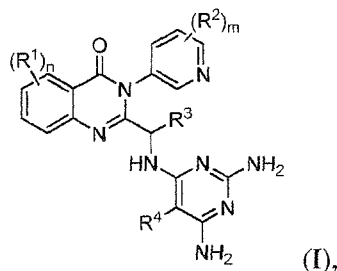


CLAIMS

What is claimed is:

1. A compound having the structure of formula (I):



or a pharmaceutically acceptable salt, isomer, or a mixture thereof, wherein:

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

each R^1 is independently selected from halo, cyano, alkyl, or alkylsulfonyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

m is 0, 1, 2, or 3;

each R^2 is independently selected from halo, $-NH_2$, alkoxy, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

R^3 is hydrogen, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with cycloalkyl; and

R^4 is cyano, halo, or $CONH_2$.

2. The compound of claim 1, wherein

n is 1 or 2;

each R^1 is independently selected from halo, cyano, alkyl, or alkylsulfonyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

m is 0, 1, or 2;

each R^2 is independently selected from halo, alkoxy, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

R^3 is hydrogen, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with cycloalkyl; and

R^4 is cyano.

3. The compound of any of claims 1-2, wherein each R^1 is independently selected from halo, cyano, C_{1-4} alkyl, C_{1-4} haloalkyl, or C_{1-4} alkylsulfonyl.

4. The compound of any of claims 1-3, wherein each R^1 is independently selected from fluoro, chloro, iodo, bromo, cyano, methyl, ethyl, propyl, butyl, fluoromethyl, fluoroethyl, difluoromethyl, difluoroethyl, trifluoromethyl, trifluoroethyl, methylsulfonyl, ethylsulfonyl, or propylsulfonyl.
5. The compound of any of claims 1, 3-4, wherein each R^2 is independently selected from halo, $-NH_2$, C_{1-4} alkoxy, C_{1-4} alkyl, C_{1-4} haloalkyl, or C_{3-6} cycloalkyl.
6. The compound of any of claims 1, 3-5, wherein each R^2 is independently selected from $-NH_2$, fluoro, chloro, iodo, bromo, methoxy, ethoxy, propoxy, butoxy, pentoxy, hexoxy, methyl, ethyl, propyl, butyl, fluoromethyl, fluoroethyl, difluoromethyl, difluoroethyl, trifluoromethyl, cyclopropyl, cyclobutyl, cyclopentyl, or cyclohexyl.
7. The compound of any of claims 1-6, wherein R^3 is selected from hydrogen, alkyl, cycloalkyl, or cycloalkylalkyl.
8. The compound of any of claims 1-7, wherein R^3 is selected from hydrogen, C_{1-4} alkyl, C_{3-6} cycloalkyl, or C_{3-6} cycloalkyl C_{1-4} alkyl.
9. The compound of any of claims 1-8, wherein R^3 is selected from hydrogen, methyl, ethyl, propyl, butyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclopropylethyl, cyclobutylmethyl, or cyclopropylbutyl.
10. The compound of any of claims 1, 3-9, wherein R^4 is selected from cyano, fluoro, chloro, bromo, or $CONH_2$.
11. The compound of any of claims 1-10, wherein n is 1.
12. The compound of any of claims 1-10, wherein n is 2.
13. The compound of any of claims 1-10, wherein m is 0.
14. The compound of any of claims 1-10, wherein m is 1.

15. The compound of any of claims 1-10, wherein m is 2.
16. The compound of any of claims 1-15, wherein the compound is a (S)-enantiomer.
17. The compound of any of claims 1-15, wherein the compound is a (R)-enantiomer.
18. The compound of any of claims 1-17, wherein the compound is an atropisomer.
19. The compound of claim 1, wherein the compound is selected from the group consisting of:
 - (S)-2,4-diamino-6-(1-(5-chloro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)propylamino)pyrimidine-5-carbonitrile;
 - (S)-2,4-diamino-6-((5-chloro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methylamino)pyrimidine-5-carbonitrile;
 - (S)-2,4-diamino-6-(1-(5-chloro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)-2-cyclopropylethylamino)pyrimidine-5-carbonitrile;
 - (S)-2,4-diamino-6-(1-(6-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;
 - (S)-2,4-diamino-6-(1-(5-methyl-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;
 - (S)-2,4-diamino-6-(1-(5-(methylsulfonyl)-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;
 - (S)-2,4-diamino-6-(1-(4-oxo-3-(pyridin-3-yl)-5-(trifluoromethyl)-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;
 - (S)-2-(1-((2,6-diamino-5-cyanopyrimidin-4-yl)amino)ethyl)-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazoline-5-carbonitrile;
 - (S)-2,4-diamino-6-(1-(3-(5-fluoropyridin-3-yl)-5-methyl-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(5-chloropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(5-methoxypyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(5-(difluoromethyl)pyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(5-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-((5-chloro-3-(5-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-4-oxo-3-(5-(trifluoromethyl)pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(5-cyclopropylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)propylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-((5-chloro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(8-chloro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5,8-dichloro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

- (S)-2,4-diamino-6-(1-(5,8-difluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-(1-(5-chloro-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)propylamino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((5-chloro-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methylamino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-(cyclopropyl(5,8-dichloro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)methylamino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-(1-(5-chloro-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)-2-cyclopropylethylamino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-(1-(5,8-dichloro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-(1-(5-chloro-8-fluoro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-(1-(5-chloro-8-fluoro-3-(5-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((5-chloro-8-fluoro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methylamino)pyrimidine-5-carbonitrile;
- (S)-2-(1-(((2,6-diamino-5-cyanopyrimidin-4-yl)amino)ethyl)-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazoline-5-carbonitrile;
- (S)-2-(1-(((2,6-diamino-5-cyanopyrimidin-4-yl)amino)propyl)-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazoline-5-carbonitrile;
- (S)-2,4-diamino-6-(1-(5-chloro-6-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((5-chloro-6-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(2-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-6-fluoro-3-(4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(5-fluoro-2-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(1-(5-chloro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethylamino)pyrimidine-5-carbonitrile;

(R)-2,4-Diamino-6-((1-(5-chloro-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

(R)-2,4-Diamino-6-((1-(5-chloro-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)propyl)amino)pyrimidine-5-carbonitrile;

(R)-2,4-Diamino-6-(((5-chloro-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methyl)amino)pyrimidine-5-carbonitrile;

(R)-2,4-Diamino-6-((1-(5-chloro-8-fluoro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

(R)-2,4-diamino-6-((1-(5-chloro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

(R)-2,4-diamino-6-((1-(5-chloro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-Diamino-6-((1-(5-chloro-8-fluoro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)propyl)amino)pyrimidine-5-carbonitrile;

(S)-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)ethyl)-5-(methylsulfonyl)-3-(pyridin-3-yl)quinazolin-4(3H)-one;

- (S)-2,4-Diamino-6-((1-(5-chloro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carboxamide;
- (S)-5-Chloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)ethyl)-3-(5-fluoropyridin-3-yl)quinazolin-4(3h)-one;
- (S)-2-(1-((2,6-Diamino-5-chloropyrimidin-4-yl)amino)ethyl)-5-fluoro-3-(pyridin-3-yl)quinazolin-4(3H)-one;
- (S)-5-Chloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)ethyl)-3-(pyridin-3-yl)quinazolin-4(3H)-one;
- (S)-2-(1-((2,6-Diamino-5-cyanopyrimidin-4-yl)amino)ethyl)-6-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazoline-8-carbonitrile;
- (S)-2-(1-((2,6-Diamino-5-cyanopyrimidin-4-yl)amino)propyl)-6-fluoro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazoline-8-carbonitrile;
- (S)-2-(Cyclopropyl((2,6-diamino-5-cyanopyrimidin-4-yl)amino)methyl)-6-fluoro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazoline-8-carbonitrile;
- (S)-2,4-Diamino-6-((1-(5-chloro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)-3-methylbutyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-Diamino-6-((1-(5-chloro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)-3-methylbutyl)amino)pyrimidine-5-carbonitrile;
- (S)-5-Chloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)ethyl)-8-fluoro-3-(pyridin-3-yl)quinazolin-4(3h)-one;
- (S)-2,4-diamino-6-((1-(5-bromo-8-fluoro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(5-bromo-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)propyl)amino)pyrimidine-5-carbonitrile;
- (S)-2-(1-((2,6-diamino-5-cyanopyrimidin-4-yl)amino)ethyl)-8-fluoro-3-(5-fluoropyridin-3-yl)-4-oxo-3,4-dihydroquinazoline-5-carbonitrile;

- (S)-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)ethyl)-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazoline-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(5-bromo-8-fluoro-4-oxo-3-(pyridin-3-yl)-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-Diamino-6-(((5-chloro-8-fluoro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-Diamino-6-(((5-chloro-8-fluoro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(5-fluoro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(5-fluoro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-(((5-chloro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-(((5-chloro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(5-chloro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)propyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(5-chloro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)propyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(5-chloro-8-fluoro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(5-chloro-8-fluoro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(6-fluoro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

- (S)-2,4-diamino-6-((1-(6-fluoro-3-(5-fluoro-4-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(5-chloro-3-(4,5-dimethylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-diamino-6-((1-(5-chloro-3-(4,5-dimethylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-Diamino-6-((1-(3-(4-methylpyridin-3-yl)-4-oxo-5-(trifluoromethyl)-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-2,4-Diamino-6-((1-(3-(4-methylpyridin-3-yl)-4-oxo-5-(trifluoromethyl)-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-3-(6-aminopyridin-3-yl)-8-chloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)ethyl)-6-fluoroquinazolin-4(3H)-one;
- (S)-2,4-diamino-6-((1-(3-(6-aminopyridin-3-yl)-8-chloro-6-fluoro-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-3-(6-aminopyridin-3-yl)-5,8-dichloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)ethyl)quinazolin-4(3H)-one;
- (S)-2,4-diamino-6-((1-(3-(6-aminopyridin-3-yl)-5,8-dichloro-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;
- (S)-3-(6-aminopyridin-3-yl)-5-chloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)ethyl)quinazolin-4(3H)-one;
- (S)-3-(6-aminopyridin-3-yl)-5-chloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)propyl)quinazolin-4(3H)-one;
- (S)-2,4-diamino-6-((1-(3-(6-aminopyridin-3-yl)-5-chloro-4-oxo-3,4-dihydroquinazolin-2-yl)propyl)amino)pyrimidine-5-carbonitrile;
- (S)-3-(6-aminopyridin-3-yl)-5-chloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)ethyl)-8-fluoroquinazolin-4(3H)-one;

(S)-3-(6-aminopyridin-3-yl)-5-chloro-2-(cyclopropyl((2,6-diamino-5-chloropyrimidin-4-yl)amino)methyl)quinazolin-4(3H)-one;

(S)-2,4-diamino-6-(((3-(6-aminopyridin-3-yl)-5-chloro-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-((1-(3-(6-amino-4-methylpyridin-3-yl)-5-chloro-4-oxo-3,4-dihydroquinazolin-2-yl)propyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-((1-(3-(6-amino-4-methylpyridin-3-yl)-5-chloro-4-oxo-3,4-dihydroquinazolin-2-yl)propyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-((1-(3-(6-amino-4-methylpyridin-3-yl)-5-chloro-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-((1-(3-(6-amino-4-methylpyridin-3-yl)-5-chloro-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-((1-(3-(6-amino-4-methylpyridin-3-yl)-5,8-dichloro-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-((1-(3-(6-amino-4-methylpyridin-3-yl)-5,8-dichloro-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-((1-(3-(6-aminopyridin-3-yl)-5-chloro-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(((3-(6-amino-4-methylpyridin-3-yl)-5,8-dichloro-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-(((3-(6-amino-4-methylpyridin-3-yl)-5,8-dichloro-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methyl)amino)pyrimidine-5-carbonitrile;

(S)-3-(6-aminopyridin-3-yl)-5-chloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)ethyl)-6-fluoroquinazolin-4(3H)-one;

(S)-2,4-diamino-6-((1-(3-(6-aminopyridin-3-yl)-5-chloro-6-fluoro-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

(S)-3-(6-aminopyridin-3-yl)-5-chloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)butyl)quinazolin-4(3H)-one;

(S)-2,4-diamino-6-((1-(3-(6-aminopyridin-3-yl)-5-chloro-4-oxo-3,4-dihydroquinazolin-2-yl)butyl)amino)pyrimidine-5-carbonitrile;

(S)-3-(6-aminopyridin-3-yl)-5-chloro-2-(1-((2,6-diamino-5-chloropyrimidin-4-yl)amino)butyl)-6-fluoroquinazolin-4(3H)-one;

(S)-2,4-diamino-6-((1-(3-(6-aminopyridin-3-yl)-5-chloro-6-fluoro-4-oxo-3,4-dihydroquinazolin-2-yl)butyl)amino)pyrimidine-5-carbonitrile;

(S)-3-(6-aminopyridin-3-yl)-5-chloro-2-(cyclopropyl((2,6-diamino-5-chloropyrimidin-4-yl)amino)methyl)-8-fluoroquinazolin-4(3H)-one;

(S)-2,4-diamino-6-(((3-(6-aminopyridin-3-yl)-5-chloro-8-fluoro-4-oxo-3,4-dihydroquinazolin-2-yl)(cyclopropyl)methyl)amino)pyrimidine-5-carbonitrile;

(S)-2,4-diamino-6-((1-(3-(5-aminopyridin-3-yl)-5-chloro-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile; and

(S)-4-amino-6-((1-(3-(5-aminopyridin-3-yl)-5-chloro-4-oxo-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile;

or a pharmaceutically acceptable salt, isomer, or a mixture thereof.

20. The compound of claim 19, wherein the compound is an atropisomer.

21. A pharmaceutical composition comprising:

the compound, a pharmaceutically acceptable salt, isomer, or a mixture thereof of any of claims 1-20; and at least one pharmaceutically acceptable vehicle.

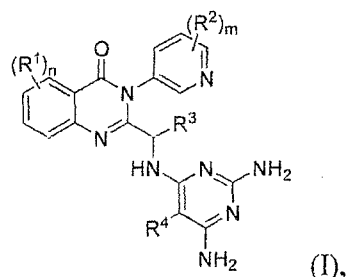
22. A method for treating a disease or condition in a human in need thereof, comprising administering to the human a therapeutic effective amount of the compound, a pharmaceutically acceptable salt, isomer, or a mixture thereof of any of claims 1-20.

23. The method of claim 22, wherein the disease or condition is an inflammatory disorder, an autoimmune disease, or a cancer.
24. The method of claim 22-23, wherein the disease or condition is lymphoma, multiple myeloma, or leukemia.
25. The method of any of claims 22-23, wherein the disease or condition is acute lymphocytic leukemia (ALL), acute myeloid leukemia (AML), chronic lymphocytic leukemia (CLL), small lymphocytic lymphoma (SLL), myelodysplastic syndrome (MDS), myeloproliferative disease (MPD), chronic myeloid leukemia (CML), multiple myeloma (MM), non-Hodgkin's lymphoma (NHL), mantle cell lymphoma (MCL), follicular lymphoma, Waldstrom's macroglobulinemia (WM), T-cell lymphoma, B-cell lymphoma, diffuse large B-cell lymphoma (DLBCL), pancreatic cancer, bladder cancer, colorectal cancer, breast cancer, prostate cancer, renal cancer, hepatocellular cancer, lung cancer, ovarian cancer, cervical cancer, gastric cancer, esophageal cancer, head and neck cancer, melanoma, neuroendocrine cancer, CNS cancer, brain cancer, bone cancer, soft tissue sarcoma, non-small cell lung cancer, small-cell lung cancer, colon cancer, systemic lupus erythematosus (SLE), myasthenia gravis, rheumatoid arthritis (RA), acute disseminated encephalomyelitis, idiopathic thrombocytopenic purpura, multiple sclerosis (MS), Sjogren's syndrome, autoimmune hemolytic anemia, psoriasis, chronic obstructive pulmonary disease (COPD) or asthma.
26. The method of claim 22-25, wherein the compound, a pharmaceutically acceptable salt, isomer, or a mixture thereof, is administered intravenously, intramuscularly, parenterally, nasally or orally.
27. A kit comprises the compound, a pharmaceutically acceptable salt, isomer, or a mixture thereof of any of claims 1-20, or a label and/or instructions for use.
28. The compound, a pharmaceutically acceptable salt, isomer, or a mixture thereof of any of claims 1-20 for use in therapy.
29. The compound, a pharmaceutically acceptable salt, isomer, or a mixture thereof of any of claims 1-20 for use in a method of treating of any of claims 18-22.

30. Use of the compound, a pharmaceutically acceptable salt, isomer, or a mixture thereof of any of claims 1-20 for the manufacture of a medicament for treatment of a disease or condition of any of claims 22-26.

CLAIMS

1. A compound having the structure of formula (I):



a pharmaceutically acceptable salt thereof, or an isomer thereof, wherein:

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

each R^1 is independently selected from halo, cyano, alkyl, or alkylsulfonyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

m is 0, 1, 2, or 3;

each R^2 is independently selected from halo, $-NH_2$, alkoxy, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

R^3 is hydrogen, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with cycloalkyl; and

R^4 is cyano, halo, or $CONH_2$.

2. The compound of claim 1, wherein

n is 1 or 2;

each R^1 is independently selected from halo, cyano, alkyl, or alkylsulfonyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

m is 0, 1, or 2;

each R^2 is independently selected from halo, alkoxy, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

R^3 is hydrogen, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with cycloalkyl; and

R^4 is cyano.

3. The compound of claim 1, wherein each R^1 is independently selected from halo, cyano, C_{1-4} alkyl, C_{1-4} haloalkyl, or C_{1-4} alkylsulfonyl.

4. The compound of claim 3, wherein each R^1 is independently selected from fluoro, chloro, iodo, bromo, cyano, methyl, ethyl, propyl, butyl, fluoromethyl, fluoroethyl, difluoromethyl, difluoroethyl, trifluoromethyl, trifluoroethyl, methylsulfonyl, ethylsulfonyl, or propylsulfonyl.

5. The compound of claim 1, wherein each R^2 is independently selected from halo, $-NH_2$, C_{1-4} alkoxy, C_{1-4} alkyl, C_{1-4} haloalkyl, or C_{3-6} cycloalkyl.

6. The compound of claim 5, wherein each R^2 is independently selected from $-NH_2$, fluoro, chloro, iodo, bromo, methoxy, ethoxy, propoxy, butoxy, pentoxy, hexoxy, methyl, ethyl, propyl, butyl, fluoromethyl, fluoroethyl, difluoromethyl, difluoroethyl, trifluoromethyl, cyclopropyl, cyclobutyl, cyclopentyl, or cyclohexyl.

7. The compound of claim 1, wherein R^3 is selected from hydrogen, alkyl, cycloalkyl, or cycloalkylalkyl.

8. The compound of claim 7, wherein R^3 is selected from hydrogen, C_{1-4} alkyl, C_{3-6} cycloalkyl, or C_{3-6} cycloalkyl C_{1-4} alkyl.

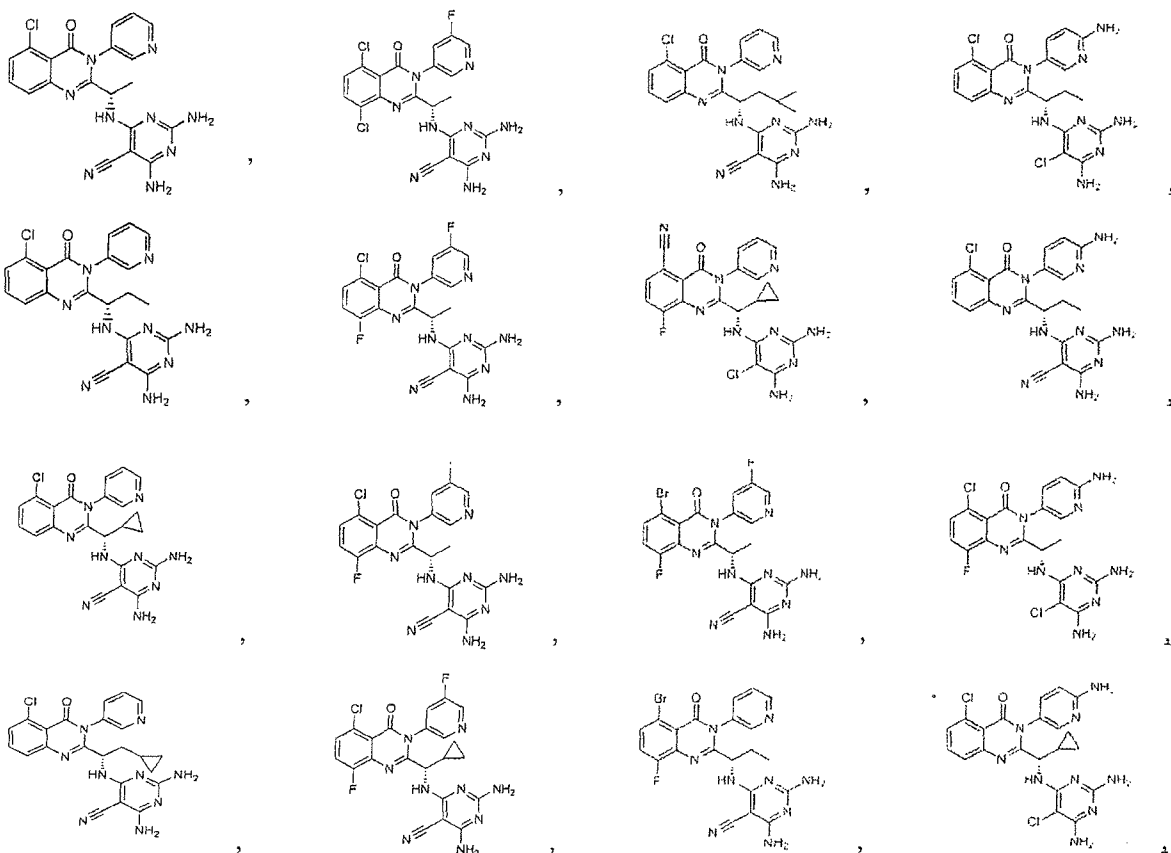
9. The compound of claim 8, wherein R^3 is selected from hydrogen, methyl, ethyl, propyl, butyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclopropylethyl, cyclobutylmethyl, or cyclopropylbutyl.

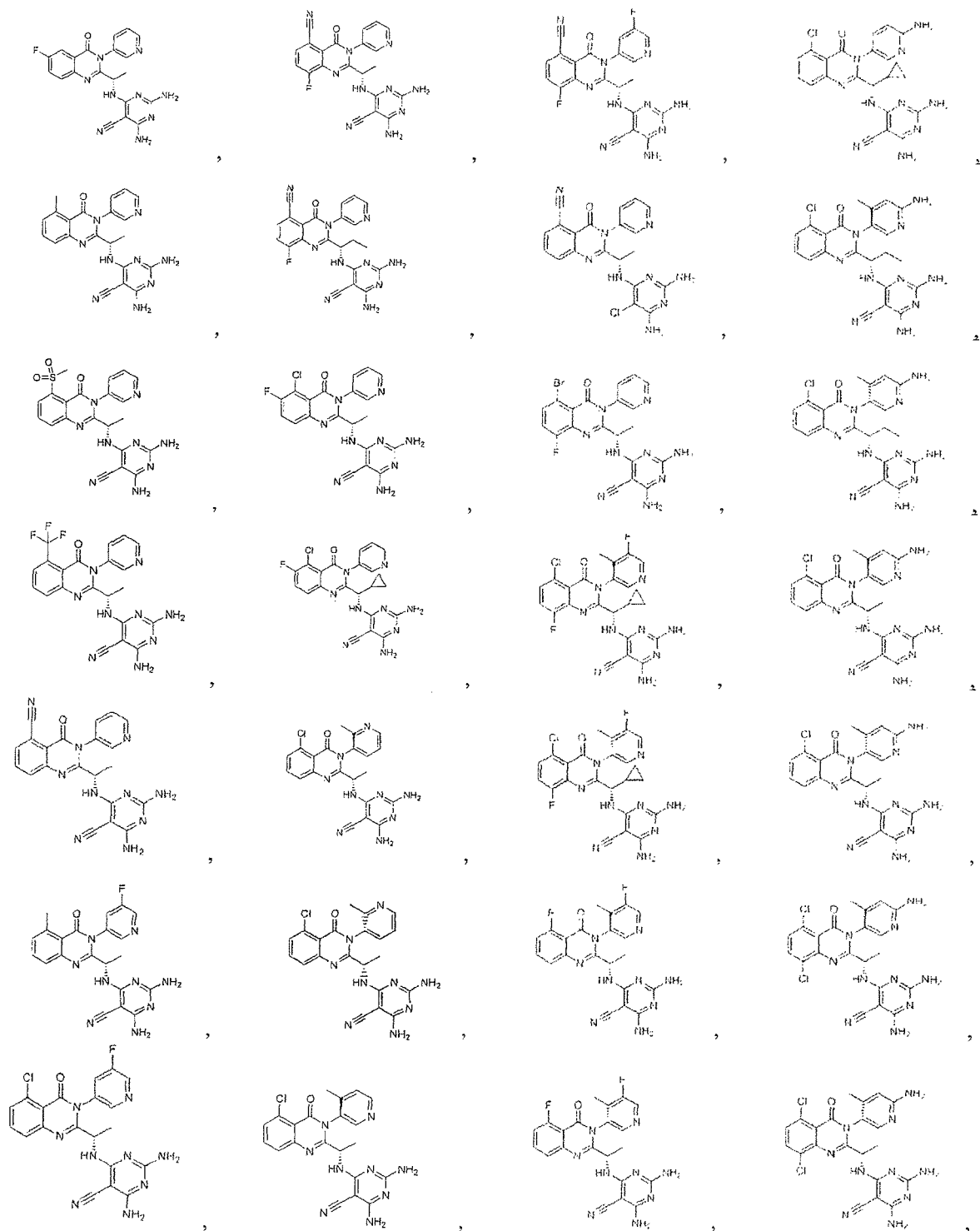
10. The compound of claim 1, wherein R^4 is selected from cyano, fluoro, chloro, bromo, or $CONH_2$.

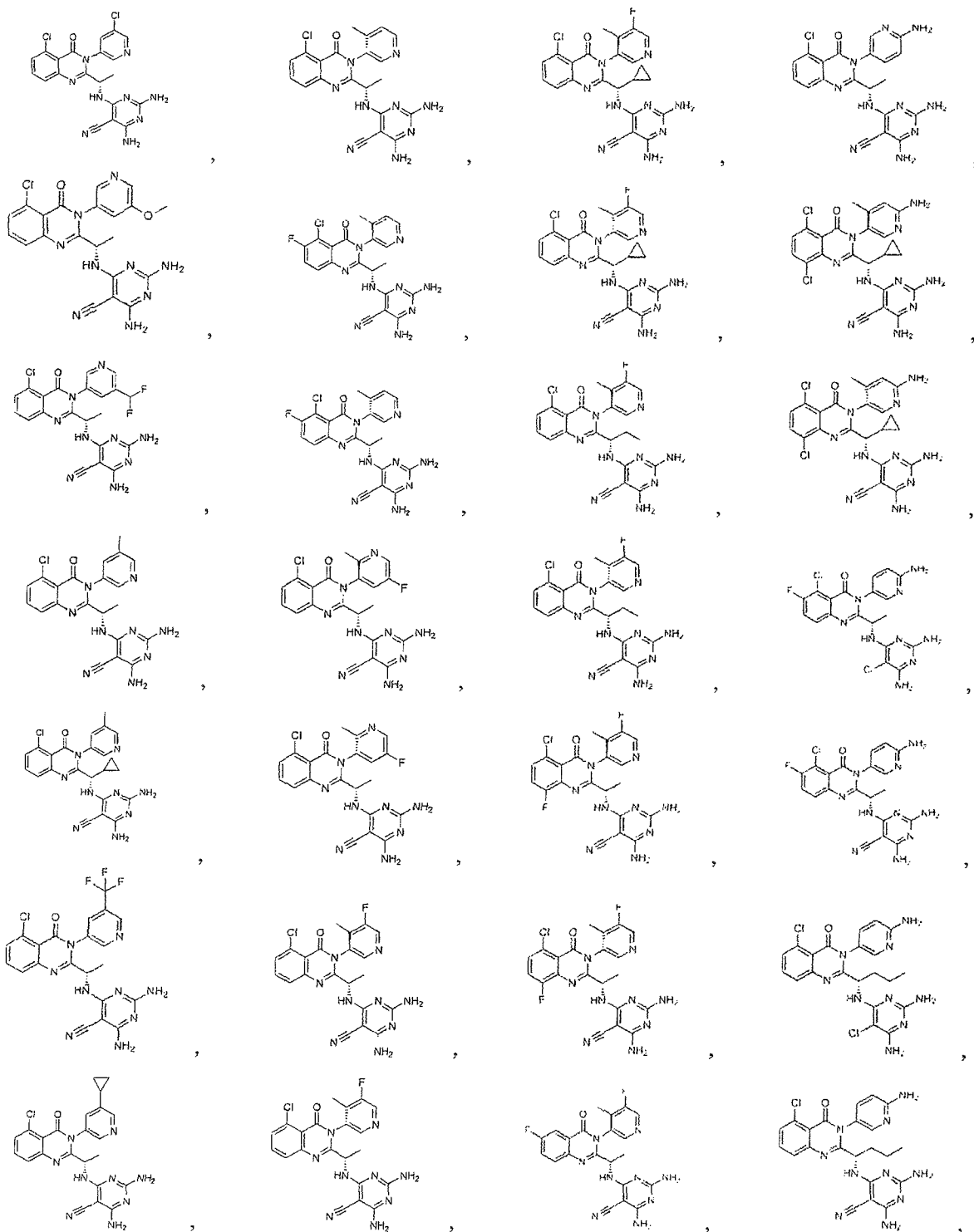
11. The compound of claim 1, wherein n is 1.

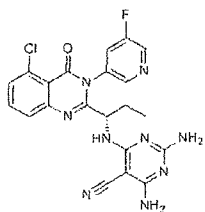
12. The compound of claim 1, wherein n is 2.

13. The compound of claim 1, wherein m is 0.
14. The compound of claim 1, wherein m is 1.
15. The compound of claim 1, wherein m is 2.
16. The compound of claim 1, wherein the compound is a (S)-enantiomer.
17. The compound of claim 1, wherein the compound is a (R)-enantiomer.
18. The compound of claim 1, wherein the compound is an atropisomer.
19. The compound of claim 1, wherein the compound is selected from the group consisting of:

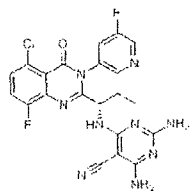




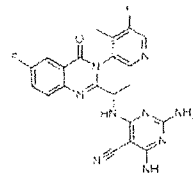




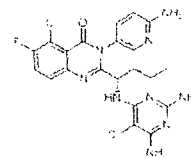
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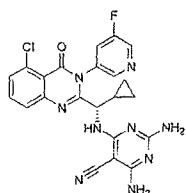
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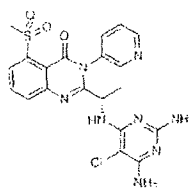
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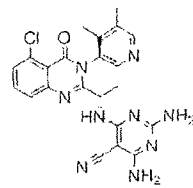
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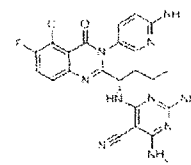
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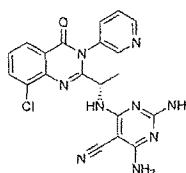
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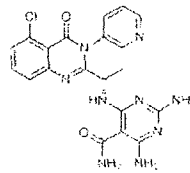
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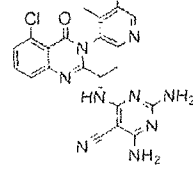
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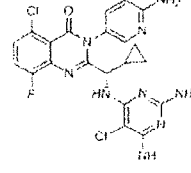
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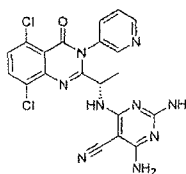
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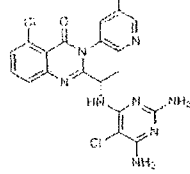
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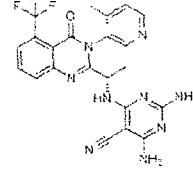
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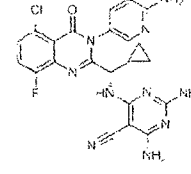
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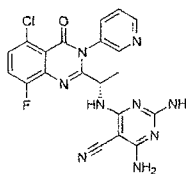
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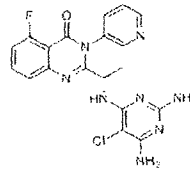
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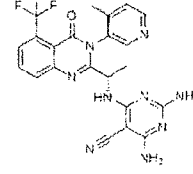
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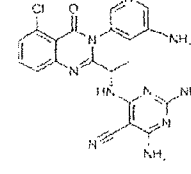
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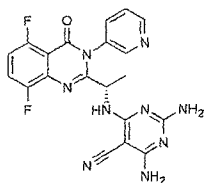
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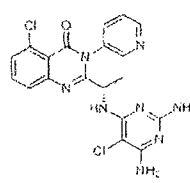
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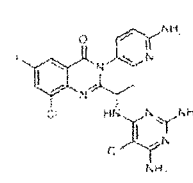
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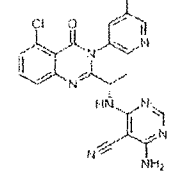
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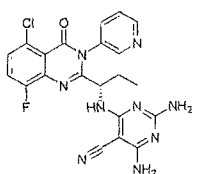
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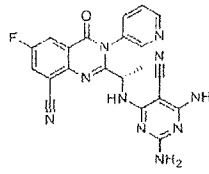
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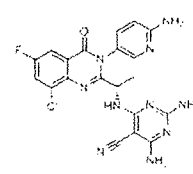
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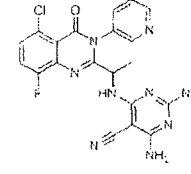
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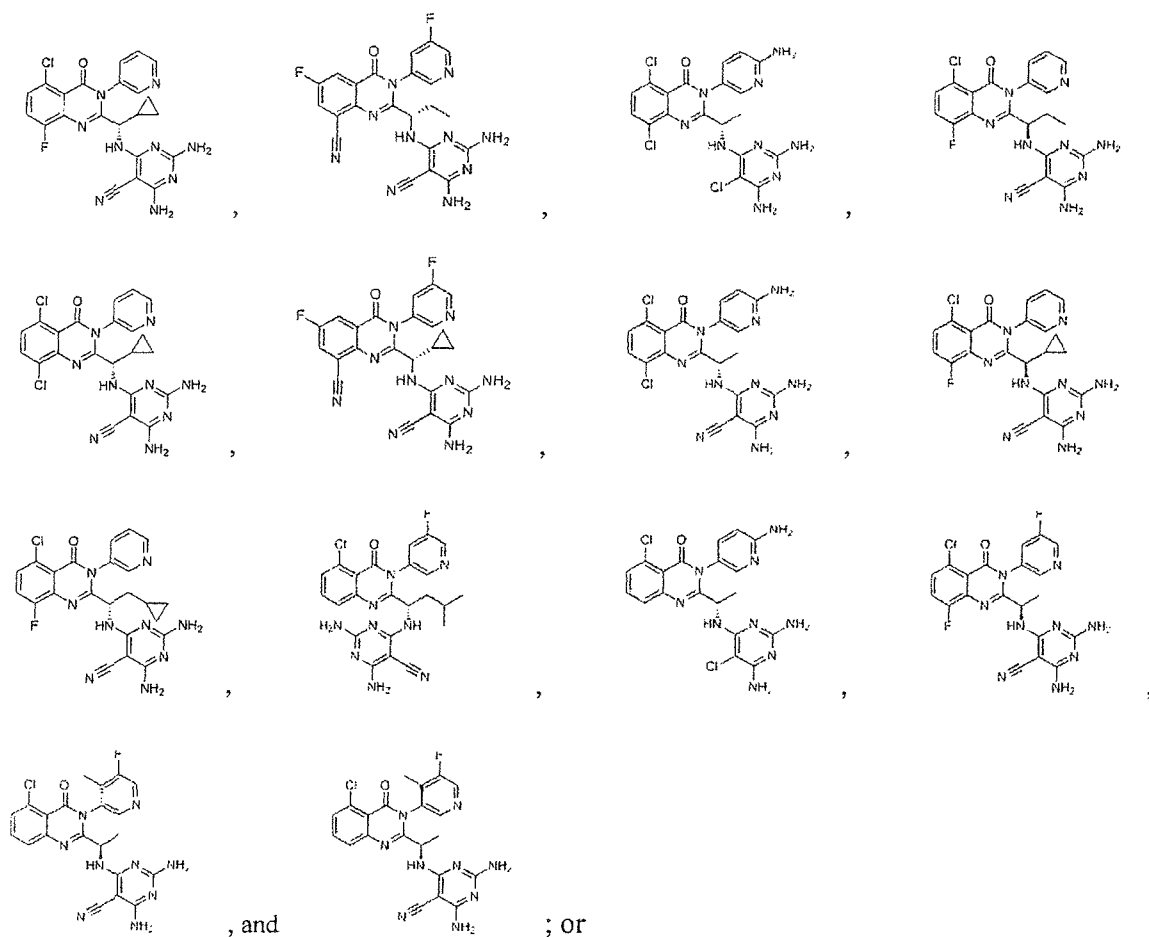
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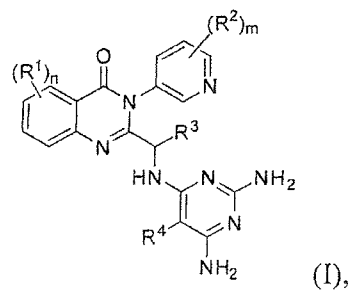


,



a pharmaceutically acceptable salt thereof or an atropisomer thereof.

20. A pharmaceutical composition comprising: a compound having the structure of formula (I):



a pharmaceutically acceptable salt thereof, an isomer thereof, or a mixture thereof, wherein:

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

each R^1 is independently selected from halo, cyano, alkyl, or alkylsulfonyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

m is 0, 1, 2, or 3;

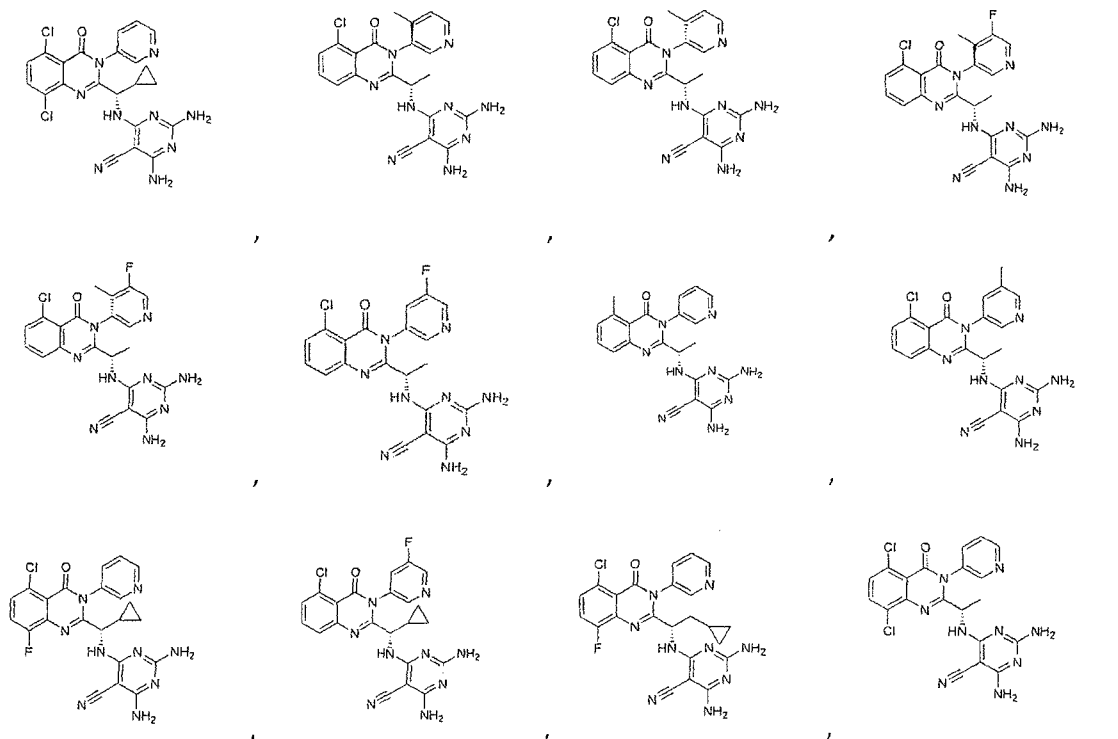
each R^2 is independently selected from halo, $-NH_2$, alkoxy, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

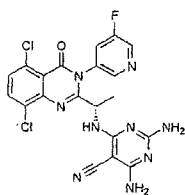
R^3 is hydrogen, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with cycloalkyl; and

R^4 is cyano, halo, or $CONH_2$;

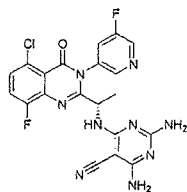
and at least one pharmaceutically acceptable vehicle.

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





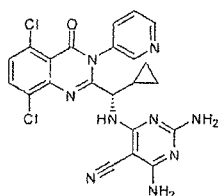
, and



;

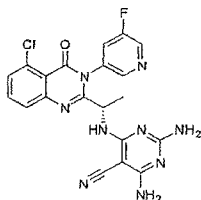
or an atropisomer thereof.

22. The compound of claim 1, wherein the compound is



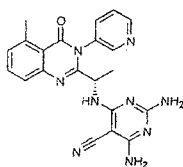
or a pharmaceutically acceptable salt thereof.

23. The compound of claim 1, wherein the compound is



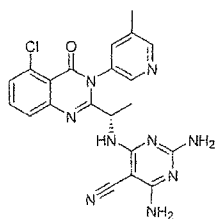
or a pharmaceutically acceptable salt thereof.

24. The compound of claim 1, wherein the compound is



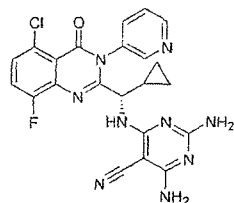
or a pharmaceutically acceptable salt thereof.

25. The compound of claim 1, wherein the compound is



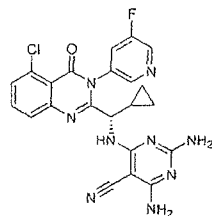
or a pharmaceutically acceptable salt thereof.

26. The compound of claim 1, wherein the compound is



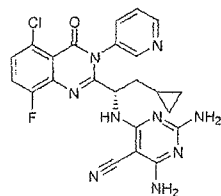
or a pharmaceutically acceptable salt thereof.

27. The compound of claim 1, wherein the compound is



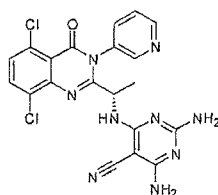
or a pharmaceutically acceptable salt thereof.

28. The compound of claim 1, wherein the compound is



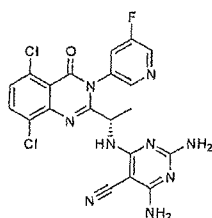
or a pharmaceutically acceptable salt thereof.

29. The compound of claim 1, wherein the compound is



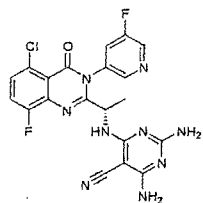
or a pharmaceutically acceptable salt thereof.

30. The compound of claim 1, wherein the compound is



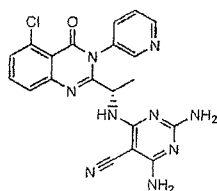
or a pharmaceutically acceptable salt thereof.

31. The compound of claim 1, wherein the compound is;

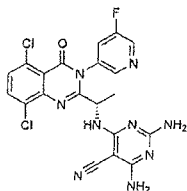


or a pharmaceutically acceptable salt thereof.

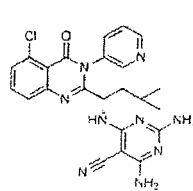
32. The pharmaceutical composition of claim 20 wherein the compound is selected from the group consisting of:



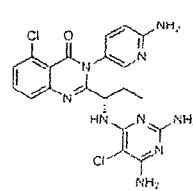
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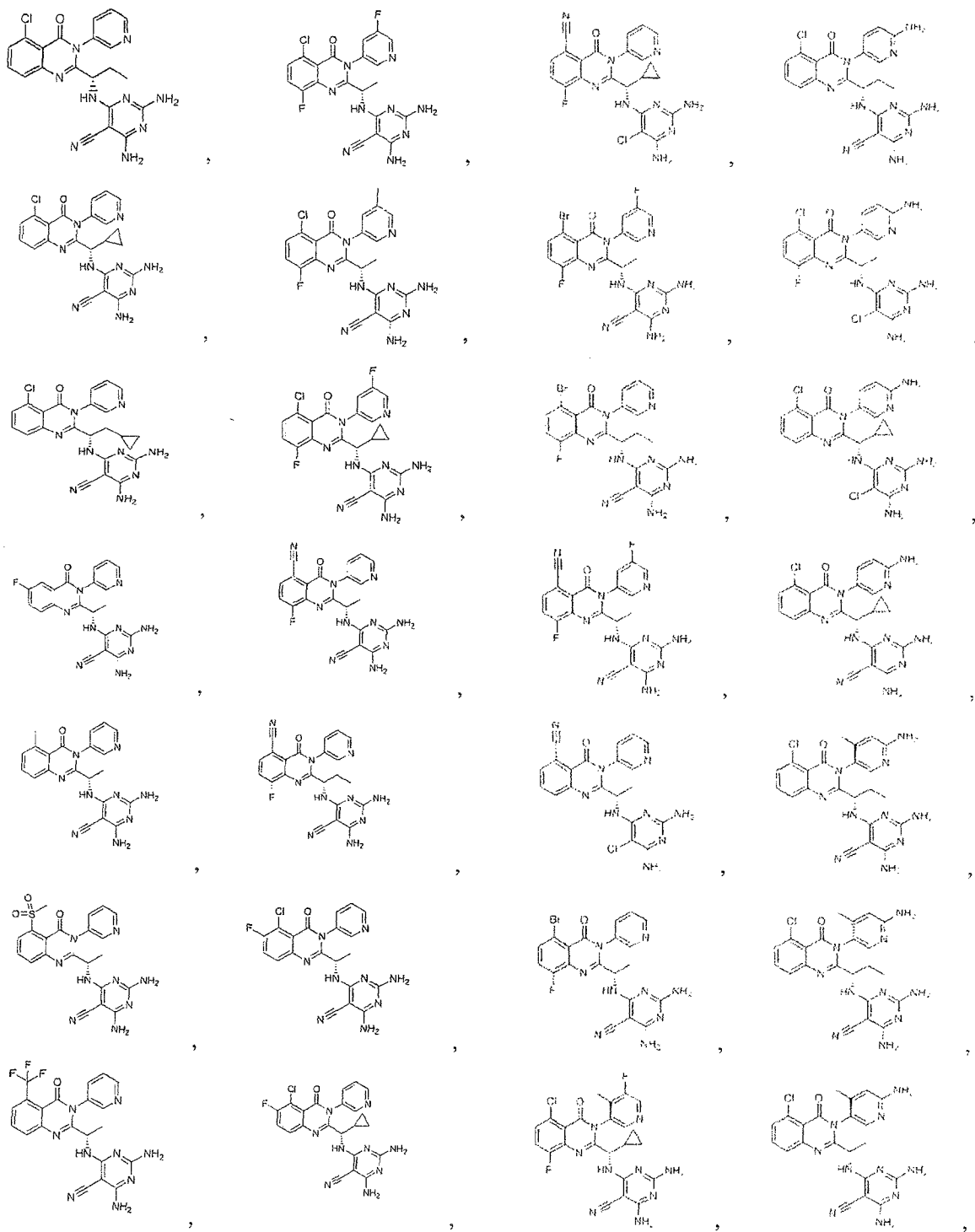
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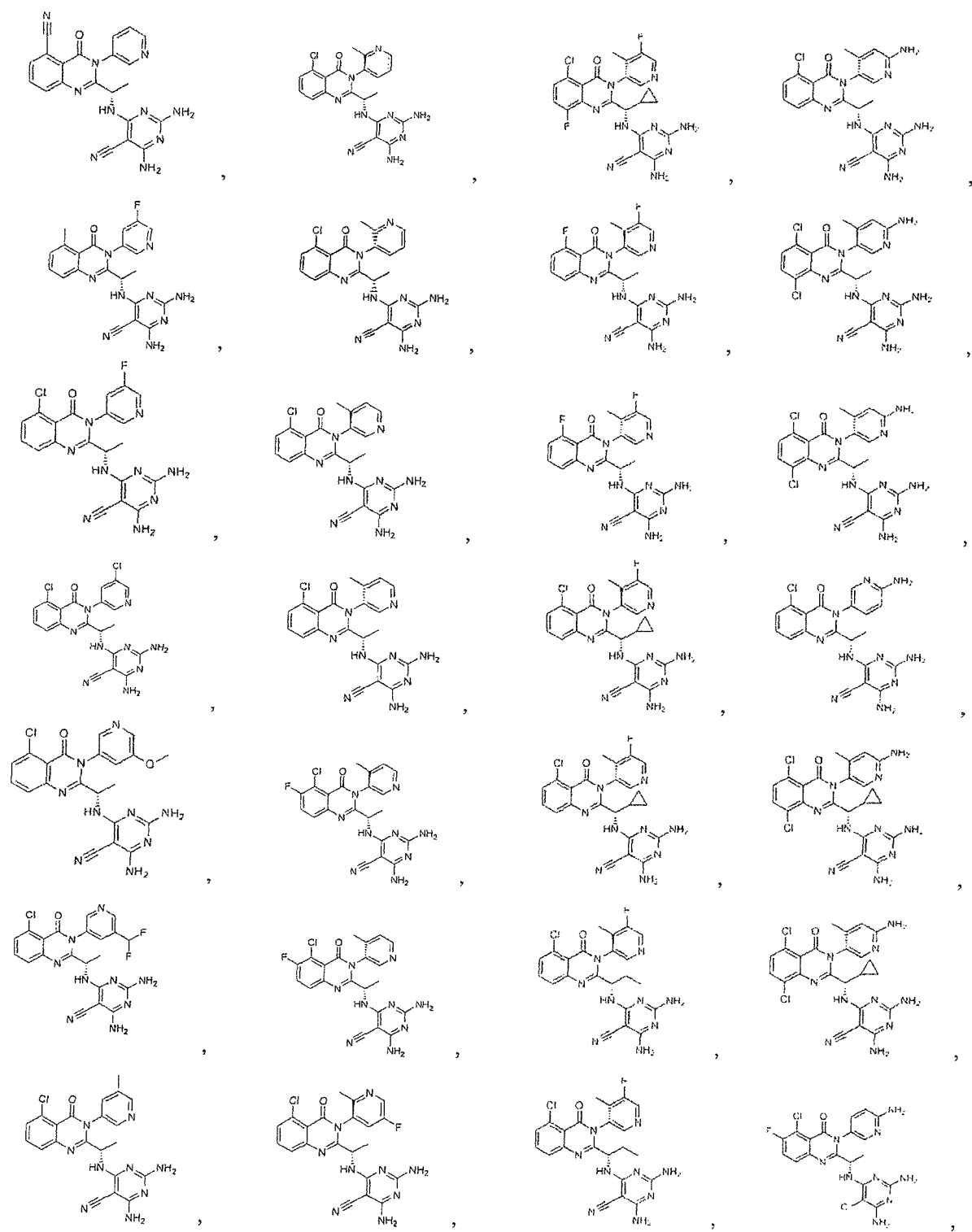


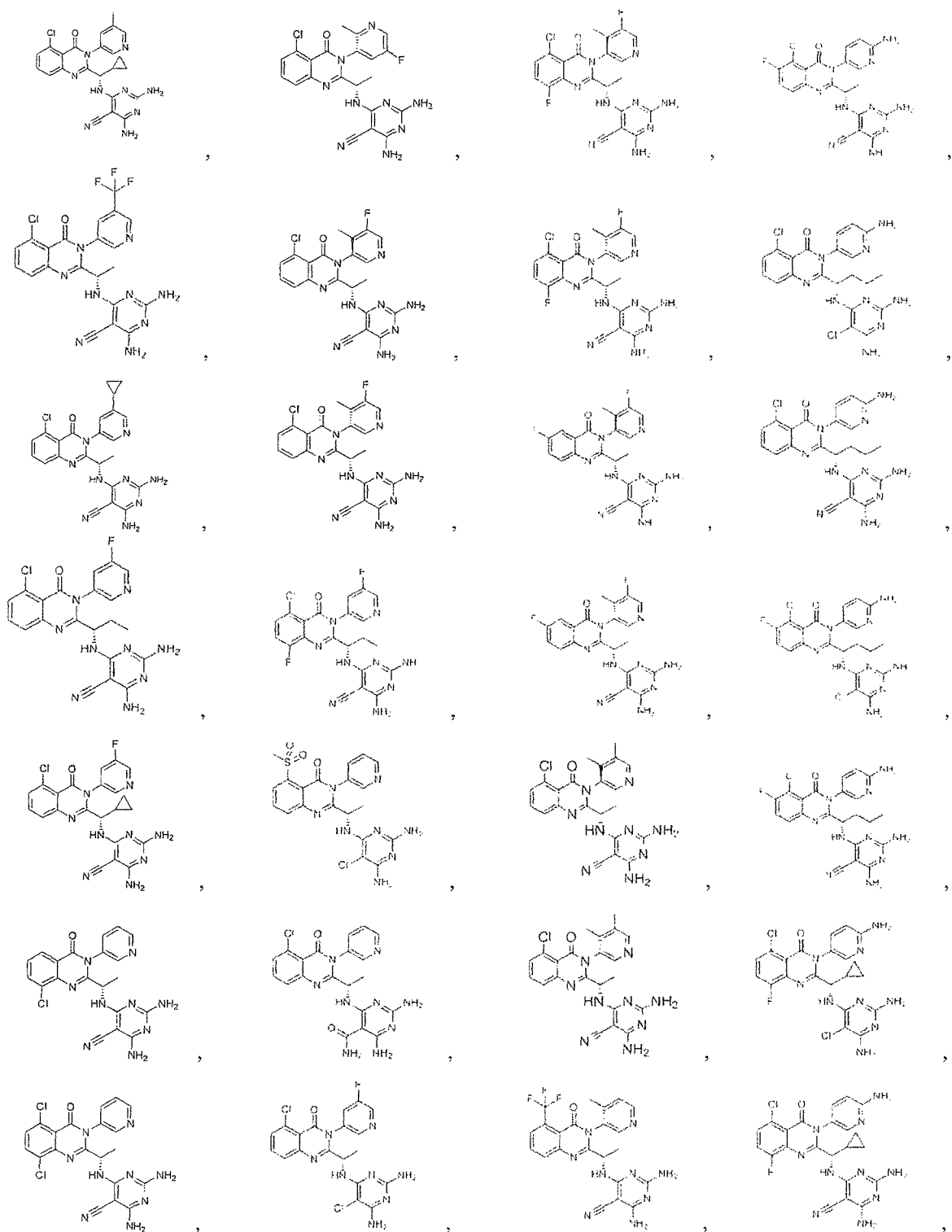
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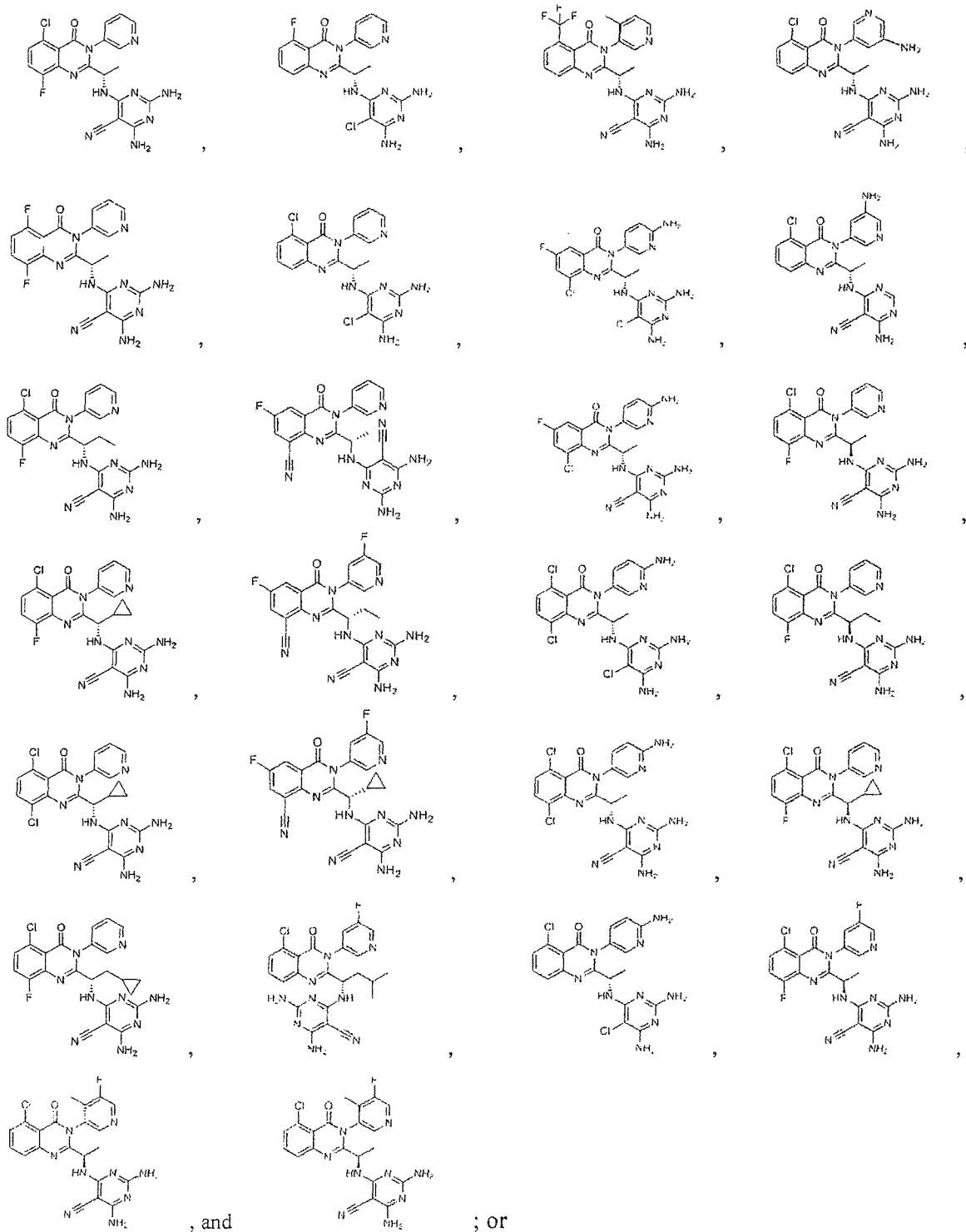


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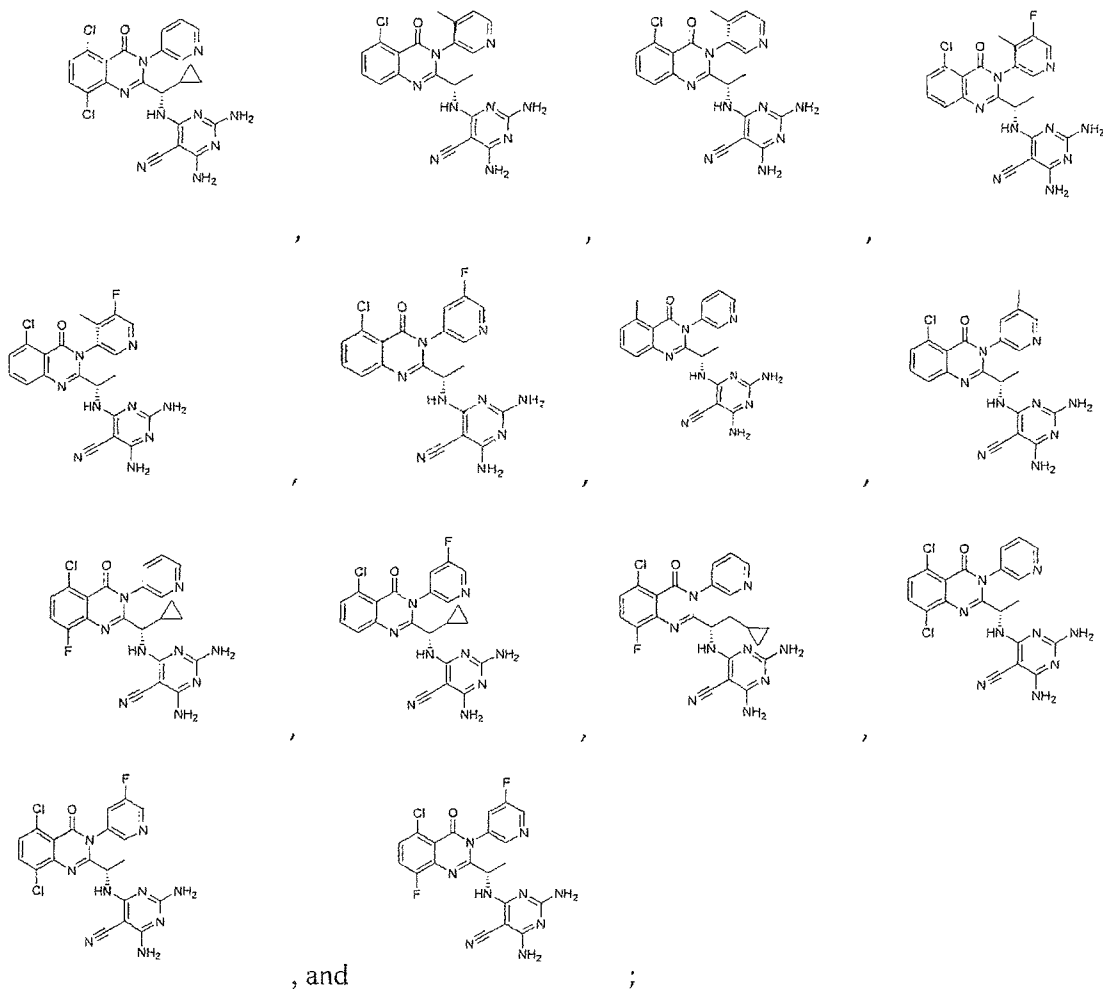






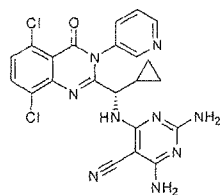
a pharmaceutically acceptable salt thereof or an atropisomer thereof.

33. The pharmaceutical composition of claim 20 wherein the compound is selected from the group consisting of:



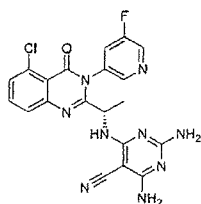
or an atropisomer thereof.

34. The pharmaceutical composition of claim 20, wherein the compound is



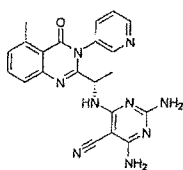
or a pharmaceutically acceptable salt thereof.

35. The pharmaceutical composition of claim 20, wherein the compound is



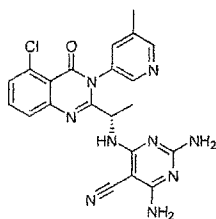
or a pharmaceutically acceptable salt thereof.

36. The pharmaceutical composition of claim 20, wherein the compound is



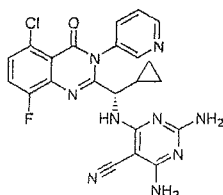
or a pharmaceutically acceptable salt thereof.

37. The pharmaceutical composition of claim 20, wherein the compound is



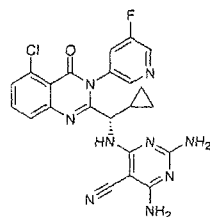
or a pharmaceutically acceptable salt thereof.

38. The pharmaceutical composition of claim 20, wherein the compound is



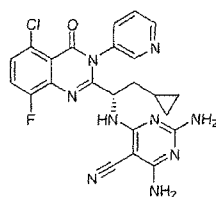
or a pharmaceutically acceptable salt thereof.

39. The pharmaceutical composition of claim 20, wherein the compound is



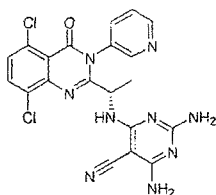
or a pharmaceutically acceptable salt thereof.

40. The pharmaceutical composition of claim 20, wherein the compound is



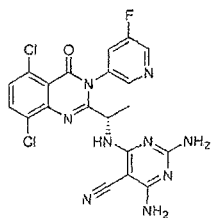
or a pharmaceutically acceptable salt thereof.

41. The pharmaceutical composition of claim 20, wherein the compound is



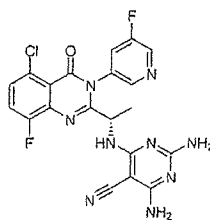
or a pharmaceutically acceptable salt thereof.

42. The pharmaceutical composition of claim 20, wherein the compound is



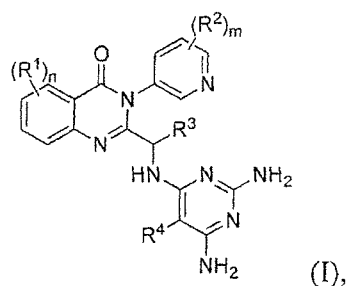
or a pharmaceutically acceptable salt thereof.

43. The pharmaceutical composition of claim 20, wherein the compound is



or a pharmaceutically acceptable salt thereof.

44. A composition comprising a compound having the structure of formula (I):



a pharmaceutically acceptable salt thereof, an isomer thereof, or a mixture thereof, wherein:

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

each R^1 is independently selected from halo, cyano, alkyl, or alkylsulfonyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

m is 0, 1, 2, or 3;

each R^2 is independently selected from halo, $-NH_2$, alkoxy, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with 1 to 3 halogen;

R^3 is hydrogen, alkyl, or cycloalkyl, wherein the alkyl moiety may be optionally substituted with cycloalkyl; and

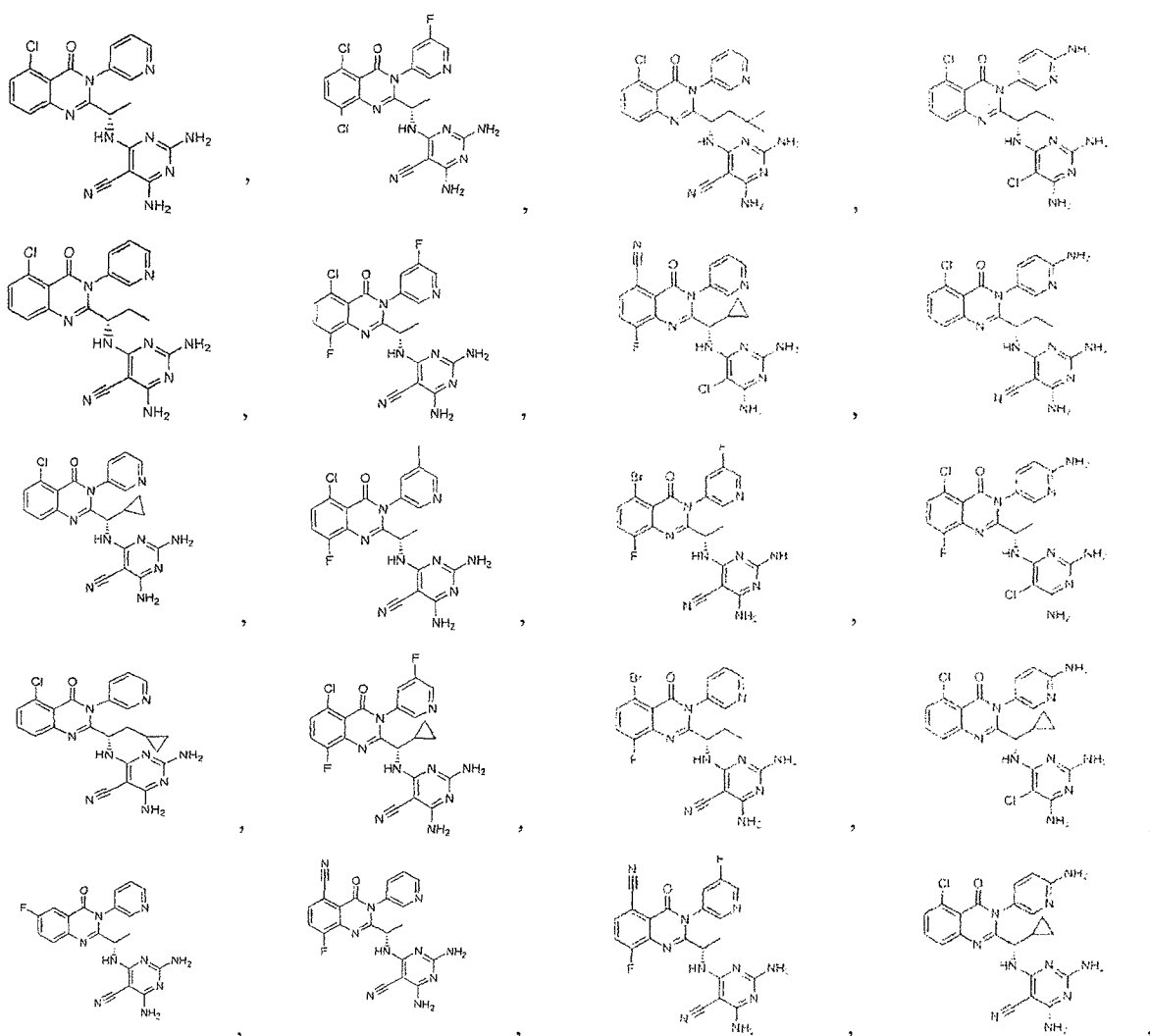
R^4 is cyano, halo, or $CONH_2$.

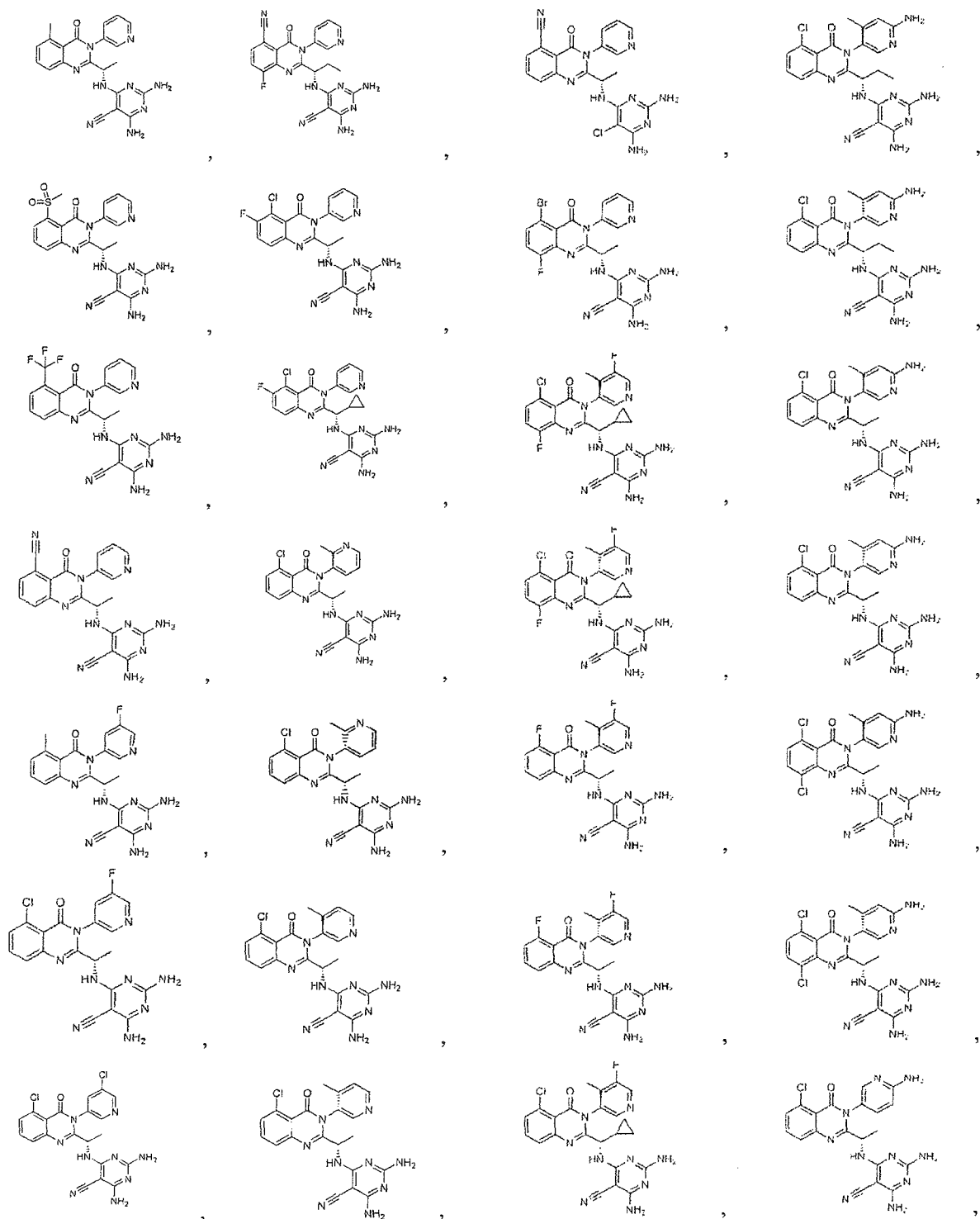
45. The composition of claim 44, wherein the mixture comprises the (S)-enantiomer and the (R)-enantiomer of the compound or a pharmaceutically acceptable salt thereof.

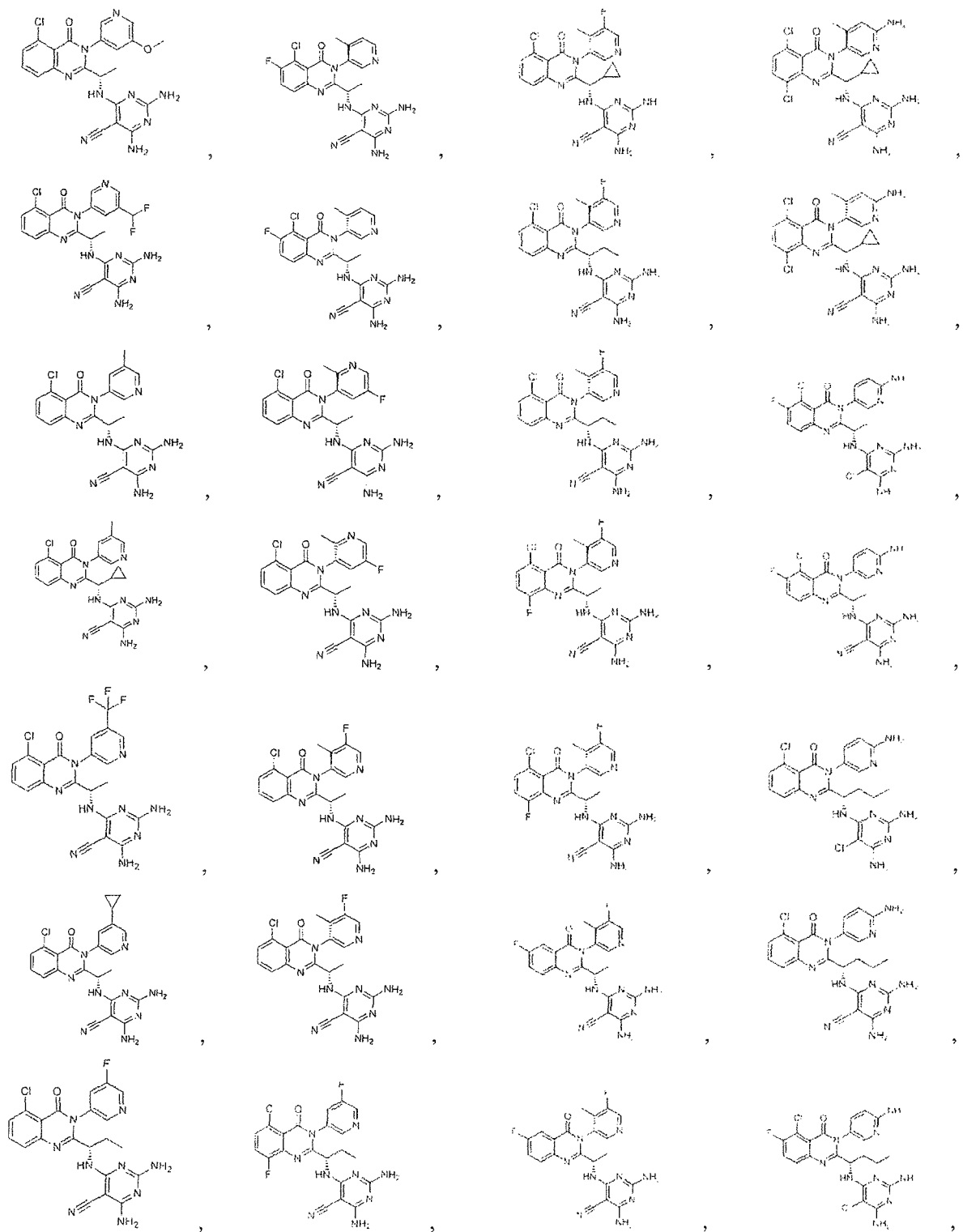
46. The composition of claim 45, wherein the (S)-enantiomer of the compound or a pharmaceutically acceptable salt thereof is present in excess of the corresponding (R)-enantiomer.

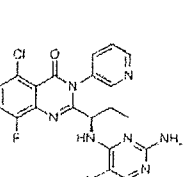
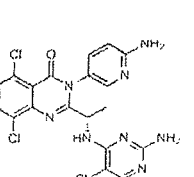
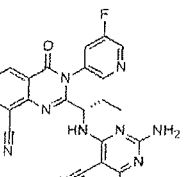
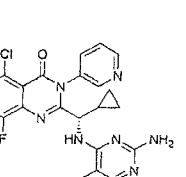
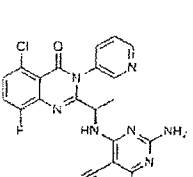
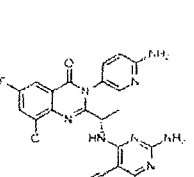
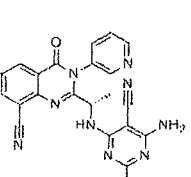
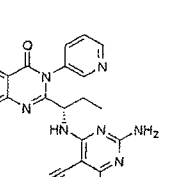
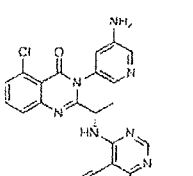
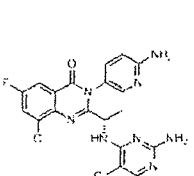
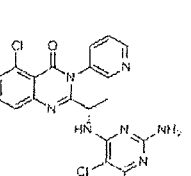
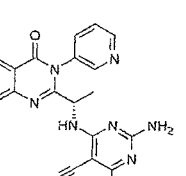
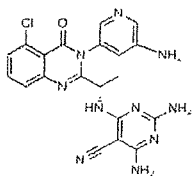
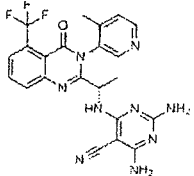
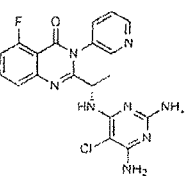
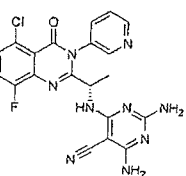
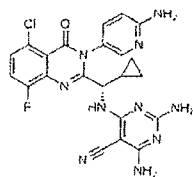
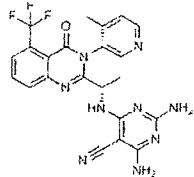
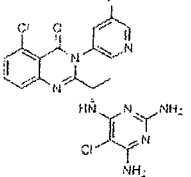
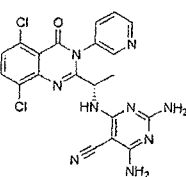
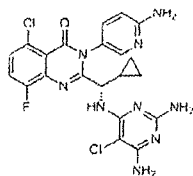
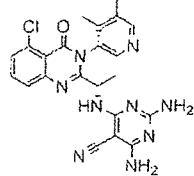
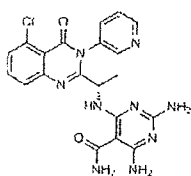
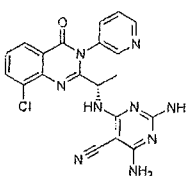
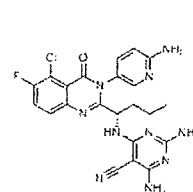
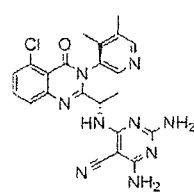
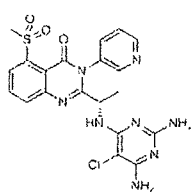
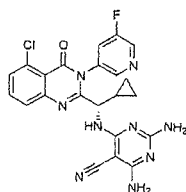
47. The composition of claim 45, wherein the composition comprises the (S)-enantiomer of the compound or a pharmaceutically acceptable salt thereof and is substantially free of the corresponding (R)-enantiomer.

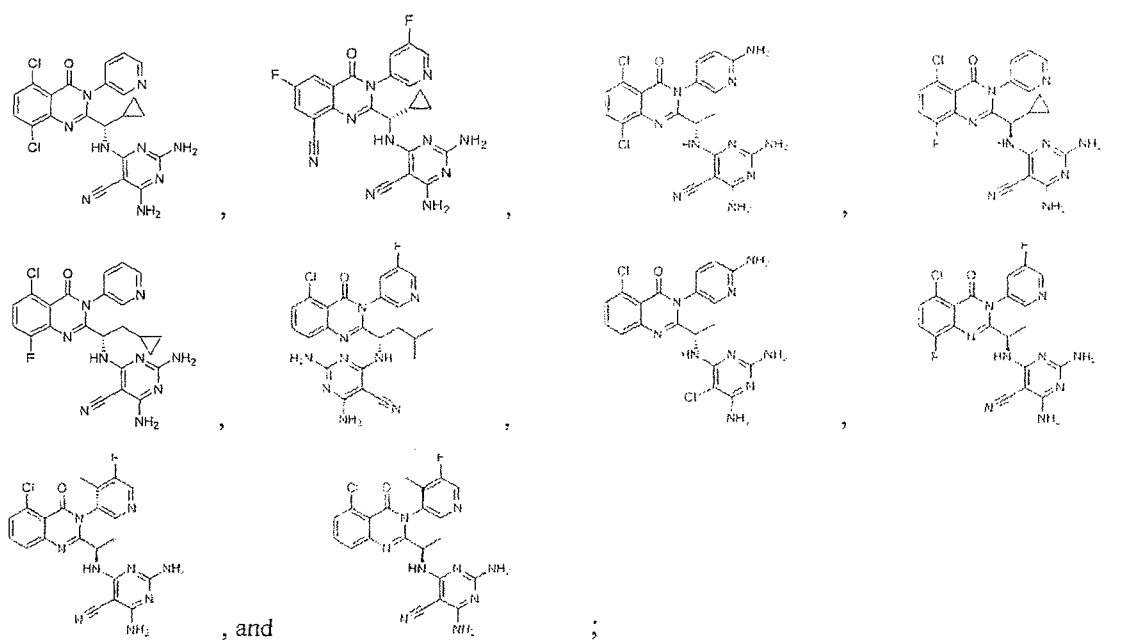
48. The composition of claim 44, wherein the compound is selected from the group consisting of:





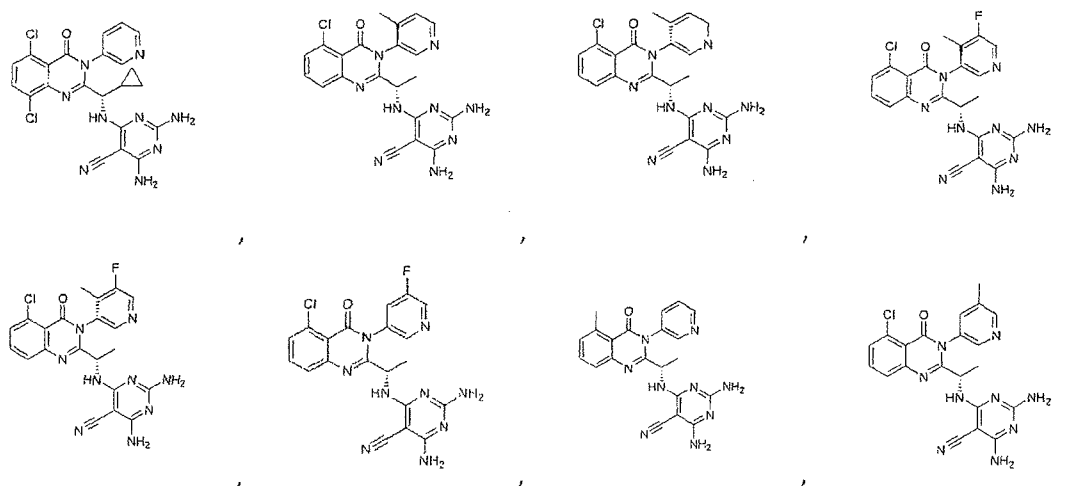


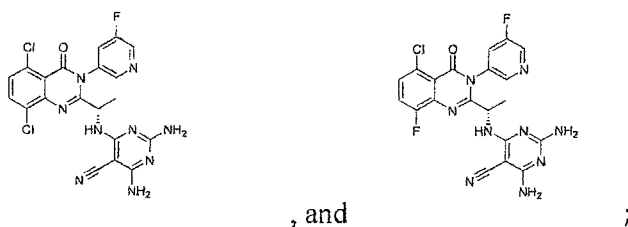
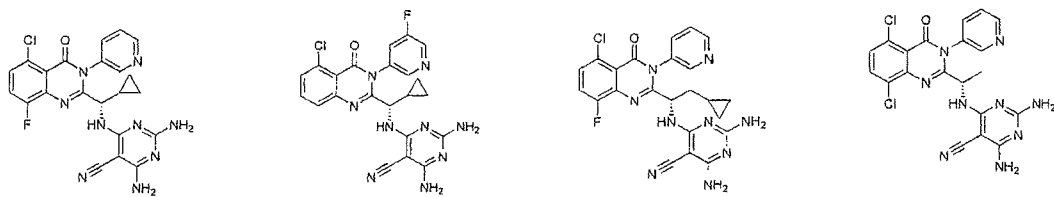




or a pharmaceutically acceptable salt thereof or an atropisomer thereof.

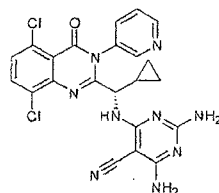
49. The composition of claim 44, wherein the compound is selected from the group consisting of:





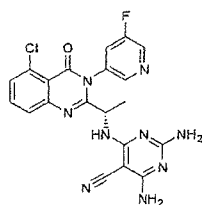
or an atropisomer thereof.

50. The composition of claim 44, wherein the compound is



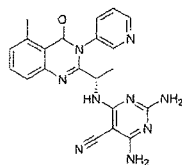
or a pharmaceutically acceptable salt thereof.

51. The composition of claim 44, wherein the compound is



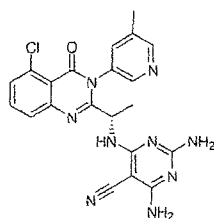
or a pharmaceutically acceptable salt thereof.

52. The composition of claim 44, wherein the compound is



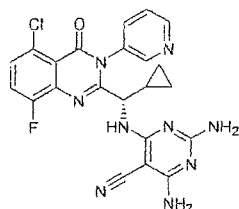
or a pharmaceutically acceptable salt thereof.

53. The composition of claim 44, wherein the compound is



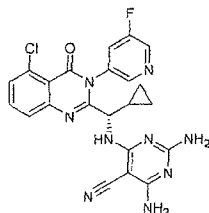
or a pharmaceutically acceptable salt thereof.

54. The composition of claim 44, wherein the compound



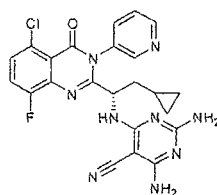
or a pharmaceutically acceptable salt thereof.

55. The composition of claim 44, wherein the compound is



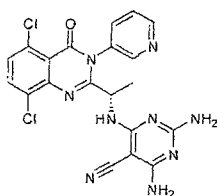
or a pharmaceutically acceptable salt thereof.

56. The composition of claim 44, wherein the compound is



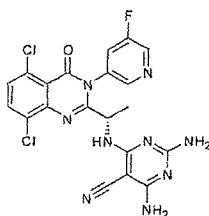
or a pharmaceutically acceptable salt thereof.

57. The composition of claim 44, wherein the compound is



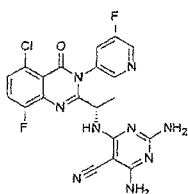
or a pharmaceutically acceptable salt thereof.

58. The composition of claim 44, wherein the compound is



or a pharmaceutically acceptable salt thereof.

59. The composition of claim 44, wherein the compound is



or a pharmaceutically acceptable salt thereof.