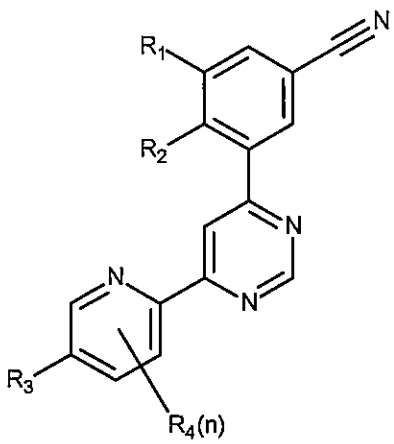
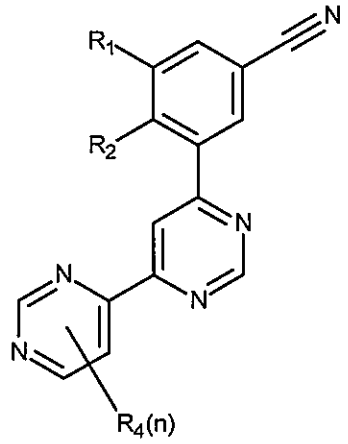
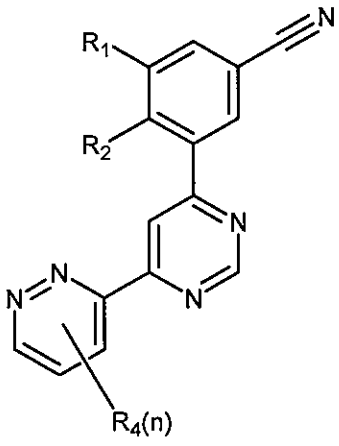
CLAIMS

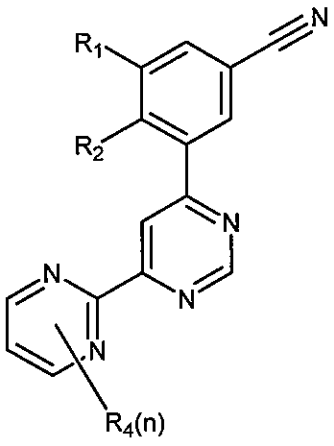
1. A compound of formula:



,


,



or


,

wherein R_1 is halogen, optionally substituted C_1-C_3 alkyl, cyclopropyl, optionally substituted C_1-C_3 alkoxy, cyano, hydroxyl, nitro or NH_2;

R_2 is H or F;

R_3 is H, halogen, optionally substituted C_1-C_3 alkyl, optionally substituted C_1-C_3 alkoxy or cyano; and

R_4 is H, halogen, optionally substituted C_1-C_3 alkyl, optionally substituted C_1-C_3 alkoxy, cyano and

n is 0-3.

2. The compound of claim 1 wherein R_1 is F, Cl, OMe, CH_2OMe, Me, fluoromethyl or cyano.

3. The compound of claim 1 wherein R_1 is F, Cl or cyano.

4. The compound of claim 1 wherein R_3 is H, Me, F, Cl or cyano.

5. The compound of claim 1 wherein R_3 is H or F.

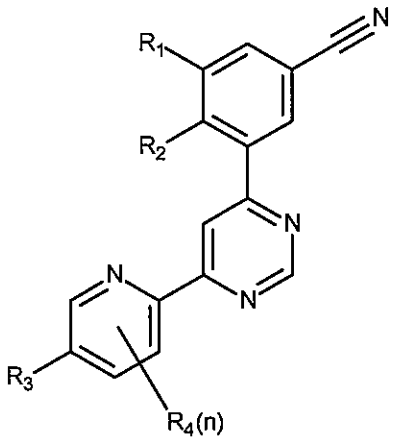
6. The compound of claim 1 wherein n is 0 or 1.

7. The compound of claim 1 wherein the compound is selected from the group consisting of:

3-chloro-4-fluoro-5-[6-(pyridin-2-yl)pyrimidin-4-yl]benzonitrile,
3-chloro-5-[6-(pyridin-2-yl)pyrimidin-4-yl]benzonitrile,
6-[6-(3-chloro-5-cyanophenyl)pyrimidin-4-yl]pyridine-3-carbonitrile,
3-methyl-5-[6-(pyridin-2-yl)pyrimidin-4-yl]benzonitrile,
3-chloro-5-[6-(pyridazin-3-yl)pyrimidin-4-yl]benzonitrile,
3-(4,4'-bipyrimidin-6-yl)-5-chlorobenzonitrile,
3-chloro-5-[6-(5-fluoropyridin-2-yl)pyrimidin-4-yl]benzonitrile,
5-[6-(5-fluoropyridin-2-yl)pyrimidin-4-yl]benzene-1,3-dicarbonitrile,
3-chloro-5-[6-(5-methylpyridin-2-yl)pyrimidin-4-yl]benzonitrile,
3-chloro-5-[6-(5-chloropyridin-2-yl)pyrimidin-4-yl]benzonitrile,
5-[6-(pyridin-2-yl)pyrimidin-4-yl]benzene-1,3-dicarbonitrile,
3-chloro-4-fluoro-5-[6-(5-fluoropyridin-2-yl)pyrimidin-4-yl]benzonitrile,
3-methyl-5-[6-(5-methylpyridin-2-yl)pyrimidin-4-yl]benzonitrile,
3-[6-(5-fluoropyridin-2-yl)pyrimidin-4-yl]-5-(methoxymethyl)benzonitrile, and
3-[6-(5-fluoropyridin-2-yl)pyrimidin-4-yl]-5-methoxybenzonitrile.

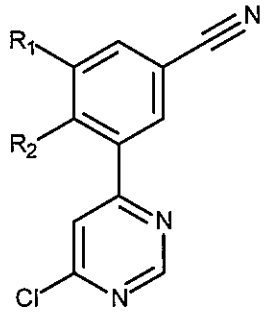
8. A pharmaceutical composition comprising the compound of claim 1.

9. A method of producing the compound of claim 1, having the formula



,

wherein the method comprising coupling a reagent of formula (X):



(X)

wherein R_1 is halogen, optionally substituted C_1-C_3 alkyl, cyclopropyl, optionally substituted C_1-C_3 alkoxy, cyano, hydroxyl, nitro or NH_2; and

R_2 is H or F;

with a 2-pyridyl stannane reagent (Stille coupling) or 2-pyridyl organozinc reagent (Negishi coupling) to form an aryl-aryl bond, and wherein

R_3 is H, halogen, optionally substituted C_1-C_3 alkyl, optionally substituted C_1-C_3 alkoxy or cyano; and

R_4 is H, halogen, optionally substituted C_1-C_3 alkyl, optionally substituted C_1-C_3 alkoxy, cyano and

n is 0-3.