $\text{S}(=\text{O})_2$, and (e) a 5 to 6 membered heteroaryl optionally substituted with one to three groups independently selected from halogen, CN, OR^e , cyclopropyl and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one to three groups independently selected from hydroxyl and halogen, wherein the heteroaryl contains one, two or three heteroatoms selected from the group consisting of O and N;

R^2 is selected from (b) $\text{C}_1\text{-C}_6$ alkyl optionally substituted with one or two groups selected from OR^f , oxo, NH_2 , $\text{NH}(\text{C}_1\text{-C}_3 \text{ alkyl})$ and $\text{N}(\text{C}_1\text{-C}_3 \text{ alkyl})_2$, and (h) a 5 to 6 membered heteroaryl optionally substituted with one R^g group, wherein the heteroaryl

contains one or two heteroatoms selected from the group consisting of O, N and S; and

R³ is a 9 to 10 membered heteroaryl optionally substituted with one or two R^j groups, wherein the heteroaryl contains one N heteroatom.

47. The compound of any one of Claims 1 to 12, 45 or 46, wherein:

R¹ is selected from tetrahydropyran-4-yl, 3-fluorotetrahydropyran-4-yl, 2-(hydroxymethyl)tetrahydropyran-4-yl, 1,3-dimethylpyrazol-4-yl and 1-methylpyrazol-5-yl;

R² is selected from CH₂OH, CH₂CH₂OH and 1-methyl-pyrazol-4-yl; and

R³ is selected from indol-2-yl, indol-3-yl, indol-4-yl, indol-5-yl, indol-6-yl, indol-7-yl, 3-chloroindol-6-yl, 5-chloroindol-2-yl, 3-methylindol-6-yl, 1-methylindol-6-yl, 5-fluoroindol-2-yl, 2-methylindol-6-yl, 7-fluoroindol-2-yl, 3-methylindol-2-yl, 3-chloroindol-2-yl, 2-methylindol-3-yl, 6-chloroindol-2-yl, 3-cyclopropylindol-6-yl, 6-fluoroindol-2-yl, 2,3-dimethylindol-6-yl and 4-fluoroindol-2-yl.

48. The compound of any one of Claims 1 to 47, wherein R⁴ is selected from hydrogen, F and methyl.

49. The compound of any one of Claims 1 to 48, wherein R⁵ is selected from hydrogen, F, Cl and methyl.

50. The compound of any one of Claims 1 to 49, wherein R⁶ is selected from hydrogen and C₁-C₃ alkyl.

51. The compound of any one of Claims 1 to 50, wherein R⁶ is selected from hydrogen and methyl.

52. The compound of any one of Claims 1 to 51, wherein R⁷ is selected from hydrogen and halogen.

53. The compound of any one of Claims 1 to 52, wherein R⁷ is selected from hydrogen and F.

54. The compound of any one of Claims 1 to 47, wherein:

R⁵ is selected from hydrogen, halogen and C₁-C₃ alkyl; R⁶ is hydrogen; and R⁷ is hydrogen;

R⁵ is hydrogen; R⁶ is selected from hydrogen and C₁-C₃ alkyl; and R⁷ is hydrogen; or

R⁵ is hydrogen; R⁶ is hydrogen; and R⁷ is selected from hydrogen and halogen.

55. The compound of Claim 1, wherein the compound is selected from Examples 1 to 323.

56. The compound of Claim 1, wherein the compound is selected from Examples 1 to 310.

57. The compound of any one of Claims 1 to 56, wherein the compound has the

proviso that it is not Example 311 to 323.

58. A pharmaceutical composition comprising a compound of any one of Claims 1 to 57.

59. A pharmaceutical composition comprising a compound of any one of Claims 1 to 57 and at least one pharmaceutically acceptable carrier, excipient or diluent.

60. A pharmaceutical composition comprising a compound of any one of Claims 1 to 57 for use in the treatment of a hyperproliferative disease.

61. Use of a compound of any one of Claims 1 to 57 in the manufacture of a medicament for the treatment of a hyperproliferative disease.

62. A compound of any one of Claims 1 to 57 for use as a medicament.

63. A compound of any one of Claims 1 to 57 for use in therapy.

64. A compound of any one of Claims 1 to 57 for use in the treatment of a hyperproliferative disease.

65. A method of inhibiting ERK protein kinase activity in a cell comprising treating the cell with a compound of Claims 1 to 57.

66. A method of inhibiting ERK protein kinase activity in a patient in need thereof comprising the step of administering to the patient a compound according to Claims 1 to 57.

67. A method of treating or ameliorating the severity of a hyperproliferative disorder in a patient in need thereof comprising administering to the patient a compound according to Claims 1 to 57.

68. The method of Claim 67, wherein the hyperproliferative disease is selected from the group consisting of adenoma, bladder cancer, brain cancer, breast cancer, colon cancer, epidermal carcinoma, follicular carcinoma, cancer of the genitourinary tract, glioblastoma, Hodgkin's disease, head and neck cancers, hepatoma, keratoacanthoma, kidney cancer, large cell carcinoma, leukemias, lung adenocarcinoma, lung cancer, lymphoid disorders, melanoma and non-melanoma skin cancer, myelodysplastic syndrome, neuroblastoma, non-Hodgkins lymphoma, ovarian cancer, papillary carcinoma, pancreatic cancer, prostate cancer, rectal cancer, sarcoma, small cell carcinoma, testicular cancer, tetracarcinomas, thyroid cancer, and undifferentiated carcinoma.

69. The method of Claim 67, wherein the hyperproliferative disease is selected from the group consisting of melanoma, pancreatic cancer, thyroid cancer colorectal cancer, lung cancer, breast cancer and ovarian cancer.

70. The method of Claim 67, wherein the hyperproliferative disease is selected from the group consisting of acute myelogenous leukemia, chronic myelomonocytic

leukemia, chronic myelogenous leukemia, multiple myeloma and myeloid leukemia.

71. The method of any one of Claims 67 to 70, wherein a compound of any one of Claims 1 to 57 is co-administered with at least one other chemotherapeutic agent used to treat or ameliorate a hyperproliferative disorder.

72. A pharmaceutical composition comprising a compound of any one of Claims 1 to 57 for use in the treatment of an inflammatory disease.

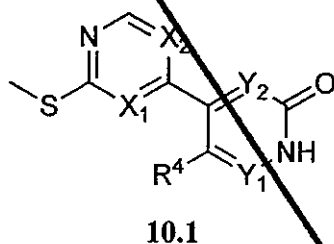
73. Use of a compound of any one of Claims 1 to 57 in the manufacture of a medicament for the treatment of an inflammatory disease.

74. A compound of any one of Claims 1 to 57 for use in the treatment of an inflammatory disease.

75. A method of treating or ameliorating the severity of an inflammatory disorder in a patient in need thereof comprising administering to the patient a compound according to Claims 1 to 57.

76. The composition, use, compound or method of any one of Claims 72 to 75, wherein the inflammatory disorder is selected from arthritis, low back pain, inflammatory bowel disease and rheumatism.

77. A compound of Formula 10.1:



wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

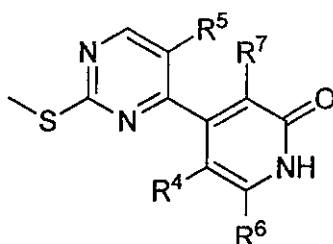
Y₂ is selected from CR⁷ and N; and

each R⁴, R⁵, R⁶ and R⁷ is independently selected from hydrogen, halogen and C₁-C₃ alkyl.

78. The compound of Claim 77, wherein X₁ is selected from CH and N; and X₂ is selected from CR⁵ and N; wherein only one of X₁ and X₂ may be N.

79. The compound of Claim 77 or 78, wherein Y₁ is selected from CR⁶ and N; and Y₂ is selected from CR⁷ and N; wherein only one of Y₁ and Y₂ may be N.

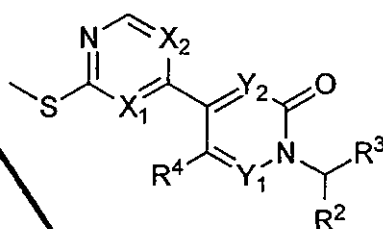
80. The compound of any one of Claims 77 to 79 having Formula 1.4:



1.4

81. The compound of any one of Claims 77 to 80, that is 4-(2-(methylthio)pyrimidin-4-yl)pyridin-2(1H)-one.

82. A compound of Formula 10.2:



10.2

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^2 is selected from (a) hydrogen, (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (c) C_1 - C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (d) C_1 - C_6 alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (e) C_3 - C_6 cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with

one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl;

each R^f is independently selected from hydrogen and C_1 - C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$;

each R^g is C_1 - C_6 alkyl;

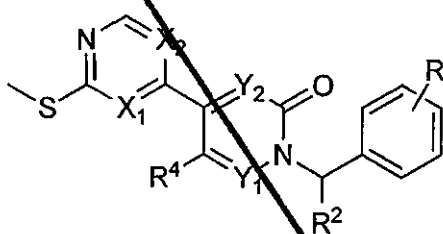
R^h and R^i are independently selected from hydrogen, OR^k and C_1 - C_6 alkyl optionally substituted with OR^m ;

each R^j is independently selected from halogen, CN, cyclopropyl, C_1 - C_6 alkyl optionally substituted with halogen, and C_1 - C_6 alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C_1 - C_3 alkyl; and

x is 0 or 1.

83. The compound of Claim 82 having the Formula 10.3:

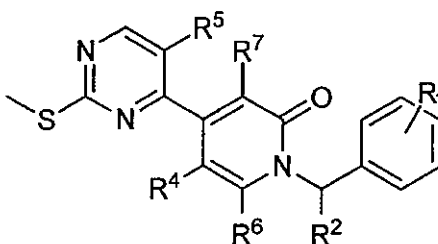


10.3

84. The compound of Claim 82 or 83, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

85. The compound of any one of Claims 82 to 84, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

86. The compound of any one of Claims 82 to 85 having the structure 3.2:



3.2

87. The compound of any one of Claims 82 to 86, wherein the compound is substituted with 0 to 3 R^j groups.

88. The compound of any one of Claims 82 to 87, wherein the compound is substituted with 1 or 2 R^j groups.

89. The compound selected from:

(*R*)-2-(tert-butyldimethylsilyloxy)-1-(4-chloro-3-fluorophenyl)ethyl methanesulfonate;

(*R*)-2-((tert-butyldimethylsilyl)oxy)-1-(3-chloro-4-fluorophenyl)ethyl methanesulfonate;

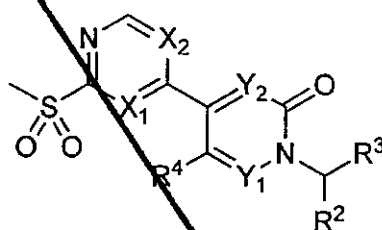
2-((tert-butyldimethylsilyl)oxy)-1-(3-chloro-4-fluorophenyl)ethyl methanesulfonate;

and

2-(tert-butyldimethylsilyloxy)-1-(4-chloro-3-fluorophenyl)ethyl methanesulfonate.

90. A compound that is (*S*)-3-(tert-butyldimethylsilyloxy)-1-(4-chloro-3-fluorophenyl)propyl methanesulfonate.

91. A compound of Formula 10.6:



10.6

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^2 is selected from (a) hydrogen, (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (c) C_1 - C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (d) C_1 - C_6 alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (e) C_3 - C_6 cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl;

each R^f is independently selected from hydrogen and C_1 - C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$;

each R^g is C_1 - C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1 - C_6 alkyl optionally substituted with OR^m ;

each R^j is independently selected from halogen, CN, cyclopropyl, C_1 - C_6 alkyl optionally substituted with halogen, and C_1 - C_6 alkoxy optionally substituted with halogen;

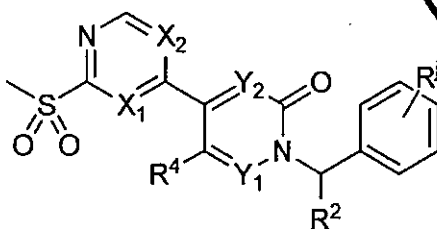
R^k and R^m are independently hydrogen or C_1 - C_3 alkyl; and

x is 0 or 1.

92. The compound of Claim 91, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

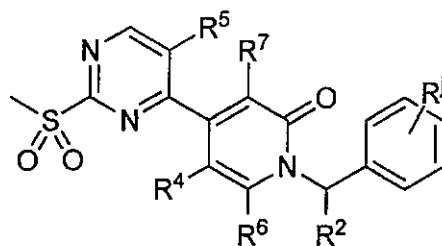
93. The compound of Claim 91 or 92, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

94. The compound of any one of Claims 91 to 93 having the structure 10.7:



10.7

95. The compound of any one of Claims 91 to 94 having the structure 8.1:



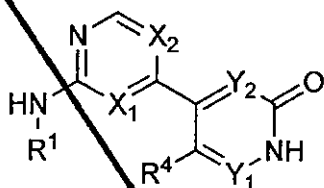
8.1

96. The compound of Claim 94 or 95, wherein the compound is substituted with 0 to 3 R^j groups.

97. The compound of any one of Claims 94 to 96, wherein the compound is substituted with 1 or 2 R^j groups.

98. A compound that is (S)-1-(2-(tert-butyldimethylsilyloxy)-1-(4-chloro-3-fluorophenyl)ethyl)-4-(2-(methylsulfonyl)pyrimidin-4-yl)pyridin-2(1H)-one.

99. A compound of Formula 10.8:



10.8

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^1 is selected from (a) C_1 - C_6 alkyl optionally substituted with one or more groups independently selected from halogen, OR^a , NR^bR^c , oxo, CN, C_3 - C_6 cycloalkyl and a 3 to 7 membered heterocycle, (b) C_3 - C_7 cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (e) a 5 to 6 membered heteroaryl

optionally substituted with one or more groups independently selected from halogen, OR^e, oxide, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d;

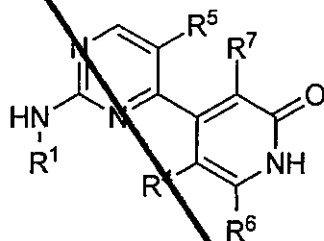
each R¹, R⁵, R⁶ and R⁷ is independently selected from hydrogen, halogen and C₁-C₃ alkyl; and

each R^a, R^b, R^c, R^d and R^e is independently selected from hydrogen and C₁-C₆ alkyl.

100. The compound of Claim 99, wherein X₁ is selected from CH and N; and X₂ is selected from CR⁵ and N; wherein only one of X₁ and X₂ may be N.

101. The compound of Claim 99 or 100, wherein Y₁ is selected from CR⁶ and N; and Y₂ is selected from CR⁷ and N; wherein only one of Y₁ and Y₂ may be N.

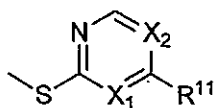
102. The compound of any one of Claims 99 to 101 having the structure 9.4:



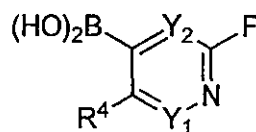
9.4

103. A process for preparing a compound of Formula 10.1, comprising:

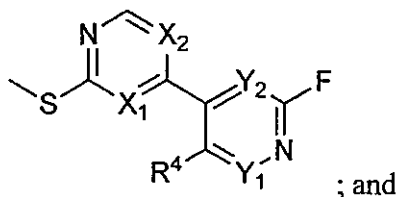
(a) coupling a compound having the structure:



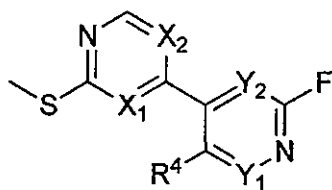
with a compound having the structure:



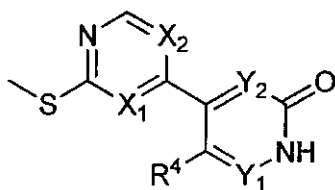
to prepare a compound having the structure:



(b) hydrolyzing the compound having the structure:



to prepare a compound of Formula 10.1:



10.1

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl; and

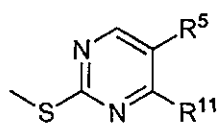
R^{11} is selected from Cl, Br and I.

104. The process of Claim 103, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

105. The process of Claim 103 or 104, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

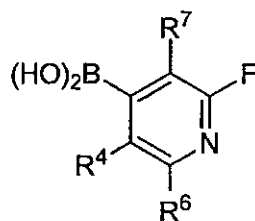
106. The process of any one of Claims 103 to 105, wherein a compound of Formula 1.4 is prepared, comprising:

(a) coupling a compound of Formula 1.1:



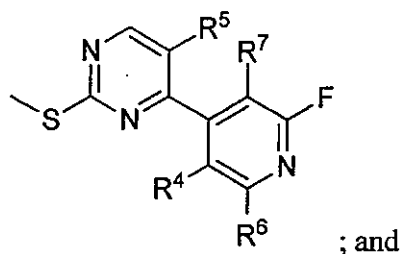
1.1

with a compound of Formula 1.2:



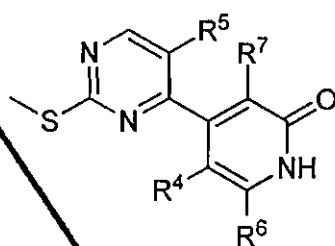
1.2

to prepare a compound of Formula 1.3:



1.3

(b) hydrolyzing the compound of Formula 1.3 to prepare a compound of Formula 1.4:



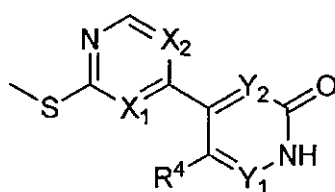
1.4

107. The process of any one of Claims 103 to 106, wherein the coupling in Step (a) is performed by a Suzuki reaction.

108. The process of any one of Claims 103 or 107, wherein the hydrolysis in Step (b) is performed under acidic conditions.

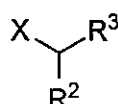
109. The process of any one of Claims 103 to 108, wherein the hydrolysis in Step (b) is performed by addition of aqueous HCl.

110. A process for preparing a compound of Formula 10.2, comprising:
reacting a compound of Formula 10.1:

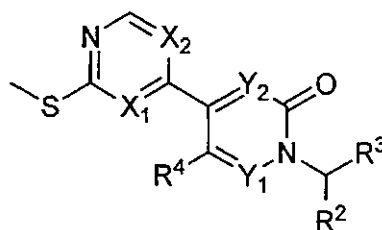


10.1

with a compound having the structure:



to prepare a compound of Formula 10.2:



10.2

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^2 is selected from (a) hydrogen, (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (c) C_1 - C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (d) C_1 - C_6 alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (e) C_3 - C_6 cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl;

each R^f is independently selected from hydrogen and C_1 - C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$;

each R^g is C_1 - C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1 - C_6 alkyl optionally

substituted with OR^m;

each R^j is independently selected from halogen, CN, cyclopropyl, C₁-C₆ alkyl optionally substituted with halogen, and C₁-C₆ alkoxy optionally substituted with halogen;

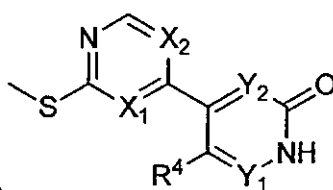
R^k and R^m are independently hydrogen or C₁-C₃ alkyl;

x is 0 or 1; and

X is Cl, Br, I, OMs or OTf.

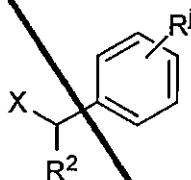
111. The process of Claims 110, wherein a compound of Formula 10.3 is prepared, comprising:

reacting a compound of Formula 10.1:



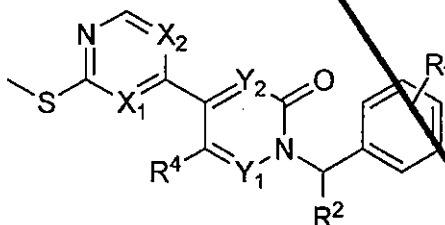
10.1

with a compound of Formula 3.1:



3.1

to prepare a compound of Formula 10.3:



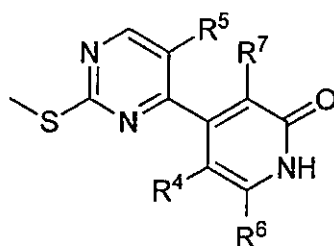
10.3

112. The process of Claims 110 or 111, wherein X₁ is selected from CH and N; and X₂ is selected from CR⁵ and N; wherein only one of X₁ and X₂ may be N.

113. The process of any one of Claims 110 to 112, wherein Y₁ is selected from CR⁶ and N; and Y₂ is selected from CR⁷ and N; wherein only one of Y₁ and Y₂ may be N.

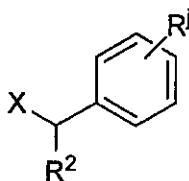
114. The process of any one of Claims 110 to 113, wherein a compound of Formula 3.2 is prepared, comprising:

reacting a compound of Formula 1.4:



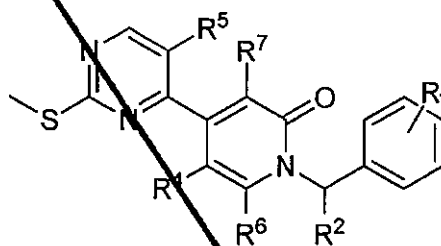
1.4

with a compound of Formula 3.1:



3.1

to prepare a compound of Formula 3.2:



3.2

115. The process of any one of Claims 110 to 114, wherein the compounds are substituted with 0 to 3 R^j groups.

116. The process of any one of Claims 110 to 115, wherein the compounds are substituted with 1 or 2 R^j groups.

117. The process of any one of Claims 110 to 116, wherein the reaction is an alkylation.

118. The process of any one of Claims 110 to 117, wherein the reaction takes place in the presence of a base.

119. The process of any one of Claims 110 to 118, wherein the base is KHMDS or KO t -Bu.

120. The process of any one of Claims 110 to 119, wherein the reaction takes place in a solvent.

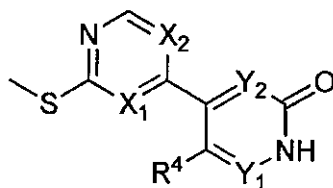
121. The process of any one of Claims 110 to 120, wherein the solvent is THF, 2-methyltetrahydrofuran or dioxane.

122. The process of any one of Claims 110 to 121, wherein the reaction includes a

catalyst.

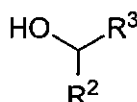
123. The process of any one of Claims 110 to 122, wherein the catalyst is tetrabutylammonium iodide.

124. A process for preparing a compound of Formula 10.2, comprising:
reacting a compound of Formula 10.1:

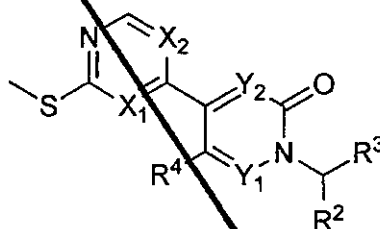


10.1

with a compound having the structure:



to prepare a compound of Formula 10.2:



10.2

wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R² is selected from (a) hydrogen, (b) C₁-C₆ alkyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (c) C₁-C₆ alkenyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (d) C₁-C₆ alkynyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (e) C₃-C₆ cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g, (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g, (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups

selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl;

each R^f is independently selected from hydrogen and C_1 - C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$;

each R^g is C_1 - C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1 - C_6 alkyl optionally substituted with OR^m ;

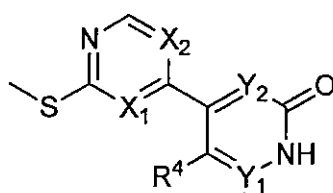
each R^j is independently selected from halogen, CN, cyclopropyl, C_1 - C_6 alkyl optionally substituted with halogen, and C_1 - C_6 alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C_1 - C_3 alkyl; and

x is 0 or 1.

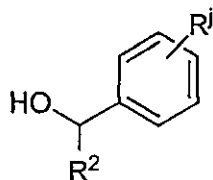
125. The process of Claim 124, wherein a compound of Formula 10.3 is prepared, comprising:

reacting a compound of Formula 10.1:



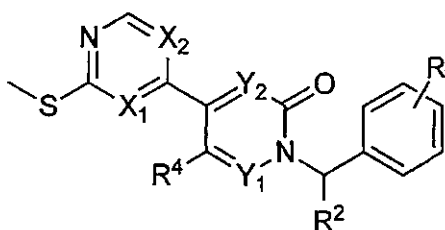
10.1

with a compound of Formula 4.1:



4.1

to prepare a compound of Formula 10.3:



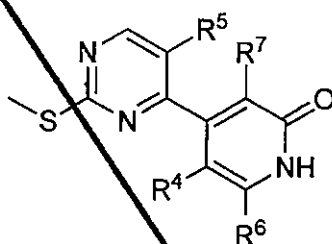
10.3

126. The process of Claims 124 or 125, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

127. The process of any one of Claims 124 to 126, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

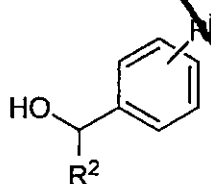
128. The process of any one of Claims 124 to 127, wherein a compound of Formula 3.2 is prepared, comprising:

reacting a compound of Formula 1.4:



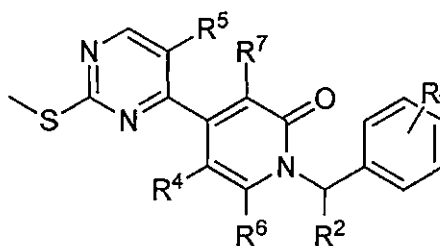
1.4

with a compound of Formula 4.1:



4.1

to prepare a compound of Formula 3.2:



3.2

129. The process of any one of Claims 124 to 128, wherein the compounds are substituted with 0 to 3 R^j groups.

130. The process of any one of Claims 124 to 129, wherein the compounds are substituted with 1 or 2 R^j groups.

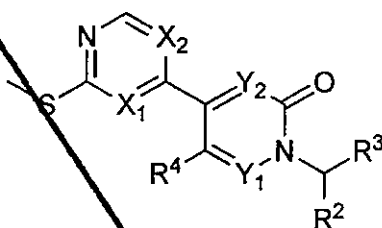
131. The process of any one of Claims 124 to 130, wherein the reaction is a Mitsunobu reaction.

132. The process of any one of Claims 124 to 131, wherein the reaction includes DIAD and PPh_3 .

133. The process of any one of Claims 124 to 132, wherein the reaction is in a solvent.

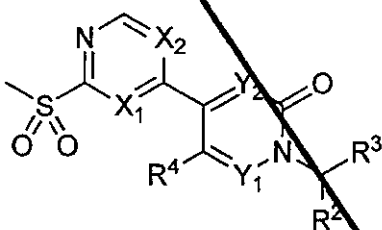
134. The process of any one of Claims 124 to 133, wherein the solvent is THF.

135. A process for preparing a compound of Formula 10.6, comprising:
oxidizing a compound of Formula 10.2:



10.2

to prepare a compound of Formula 10.6:



10.6

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^2 is selected from (a) hydrogen, (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (c) C_1 - C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (d) C_1 - C_6 alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$, (e) C_3 - C_6

cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl;

each R^f is independently selected from hydrogen and C_1 - C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$;

each R^g is C_1 - C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1 - C_6 alkyl optionally substituted with OR^m ;

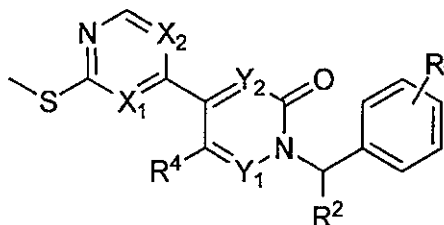
each R^j is independently selected from halogen, CN, cyclopropyl, C_1 - C_6 alkyl optionally substituted with halogen, and C_1 - C_6 alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C_1 - C_3 alkyl; and

x is 0 or 1.

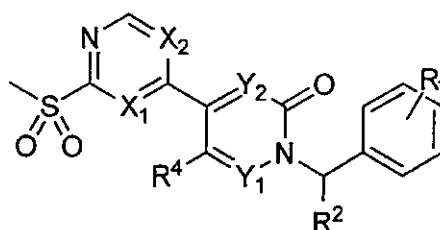
136. The process of Claim 135, wherein a compound of Formula 10.7 is prepared, comprising:

oxidizing a compound of Formula 10.3:



10.3

to prepare a compound of Formula 10.7:



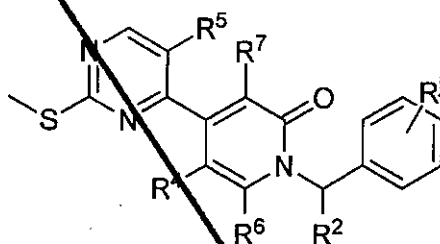
10.7

137. The process of Claims 135 or 136, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

138. The process of any one of Claims 135 to 137, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

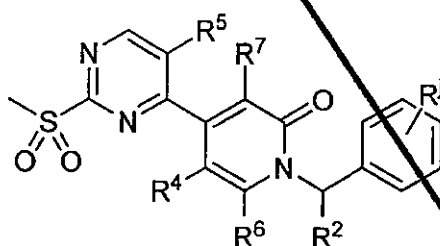
139. The process of any one of Claims 135 to 138, wherein a compound of Formula 8.1 is prepared, comprising:

oxidizing a compound of Formula 3.2:



3.2

to prepare a compound of Formula 8.1:



8.1

140. The process of any one of Claims 135 to 139, wherein the compounds are substituted with 0 to 3 R^j groups.

141. The process of any one of Claims 135 to 140, wherein the compounds are substituted with 1 or 2 R^j groups.

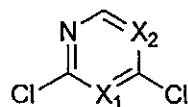
142. The process of any one of Claims 135 to 141, wherein the oxidation is with *m*CPBA.

143. The process of any one of Claims 135 to 142, wherein the oxidation is in a solvent.

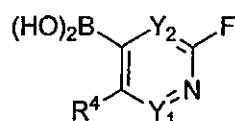
144. The process of any one of Claims 135 to 143, wherein the solvent is DCM.

145. A process for preparing a compound of Formula 10.8, comprising:

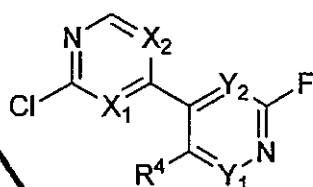
(a) coupling a compound having the structure:



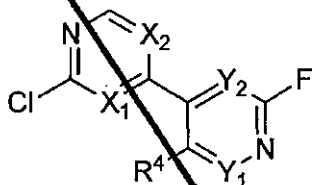
with a compound having the structure:



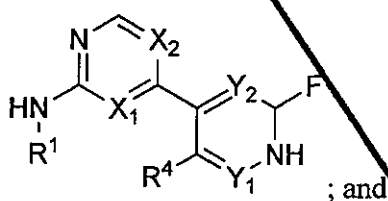
to prepare a compound having the structure:



(b) reacting the compound having the structure:

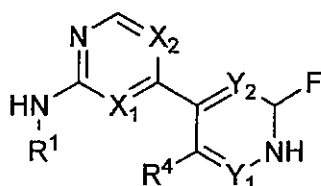


with NH₂R¹ to prepare a compound having the structure:

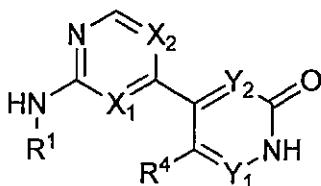


; and

(c) hydrolyzing the compound having the structure:



to prepare a compound of Formula 10.8:



10.8

wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a, NR^bR^c, oxo, CN, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, (b) C₃-C₇ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e, oxide, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d;

each R⁴, R⁵, R⁶ and R⁷ is independently selected from hydrogen, halogen and C₁-C₃ alkyl; and

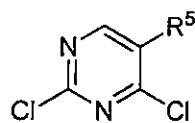
each R^a, R^b, R^c, R^d, and R^e is independently selected from hydrogen and C₁-C₆ alkyl.

146. The process of Claim 145, wherein X₁ is selected from CH and N; and X₂ is selected from CR⁵ and N; wherein only one of X₁ and X₂ may be N.

147. The process of Claims 145 or 146, wherein Y₁ is selected from CR⁶ and N; and Y₂ is selected from CR⁷ and N; wherein only one of Y₁ and Y₂ may be N.

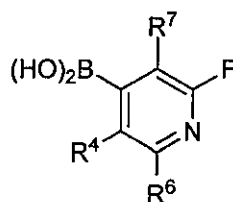
148. The process of any one of Claims 145 to 147, wherein a compound of Formula 9.4 is prepared, comprising:

(a) coupling a compound of Formula 9.1:



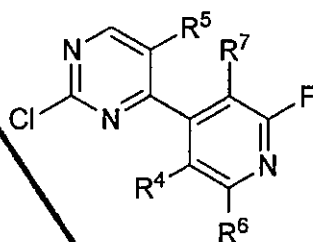
9.1

with a compound of Formula 1.2:



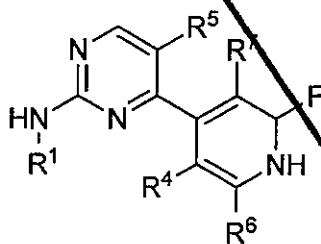
9.1

to prepare a compound of Formula 9.2:



9.2

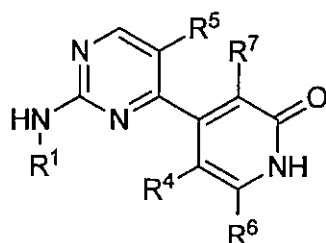
(b) reacting the compound of Formula 9.2 with NH_2R^1 to prepare a compound of Formula 9.3:



9.3

; and

(c) hydrolyzing the compound of Formula 9.3 to prepare a compound of Formula 9.4:



9.4

149. The process of any one of Claims 145 to 148, wherein the coupling in Step (a)

is a Suzuki coupling.

150. The process of any one of Claims 145 to 149, wherein the coupling in Step (a) includes a Pd catalyst.

151. The process of any one of Claims 145 to 150, wherein the Pd catalyst in Step (a) is $\text{PdCl}_2(\text{dppf})$.

152. The process of any one of Claims 145 to 151, wherein the coupling in Step (a) is done in the presence of a base.

153. The process of any one of Claims 145 to 152, wherein the base in Step (a) is Na_2CO_3 .

154. The process of any one of Claims 145 to 153, wherein the reaction in Step (b) is done in the presence of a base.

155. The process of any one of Claims 145 to 154, wherein the base in Step (b) is Hunig's base.

156. The process of any one of Claims 145 to 155, wherein the reaction in Step (b) is done in a solvent.

157. The process of any one of Claims 145 to 156, wherein the solvent in Step (b) is N,N-dimethylacetamide or 2-butanol.

158. The process of any one of Claims 145 to 157, wherein the reaction in Step (b) is done with heat.

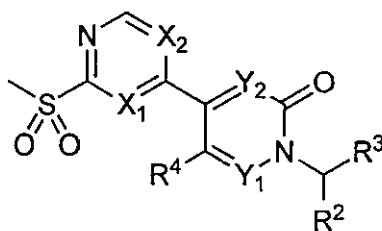
159. The process of any one of Claims 145 to 158, wherein the hydrolysis in Step (c) is done with an aqueous acid.

160. The process of any one of Claims 145 to 159, wherein the acid in Step (c) is HCl.

161. The process of any one of Claims 145 to 158, wherein the hydrolysis in Step (c) is done with a base.

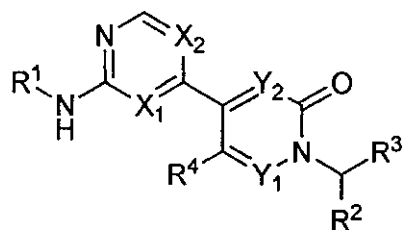
162. The process of any one of Claims 145 to 158 or 161, wherein the base in Step (c) is NaOH.

163. A process for preparing compounds of Formula I, comprising:
reacting a compound of Formula 10.6:



10.6

with NH_2R^1 to prepare a compound of Formula I:



I

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^1 is selected from (a) C_1 - C_6 alkyl optionally substituted with one or more groups independently selected from halogen, OR^a , NR^bR^c , oxo, CN, C_3 - C_6 cycloalkyl and a 3 to 7 membered heterocycle, (b) C_3 - C_7 cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e , oxide, CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d , and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d ;

R^2 is selected from (a) hydrogen, (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $\text{NH}(\text{C}_1$ - C_3 alkyl) and $\text{N}(\text{C}_1$ - C_3 alkyl) $_2$, (c) C_1 - C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $\text{NH}(\text{C}_1$ - C_3 alkyl) and $\text{N}(\text{C}_1$ - C_3 alkyl) $_2$, (d) C_1 - C_6 alkynyl optionally substituted with one or more

groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (e) C_3-C_6 cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1-C_3 alkyl;

each R^a , R^b , R^c , R^d and R^e are independently selected from hydrogen and C_1-C_6 alkyl;

R^f is selected from hydrogen and C_1-C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$;

each R^g is C_1-C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1-C_6 alkyl optionally substituted with OR^m ;

each R^j is independently selected from halogen, CN, cyclopropyl, C_1-C_6 alkyl optionally substituted with halogen, and C_1-C_6 alkoxy optionally substituted with halogen;

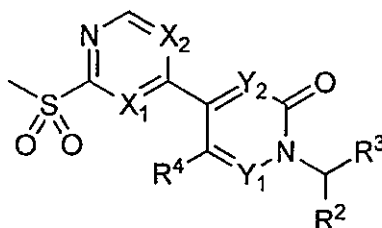
R^k and R^m are independently hydrogen or C_1-C_3 alkyl, and

x is 0 or 1.

164. The process of Claim 163, wherein the reaction is performed in a solvent.

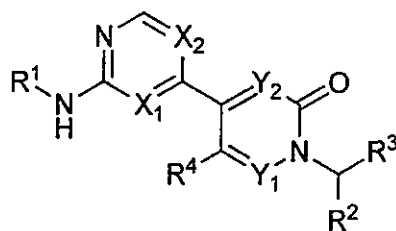
165. The process of Claims 163 or 164, wherein the solvent is *sec*-BuOH.

166. A process for preparing a compound of Formula I, comprising:
reacting a compound of Formula 10.6:



10.6

with NH_2R^1 to prepare a compound of Formula I:



I

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^1 is selected from (a) $\text{C}_1\text{-C}_6$ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a , NR^bR^c , oxo, CN, $\text{C}_3\text{-C}_6$ cycloalkyl and a 3 to 7 membered heterocycle, (b) $\text{C}_3\text{-C}_7$ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN, $\text{C}_3\text{-C}_6$ cycloalkyl and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, $\text{C}_3\text{-C}_6$ cycloalkyl and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e , oxide, CN, $\text{C}_3\text{-C}_6$ cycloalkyl and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d , and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, $\text{C}_3\text{-C}_6$ cycloalkyl and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d ;

R^2 is selected from (a) hydrogen, (b) $\text{C}_1\text{-C}_6$ alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $\text{NH}(\text{C}_1\text{-C}_3 \text{ alkyl})$ and $\text{N}(\text{C}_1\text{-C}_3 \text{ alkyl})_2$, (c) $\text{C}_1\text{-C}_6$ alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $\text{NH}(\text{C}_1\text{-C}_3 \text{ alkyl})$ and $\text{N}(\text{C}_1\text{-C}_3 \text{ alkyl})_2$, (d) $\text{C}_1\text{-C}_6$ alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $\text{NH}(\text{C}_1\text{-C}_3 \text{ alkyl})$ and $\text{N}(\text{C}_1\text{-C}_3 \text{ alkyl})_2$, (e) $\text{C}_3\text{-C}_6$

cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl;

each R^a , R^b , R^c , R^d and R^e is independently selected from hydrogen and C_1 - C_6 alkyl;

R^f is selected from hydrogen and C_1 - C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$;

each R^g is C_1 - C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1 - C_6 alkyl optionally substituted with OR^m ;

each R^j is independently selected from halogen, CN, cyclopropyl, C_1 - C_6 alkyl optionally substituted with halogen, and C_1 - C_6 alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C_1 - C_3 alkyl; and

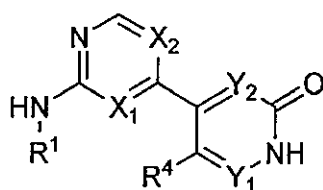
x is 0 or 1.

167. The process of Claim 166, wherein the reaction is performed in a solvent.

168. The process of Claims 166 or 167, wherein the solvent is *sec*-BuOH.

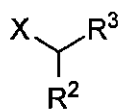
169. A process for preparing a compound of Formula I, comprising:

reacting a compound of Formula 10.8:

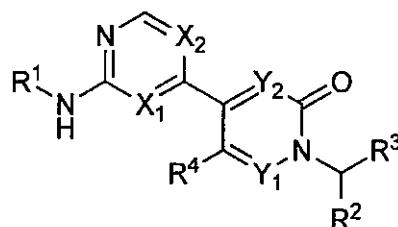


10.8

with a compound having the structure:



to prepare a compound of Formula I:



I

wherein:

X₁ is selected from CH and N;

X₂ is selected from OR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a, NR^bR^c, oxo, CN, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, (b) C₃-C₇ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e, oxide, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d;

R² is selected from (a) hydrogen, (b) C₁-C₆ alkyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (c) C₁-C₆ alkenyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-

C₃ alkyl) and N(C₁-C₃ alkyl)₂, (d) C₁-C₆ alkynyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (e) C₃-C₆ cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g, (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g, (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g;

R³ is selected from (a) (CR^hRⁱ)_x-phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) (CR^hRⁱ)_x-(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R⁴, R⁵, R⁶ and R⁷ is independently selected from hydrogen, halogen and C₁-C₃ alkyl;

each R^a, R^b, R^c, R^d and R^e are independently selected from hydrogen and C₁-C₆ alkyl;

R^f is selected from hydrogen and C₁-C₆ alkyl optionally substituted with one or more groups selected from oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂;

each R^g is C₁-C₆ alkyl;

R^h and Rⁱ are independently selected from hydrogen, OR^k and C₁-C₆ alkyl optionally substituted with OR^m;

each R^j is independently selected from halogen, CN, cyclopropyl, C₁-C₆ alkyl optionally substituted with halogen, and C₁-C₆ alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C₁-C₃ alkyl;

x is 0 or 1; and

X is Cl, Br, I, OM_s or OTf.

170. The process of Claim 169, wherein the reaction is performed in the presence of a base.

171. The process of Claims 169 or 170, wherein the base is KHMDS or KO^t-Bu.

172. The process of any one of Claims 169 to 171, wherein the reaction is performed in a solvent.

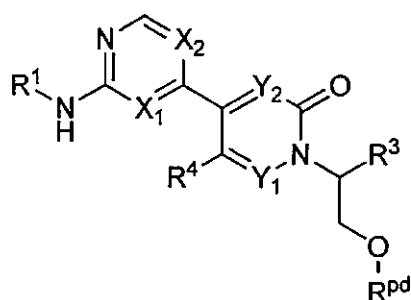
173. The process of any one of Claims 169 to 172, wherein the solvent is THF, 2-methyltetrahydrofuran or dioxane.

174. The process of any one of Claims 169 to 173, wherein the reaction is

performed with a catalyst.

175. The process of any one of Claims 169 to 174, wherein the catalyst is tetrabutylammonium iodide.

176. A compound selected from Formula XI:



XI

wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a, NR^bR^c, oxo, CN, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, (b) C₃-C₇ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e, oxide, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d;

R³ is selected from (a) (CR^hRⁱ)_x-phenyl, wherein the phenyl may be optionally

substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

R^{pd} is $OP(=O)(OH)_2$ or $CH_2OP(=O)(OH)_2$;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl;

each R^a , R^b , R^c , R^d and R^e are independently selected from hydrogen and C_1 - C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1 - C_6 alkyl optionally substituted with OR^m ;

each R^j is independently selected from halogen, CN, cyclopropyl, C_1 - C_6 alkyl optionally substituted with halogen, and C_1 - C_6 alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C_1 - C_3 alkyl; and

x is 0 or 1.

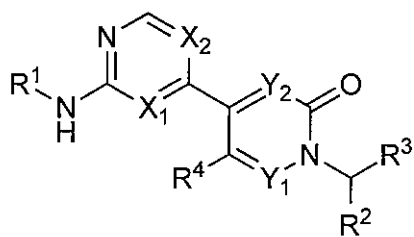
177. The compound of Claim 176, wherein the compound is selected from:

(*S*)-2-(4-chloro-3-fluorophenyl)-2-(2-oxo-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-1(2*H*)-yl)ethyl dihydrogen phosphate; and

(*S*)-2-(4-chloro-3-fluorophenyl)-2-(2-oxo-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-1(2*H*)-yl)ethoxy)methyl dihydrogen phosphate.

What is claimed is:

1. A compound selected from Formula I:



I

or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof, wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a, NR^bR^c, oxo, CN, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, (b) C₃-C₇ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e, oxide, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d;

R² is selected from (a) hydrogen, (b) C₁-C₆ alkyl optionally substituted with one or

more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (c) C_1-C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (d) C_1-C_6 alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (e) C_3-C_6 cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1-C_3 alkyl;

each R^a , R^b , R^c , R^d and R^e are independently selected from hydrogen and C_1-C_6 alkyl;

R^f is selected from hydrogen and C_1-C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$;

each R^g is C_1-C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1-C_6 alkyl optionally substituted with OR^m ;

each R^j is independently selected from halogen, CN, cyclopropyl, C_1-C_6 alkyl optionally substituted with halogen, and C_1-C_6 alkoxy optionally substituted with halogen;

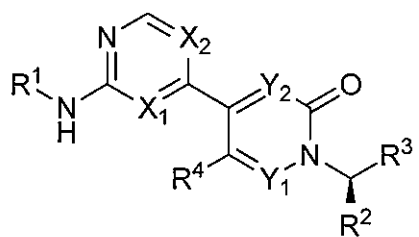
R^k and R^m are independently hydrogen or C_1-C_3 alkyl; and

x is 0 or 1.

2. The compound of Claim 1, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

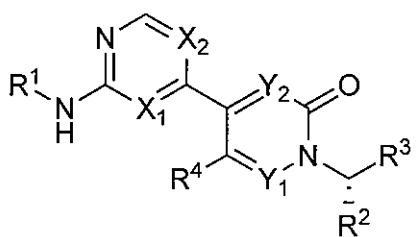
3. The compound of Claim 1 or 2, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

4. The compound of any one of Claims 1 to 3, wherein the compounds have the structure of Formula II:



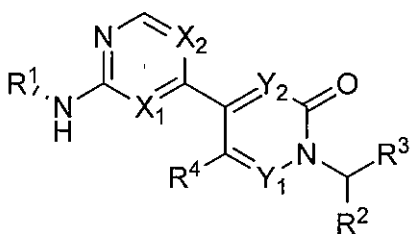
II

5. The compound of any one of Claims 1 to 3, wherein the compounds have the structure of Formula III:



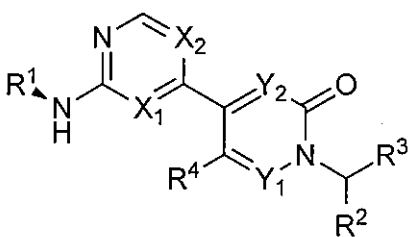
III

6. The compound of any one of Claims 1 to 5, wherein the compounds have the structure of Formula IV:



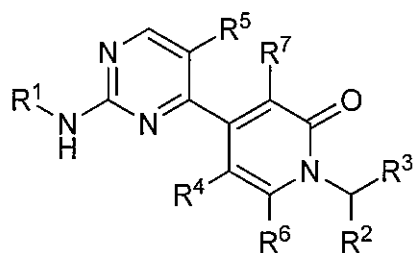
IV

7. The compound of any one of Claims 1 to 5, wherein the compounds have the structure of Formula V:



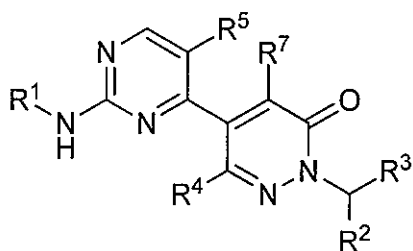
V

8. The compound of any one of Claims 1 to 7, wherein the compounds have the structure of Formula VI:



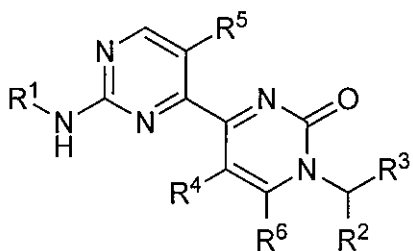
VI

9. The compound of any one of Claims 1 to 7, wherein the compounds have the structure of Formula **VII**:



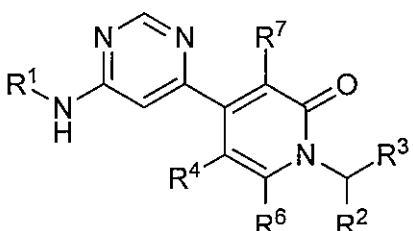
VII

10. The compound of any one of Claims 1 to 7, wherein the compounds have the structure of Formula **VIII**:



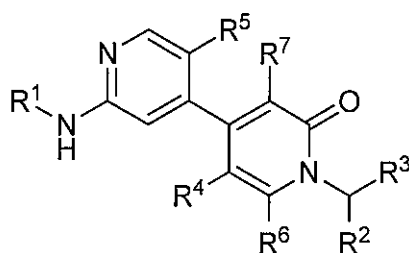
VIII

11. The compound of any one of Claims 1 to 7, wherein the compounds have the structure of Formula **IX**:



IX

12. The compound of any one of Claims 1 to 7, wherein the compounds have the structure of Formula **X**:



X

13. The compound of any one of Claims 1 to 12, wherein R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one to six groups independently selected from halogen, OR^a, NR^bR^c, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, S(=O) and S(=O)₂, (b) C₃-C₇ cycloalkyl optionally substituted with one to four groups independently selected from halogen and OR^a, (c) phenyl optionally substituted with one to four groups independently selected from halogen and C₁-C₃ alkyl, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one to four groups independently selected from halogen, oxo, OR^a and C₁-C₃ alkyl optionally substituted with OR^d, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, S(=O) and S(=O)₂, (e) a 5 to 6 membered heteroaryl optionally substituted with one to four groups independently selected from halogen, CN, OR^e, C₃-C₆ cycloalkyl, oxide and C₁-C₃ alkyl optionally substituted with one to three groups independently selected from hydroxyl, methoxy, oxo and halogen, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or two groups selected from C₁-C₃ alkyl and oxo.

14. The compound of any one of Claims 1 to 12, wherein R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a, NR^bR^c, oxo, CN, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, S(=O) and S(=O)₂, (b) C₃-C₇ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted

with one or more groups independently selected from halogen and OR^d, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, S(=O) and S(=O)₂, (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d, wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, S(=O) and S(=O)₂.

15. The compound of any one of Claims 1 to 12, wherein R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one to six groups independently selected from halogen, OR^a, NR^bR^c, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, S(=O) and S(=O)₂, (b) C₃-C₇ cycloalkyl optionally substituted with one to four groups independently selected from halogen and OR^a, (c) phenyl optionally substituted with one to four groups independently selected from halogen and C₁-C₃ alkyl, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one to four groups independently selected from halogen, oxo, OR^a, and C₁-C₃ alkyl optionally substituted with OR^d, (e) a 5 to 6 membered heteroaryl optionally substituted with one to three groups independently selected from halogen, CN, OR^e, cyclopropyl, and C₁-C₃ alkyl optionally substituted with one to three groups independently selected from hydroxyl, methoxy, oxo and halogen, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or two groups selected from C₁-C₃ alkyl and oxo.

16. The compound of any one of Claims 1 to 15, wherein each R^a is independently selected from hydrogen and C₁-C₃ alkyl.

17. The compound of any one of Claims 1 to 16, wherein each R^a is independently selected from hydrogen and methyl.

18. The compound of any one of Claims 1 to 17, wherein each R^b and R^c are independently selected from hydrogen and C₁-C₃ alkyl.

19. The compound of any one of Claims 1 to 18, wherein each R^b and R^c are independently selected from hydrogen and methyl.

20. The compound of any one of Claims 1 to 19, wherein each R^d is independently

selected from hydrogen and C₁-C₃ alkyl.

21. The compound of any one of Claims 1 to 20, wherein each R^d is selected from hydrogen and methyl.

22. The compound of any one of Claims 1 to 21, wherein R¹ is selected from 1-hydroxypropan-2-yl, isopropyl, 1-hydroxybutan-2-yl, 1-cyclopropylethyl, 1-hydroxy-3-methoxypropan-2-yl, 1,3-difluoropropan-2-yl, 1-cyclopropyl-2-hydroxyethyl, oxetan-3-ylmethyl, 4-methoxybutan-2-yl, 4,4,4-trifluoro-1-hydroxybutan-2-yl, 1-aminopropan-2-yl, 3-hydroxycyclopentyl, 3,3-difluorocyclobutyl, 3-hydroxycyclobutyl, 2-chloro-4-fluorophenyl, 4-fluoro-2-methylphenyl, tetrahydropyran-4-yl, 3-fluorotetrahydropyran-4-yl, tetrahydrodioxothiopyran-4-yl, 1,1-dioxotetrahydrothiophen-3-yl, oxetan-3-yl, tetrahydrofuran-3-yl, 2,2-dimethyltetrahydropyran-4-yl, 2-methyltetrahydropyran-4-yl, pyrrolidin-3-yl, azetidin-3-yl, piperidin-3-yl, 2-(hydroxymethyl)tetrahydropyran-4-yl, 6-oxo-1,6-dihydropyridin-3-yl, 1-methylpyrazol-4-yl, 2-methylpyrimidin-4-yl, 6-methylpyrimidin-4-yl, 6-methoxypyrimidin-4-yl, 2-methylpyridin-4-yl, 1,3-dimethylpyrazol-4-yl, 2-methoxypyridin-4-yl, 1-methylpyrazol-3-yl, 6-methoxypyridin-3-yl, 2-ethylpyrimidin-4-yl, 6-methylpyridin-2-yl, 2-cyclopropylpyrimidin-4-yl, 5-fluoro-6-methylpyridin-2-yl, 5-cyclopropyl-1-methylpyrazol-4-yl, 5-bromo-2-methylpyridin-4-yl, 1,5-dimethylpyrazol-4-yl, 1,3-dimethylpyrazol-5-yl, 4-(2-hydroxypropan-2-yl)pyridin-2-yl, 1-ethyl-3-methylpyrazol-4-yl, 5-ethoxy-2-methylpyridin-4-yl, 1-isopropylpyrazol-4-yl, 4-methylimidazol-5-yl, 1-methylimidazol-5-yl, 1-ethylpyrazol-4-yl, 2-(2-hydroxypropan-2-yl)pyridin-4-yl, 1-methyl-4-cyanopyrazol-5-yl, 3-methylpyridin-4-yl, 1-ethyl-3-methylpyrazol-5-yl, 1-methylpyrazol-5-yl, 1,4-dimethylpyrazol-5-yl, 1-ethylpyrazol-5-yl, 3-isopropyl-1-methylpyrazol-5-yl, 3-methylpyrazol-4-yl, 3-ethyl-1-methylpyrazol-4-yl, 1,3,5-trimethylpyrazol-4-yl, 3,5-dimethylpyrazol-4-yl, 2-cyclopropyl-5-methoxypyridin-4-yl, 5-ethyl-1-methylpyrazol-4-yl, 4-(2-methoxypyridine 1-oxide), 5-methoxy-2-methylpyridin-4-yl, 5-methyl-1,3,4-oxadiazol-2-yl, 3-ethyl-1-methylpyrazol-5-yl, 1-(2-hydroxyethyl)-3-methylpyrazol-4-yl, 1-(2-hydroxyethyl)-5-methylpyrazol-4-yl, 1-methyl-3-(trifluoromethyl)pyrazol-4-yl, 1-methyl-3-(trifluoromethyl)pyrazol-5-yl, 1-methyl-1,2,3-triazol-5-yl, 2-methylpyridin-4-yl, 1-(2-hydroxyethyl)pyrazol-5-yl, methyl 4-picolinate, 4-picolinic acid, 1-cyclopropyl-5-methylpyrazol-4-yl, 1-cyclopropyl-3-methylpyrazol-4-yl, 2,3-dimethylpyridin-4-yl, 2,5-dimethylpyridin-4-yl, 1,3,4-oxadiazol-2-yl, 3-methylpyridazin-4-yl, pyridazin-4-yl, tetrazol-5-yl, 1-methyltetrazol-5-yl, 2-methyl-2,4,5,6-tetrahydrocyclopentapyrazol-3-yl, 3-oxo-2-oxabicyclo[2.2.1]heptan-5-yl and 2-oxabicyclo[2.2.1]heptan-5-yl.

23. The compound of any one of Claims 1 to 22, wherein R¹ is selected from

tetrahydropyran-4-yl, 3-fluorotetrahydropyran-4-yl, 2-(hydroxymethyl)tetrahydropyran-4-yl, 1,3-dimethylpyrazol-4-yl and 1-methylpyrazol-5-yl.

24. The compound of any one of Claims 1 to 23, wherein R^2 is selected from (a) hydrogen, (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (c) C_1 - C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, $S(=O)$ and $S(=O)_2$, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g , wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S.

25. The compound of any one of Claims 1 to 24, wherein R^f is hydrogen, methyl, $C(=O)C(CH_3)_2NH_2$ or $C(=O)CH_3$.

26. The compound of any one of Claims 1 to 25, wherein R^g is methyl.

27. The compound of any one of Claims 1 to 26, wherein R^2 is selected from hydrogen, methyl, ethyl, CH_2OH , CH_2CH_2OH , $CH_2CH(OH)CH_3$, $CH_2C(CH_3)_2OH$, CH_2OCH_3 , $C(=O)OH$, $CH_2OC(=O)C(CH_3)_2NH_2$, $CH_2OC(=O)CH_3$, CH_2NH_2 , methylene, phenyl, pyrrolidin-2-yl, pyrrolidin-3-yl, oxazol-5-yl and 1-methyl-pyrazol-4-yl.

28. The compound of any one of Claims 1 to 23, wherein R^2 is selected from (b) C_1 - C_6 alkyl optionally substituted with one or two groups selected from OR^f , oxo and NH_2 , (c) C_1 - C_6 alkenyl, (f) phenyl, (g) a 3 to 7 membered heterocycle, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, $S(=O)$ and $S(=O)_2$, and (h) a 5 to 6 membered heteroaryl optionally substituted with one R^g group, wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S.

29. The compound of any one of Claims 1 to 23 or 28, wherein R^2 is selected from methyl, ethyl, CH_2OH , CH_2CH_2OH , $CH_2CH(OH)CH_3$, $CH_2C(CH_3)_2OH$, CH_2OCH_3 , $C(=O)OH$, $CH_2OC(=O)C(CH_3)_2NH_2$, $CH_2OC(=O)CH_3$, CH_2NH_2 , methylene, phenyl, pyrrolidin-2-yl, pyrrolidin-3-yl, oxazol-5-yl and 1-methyl-pyrazol-4-yl.

30. The compound of any one of Claims 1 to 29, wherein R^2 is selected from CH_2OH , CH_2CH_2OH and 1-methyl-pyrazol-4-yl.

31. The compound of any one of Claims 1 to 30, wherein each R^j is independently

selected from halogen, methyl, CF_3 , OCH_3 , OCHF_2 , CN and cyclopropyl.

32. The compound of any one of Claims 1 to 31, wherein R^h and R^i are independently selected from hydrogen, OH and CH_2OH .

33. The compound of any one of Claims 1 to 32, wherein R^3 is selected from phenyl, 3-chlorophenyl, 3-fluorophenyl, 4-chlorophenyl, 3-(trifluoromethyl)phenyl, 3-methylphenyl, 3-cyanophenyl, 3-methoxyphenyl, 2-chlorophenyl, 4-(difluoromethoxy)phenyl, 4-methoxyphenyl, 3,4-dichlorophenyl, 2,3-difluorophenyl, 3,5-dichlorophenyl, 3,4-difluorophenyl, 3,5-difluorophenyl, 2,3-dichlorophenyl, 2,4-dichlorophenyl, 4-chloro-3-fluorophenyl, 3-chloro-4-fluorophenyl, 3-fluoro-4-methoxyphenyl, 3-chloro-2-fluorophenyl, 3-chloro-5-fluorophenyl, 4-chloro-2-fluorophenyl, 5-chloro-2-fluorophenyl, 3-fluoro-5-methoxyphenyl, 2-fluoro-3-methoxyphenyl, 2-fluoro-5-methoxyphenyl, 3-methoxy-4-cyanophenyl, 4-chloro-3-methoxyphenyl, 4-fluoro-3-methoxyphenyl, 5-chloropyridin-3-yl, 1,3-dimethylpyrazol-5-yl, indolin-6-yl, indol-2-yl, indol-3-yl, indol-4-yl, indol-5-yl, indol-6-yl, indol-7-yl, 3-chloroindol-6-yl, 5-chloroindol-2-yl, 3-methylindol-6-yl, 1-methylindol-6-yl, 5-fluoroindol-2-yl, 2-methylindol-6-yl, 7-fluoroindol-2-yl, 3-methylindol-2-yl, 3-chloroindol-2-yl, 2-methylindol-3-yl, 6-chloroindol-2-yl, 3-cyclopropylindol-6-yl, 6-fluoroindol-2-yl, 2,3-dimethylindol-6-yl, 4-fluoroindol-2-yl, 7-fluoroindol-6-yl, 4-fluoroindol-6-yl, 5-fluoroindol-6-yl, indazol-6-yl, benzothiazol-2-yl, benzoimidazol-2-yl, 1-methylbenzoimidazol-2-yl, benzoimidazol-6-yl, benzooxazol-2-yl, 5-chlorobenzooxazol-2-yl, 6-chlorobenzooxazol-2-yl, pyrrolo[2,3-c]pyridin-2-yl, (4-methoxyphenyl)methyl, (4-fluorophenyl)methyl, (3-chlorophenyl)methyl, (4-chlorophenyl)methyl, (4-methylphenyl)methyl, (3-methoxyphenyl)methyl, (4-(trifluoromethyl)phenyl)methyl, (3-methylphenyl)methyl, (3-(trifluoromethyl)phenyl)methyl, (4-(trifluoromethoxy)phenyl)methyl, (4-cyanophenyl)methyl, (3-fluorophenyl)methyl, (3-(trifluoromethoxy)phenyl)methyl, (3,4-dichlorophenyl)methyl, (4-chloro-3-fluorophenyl)methyl and 1-(4-chloro-3-fluorophenyl)-1,2-dihydroxyethyl.

34. The compound of any one of Claims 1 to 33, wherein x is 0.

35. The compound of any one of Claims 1 to 34, wherein R^3 is selected from phenyl, 3-chlorophenyl, 3-fluorophenyl, 4-chlorophenyl, 3-(trifluoromethyl)phenyl, 3-methylphenyl, 3-cyanophenyl, 3-methoxyphenyl, 2-chlorophenyl, 4-(difluoromethoxy)phenyl, 4-methoxyphenyl, 3,4-dichlorophenyl, 2,3-difluorophenyl, 3,5-dichlorophenyl, 3,4-difluorophenyl, 3,5-difluorophenyl, 2,3-dichlorophenyl, 2,4-dichlorophenyl, 4-chloro-3-fluorophenyl, 3-chloro-4-fluorophenyl, 3-fluoro-4-methoxyphenyl, 3-chloro-2-fluorophenyl, 3-chloro-5-fluorophenyl, 4-chloro-2-fluorophenyl,

5-chloro-2-fluorophenyl, 3-fluoro-5-methoxyphenyl, 2-fluoro-3-methoxyphenyl, 2-fluoro-5-methoxyphenyl, 3-methoxy-4-cyanophenyl, 4-chloro-3-methoxyphenyl, 4-fluoro-3-methoxyphenyl, 5-chloropyridin-3-yl, 1,3-dimethylpyrazol-5-yl, indolin-6-yl, indol-2-yl, indol-3-yl, indol-4-yl, indol-5-yl, indol-6-yl, indol-7-yl, 3-chloroindol-6-yl, 5-chloroindol-2-yl, 3-methylindol-6-yl, 1-methylindol-6-yl, 5-fluoroindol-2-yl, 2-methylindol-6-yl, 7-fluoroindol-2-yl, 3-methylindol-2-yl, 3-chloroindol-2-yl, 2-methylindol-3-yl, 6-chloroindol-2-yl, 3-cyclopropylindol-6-yl, 6-fluoroindol-2-yl, 2,3-dimethylindol-6-yl, 4-fluoroindol-2-yl, 7-fluoroindol-6-yl, 4-fluoroindol-6-yl, 5-fluoroindol-6-yl, indazol-6-yl, benzothiazol-2-yl, benzoimidazol-2-yl, 1-methylbenzoimidazol-2-yl, benzoimidazol-2-yl, benzooxazol-2-yl, 5-chlorobenzooxazol-2-yl, 6-chlorobenzooxazol-2-yl and pyrrolo[2,3-c]pyridin-2-yl.

36. The compound of any one of Claims 1 to 35, wherein R^3 is selected from 3-chlorophenyl, 3-fluorophenyl, 4-chlorophenyl, 3-(trifluoromethyl)phenyl, 3,4-dichlorophenyl, 2,3-difluorophenyl, 3,4-difluorophenyl, 3,5-difluorophenyl, 4-chloro-3-fluorophenyl, 3-chloro-4-fluorophenyl, 3-chloro-2-fluorophenyl and 3-chloro-5-fluorophenyl.

37. The compound of any one of Claims 1 to 35, wherein R^3 is selected from indol-2-yl, indol-3-yl, indol-4-yl, indol-5-yl, indol-6-yl, indol-7-yl, 3-chloroindol-6-yl, 5-chloroindol-2-yl, 3-methylindol-6-yl, 1-methylindol-6-yl, 5-fluoroindol-2-yl, 2-methylindol-6-yl, 7-fluoroindol-2-yl, 3-methylindol-2-yl, 3-chloroindol-2-yl, 2-methylindol-3-yl, 6-chloroindol-2-yl, 3-cyclopropylindol-6-yl, 6-fluoroindol-2-yl, 2,3-dimethylindol-6-yl and 4-fluoroindol-2-yl, 7-fluoroindol-6-yl, 4-fluoroindol-6-yl and 5-fluoroindol-6-yl,.

38. The compound of any one of Claims 1 to 33, wherein x is 1.

39. The compound of any one of Claims 1 to 33 or 38, wherein R^3 is selected from (4-methoxyphenyl)methyl, (4-fluorophenyl)methyl, (3-chlorophenyl)methyl, (4-chlorophenyl)methyl, (4-methylphenyl)methyl, (3-methoxyphenyl)methyl, (4-(trifluoromethyl)phenyl)methyl, (3-methylphenyl)methyl, (3-(trifluoromethyl)phenyl)methyl, (4-(trifluoromethoxy)phenyl)methyl, (4-cyanophenyl)methyl, (3-fluorophenyl)methyl, (3-(trifluoromethoxy)phenyl)methyl, (3,4-dichlorophenyl)methyl, (4-chloro-3-fluorophenyl)methyl and 1-(4-chloro-3-fluorophenyl)-1,2-dihydroxyethyl.

40. The compound of any one of Claims 1 to 27 and 31 to 33, wherein R^2 is hydrogen.

41. The compound of any one of Claims 1 to 23, wherein:

R^2 is hydrogen or C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$;

x is 0; and

R³ is a 9 to 10 membered heterocycle optionally substituted with one or more Rⁱ groups, or a 9 to 10 membered heteroaryl optionally substituted with one or more R^j groups.

42. The compound of any one of Claims 1 to 12, wherein:

R¹ is selected from (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one to four groups independently selected from halogen, oxo, OR^a and C₁-C₃ alkyl optionally substituted with OR^d, wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, S(=O) and S(=O)₂, and (e) a 5 to 6 membered heteroaryl optionally substituted with one to four groups independently selected from halogen, CN, OR^e, C₃-C₆ cycloalkyl, oxide and C₁-C₃ alkyl optionally substituted with one to three groups independently selected from hydroxyl and halogen, wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S;

R² is selected from (b) C₁-C₆ alkyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g, wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S; and

R³ is phenyl optionally substituted with one or two R^j groups.

43. The compound of any one of Claims 1 to 12 or 42, wherein:

R¹ is selected from (d) a 3 to 7 membered saturated heterocycle optionally substituted with one or two groups independently selected from halogen and C₁-C₃ alkyl optionally substituted with OH, wherein the heterocycle contains one heteroatom selected from the group consisting of O, N and S(=O)₂, and (e) a 5 to 6 membered heteroaryl optionally substituted with one to three groups independently selected from halogen, CN, OR^e, cyclopropyl and C₁-C₃ alkyl optionally substituted with one to three groups independently selected from hydroxyl and halogen, wherein the heteroaryl contains one, two or three heteroatoms selected from the group consisting of O and N;

R² is selected from (b) C₁-C₆ alkyl optionally substituted with one or two groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, and (h) a 5 to 6 membered heteroaryl optionally substituted with one R^g group, wherein the heteroaryl contains one or two heteroatoms selected from the group consisting of O, N and S; and

R³ is phenyl optionally substituted with one or two R^j groups.

44. The compound of any one of Claims 1 to 12, 42 or 43, wherein R¹ is selected from tetrahydropyran-4-yl, 3-fluorotetrahydropyran-4-yl, 2-(hydroxymethyl)tetrahydropyran-

4-yl, 1,3-dimethylpyrazol-4-yl and 1-methylpyrazol-5-yl;

R^2 is selected from CH_2OH , $\text{CH}_2\text{CH}_2\text{OH}$ and 1-methyl-pyrazol-4-yl; and

R^3 is selected from 3-chlorophenyl, 3-fluorophenyl, 4-chlorophenyl, 3-(trifluoromethyl)phenyl, 3,4-dichlorophenyl, 2,3-difluorophenyl, 3,4-difluorophenyl, 3,5-difluorophenyl, 4-chloro-3-fluorophenyl, 3-chloro-4-fluorophenyl, 3-chloro-2-fluorophenyl and 3-chloro-5-fluorophenyl.

45. The compound of any one of Claims 1 to 12, wherein:

R^1 is selected from (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one to four groups independently selected from halogen, oxo, OR^a and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with OR^d , wherein the heterocycle contains one, two or three heteroatoms selected from the group consisting of O, N, S, $\text{S}(=\text{O})$ and $\text{S}(=\text{O})_2$, and (e) a 5 to 6 membered heteroaryl optionally substituted with one to four groups independently selected from halogen, CN, OR^e , $\text{C}_3\text{-C}_6$ cycloalkyl, oxide and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one to three groups independently selected from hydroxyl and halogen;

R^2 is selected from (b) $\text{C}_1\text{-C}_6$ alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $\text{NH}(\text{C}_1\text{-C}_3 \text{ alkyl})$ and $\text{N}(\text{C}_1\text{-C}_3 \text{ alkyl})_2$, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g , wherein the heteroaryl contains one, two, three or four heteroatoms selected from the group consisting of O, N and S; and

R^3 is a 9 to 10 membered heteroaryl optionally substituted with one or two R^j groups, wherein the heteroaryl contains one N heteroatom.

46. The compound of any one of Claims 1 to 12 or 45, wherein:

R^1 is selected from (d) a 3 to 7 membered saturated heterocycle optionally substituted with one or two groups independently selected from halogen and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with OH, wherein the heterocycle contains one heteroatom selected from the group consisting of O, N and $\text{S}(=\text{O})_2$, and (e) a 5 to 6 membered heteroaryl optionally substituted with one to three groups independently selected from halogen, CN, OR^e , cyclopropyl and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one to three groups independently selected from hydroxyl and halogen, wherein the heteroaryl contains one, two or three heteroatoms selected from the group consisting of O and N;

R^2 is selected from (b) $\text{C}_1\text{-C}_6$ alkyl optionally substituted with one or two groups selected from OR^f , oxo, NH_2 , $\text{NH}(\text{C}_1\text{-C}_3 \text{ alkyl})$ and $\text{N}(\text{C}_1\text{-C}_3 \text{ alkyl})_2$, and (h) a 5 to 6 membered heteroaryl optionally substituted with one R^g group, wherein the heteroaryl

contains one or two heteroatoms selected from the group consisting of O, N and S; and

R^3 is a 9 to 10 membered heteroaryl optionally substituted with one or two R^j groups, wherein the heteroaryl contains one N heteroatom.

47. The compound of any one of Claims 1 to 12, 45 or 46, wherein:

R^1 is selected from tetrahydropyran-4-yl, 3-fluorotetrahydropyran-4-yl, 2-(hydroxymethyl)tetrahydropyran-4-yl, 1,3-dimethylpyrazol-4-yl and 1-methylpyrazol-5-yl;

R^2 is selected from CH_2OH , CH_2CH_2OH and 1-methyl-pyrazol-4-yl; and

R^3 is selected from indol-2-yl, indol-3-yl, indol-4-yl, indol-5-yl, indol-6-yl, indol-7-yl, 3-chloroindol-6-yl, 5-chloroindol-2-yl, 3-methylindol-6-yl, 1-methylindol-6-yl, 5-fluoroindol-2-yl, 2-methylindol-6-yl, 7-fluoroindol-2-yl, 3-methylindol-2-yl, 3-chloroindol-2-yl, 2-methylindol-3-yl, 6-chloroindol-2-yl, 3-cyclopropylindol-6-yl, 6-fluoroindol-2-yl, 2,3-dimethylindol-6-yl and 4-fluoroindol-2-yl.

48. The compound of any one of Claims 1 to 47, wherein R^4 is selected from hydrogen, F and methyl.

49. The compound of any one of Claims 1 to 48, wherein R^5 is selected from hydrogen, F, Cl and methyl.

50. The compound of any one of Claims 1 to 49, wherein R^6 is selected from hydrogen and C_1 - C_3 alkyl.

51. The compound of any one of Claims 1 to 50, wherein R^6 is selected from hydrogen and methyl.

52. The compound of any one of Claims 1 to 51, wherein R^7 is selected from hydrogen and halogen.

53. The compound of any one of Claims 1 to 52, wherein R^7 is selected from hydrogen and F.

54. The compound of any one of Claims 1 to 47, wherein:

R^5 is selected from hydrogen, halogen and C_1 - C_3 alkyl; R^6 is hydrogen; and R^7 is hydrogen;

R^5 is hydrogen; R^6 is selected from hydrogen and C_1 - C_3 alkyl; and R^7 is hydrogen; or

R^5 is hydrogen; R^6 is hydrogen; and R^7 is selected from hydrogen and halogen.

55. The compound of Claim 1, wherein the compound is:

(*S*)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;

1-((*S*)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3*S*,4*S*)-3-fluorotetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;

1-((*S*)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3*S*,4*R*)-3-fluorotetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((*S*)-1-(3,4-dichlorophenyl)-2-hydroxyethyl)-4-(2-(((3*S*,4*S*)-3-fluorotetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((*S*)-1-(3,4-dichlorophenyl)-2-hydroxyethyl)-4-(2-(((3*S*,4*R*)-3-fluorotetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((*S*)-1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3*S*,4*S*)-3-fluorotetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((*S*)-1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3*S*,4*R*)-3-fluorotetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((*S*)-1-(3,4-dichlorophenyl)-2-hydroxyethyl)-4-(2-(((1*S*,3*S*)-3-hydroxycyclopentyl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (*S*)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1*H*-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((*S*)-(4-chloro-3-fluorophenyl)((*R*)-pyrrolidin-2-yl)methyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (*S*)-2-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-5-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridazin-3(2*H*)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(5-methyl-2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-(1-(3-chlorophenyl)-2-hydroxyethyl)-4-(5-fluoro-2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyrimidin-2(1*H*)-one;
 1-benzhydryl-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (*S*)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(5-fluoro-2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (*S*)-1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (*S*)-1-(1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (*S*)-1-(1-(2,3-difluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (*S*)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-5-fluoro-4-(2-((tetrahydro-2*H*-pyran-4-

yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-3-fluoro-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((S)-1-(3-chlorophenyl)-2-hydroxyethyl)-4-(2-(((3*S*,4*S*)-3-fluorotetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((S)-1-(3-chlorophenyl)-2-hydroxyethyl)-4-(2-(((3*S*,4*R*)-3-fluorotetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-methylpyrimidin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((6-methylpyrimidin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((6-methoxypyrimidin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-methylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,3-dimethyl-1*H*-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-methoxypyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (S)-1-(1-(3,4-dichlorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (S)-1-(1-(3,5-dichlorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((S)-1-(3,5-dichlorophenyl)-2-hydroxyethyl)-4-(2-(((3*S*,4*R*)-3-fluorotetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((S)-1-(3,5-dichlorophenyl)-2-hydroxyethyl)-4-(2-(((3*S*,4*S*)-3-fluorotetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((4-chloro-3-fluorophenyl)(oxazol-5-yl)methyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((4-chloro-3-fluorophenyl)(1-methyl-1*H*-pyrazol-4-yl)methyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((4-chloro-3-fluorophenyl)(1-methyl-1*H*-pyrazol-4-yl)methyl)-4-(5-fluoro-2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-(4-chloro-3-fluorophenethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-

yl)pyridin-2(1*H*)-one;
 (*R*)-1-(1-(4-chloro-3-fluorophenyl)-3-hydroxypropyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 (*S*)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1*H*-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((1*H*-indol-6-yl)methyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((1*H*-indol-2-yl)methyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 4-(2-((1*S*,4*R*,5*R*)-2-oxabicyclo[2.2.1]heptan-5-ylamino)pyrimidin-4-yl)-1-((*S*)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1*H*)-one;
 1-(1-(4-chloro-3-fluorophenyl)-3-hydroxybutyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-(2-hydroxy-1-(1*H*-indol-2-yl)ethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((*R*)-(4-chloro-3-fluorophenyl)((*R*)-pyrrolidin-3-yl)methyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 2-(3-fluoro-4-methoxyphenyl)-2-(2-oxo-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-1(2*H*)-yl)acetic acid;
 1-(1-(4-chloro-3-fluorophenyl)vinyl)-4-(2-((1,3-dimethyl-1*H*-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((*S*)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(3-oxo-2-oxabicyclo[2.2.1]heptan-5-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-(2-(4-chloro-3-fluorophenyl)-2,3-dihydroxypropyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-((*S*)-(3-fluoro-4-methoxyphenyl)((*R*)-pyrrolidin-2-yl)methyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-(1-phenylethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 4-(2-(((*S*)-1-hydroxypropan-2-yl)amino)pyrimidin-4-yl)-1-(1-phenylethyl)pyridin-2(1*H*)-one;
 1-(2-hydroxy-1-phenylethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-(2-hydroxy-1-phenylethyl)-4-(2-(((*S*)-1-hydroxypropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1*H*)-one;
 1-(1-(4-chlorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-

yl)pyridin-2(1H)-one;
 1-(1-(4-chlorophenyl)-2-hydroxyethyl)-4-(2-(((S)-1-hydroxypropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chlorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-chlorophenyl)-2-hydroxyethyl)-4-(2-(((S)-1-hydroxypropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-chlorophenyl)-2-hydroxyethyl)-4-(2-(isopropylamino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-(((S)-1-hydroxypropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-(((1S,3S)-3-hydroxycyclopentyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-(((S)-1-hydroxybutan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-dioxo-thiopyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((R)-1-cyclopropylethyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((R)-1-hydroxy-3-methoxypropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-5-methyl-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-pyrazol-3-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-6-methyl-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,3-difluoropropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,1-dioxidotetrahydrothiophen-3-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-(((S)-1-cyclopropyl-2-hydroxyethyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((R)-1-(3-chlorophenyl)propyl)-4-(2-((1,1-dioxidotetrahydrothiophen-3-

yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((R)-1-(3-chlorophenyl)propyl)-4-(2-(((1S,3S)-3-hydroxycyclopentyl)amino) pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((oxetan-3-ylmethyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-4-(5-fluoro-2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)-1-(1-(3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1H)-one;
 (S)-4-(5-chloro-2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1H)-one;
 (R)-1-(1-(3-chlorophenyl)propyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((oxetan-3-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3,4-difluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chloro-2-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chloro-5-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((S)-1-hydroxypropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3,5-difluorophenyl)-2-hydroxyethyl)-4-(2-(((S)-1-hydroxypropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3,5-dichlorophenyl)-2-hydroxyethyl)-4-(2-(((S)-1-hydroxypropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-chloro-5-fluorophenyl)-2-hydroxyethyl)-4-(2-(((S)-1-hydroxypropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(2-hydroxy-1-(3-(trifluoromethyl)phenyl)ethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(2-hydroxy-1-m-tolylethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 3-(2-hydroxy-1-(2-oxo-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-1(2H)-yl)ethyl)benzonitrile;
 1-(2-hydroxy-1-(3-methoxyphenyl)ethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-

4-yl)pyridin-2(1H)-one;

1-((3-chlorophenyl)((S)-pyrrolidin-3-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((R)-tetrahydrofuran-3-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((S)-tetrahydrofuran-3-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(3,4-difluorophenyl)-2-hydroxyethyl)-4-(2-((oxetan-3-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3,3-difluorocyclobutyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one

(S)-1-(1-(2-chlorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one

1-((R)-(4-chloro-3-fluorophenyl)((S)-pyrrolidin-3-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

1-(1-(3-chlorophenyl)propyl)-4-(2-(((S)-1-hydroxypropan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(4-(difluoromethoxy)phenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(2,3-dichlorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(2,4-dichlorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-phenylethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

1-((4-chloro-3-fluorophenyl)((S)-pyrrolidin-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(3,5-difluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(5-chloropyridin-3-yl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(1,3-dimethyl-1H-pyrazol-5-yl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(R)-1-(1-(4-chloro-3-fluorophenyl)-3-hydroxypropyl)-4-(6-((tetrahydro-2H-pyran-4-

yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-3-hydroxypropyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (R)-1-(1-(4-chloro-3-fluorophenyl)-3-hydroxypropyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(6-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (R)-1-(1-(4-chloro-3-fluorophenyl)-3-hydroxypropyl)-4-(2-((6-methoxypyridin-3-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (R)-1-(1-(4-chloro-3-fluorophenyl)-3-hydroxypropyl)-4-(2-((6-oxo-1,6-dihydropyridin-3-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-chlorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (R)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3,5-difluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3,5-dichlorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-chloro-5-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3R,4R)-3-fluorotetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((R)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3S,4S)-3-fluorotetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3R,4S)-3-fluorotetrahydro-2H-

pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2,2-dimethyltetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one
 1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-methyltetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((S)-4-methoxybutan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-methoxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (R)-1-(1-(4-chloro-3-fluorophenyl)-3-hydroxypropyl)-4-(5-fluoro-2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-2-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(5-chloro-2-fluorophenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-fluoro-5-methoxyphenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one
 1-(1-(2-fluoro-3-methoxyphenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(2-fluoro-5-methoxyphenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)ethyl)-4-(2-(((S)-1-hydroxybutan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 4-(2-hydroxy-1-(2-oxo-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-1(2H)-yl)ethyl)-2-methoxybenzonitrile;
 (S)-1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (R)-1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-chloro-4-fluorophenyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-ethylpyrimidin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((6-methylpyridin-2-

yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-cyclopropylpyrimidin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)ethyl)-4-(2-((4,4,4-trifluoro-1-hydroxybutan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one
 1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(pyrrolidin-3-ylamino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(4-methoxyphenethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(4-fluorophenethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(3-chlorophenethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((5-fluoro-6-methylpyridin-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-4-(2-(azetidin-3-ylamino)pyrimidin-4-yl)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1H)-one;
 1-(4-chlorophenethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(4-methylphenethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(3-methoxyphenethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(piperidin-3-ylamino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1H-indol-5-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)-1-(4-(trifluoromethyl)phenethyl)pyridin-2(1H)-one;
 1-(3-methylphenethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)-1-(3-(trifluoromethyl)phenethyl)pyridin-2(1H)-one;
 4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)-1-(4-

(trifluoromethoxy)phenethyl)pyridin-2(1H)-one;
 1-(1-(1H-indol-5-yl)ethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 4-(2-((1-aminopropan-2-yl)amino)pyrimidin-4-yl)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((5-cyclopropyl-1-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-4-(2-((5-bromo-2-methylpyridin-4-yl)amino)pyrimidin-4-yl)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((cis)-2-(hydroxymethyl)tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,5-dimethyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(1H-indol-2-yl)ethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(3,4-dichlorophenethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,3-dimethyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,3-dimethyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((4-(2-hydroxypropan-2-yl)pyridin-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3S,4R)-3-fluorotetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 4-(2-(2-oxo-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-1(2H)-yl)ethyl)benzonitrile;
 1-(1-(1H-indol-6-yl)ethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)vinyl)-4-(2-((2-methylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-ethyl-3-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((R)-1-(methylamino)propan-2-

yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-(((3S,4R)-3-fluorotetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,5-dimethyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(3-fluorophenethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-(((cis)-2-(hydroxymethyl)tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((5-ethoxy-2-methylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)-1-(3-(trifluoromethoxy)phenethyl)pyridin-2(1H)-one;
 1-(((S)-1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((S)-1-(methylamino)propan-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,3-dimethyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-isopropyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((4-methyl-1H-imidazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-imidazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-ethyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-(2-hydroxypropan-2-yl)pyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-methyl-2,4,5,6-tetrahydrocyclopenta[c]pyrazol-3-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-5-((4-(1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-2-oxo-1,2-dihydropyridin-4-yl)pyrimidin-2-yl)amino)-1-methyl-1H-pyrazole-4-carbonitrile;
 1-((3,4-dichlorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-

yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-methylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-(((3S,4S)-3-fluorotetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((4-fluoro-2-methylphenyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1H-indazol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1H-indol-7-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-((2-methylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(benzo[d]thiazol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1H-indol-4-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(5-fluoro-2-(((cis)-2-(hydroxymethyl)tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-ethyl-3-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,4-dimethyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-ethyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-isopropyl-1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,3-dimethyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-methyl-1H-pyrazol-4-

yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((3,4-dichlorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(5-fluoro-2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((3-chloro-1H-indol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(indolin-6-ylmethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-((1,3-dimethyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1-methyl-1H-benzo[d]imidazol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(benzo[d]oxazol-2-ylmethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((R)-1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3S,4R)-3-fluorotetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3S,4R)-3-fluorotetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-ethyl-1-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1,3,5-trimethyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3,5-dimethyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(5-fluoro-2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (R)-1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(5-fluoro-2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-1-(3-chlorophenyl)-2-hydroxyethyl)-4-(2-(((cis)-3-hydroxycyclobutyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-1-(3-chlorophenyl)-2-hydroxyethyl)-4-(2-(((trans)-3-hydroxycyclobutyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((5-chlorobenzo[d]oxazol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-chlorophenyl)-2-hydroxyethyl)-4-(2-((3-methoxycyclobutyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

yl)pyridin-2(1H)-one;
 1-((5-chloro-1H-indol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-cyclopropyl-5-methoxypyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((5-ethyl-1-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((3-methyl-1H-indol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1-methyl-1H-indol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((5-fluoro-1H-indol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1H-indol-3-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1H-pyrrolo[2,3-c]pyridin-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((6-chlorobenzo[d]oxazol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1H-benzo[d]imidazol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((2-methyl-1H-indol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((7-fluoro-1H-indol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-4-((4-(1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-2-oxo-1,2-dihydropyridin-4-yl)pyrimidin-2-yl)amino)-2-methoxypyridine 1-oxide;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((5-methoxy-2-methylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((2,3-dimethyl-1H-indol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

yl)pyridin-2(1H)-one;
 1-((3-methyl-1H-indol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((5-methyl-1,3,4-oxadiazol-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((3-chloro-1H-indol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((2-methyl-1H-indol-3-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-(((3S,4S)-3-fluorotetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-ethyl-1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((6-chloro-1H-indol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-methoxyphenyl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-(2-hydroxyethyl)-3-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-(2-hydroxyethyl)-5-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-3-(trifluoromethyl)-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((3-cyclopropyl-1H-indol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((6-fluoro-1H-indol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(5-fluoro-1H-indol-2-yl)ethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-pyrazol-5-

yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (R)-1-(1-(3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-1,2,3-triazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(5-fluoro-2-((2-methylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(5-fluoro-2-((3-methylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(5-fluoro-2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1H-benzo[d]imidazol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-fluoro-1H-indol-2-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-4-(5-fluoro-2-((2-methylpyridin-4-yl)amino)pyrimidin-4-yl)-1-(1-(3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1H)-one;
 (S)-4-(5-fluoro-2-((3-methylpyridin-4-yl)amino)pyrimidin-4-yl)-1-(1-(3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)vinyl)-4-(2-((1-(2-hydroxyethyl)-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-methyl 4-((4-(1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-2-oxo-1,2-dihydropyridin-4-yl)pyrimidin-2-yl)amino)picolinate;
 (S)-4-((4-(1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-2-oxo-1,2-dihydropyridin-4-yl)pyrimidin-2-yl)amino)picolinic acid;
 (S)-1-(1-(4-chlorophenyl)-2-hydroxyethyl)-4-(5-fluoro-2-((2-methylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chlorophenyl)-2-hydroxyethyl)-4-(5-fluoro-2-((3-methylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-cyclopropyl-5-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-cyclopropyl-3-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-(4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-(((1S,3S)-3-

hydroxycyclopentyl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2,3-dimethylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2,5-dimethylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(2-((1,3-dimethyl-1H-pyrazol-4-yl)amino)-5-fluoropyrimidin-4-yl)pyridin-2(1H)-one;
 4-(5-fluoro-2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)-1-((3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)pyridin-2(1H)-one;
 1-((7-fluoro-1H-indol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-chloro-3-fluorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(5-fluoro-2-(((3S,4R)-3-fluorotetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-chlorophenyl)(1-methyl-1H-pyrazol-4-yl)methyl)-4-(5-fluoro-2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-4-(2-((1,3,4-oxadiazol-2-yl)amino)pyrimidin-4-yl)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)-3-hydroxy-3-methylbutyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-methylpyridazin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-(pyridazin-4-ylamino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((S)-(4-chloro-3-fluorophenyl)((R)-pyrrolidin-3-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((4-fluoro-1H-indol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-2-(4-chloro-3-fluorophenyl)-2-(2-oxo-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-1(2H)-yl)ethyl 2-amino-2-methylpropanoate;
 (S)-1-(1-(5-fluoro-1H-indol-2-yl)-2-hydroxyethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (R)-1-(1-(4-chloro-3-fluorophenyl)-3-hydroxypropyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one
 (S)-2-(4-chloro-3-fluorophenyl)-2-(4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)-

2-oxopyridin-1(2H)-yl)ethyl acetate;
 1-((5-fluoro-1H-indol-6-yl)methyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-fluorophenyl)vinyl)-4-(2-((1-ethyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-ethyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(4-methoxybenzyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(3-fluoro-4-methoxybenzyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-fluoro-3-methoxyphenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(1-(4-chloro-3-methoxyphenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-4-(2-((2H-tetrazol-5-yl)amino)pyrimidin-4-yl)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1H)-one;
 (S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-tetrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1R,3R)-1-(4-chloro-3-fluorophenyl)-3-hydroxybutyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-((1S,3R)-1-(4-chloro-3-fluorophenyl)-3-hydroxybutyl)-4-(2-((1-methyl-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 (S)-1-(2-amino-1-(4-chloro-3-fluorophenyl)ethyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-benzyl-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(3-chlorobenzyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(4-chlorobenzyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(4-chloro-3-fluorobenzyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;
 1-(3-chloro-4-fluorobenzyl)-4-(2-((tetrahydro-2H-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-cyclopropyl-1-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-(hydroxymethyl)pyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-2-((4-(1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-2-oxo-1,2-dihydropyridin-4-yl)pyrimidin-2-yl)amino)pyrimidin-4(3H)-one;

(S)-4-(2-((1H-pyrazol-3-yl)amino)pyrimidin-4-yl)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)pyridin-2(1H)-one;

(S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-methyloxetan-3-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(3-chloro-4-fluorophenyl)-2-hydroxyethyl)-4-(2-((4-methyl-1H-imidazol-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-(hydroxymethyl)-1-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-methyl-1H-imidazol-2-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3,5-dimethylpyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-(trifluoromethyl)-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

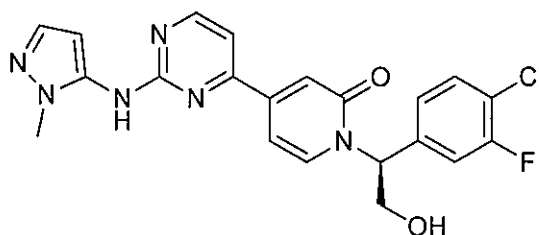
(S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((3-hydroxypyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

(S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((2-oxo-1,2-dihydropyridin-4-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one; or

(S)-1-(1-(4-chloro-3-fluorophenyl)-2-hydroxyethyl)-4-(2-((1-(2-hydroxyethyl)-1H-pyrazol-5-yl)amino)pyrimidin-4-yl)pyridin-2(1H)-one;

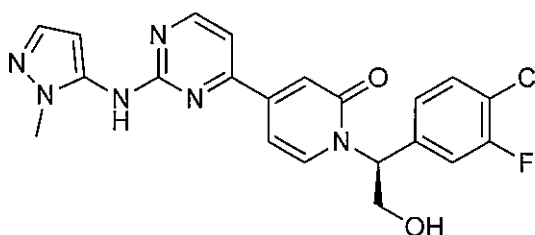
or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof.

56. The compound:



or a pharmaceutically acceptable salt thereof.

57. A pharmaceutical composition comprising the compound:



or a pharmaceutically acceptable salt thereof; and at least one pharmaceutically acceptable carrier, excipient or diluent.

58. A pharmaceutical composition comprising a compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof .

59. A pharmaceutical composition comprising a compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt and at least one pharmaceutically acceptable carrier, excipient or diluent.

60. A pharmaceutical composition comprising a compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof for use in the treatment of a hyperproliferative disease.

61. Use of a compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of a hyperproliferative disease.

62. A compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof for use as a medicament.

63. A compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof for use in therapy.

64. A compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of claim 56 or a pharmaceutically acceptable salt thereof for use in the treatment of a hyperproliferative disease.

65. A method of inhibiting ERK protein kinase activity in a cell in vitro, comprising treating the cell with a compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a

pharmaceutically acceptable salt thereof.

66. Use of a compound according to any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the inhibition of ERK protein kinase activity.

67. Use of a compound according to any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment or amelioration of the severity of a hyperproliferative disease.

68. The use, according to Claim 67, wherein the hyperproliferative disease is selected from the group consisting of adenoma, bladder cancer, brain cancer, breast cancer, colon cancer, epidermal carcinoma, follicular carcinoma, cancer of the genitourinary tract, glioblastoma, Hodgkin's disease, head and neck cancers, hepatoma, keratoacanthoma, kidney cancer, large cell carcinoma, leukemias, lung adenocarcinoma, lung cancer, lymphoid disorders, melanoma and non-melanoma skin cancer, myelodysplastic syndrome, neuroblastoma, non-Hodgkins lymphoma, ovarian cancer, papillary carcinoma, pancreatic cancer, prostate cancer, rectal cancer, sarcoma, small cell carcinoma, testicular cancer, tetracarcinomas, thyroid cancer, and undifferentiated carcinoma.

69. The use, according to Claim 67, wherein the hyperproliferative disease is selected from the group consisting of melanoma, pancreatic cancer, thyroid cancer colorectal cancer, lung cancer, breast cancer and ovarian cancer.

70. The use, according to Claim 67, wherein the hyperproliferative disease is selected from the group consisting of acute myelogenous leukemia, chronic myelomonocytic leukemia, chronic myelogenous leukemia, multiple myeloma and myeloid leukemia.

71. Use of a compound according to any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof and at least one other chemotherapeutic agent, in the manufacture of a medicament for the treatment or amelioration of the severity of a hyperproliferative disease.

72. The use according to Claim 71, wherein the hyperproliferative disease is selected from the group consisting of adenoma, bladder cancer, brain cancer, breast cancer, colon cancer, epidermal carcinoma, follicular carcinoma, cancer of the genitourinary tract, glioblastoma, Hodgkin's disease, head and neck cancers, hepatoma, keratoacanthoma, kidney cancer, large cell carcinoma, leukemias, lung adenocarcinoma, lung cancer, lymphoid

disorders, melanoma and non-melanoma skin cancer, myelodysplastic syndrome, neuroblastoma, non-Hodgkins lymphoma, ovarian cancer, papillary carcinoma, pancreatic cancer, prostate cancer, rectal cancer, sarcoma, small cell carcinoma, testicular cancer, tetracarzinomas, thyroid cancer, and undifferentiated carcinoma.

73. The use, according to Claim 71, wherein the hyperproliferative disease is selected from the group consisting of melanoma, pancreatic cancer, thyroid cancer colorectal cancer, lung cancer, breast cancer and ovarian cancer.

74. The use, according to Claim 71, wherein the hyperproliferative disease is selected from the group consisting of acute myelogenous leukemia, chronic myelomonocytic leukemia, chronic myelogenous leukemia, multiple myeloma and myeloid leukemia.

75. Use of a compound according to any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment or amelioration of the severity of an inflammatory disease.

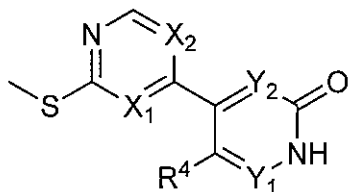
76. A pharmaceutical composition comprising a compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof for use in the treatment of an inflammatory disease.

77. A compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof for use in the treatment of an inflammatory disease.

78. Use of a compound according to any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of Claim 56 or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment or amelioration of the severity of an inflammatory disease.

79. The use, according to any one of Claims 75 to 78, wherein the inflammatory disease is selected from arthritis, low back pain, inflammatory bowel disease and rheumatism.

80. A compound of Formula 10.1:



10.1

wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

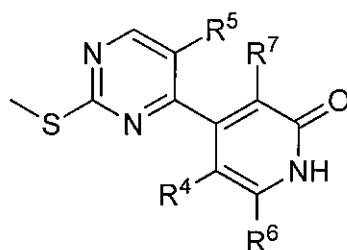
Y₂ is selected from CR⁷ and N; and

each R⁴, R⁵, R⁶ and R⁷ is independently selected from hydrogen, halogen and C₁-C₃ alkyl.

81. The compound of Claim 80, wherein X₁ is selected from CH and N; and X₂ is selected from CR⁵ and N; wherein only one of X₁ and X₂ may be N.

82. The compound of Claim 80 or 81, wherein Y₁ is selected from CR⁶ and N; and Y₂ is selected from CR⁷ and N; wherein only one of Y₁ and Y₂ may be N.

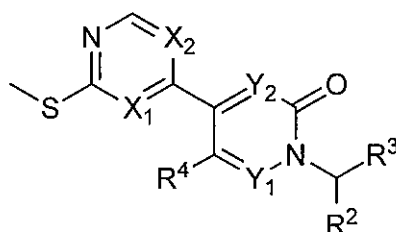
83. The compound of any one of Claims 80 to 82 having Formula 1.4:



1.4

84. The compound of any one of Claims 80 to 83, that is 4-(2-(methylthio)pyrimidin-4-yl)pyridin-2(1H)-one.

85. A compound of Formula 10.2:



10.2

wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R² is selected from (a) hydrogen, (b) C₁-C₆ alkyl optionally substituted with one or

more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (c) C_1-C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (d) C_1-C_6 alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (e) C_3-C_6 cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1-C_3 alkyl;

each R^f is independently selected from hydrogen and C_1-C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$;

each R^g is C_1-C_6 alkyl;

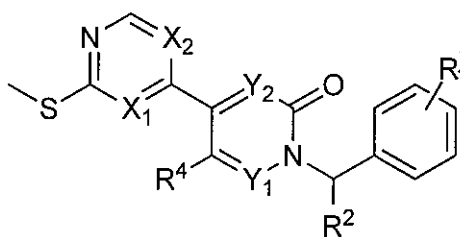
R^h and R^i are independently selected from hydrogen, OR^k and C_1-C_6 alkyl optionally substituted with OR^m ;

each R^j is independently selected from halogen, CN, cyclopropyl, C_1-C_6 alkyl optionally substituted with halogen, and C_1-C_6 alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C_1-C_3 alkyl; and

x is 0 or 1.

86. The compound of Claim 85 having the Formula 10.3:

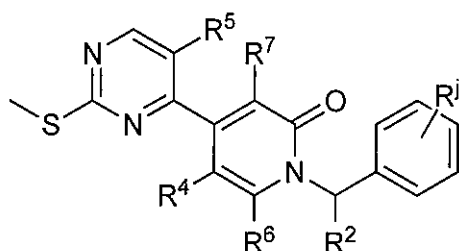


10.3

87. The compound of Claim 85 or 86, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

88. The compound of any one of Claims 85 to 87, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

89. The compound of any one of Claims 85 to 88 having the structure 3.2:



3.2

90. The compound of any one of Claims 85 to 89, wherein the compound is substituted with 0 to 3 R^j groups.

91. The compound of any one of Claims 85 to 90, wherein the compound is substituted with 1 or 2 R^j groups.

92. The compound selected from:

(*R*)-2-(tert-butyldimethylsilyloxy)-1-(4-chloro-3-fluorophenyl)ethyl methanesulfonate;

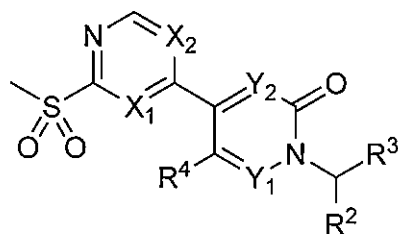
(*R*)-2-((tert-butyldimethylsilyl)oxy)-1-(3-chloro-4-fluorophenyl)ethyl methanesulfonate;

2-((tert-butyldimethylsilyl)oxy)-1-(3-chloro-4-fluorophenyl)ethyl methanesulfonate; and

2-(tert-butyldimethylsilyloxy)-1-(4-chloro-3-fluorophenyl)ethyl methanesulfonate.

93. A compound that is (*S*)-3-(tert-butyldimethylsilyloxy)-1-(4-chloro-3-fluorophenyl)propyl methanesulfonate.

94. A compound of Formula 10.6:



10.6

wherein:

X_1 is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R² is selected from (a) hydrogen, (b) C₁-C₆ alkyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (c) C₁-C₆ alkenyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (d) C₁-C₆ alkynyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (e) C₃-C₆ cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g, (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g, (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g;

R³ is selected from (a) (CR^hRⁱ)_x-phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) (CR^hRⁱ)_x-(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R⁴, R⁵, R⁶ and R⁷ is independently selected from hydrogen, halogen and C₁-C₃ alkyl;

each R^f is independently selected from hydrogen and C₁-C₆ alkyl optionally substituted with one or more groups selected from oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂;

each R^g is C₁-C₆ alkyl;

R^h and Rⁱ are independently selected from hydrogen, OR^k and C₁-C₆ alkyl optionally substituted with OR^m;

each R^j is independently selected from halogen, CN, cyclopropyl, C₁-C₆ alkyl optionally substituted with halogen, and C₁-C₆ alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C₁-C₃ alkyl; and

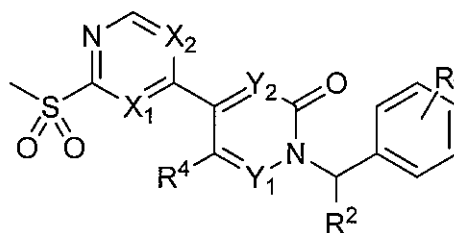
x is 0 or 1.

95. The compound of Claim 94, wherein X₁ is selected from CH and N; and X₂ is selected from CR⁵ and N; wherein only one of X₁ and X₂ may be N.

96. The compound of Claim 94 or 95, wherein Y₁ is selected from CR⁶ and N; and

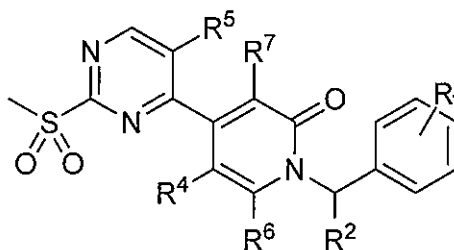
Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

97. The compound of any one of Claims 94 to 96 having the structure **10.7**:



10.7

98. The compound of any one of Claims 94 to 97 having the structure **8.1**:



8.1

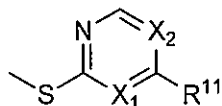
99. The compound of Claim 97 or 98, wherein the compound is substituted with 0 to 3 R^j groups.

100. The compound of any one of Claims 97 to 99, wherein the compound is substituted with 1 or 2 R^j groups.

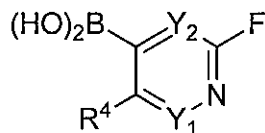
101. A compound that is (*S*)-1-(2-(tert-butyldimethylsilyloxy)-1-(4-chloro-3-fluorophenyl)ethyl)-4-(2-(methylsulfonyl)pyrimidin-4-yl)pyridin-2(1H)-one.

102. A process for preparing a compound of Formula **10.1**, comprising:

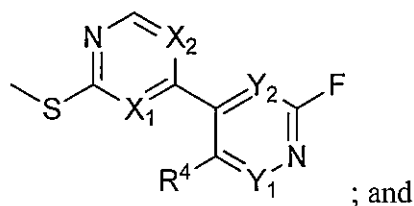
(a) coupling a compound having the structure:



with a compound having the structure:

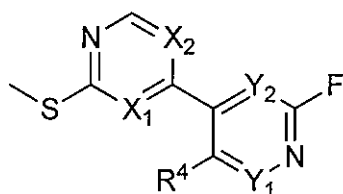


to prepare a compound having the structure:

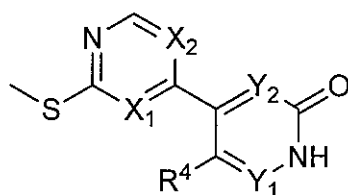


; and

(b) hydrolyzing the compound having the structure:



to prepare a compound of Formula 10.1:



10.1

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl; and

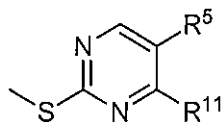
R^{11} is selected from Cl, Br and I.

103. The process of Claim 102, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

104. The process of Claim 102 or 103, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

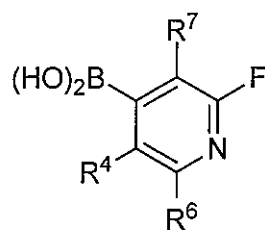
105. The process of any one of Claims 102 to 104, wherein a compound of Formula 1.1 is prepared, comprising:

(a) coupling a compound of Formula 1.1:



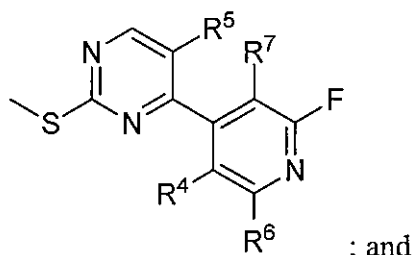
1.1

with a compound of Formula 1.2:



1.2

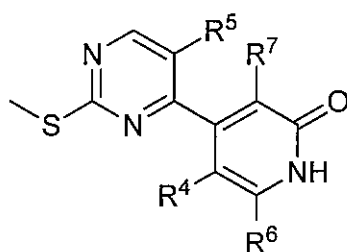
to prepare a compound of Formula 1.3:



; and

1.3

(b) hydrolyzing the compound of Formula 1.3 to prepare a compound of Formula 1.4:



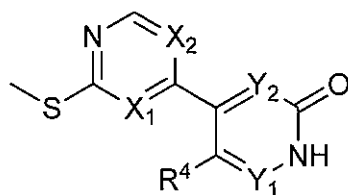
1.4

106. The process of any one of Claims 102 to 105, wherein the coupling in Step (a) is performed by a Suzuki reaction.

107. The process of any one of Claims 102 or 106, wherein the hydrolysis in Step (b) is performed under acidic conditions.

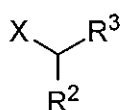
108. The process of any one of Claims 102 to 107, wherein the hydrolysis in Step (b) is performed by addition of aqueous HCl.

109. A process for preparing a compound of Formula 10.2, comprising:
reacting a compound of Formula 10.1:

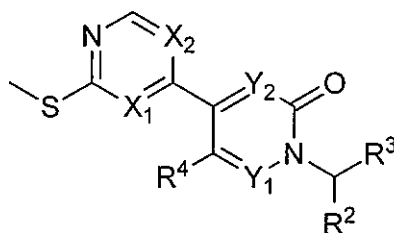


10.1

with a compound having the structure:



to prepare a compound of Formula 10.2:



10.2

wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R² is selected from (a) hydrogen, (b) C₁-C₆ alkyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (c) C₁-C₆ alkenyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (d) C₁-C₆ alkynyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (e) C₃-C₆ cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g, (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g, (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g;

R³ is selected from (a) (CR^hRⁱ)_x-phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) (CR^hRⁱ)_x-(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R⁴, R⁵, R⁶ and R⁷ is independently selected from hydrogen, halogen and C₁-C₃ alkyl;

each R^f is independently selected from hydrogen and C₁-C₆ alkyl optionally

substituted with one or more groups selected from oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂;

each R^g is C₁-C₆ alkyl;

R^h and Rⁱ are independently selected from hydrogen, OR^k and C₁-C₆ alkyl optionally substituted with OR^m;

each R^j is independently selected from halogen, CN, cyclopropyl, C₁-C₆ alkyl optionally substituted with halogen, and C₁-C₆ alkoxy optionally substituted with halogen;

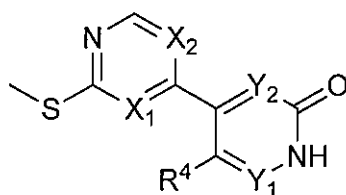
R^k and R^m are independently hydrogen or C₁-C₃ alkyl;

x is 0 or 1; and

X is Cl, Br, I, OMs or OTf.

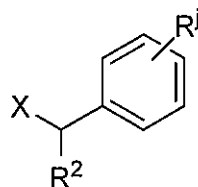
110. The process of Claims 109, wherein a compound of Formula 10.3 is prepared, comprising:

reacting a compound of Formula 10.1:



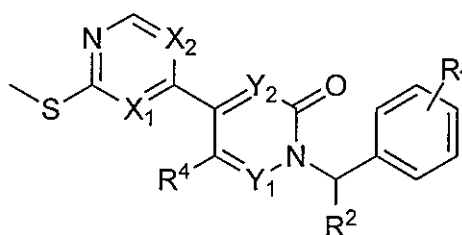
10.1

with a compound of Formula 3.1:



3.1

to prepare a compound of Formula 10.3:



10.3

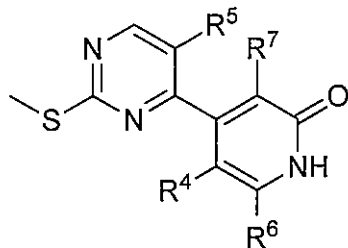
111. The process of Claims 109 or 110, wherein X₁ is selected from CH and N; and X₂ is selected from CR⁵ and N; wherein only one of X₁ and X₂ may be N.

112. The process of any one of Claims 109 to 111, wherein Y₁ is selected from CR⁶

and N; and Y₂ is selected from CR⁷ and N; wherein only one of Y₁ and Y₂ may be N.

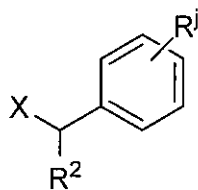
113. The process of any one of Claims 109 to 112, wherein a compound of Formula 3.2 is prepared, comprising:

reacting a compound of Formula 1.4:



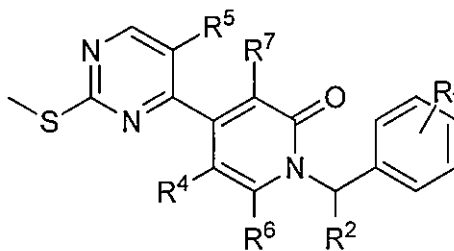
1.4

with a compound of Formula 3.1:



3.1

to prepare a compound of Formula 3.2:



3.2

114. The process of any one of Claims 109 to 113, wherein the compounds are substituted with 0 to 3 R^j groups.

115. The process of any one of Claims 109 to 114, wherein the compounds are substituted with 1 or 2 R^j groups.

116. The process of any one of Claims 109 to 115, wherein the reaction is an alkylation.

117. The process of any one of Claims 109 to 116, wherein the reaction takes place in the presence of a base.

118. The process of any one of Claims 109 to 117, wherein the base is KHMDS or KO^{*t*}-Bu.

119. The process of any one of Claims 109 to 118, wherein the reaction takes place

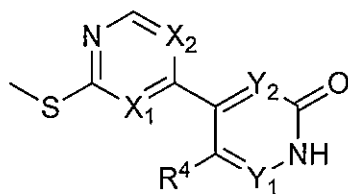
in a solvent.

120. The process of any one of Claims 109 to 119, wherein the solvent is THF, 2-methyltetrahydrofuran or dioxane.

121. The process of any one of Claims 109 to 120, wherein the reaction includes a catalyst.

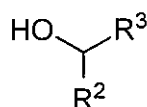
122. The process of any one of Claims 109 to 121, wherein the catalyst is tetrabutylammonium iodide.

123. A process for preparing a compound of Formula 10.2, comprising:
reacting a compound of Formula 10.1:

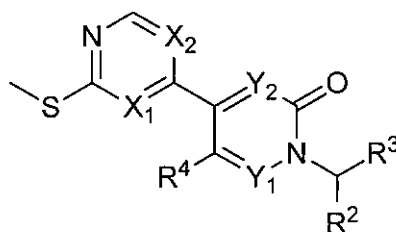


10.1

with a compound having the structure:



to prepare a compound of Formula 10.2:



10.2

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^2 is selected from (a) hydrogen, (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (c) C_1 - C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (d) C_1 - C_6 alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (e) C_3 - C_6

cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl;

each R^f is independently selected from hydrogen and C_1 - C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1$ - C_3 alkyl) and $N(C_1$ - C_3 alkyl) $_2$;

each R^g is C_1 - C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1 - C_6 alkyl optionally substituted with OR^m ;

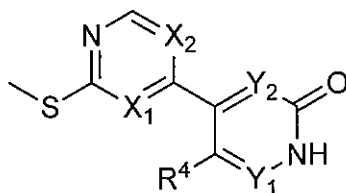
each R^j is independently selected from halogen, CN, cyclopropyl, C_1 - C_6 alkyl optionally substituted with halogen, and C_1 - C_6 alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C_1 - C_3 alkyl; and

x is 0 or 1.

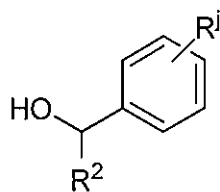
124. The process of Claim 123, wherein a compound of Formula 10.3 is prepared, comprising:

reacting a compound of Formula 10.1:



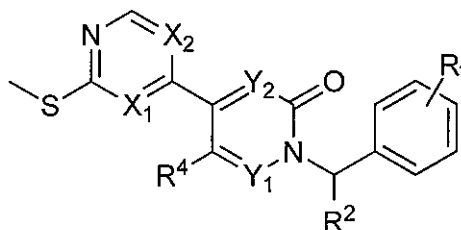
10.1

with a compound of Formula 4.1:



4.1

to prepare a compound of Formula 10.3:



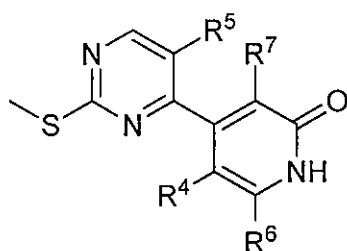
10.3

125. The process of Claims 123 or 124, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

126. The process of any one of Claims 123 to 125, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

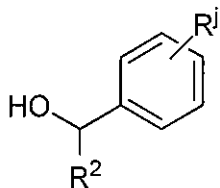
127. The process of any one of Claims 123 to 126, wherein a compound of Formula 3.2 is prepared, comprising:

reacting a compound of Formula 1.4:



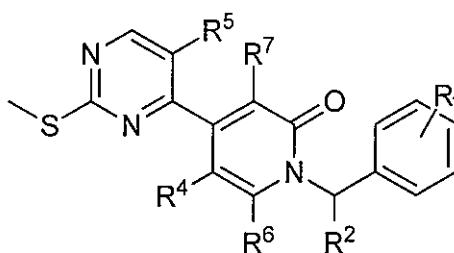
1.4

with a compound of Formula 4.1:



4.1

to prepare a compound of Formula 3.2:



3.2

128. The process of any one of Claims 123 to 127, wherein the compounds are substituted with 0 to 3 R^j groups.

129. The process of any one of Claims 123 to 128, wherein the compounds are substituted with 1 or 2 R^j groups.

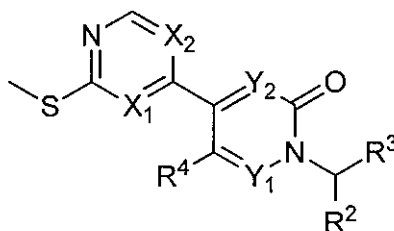
130. The process of any one of Claims 123 to 129, wherein the reaction is a Mitsunobu reaction.

131. The process of any one of Claims 123 to 130, wherein the reaction includes DIAD and PPh_3 .

132. The process of any one of Claims 123 to 131, wherein the reaction is in a solvent.

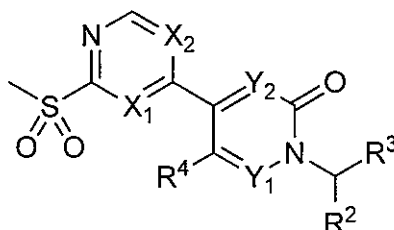
133. The process of any one of Claims 123 to 132, wherein the solvent is THF.

134. A process for preparing a compound of Formula 10.6, comprising:
oxidizing a compound of Formula 10.2:



10.2

to prepare a compound of Formula 10.6:



10.6

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^2 is selected from (a) hydrogen, (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (c) C_1 - C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (d) C_1 - C_6 alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (e) C_3 - C_6 cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl;

each R^f is independently selected from hydrogen and C_1 - C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$;

each R^g is C_1 - C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1 - C_6 alkyl optionally substituted with OR^m ;

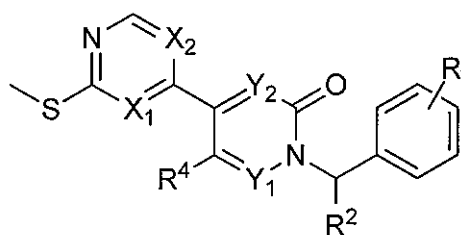
each R^j is independently selected from halogen, CN, cyclopropyl, C_1 - C_6 alkyl optionally substituted with halogen, and C_1 - C_6 alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C_1 - C_3 alkyl; and

x is 0 or 1.

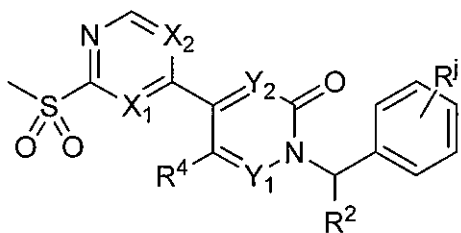
135. The process of Claim 134, wherein a compound of Formula 10.7 is prepared, comprising:

oxidizing a compound of Formula 10.3:



10.3

to prepare a compound of Formula 10.7:



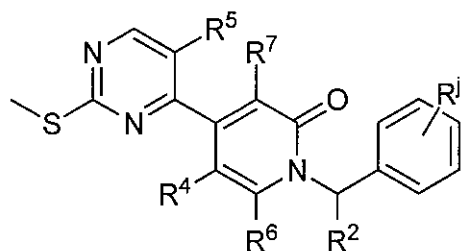
10.7

136. The process of Claims 134 or 135, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

137. The process of any one of Claims 134 to 136, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

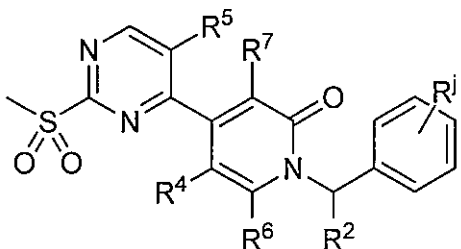
138. The process of any one of Claims 134 to 137, wherein a compound of Formula 8.1 is prepared, comprising:

oxidizing a compound of Formula 3.2:



3.2

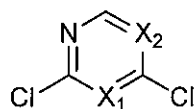
to prepare a compound of Formula 8.1:



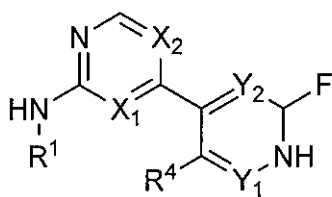
8.1

139. The process of any one of Claims 134 to 138, wherein the compounds are substituted with 0 to 3 R^j groups.

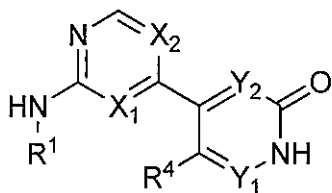
(a) coupling a compound having the structure:


$$\begin{array}{c} (\text{HO})_2\text{B}-\text{Y}_2-\text{F} \\ \diagup \quad \diagdown \\ \text{R}^4 \quad \text{Y}_1=\text{N} \end{array}$$
ClC1=NC=CC(=C1)C(=C2C(=N2)N=C(F)C=C2R4)Y1ClC1=NC=CC(=C1)C(=C2C(=N2)N=C(F)C=C2R4)Y1
$$\text{HN}(\text{R}^1)\text{C}(\text{N}=\text{X}_2)\text{C}(\text{X}_1)=\text{C}(\text{Y}_2)(\text{R}^4)\text{C}(\text{Y}_1)=\text{N}(\text{F})\text{H}; \text{ and}$$

(c) hydrolyzing the compound having the structure:



to prepare a compound of Formula 10.8:



10.8

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^1 is selected from (a) C_1 - C_6 alkyl optionally substituted with one or more groups independently selected from halogen, OR^a , NR^bR^c , oxo, CN, C_3 - C_6 cycloalkyl and a 3 to 7 membered heterocycle, (b) C_3 - C_7 cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e , oxide, CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d , and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d ;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl; and

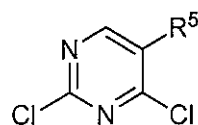
each R^a , R^b , R^c , R^d , and R^e is independently selected from hydrogen and C_1 - C_6 alkyl.

145. The process of Claim 144, wherein X_1 is selected from CH and N; and X_2 is selected from CR^5 and N; wherein only one of X_1 and X_2 may be N.

146. The process of Claims 144 or 145, wherein Y_1 is selected from CR^6 and N; and Y_2 is selected from CR^7 and N; wherein only one of Y_1 and Y_2 may be N.

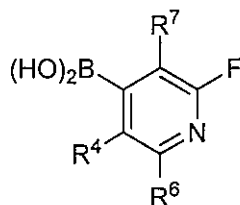
147. The process of any one of Claims 144 to 146, wherein a compound of Formula 9.4 is prepared, comprising:

(a) coupling a compound of Formula 9.1:



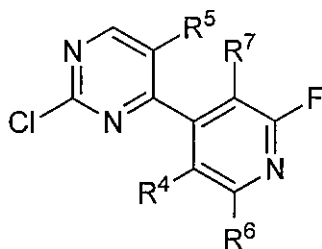
9.1

with a compound of Formula 1.2:



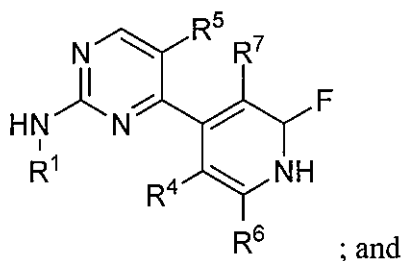
9.1

to prepare a compound of Formula 9.2:



9.2

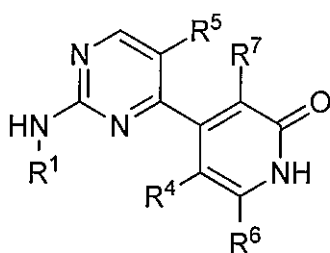
(b) reacting the compound of Formula 9.2 with NH_2R^1 to prepare a compound of Formula 9.3:



9.3

(c) hydrolyzing the compound of Formula 9.3 to prepare a compound of Formula

9.4:



9.4

148. The process of any one of Claims 144 to 147, wherein the coupling in Step (a) is a Suzuki coupling.

149. The process of any one of Claims 144 to 148, wherein the coupling in Step (a) includes a Pd catalyst.

150. The process of any one of Claims 144 to 149, wherein the Pd catalyst in Step (a) is PdCl₂(dppf).

151. The process of any one of Claims 144 to 150, wherein the coupling in Step (a) is done in the presence of a base.

152. The process of any one of Claims 144 to 151, wherein the base in Step (a) is Na₂CO₃.

153. The process of any one of Claims 144 to 152, wherein the reaction in Step (b) is done in the presence of a base.

154. The process of any one of Claims 144 to 153, wherein the base in Step (b) is Hunig's base.

155. The process of any one of Claims 144 to 154, wherein the reaction in Step (b) is done in a solvent.

156. The process of any one of Claims 144 to 155, wherein the solvent in Step (b) is N,N-dimethylacetamide or 2-butanol.

157. The process of any one of Claims 144 to 156, wherein the reaction in Step (b) is done with heat.

158. The process of any one of Claims 144 to 157, wherein the hydrolysis in Step (c) is done with an aqueous acid.

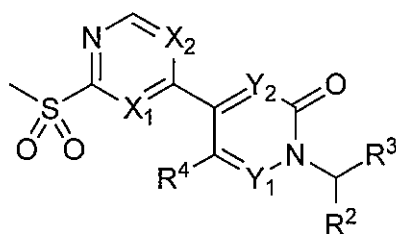
159. The process of any one of Claims 144 to 158, wherein the acid in Step (c) is HCl.

160. The process of any one of Claims 144 to 157, wherein the hydrolysis in Step (c) is done with a base.

161. The process of any one of Claims 144 to 157 or 160, wherein the base in Step

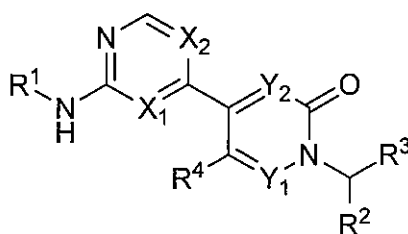
(c) is NaOH.

162. A process for preparing compounds of Formula I, comprising:
reacting a compound of Formula 10.6:



10.6

with NH₂R¹ to prepare a compound of Formula I:



I

wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a, NR^bR^c, oxo, CN, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, (b) C₃-C₇ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e, oxide, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups

independently selected from halogen, oxo and OR^d , and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, C_3 - C_6 cycloalkyl and C_1 - C_3 alkyl optionally substituted with one or more groups independently selected from halogen and OR^d ;

R^2 is selected from (a) hydrogen, (b) C_1 - C_6 alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (c) C_1 - C_6 alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (d) C_1 - C_6 alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (e) C_3 - C_6 cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C_1 - C_3 alkyl;

each R^a , R^b , R^c , R^d and R^e are independently selected from hydrogen and C_1 - C_6 alkyl;

R^f is selected from hydrogen and C_1 - C_6 alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$;

each R^g is C_1 - C_6 alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C_1 - C_6 alkyl optionally substituted with OR^m ;

each R^j is independently selected from halogen, CN, cyclopropyl, C_1 - C_6 alkyl optionally substituted with halogen, and C_1 - C_6 alkoxy optionally substituted with halogen;

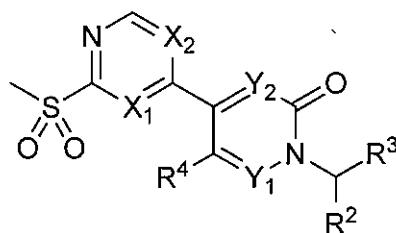
R^k and R^m are independently hydrogen or C_1 - C_3 alkyl; and

x is 0 or 1.

163. The process of Claim 162, wherein the reaction is performed in a solvent.

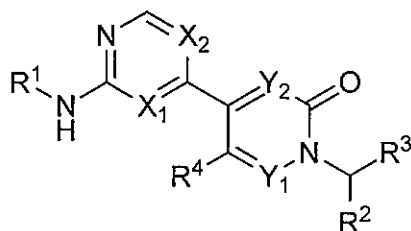
164. The process of Claims 162 or 163, wherein the solvent is *sec*-BuOH.

165. A process for preparing a compound of Formula I, comprising:
 reacting a compound of Formula 10.6:



10.6

with NH_2R^1 to prepare a compound of Formula I:



I

wherein:

X_1 is selected from CH and N;

X_2 is selected from CR^5 and N;

Y_1 is selected from CR^6 and N;

Y_2 is selected from CR^7 and N;

R^1 is selected from (a) $\text{C}_1\text{-C}_6$ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a , NR^bR^c , oxo, CN, $\text{C}_3\text{-C}_6$ cycloalkyl and a 3 to 7 membered heterocycle, (b) $\text{C}_3\text{-C}_7$ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a , CN, $\text{C}_3\text{-C}_6$ cycloalkyl and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, $\text{C}_3\text{-C}_6$ cycloalkyl and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d , (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e , oxide, CN, $\text{C}_3\text{-C}_6$ cycloalkyl and $\text{C}_1\text{-C}_3$ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d , and (f) a 7 to 10 membered bicyclic

heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d;

R² is selected from (a) hydrogen, (b) C₁-C₆ alkyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (c) C₁-C₆ alkenyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (d) C₁-C₆ alkynyl optionally substituted with one or more groups selected from OR^f, oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂, (e) C₃-C₆ cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g, (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g, (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g, and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g;

R³ is selected from (a) (CR^hRⁱ)_x-phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) (CR^hRⁱ)_x-(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R⁴, R⁵, R⁶ and R⁷ is independently selected from hydrogen, halogen and C₁-C₃ alkyl;

each R^a, R^b, R^c, R^d and R^e is independently selected from hydrogen and C₁-C₆ alkyl;

R^f is selected from hydrogen and C₁-C₆ alkyl optionally substituted with one or more groups selected from oxo, NH₂, NH(C₁-C₃ alkyl) and N(C₁-C₃ alkyl)₂;

each R^g is C₁-C₆ alkyl;

R^h and Rⁱ are independently selected from hydrogen, OR^k and C₁-C₆ alkyl optionally substituted with OR^m;

each R^j is independently selected from halogen, CN, cyclopropyl, C₁-C₆ alkyl optionally substituted with halogen, and C₁-C₆ alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C₁-C₃ alkyl; and

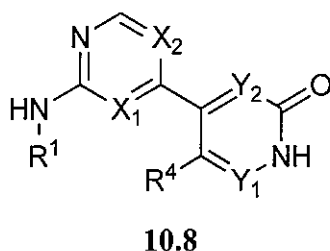
x is 0 or 1.

166. The process of Claim 165, wherein the reaction is performed in a solvent.

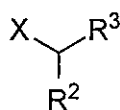
167. The process of Claims 165 or 166, wherein the solvent is *sec*-BuOH.

168. A process for preparing a compound of Formula I, comprising:

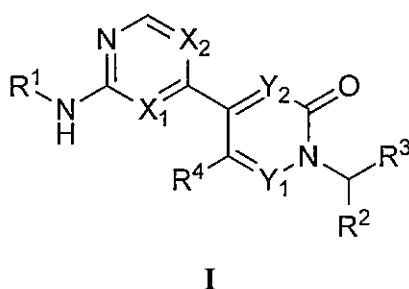
reacting a compound of Formula 10.8:



with a compound having the structure:



to prepare a compound of Formula I:



wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a, NR^bR^c, oxo, CN, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, (b) C₃-C₇ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (e) a 5 to 6 membered heteroaryl optionally substituted with one or more groups independently selected from halogen, OR^e, oxide, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups

independently selected from halogen, oxo and OR^d , and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a , oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d ;

R^2 is selected from (a) hydrogen, (b) C₁-C₆ alkyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (c) C₁-C₆ alkenyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (d) C₁-C₆ alkynyl optionally substituted with one or more groups selected from OR^f , oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$, (e) C₃-C₆ cycloalkyl optionally substituted with one or more groups selected from OR^f and R^g , (f) phenyl optionally substituted with one or more groups selected from OR^f and R^g , (g) a 3 to 7 membered heterocycle optionally substituted with one or more groups selected from OR^f and R^g , and (h) a 5 to 6 membered heteroaryl optionally substituted with one or more groups selected from OR^f and R^g ;

R^3 is selected from (a) $(CR^hR^i)_x$ -phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) $(CR^hR^i)_x$ -(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) $(CR^hR^i)_x$ -(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

each R^4 , R^5 , R^6 and R^7 is independently selected from hydrogen, halogen and C₁-C₃ alkyl;

each R^a , R^b , R^c , R^d and R^e are independently selected from hydrogen and C₁-C₆ alkyl;

R^f is selected from hydrogen and C₁-C₆ alkyl optionally substituted with one or more groups selected from oxo, NH_2 , $NH(C_1-C_3 \text{ alkyl})$ and $N(C_1-C_3 \text{ alkyl})_2$;

each R^g is C₁-C₆ alkyl;

R^h and R^i are independently selected from hydrogen, OR^k and C₁-C₆ alkyl optionally substituted with OR^m ;

each R^j is independently selected from halogen, CN, cyclopropyl, C₁-C₆ alkyl optionally substituted with halogen, and C₁-C₆ alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C₁-C₃ alkyl;

x is 0 or 1; and

X is Cl, Br, I, OM_s or OTf.

169. The process of Claim 168, wherein the reaction is performed in the presence

of a base.

170. The process of Claims 168 or 169, wherein the base is KHMDS or KO*t*-Bu.

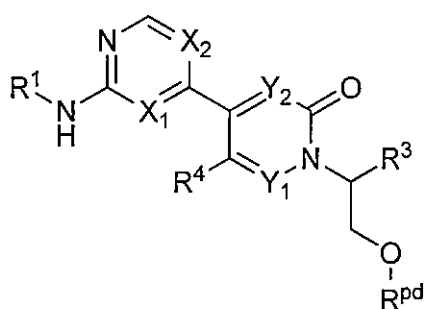
171. The process of any one of Claims 168 to 170, wherein the reaction is performed in a solvent.

172. The process of any one of Claims 168 to 171, wherein the solvent is THF, 2-methyltetrahydrofuran or dioxane.

173. The process of any one of Claims 168 to 172, wherein the reaction is performed with a catalyst.

174. The process of any one of Claims 168 to 173, wherein the catalyst is tetrabutylammonium iodide.

175. A compound selected from Formula **XI**:



XI

wherein:

X₁ is selected from CH and N;

X₂ is selected from CR⁵ and N;

Y₁ is selected from CR⁶ and N;

Y₂ is selected from CR⁷ and N;

R¹ is selected from (a) C₁-C₆ alkyl optionally substituted with one or more groups independently selected from halogen, OR^a, NR^bR^c, oxo, CN, C₃-C₆ cycloalkyl and a 3 to 7 membered heterocycle, (b) C₃-C₇ cycloalkyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (c) phenyl optionally substituted with one or more groups independently selected from halogen, OR^a, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (d) a 3 to 7 membered saturated or partially unsaturated heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d, (e) a 5 to 6 membered heteroaryl

optionally substituted with one or more groups independently selected from halogen, OR^e, oxide, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen, oxo and OR^d, and (f) a 7 to 10 membered bicyclic heterocycle optionally substituted with one or more groups independently selected from halogen, OR^a, oxo, CN, C₃-C₆ cycloalkyl and C₁-C₃ alkyl optionally substituted with one or more groups independently selected from halogen and OR^d;

R³ is selected from (a) (CR^hRⁱ)_x-phenyl, wherein the phenyl may be optionally substituted with one or more R^j groups, (b) (CR^hRⁱ)_x-(5 to 6 membered heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups, (c) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heterocycle), wherein the heterocycle may be optionally substituted with one or more R^j groups, and (d) (CR^hRⁱ)_x-(9 to 10 membered bicyclic heteroaryl), wherein the heteroaryl may be optionally substituted with one or more R^j groups;

R^{pd} is OP(=O)(OH)₂ or CH₂OP(=O)(OH)₂;

each R⁴, R⁵, R⁶ and R⁷ is independently selected from hydrogen, halogen and C₁-C₃ alkyl;

each R^a, R^b, R^c, R^d and R^e are independently selected from hydrogen and C₁-C₆ alkyl;

R^h and Rⁱ are independently selected from hydrogen, OR^k and C₁-C₆ alkyl optionally substituted with OR^m;

each R^j is independently selected from halogen, CN, cyclopropyl, C₁-C₆ alkyl optionally substituted with halogen, and C₁-C₆ alkoxy optionally substituted with halogen;

R^k and R^m are independently hydrogen or C₁-C₃ alkyl; and

x is 0 or 1.

176. The compound of Claim 175, wherein the compound is selected from:

(*S*)-2-(4-chloro-3-fluorophenyl)-2-(2-oxo-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-1(2*H*)-yl)ethyl dihydrogen phosphate; and

(*S*)-(2-(4-chloro-3-fluorophenyl)-2-(2-oxo-4-(2-((tetrahydro-2*H*-pyran-4-yl)amino)pyrimidin-4-yl)pyridin-1(2*H*)-yl)ethoxy)methyl dihydrogen phosphate.

177. A compound of any one of Claims 1 to 55 or a stereoisomer, tautomer or pharmaceutically acceptable salt thereof or a compound of claim 56 or a pharmaceutically acceptable salt thereof for use in inhibiting ERK protein kinase activity in a cell in vivo.