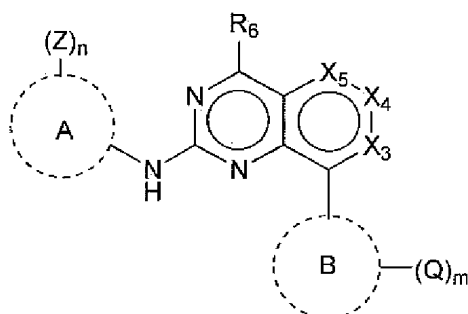


SUMMARY OF THE INVENTION

[004a] In one aspect, the present disclosure provides a compound of Formula I:



Formula I

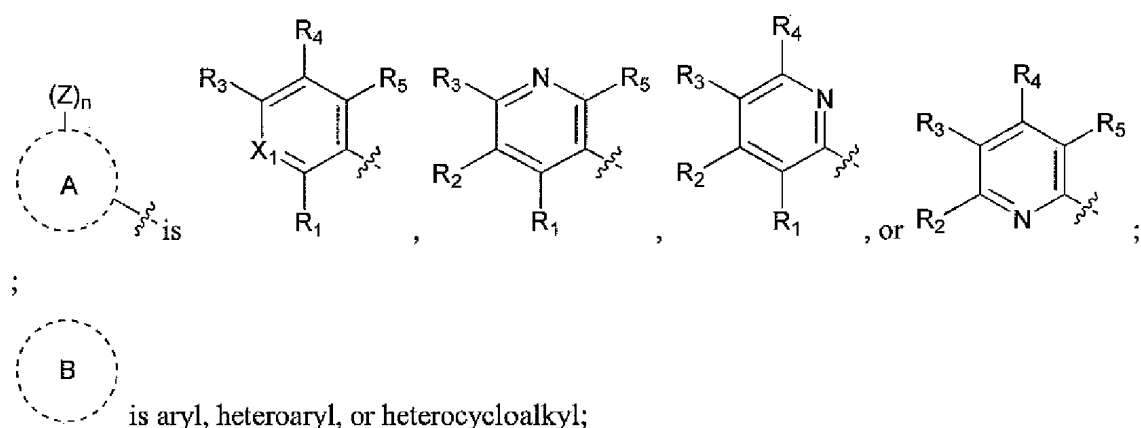
or a pharmaceutically acceptable salt thereof, wherein

X₃ is C-R₁₂, or N;

X₄ is C-R₁₃, or N;

X₅ is C-R₁₄, or N;

m is 0, 1, 2, 3, 4, or 5;



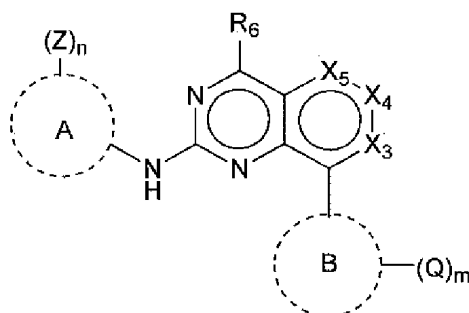
X₁ is C-R₂, or N;

R₁, R₂, R₄, R₅, R₆, R₁₂, R₁₃, and R₁₄, are independently hydrogen, cyano, halo, hydroxy, azido, nitro, carboxy, sulfinyl, sulfanyl, sulfonyl, optionally substituted alkoxy, optionally substituted cycloalkyloxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted heterocycloalkyloxy, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycloalkyl, optionally substituted amino, optionally substituted acyl, optionally substituted alkoxycarbonyl, optionally substituted aminocarbonyl, optionally substituted aminosulfonyl, or optionally substituted carbamimidoyl;

R₃ is optionally substituted pyrrolidinyl, optionally substituted piperidinyl, optionally substituted piperazinyl, optionally substituted azetidiny, optionally substituted diazepanyl, optionally substituted diazocanyl, optionally substituted imidazolidinyl, optionally substituted pyrazolidinyl, optionally substituted dihydrofuranyl, optionally substituted tetrahydrofuranyl, optionally substituted piperidinyl N-oxide, optionally substituted morpholinyl-N-oxide, optionally substituted oxo-thiomorpholinyl and optionally substituted dioxo-thiomorpholinyl; and

each Q is independently hydrogen, cyano, halo, hydroxy, azido, nitro, carboxy, oxo, sulfinyl, sulfanyl, sulfonyl, optionally substituted alkoxy, optionally substituted cycloalkyloxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted heterocycloalkyloxy, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycloalkyl, optionally substituted amino, optionally substituted acyl, optionally substituted alkoxycarbonyl, optionally substituted aminocarbonyl, optionally substituted aminosulfonyl, or optionally substituted carbamimidoyl.

[005] In one aspect, the present disclosure provides a compound of Formula I



Formula I

or a pharmaceutically acceptable salt thereof, wherein

X₃ is C-R₁₂, or N;

X₄ is C-R₁₃, or N;

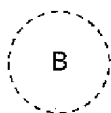
X₅ is C-R₁₄, or N;

n is 0, 1, 2, 3, 4, or 5;

m is 0, 1, 2, 3, 4, or 5;



is aryl or heteroaryl;



is aryl, heteroaryl, or heterocycloalkyl;

R₆, R₁₂, R₁₃, R₁₄, and each Z is independently hydrogen, cyano, halo, hydroxy, azido, nitro, carboxy, oxo, sulfinyl, sulfanyl, sulfonyl, optionally substituted alkoxy, optionally substituted cycloalkyloxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted heterocycloalkyloxy, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycloalkyl, optionally substituted amino, optionally substituted acyl, optionally substituted alkoxycarbonyl, optionally substituted aminocarbonyl, optionally substituted aminosulfonyl, or optionally substituted carbamimidoyl;

each Q is independently hydrogen, cyano, halo, hydroxy, azido, nitro, carboxy, oxo, sulfinyl, sulfanyl, sulfonyl, optionally substituted alkoxy, optionally substituted cycloalkyloxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted heterocycloalkyloxy, optionally substituted alkyl, optionally substituted

[0132] In some embodiments, R₈ is fluoro, and R₉ and R₁₀ are hydrogen. In some embodiments, R₈ is chloro, and R₉ and R₁₀ are hydrogen. In some embodiments, R₁₀ is fluoro, and R₈ and R₉ are hydrogen. In some embodiments, R₁₀ is chloro, and R₈ and R₉ are hydrogen.

[0133] In some embodiments, R₈ is optionally substituted alkoxy, and R₉ and R₁₀ are hydrogen. In some embodiments, R₉ is optionally substituted alkoxy, and R₈ and R₁₀ are hydrogen.

[0134] In some embodiments, R₁₂ is hydrogen, halo, cyano, -CONH₂, -NHCOCH₃, or optionally substituted lower alkyl. In some embodiments, R₁₂ is hydrogen, fluoro, chloro, cyano, methyl, ethyl, propyl, -CF₃, -CH₂F, -CHF₂, -CH₂CF₃, -CH₂CH₂F, -CH₂CHF₂, -CH₂OH, -CONH₂, -CH₂CONH₂, or -NHCOCH₃. In some embodiments, R₁₂ is hydrogen. In some embodiments, R₁₂ is fluoro. In some embodiments, R₁₂ is methyl. In some embodiments, R₁₂ is -CH₂OH.

[0135] In some embodiments, X₁ is C-R₂ or N, X₂ is C-R₁₁ or N, X₃ is C-R₁₂ or N, X₄ is C-R₁₃ or N, and X₅ is C-R₁₄ or N.

[0136] In some embodiments, X₁ is C-R₂, X₂ is C-R₁₁, X₃ is C-R₁₂, X₄ is C-R₁₃, and X₅ is C-R₁₄.

[0137] In some embodiments, X₁ is N, X₂ is C-R₁₁, X₃ is C-R₁₂, X₄ is C-R₁₃, and X₅ is C-R₁₄.

[0138] In some embodiments, X₁ is C-R₂, X₂ is N, X₃ is C-R₁₂, X₄ is C-R₁₃, and X₅ is C-R₁₄.

[0139] In some embodiments, X₁ is C-R₂, X₂ is C-R₁₁, X₃ is N, X₄ is C-R₁₃, and X₅ is C-R₁₄.

[0140] In some embodiments, X₁ is C-R₂, X₂ is C-R₁₁, X₃ is C-R₁₂, X₄ is N, and X₅ is C-R₁₄.

[0141] In some embodiments, X₁ is C-R₂, X₂ is C-R₁₁, X₃ is C-R₁₂, X₄ is C-R₁₃, and X₅ is N.

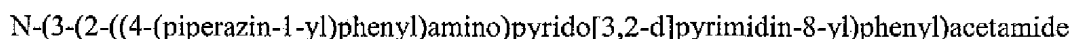
[0142] In some embodiments, X₁ is N, X₂ is N, X₃ is C-R₁₂, X₄ is C-R₁₃, and X₅ is C-R₁₄.

[0143] In some embodiments, X₁ is N, X₂ is C-R₁₁, X₃ is N, X₄ is C-R₁₃, and X₅ is C-R₁₄.

[0144] In some embodiments, X₁ is C-R₂, X₂ is N, X₃ is N, X₄ is C-R₁₃, and X₅ is C-R₁₄.

[0145] In some embodiments, X₁ is N, X₂ is N, X₃ is N, X₄ is C-R₁₃, and X₅ is C-R₁₄.

[0145a] In some embodiments, a compound or pharmaceutically acceptable salt thereof, wherein the compound is chosen from the group consisting of:



N-(3-(2-((4-(piperazin-1-yl)phenyl)amino)pyrido[4,3-d]pyrimidin-8-yl)phenyl)acetamide
 N-(3-(2-((4-(piperazin-1-yl)phenyl)amino)pyrido[3,4-d]pyrimidin-8-yl)phenyl)acetamide
 8-phenyl-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(2-chlorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(2,6-difluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(5-chloro-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(3-chlorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(3-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 N-(4-fluoro-3-(2-((4-(piperazin-1-yl)phenyl)amino)pyrido[3,4-d]pyrimidin-8-yl)phenyl)acetamide
 8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(3-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(3-(2-(dimethylamino)ethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(4-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(4-(2-(dimethylamino)ethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 8-(4-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine
 N1-(1-(2-fluoroethyl)azetidin-3-yl)-N4-(8-(2-fluorophenyl)pyrido[3,4-d]pyrimidin-2-yl)benzene-1,4-diamine
 N1-(1-(2-fluoroethyl)azetidin-3-yl)-N4-(8-(3-(2-morpholinoethoxy)phenyl)pyrido[3,4-d]pyrimidin-2-yl)benzene-1,4-diamine
 N1-(8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)pyrido[3,4-d]pyrimidin-2-yl)-N4-(1-(2-fluoroethyl)azetidin-3-yl)benzene-1,4-diamine
 N1-(8-(5-chloro-2-fluorophenyl)pyrido[3,4-d]pyrimidin-2-yl)-N4-(1-(2-fluoroethyl)azetidin-3-yl)benzene-1,4-diamine
 8-(3-aminophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(3-aminophenyl)-N-(4-(4-methylpiperazin-1-yl)phenyl)quinazolin-2-amine

N-(3-(2-((4-(piperazin-1-yl)phenyl)amino)quinazolin-8-yl)phenyl)acetamide
 N-(3-(2-((4-(4-methylpiperazin-1-yl)phenyl)amino)quinazolin-8-yl)phenyl)acetamide
 8-phenyl-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(2-chlorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(2,6-difluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(5-chloro-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(3-chlorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(3-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 N-(4-fluoro-3-(2-((4-(piperazin-1-yl)phenyl)amino)quinazolin-8-yl)phenyl)acetamide
 8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(3-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(3-(2-(dimethylamino)ethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(4-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(4-(2-(dimethylamino)ethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(4-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 N-(3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[3,2-d]pyrimidin-8-yl)phenyl)acetamide
 N-(3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[4,3-d]pyrimidin-8-yl)phenyl)acetamide
 N-(3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[3,4-d]pyrimidin-8-yl)phenyl)acetamide
 8-phenyl-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(2-chlorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(2,6-difluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(5-chloro-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(3-chlorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(3-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 N-(4-fluoro-3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[3,4-d]pyrimidin-8-yl)phenyl)acetamide
 8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-(2-(dimethylamino)ethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-(2-(dimethylamino)ethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-aminophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(3-aminophenyl)-N-(6-(4-methylpiperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

N-(3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)quinazolin-8-yl)phenyl)acetamide

N-(3-(2-((6-(4-methylpiperazin-1-yl)pyridin-3-yl)amino)quinazolin-8-yl)phenyl)acetamide

8-phenyl-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(2-chlorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(2,6-difluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(5-chloro-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(3-chlorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(3-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

N-(4-fluoro-3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)quinazolin-8-yl)phenyl)acetamide

8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(3-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(3-(2-(dimethylamino)ethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-(2-(dimethylamino)ethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-aminopyridin-2-yl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(4-aminopyridin-2-yl)-N-(4-(4-methylpiperazin-1-yl)phenyl)quinazolin-2-amine
 N-(2-(2-((4-(4-methylpiperazin-1-yl)phenyl)amino)quinazolin-8-yl)pyridin-4-yl)acetamide
 N-(4-(piperazin-1-yl)phenyl)-8-(pyridin-2-yl)quinazolin-2-amine
 N-(2-(2-((4-(piperazin-1-yl)phenyl)amino)quinazolin-8-yl)pyridin-4-yl)acetamide
 8-(4-(2-morpholinoethoxy)pyridin-2-yl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(4-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(5-(2-morpholinoethoxy)pyridin-2-yl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 8-(5-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine
 N-(2-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[3,2-d]pyrimidin-8-yl)pyridin-4-yl)acetamide
 N-(2-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[4,3-d]pyrimidin-8-yl)pyridin-4-yl)acetamide
 N-(6-(piperazin-1-yl)pyridin-3-yl)-8-(pyridin-2-yl)pyrido[3,4-d]pyrimidin-2-amine
 N-(2-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[3,4-d]pyrimidin-8-yl)pyridin-4-yl)acetamide
 8-(4-(2-morpholinoethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(4-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(5-(2-morpholinoethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(5-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine
 8-(4-aminopyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine
 8-(4-aminopyridin-2-yl)-N-(6-(4-methylpiperazin-1-yl)pyridin-3-yl)quinazolin-2-amine
 N-(2-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)quinazolin-8-yl)pyridin-4-yl)acetamide
 N-(2-(2-((6-(4-methylpiperazin-1-yl)pyridin-3-yl)amino)quinazolin-8-yl)pyridin-4-yl)acetamide
 N-(6-(piperazin-1-yl)pyridin-3-yl)-8-(pyridin-2-yl)quinazolin-2-amine
 8-(4-(2-morpholinoethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine
 8-(4-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine
 8-(5-(2-morpholinoethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine
 8-(5-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine
 8-(4-(2-morpholinoethoxy)pyridin-2-yl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine

N2-(6-(piperazin-1-yl)pyridin-3-yl)-8-(pyridin-2-yl)quinazoline-2,4-diamine
 8-(5-chloro-2-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidine-2,4-diamine
 8-(2,6-difluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidine-2,4-diamine
 8-(2-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidine-2,4-diamine
 N2-(6-(piperazin-1-yl)pyridin-3-yl)-8-(pyridin-2-yl)pyrido[3,4-d]pyrimidine-2,4-diamine
 8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidine-2,4-diamine
 N2-(4-(piperazin-1-yl)phenyl)-8-(pyridin-2-yl)pyrido[3,4-d]pyrimidine-2,4-diamine
 N2-(4-(piperazin-1-yl)phenyl)-8-(pyridin-2-yl)quinazoline-2,4-diamine
 8-(3-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine
 8
 8-(5-chloro-2-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine
 8-(2,6-difluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine
 8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine
 8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine
 8-(2-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine
 8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine
 8-(5-chloro-2-fluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine
 8-(2,6-difluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine
 8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine
 8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine
 8-(2-fluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine
 8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine
 8-(2-fluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)quinazoline-2,4-diamine
 8-(5-chloro-2-fluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)quinazoline-2,4-diamine
 8-(2,6-difluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)quinazoline-2,4-diamine
 8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N2-(4-(piperazin-1-yl)phenyl)quinazoline-2,4-diamine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N2-(4-(piperazin-1-yl)phenyl)quinazoline-2,4-diamine

tert-butyl 4-(4-((8-(2-fluorophenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-(2-chlorophenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-(3-fluorophenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-(5-chloro-2-fluorophenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-(3-chlorophenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-phenylquinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

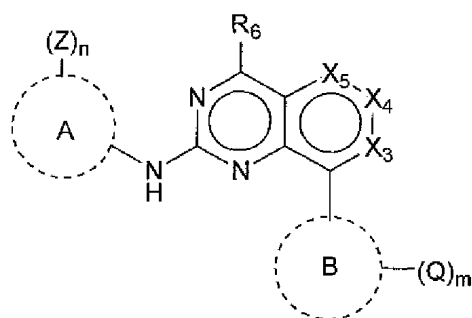
N-(3-(2-((4-(4-methylpiperazin-1-yl)phenyl)amino)quinazolin-8-yl)phenyl)propionamide, and N-(3-(7-methyl-2-((4-(4-methylpiperazin-1-yl)phenyl)amino)quinazolin-8-yl)phenyl)propionamide.

[0146] In another aspect, the present disclosure provides a compound or pharmaceutically acceptable salt thereof, wherein the compound is chosen from the group consisting of:

N-(3-(2-((4-(piperazin-1-yl)phenyl)amino)pyrido[3,2-d]pyrimidin-8-yl)phenyl)acetamide

What is claimed is:

1. A compound of Formula I:



Formula I

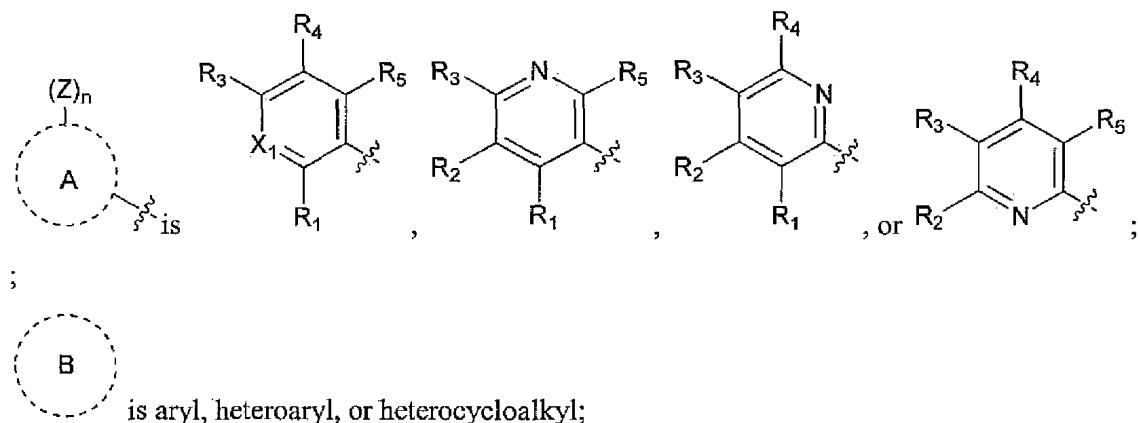
or a pharmaceutically acceptable salt thereof, wherein

X3 is C-R₁₂, or N;

X4 is C-R₁₃, or N;

X5 is C-R₁₄, or N;

m is 0, 1, 2, 3, 4, or 5;

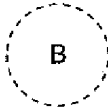


X₁ is C-R₂, or N;

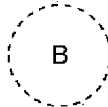
R₁, R₂, R₄, R₅, R₆, R₁₂, R₁₃, and R₁₄, are independently hydrogen, cyano, halo, hydroxy, azido, nitro, carboxy, sulfinyl, sulfanyl, sulfonyl, optionally substituted alkoxy, optionally substituted cycloalkyloxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted heterocycloalkyloxy, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycloalkyl, optionally substituted amino, optionally substituted acyl, optionally substituted alkoxycarbonyl, optionally substituted aminocarbonyl, optionally substituted aminosulfonyl, or optionally substituted carbamimidoyl; R₃ is optionally substituted pyrrolidinyl, optionally substituted piperidinyl, optionally substituted piperazinyl, optionally substituted azetidiny, optionally substituted diazepanyl,

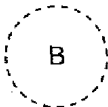
optionally substituted diazocanyl, optionally substituted imidazolidinyl, optionally substituted pyrazolidinyl, optionally substituted dihydrofuranyl, optionally substituted tetrahydrofuranyl, optionally substituted piperidinyl N-oxide, optionally substituted morpholinyl-N-oxide, optionally substituted oxo-thiomorpholinyl and optionally substituted dioxo-thiomorpholinyl; and

each Q is independently hydrogen, cyano, halo, hydroxy, azido, nitro, carboxy, oxo, sulfinyl, sulfanyl, sulfonyl, optionally substituted alkoxy, optionally substituted cycloalkyloxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted heterocycloalkyloxy, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycloalkyl, optionally substituted amino, optionally substituted acyl, optionally substituted alkoxycarbonyl, optionally substituted aminocarbonyl, optionally substituted aminosulfonyl, or optionally substituted carbamimidoyl.

2. The compound or pharmaceutically acceptable salt of claim 1, wherein  is selected from the group consisting of: piperazinyl, morpholinyl, piperidinyl, thiomorpholinyl, pyrrolidinyl, tetrahydrofuranyl, diazepanyl, azetidiny, oxetanyl, oxiranyl, aziridinyl, pyrrolyl, furanyl, thienyl, imidazolyl, pyrazolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, furazanyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazole, 1,2,5-oxadiazole, 1,3,4-oxadiazole, thiadiazolyl, dithiazolyl, tetrazolyl, pyridinyl, pyranyl, thiopyranyl, diazinyl, pyrazinyl, pyrimidinyl, pyridazinyl, oxazinyl, thiazinyl, dioxinyl, dithiinyl, 1,2,3-triazinyl, 1,2,4-triazinyl, 1,3,5-triazinyl, tetrazinyl, and phenyl.

3. The compound or pharmaceutically acceptable salt of claim 2, wherein  is selected from the group consisting of: phenyl, pyridinyl, pyrimidinyl, pyrazinyl, thiazolyl, oxazolyl, imidazolyl, pyrazolyl, isoxazolyl, and thienyl.

4. The compound or pharmaceutically acceptable salt of claim 3, wherein  is phenyl or pyridinyl.

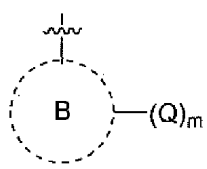
5. The compound or pharmaceutically acceptable salt of claim 2, wherein  is selected from the group consisting of: piperazinyl, morpholinyl, piperidinyl, thiomorpholinyl,

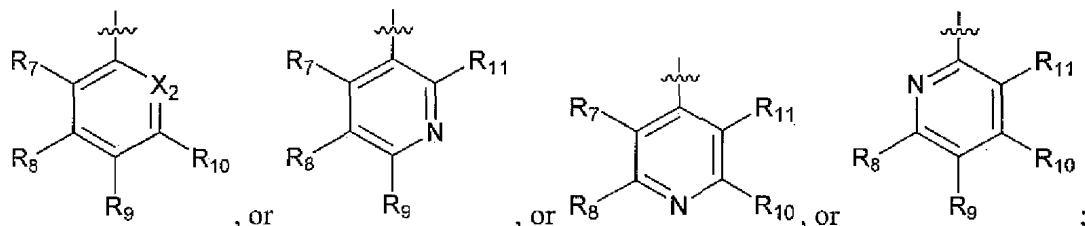
pyrrolidinyl, tetrahydrofuranyl, diazepanyl, azetidiny, oxetanyl, oxiranyl, and aziridinyl.

6. The compound or pharmaceutically acceptable salt of claim 5, wherein  is selected from the group consisting of: piperazinyl, morpholinyl, piperidinyl, pyrrolidinyl, tetrahydrofuranyl, and diazepanyl.

7. The compound or pharmaceutically acceptable salt of claim 6, wherein  is selected from the group consisting of: piperazinyl, morpholinyl, piperidinyl, and pyrrolidinyl.

8. The compound or pharmaceutically acceptable salt of any one of claims 1 to 7, wherein m is 1, 2, or 3.

9. The compound or pharmaceutically acceptable salt of claim 1, wherein  is



X_2 is C- R_{11} , or N; and

R_{11} , R_7 , R_8 , R_9 , and R_{10} are independently, hydrogen, cyano, halo, hydroxy, azido, nitro, carboxy, sulfinyl, sulfanyl, sulfonyl, optionally substituted alkoxy, optionally substituted cycloalkyloxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted heterocycloalkyloxy, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycloalkyl, optionally substituted amino, optionally substituted acyl, optionally substituted alkoxy carbonyl, optionally substituted aminocarbonyl, optionally substituted aminosulfonyl, or optionally substituted carbamimidoyl.

10. The compound of claim 1, having the structure of Formula Ia



X₂ is C-R₁₁, or N;

R₇ and R₁₁ are independently hydrogen, cyano, halo, hydroxy, azido, nitro, carboxy, sulfinyl, sulfanyl, sulfonyl, optionally substituted alkoxy, optionally substituted cycloalkyloxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted heterocycloalkyloxy, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycloalkyl, optionally substituted amino, optionally substituted acyl, optionally substituted alkoxycarbonyl, optionally substituted aminocarbonyl, optionally substituted aminosulfonyl, or optionally substituted carbamimidoyl; and

R₈, R₉, and R₁₀ are independently hydrogen, cyano, halo, hydroxy, azido, nitro, carboxy, sulfinyl, sulfanyl, sulfonyl, optionally substituted alkoxy, optionally substituted cycloalkyloxy, optionally substituted aryloxy, optionally substituted heteroaryloxy, optionally substituted heterocycloalkyloxy, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycloalkyl, optionally substituted amino, optionally substituted acyl, optionally substituted alkoxycarbonyl, optionally substituted aminocarbonyl, optionally substituted aminosulfonyl, or optionally substituted carbamimidoyl;

11. The compound or pharmaceutically acceptable salt of claim 10, wherein R₁ is hydrogen, cyano, halo, hydroxy, -CONH₂, optionally substituted alkoxy, or optionally substituted cycloalkyloxy.
12. The compound or pharmaceutically acceptable salt of claim 11, wherein R₁ is hydrogen, cyano, fluoro, chloro, hydroxy, hydroxymethyl, -CONH₂, or methoxy.
13. The compound or pharmaceutically acceptable salt of claim 10, wherein R₂, and R₄ are independently hydrogen, cyano, halo, hydroxy, carboxy, optionally substituted alkoxy, optionally substituted C₁-C₆ alkyl, optionally substituted heterocycloalkyl, optionally

substituted aryl, optionally substituted heteroaryl, optionally substituted amino, optionally substituted acyl, optionally substituted alkoxycarbonyl, or optionally substituted aminocarbonyl.

14. The compound or pharmaceutically acceptable salt of claim 13, wherein R_2 and R_4 are hydrogen.
15. The compound or pharmaceutically acceptable salt of claim 14, wherein R_2 and R_4 are hydrogen, and R_3 is optionally substituted piperazinyl, optionally substituted pyrrolidinyl, optionally substituted piperidinyl, optionally substituted azetidiny.
16. The compound or pharmaceutically acceptable salt of claim 13, wherein R_2 is hydrogen, and R_4 is optionally substituted heteroaryl, optionally substituted heterocycloalkyl, or optionally substituted amino.
17. The compound or pharmaceutically acceptable salt of claim 16, wherein R_2 is hydrogen, and R_4 is optionally substituted morpholinyl, optionally substituted piperazinyl, optionally substituted pyrrolidinyl, optionally substituted piperidinyl, optionally substituted azetidiny, or substituted amino.
18. The compound or pharmaceutically acceptable salt of any one of claims 10 to 17, wherein R_5 is hydrogen, halo, cyano, optionally substituted alkoxy, or optionally substituted alkyl.
19. The compound or pharmaceutically acceptable salt of claim 18, wherein R_5 is hydrogen.
20. The compound or pharmaceutically acceptable salt of any one of claims 1 to 19, wherein R_6 is hydrogen or optionally substituted amino.
21. The compound or pharmaceutically acceptable salt of claim 20, wherein R_6 is hydrogen or amino.
22. The compound or pharmaceutically acceptable salt of any one of claims 10 to 21, wherein R_7 and R_{11} are independently hydrogen, cyano, optionally substituted lower alkyl, halo, or methoxy.
23. The compound or pharmaceutically acceptable salt of claim 22, wherein R_7 and R_{11} are independently hydrogen, cyano, fluoro, chloro, methyl, hydroxymethyl, $-\text{CH}_2\text{F}$, or methoxy.
24. The compound or pharmaceutically acceptable salt of any one of claims 10 to 23, wherein R_8 , R_9 , and R_{10} are independently hydrogen, cyano, halo, hydroxy, carboxy, optionally substituted alkoxy, optionally substituted cycloalkyloxy, optionally substituted alkyl, optionally substituted

- alkenyl, optionally substituted alkynyl, optionally substituted amino, optionally substituted acyl, optionally substituted alkoxy carbonyl, or optionally substituted aminocarbonyl.
25. The compound or pharmaceutically acceptable salt of claim 24, wherein at least one of R₈, R₉, and R₁₀ is halo or optionally substituted amino.
 26. The compound or pharmaceutically acceptable salt of claim 24, wherein at least one of R₈, R₉, and R₁₀ is optionally substituted alkoxy.
 27. The compound or pharmaceutically acceptable salt of claim 26, wherein at least one of R₈, R₉, and R₁₀ is alkoxy substituted with optionally substituted amino or optionally substituted heterocycloalkyl.
 28. The compound or pharmaceutically acceptable salt of any one of claims 1 to 27, wherein R₁₂ is hydrogen, halo, cyano, -CONH₂, -NHCOCH₃, or optionally substituted lower alkyl.
 29. The compound or pharmaceutically acceptable salt of claim 28, wherein R₁₂ is hydrogen, fluoro, chloro, cyano, methyl, ethyl, propyl, -CF₃, -CH₂F, -CHF₂, -CH₂CF₃, -CH₂CH₂F, -CH₂CHF₂, -CH₂OH, -CONH₂, -CH₂CONH₂, or -NHCOCH₃.
 30. The compound or pharmaceutically acceptable salt of any one of claims 1 to 29, wherein R₁₃ and R₁₄ are independently hydrogen, cyano, optionally substituted lower alkyl, halo, or methoxy.
 31. The compound or pharmaceutically acceptable salt of claim 22, wherein R₁₃ and R₁₄ are independently hydrogen, cyano, fluoro, chloro, methyl, hydroxymethyl, -CH₂F, or methoxy.
 32. The compound or pharmaceutically acceptable salt of any one of claims 1 to 31, wherein X₃ is C-R₁₂, X₄ is C-R₁₃, and X₅ is C-R₁₄.
 33. The compound or pharmaceutically acceptable salt of any one of claims 1 to 31, wherein X₃ is N, X₄ is C-R₁₃, and X₅ is C-R₁₄.
 34. The compound or pharmaceutically acceptable salt of any one of claims 1 to 31, wherein X₃ is C-R₁₂, X₄ is N, and X₅ is C-R₁₄.
 35. The compound or pharmaceutically acceptable salt of any one of claims 1 to 31, wherein X₃ is C-R₁₂, X₄ is C-R₁₃, and X₅ is N.
 36. The compound or pharmaceutically acceptable salt of claim 10, wherein X₁ is C-R₂, X₂ is C-R₁₁, X₃ is C-R₁₂, X₄ is C-R₁₃, and X₅ is C-R₁₄.
 37. The compound or pharmaceutically acceptable salt of claim 10, wherein X₁ is N, X₂ is C-R₁₁, X₃ is C-R₁₂, X₄ is C-R₁₃, and X₅ is C-R₁₄.

38. The compound or pharmaceutically acceptable salt of claim 10, wherein X_1 is C-R₂, X_2 is N, X_3 is C-R₁₂, X_4 is C-R₁₃, and X_5 is C-R₁₄.
39. The compound or pharmaceutically acceptable salt of claim 10, wherein X_1 is C-R₂, X_2 is C-R₁₁, X_3 is N, X_4 is C-R₁₃, and X_5 is C-R₁₄.
40. The compound or pharmaceutically acceptable salt of claim 10, wherein X_1 is C-R₂, X_2 is C-R₁₁, X_3 is C-R₁₂, X_4 is N, and X_5 is C-R₁₄.
41. The compound or pharmaceutically acceptable salt of claim 10, wherein X_1 is C-R₂, X_2 is C-R₁₁, X_3 is C-R₁₂, X_4 is C-R₁₃, and X_5 is N.
42. The compound or pharmaceutically acceptable salt of claim 10, wherein X_1 is N, X_2 is N, X_3 is C-R₁₂, X_4 is C-R₁₃, and X_5 is C-R₁₄.
43. The compound or pharmaceutically acceptable salt of claim 10, wherein X_1 is N, X_2 is C-R₁₁, X_3 is N, X_4 is C-R₁₃, and X_5 is C-R₁₄.
44. The compound or pharmaceutically acceptable salt of claim 10, wherein X_1 is C-R₂, X_2 is N, X_3 is N, X_4 is C-R₁₃, and X_5 is C-R₁₄.
45. The compound or pharmaceutically acceptable salt of claim 10, wherein X_1 is N, X_2 is N, X_3 is N, X_4 is C-R₁₃, and X_5 is C-R₁₄.
46. The compound or pharmaceutically acceptable salt of claim 10, wherein R₁ is hydrogen or halo.
47. The compound or pharmaceutically acceptable salt of claim 10, wherein X_1 is C-R₂ and R₂ is hydrogen or halo.
48. The compound or pharmaceutically acceptable salt of claim 10, wherein X_1 is C-R₂, and R₁ and R₂ are fluoro.
49. The compound or pharmaceutically acceptable salt of any of claims 46-48, wherein R₃ is optionally substituted piperazinyl, optionally substituted pyrrolidinyl, optionally substituted piperidinyl, optionally substituted azetidiny, or substituted amino.
50. The compound or pharmaceutically acceptable salt of claim 49, wherein R₃ is optionally substituted pyrrolidinyl.
51. The compound or pharmaceutically acceptable salt of claim 49, wherein R₃ is optionally substituted piperazinyl.
52. The compound or pharmaceutically acceptable salt of claim 49, wherein R₃ is optionally substituted piperidinyl.
53. The compound or pharmaceutically acceptable salt of claim 49, wherein:

R₃ is piperazinyl, piperidinyl, or pyrrolidinyl, optionally substituted with -R^a, -OR^b, optionally substituted amino (including -NR^cCOR^b, -NR^cCO₂R^a, -NR^cCONR^bR^c, -NR^bC(NR^c)NR^bR^c, -NR^bC(NCN)NR^bR^c, and -NR^cSO₂R^a), halo, cyano, azido, nitro, oxo (as a substituent for cycloalkyl or heterocycloalkyl), optionally substituted acyl (such as -COR^b), optionally substituted alkoxy carbonyl (such as -CO₂R^b), aminocarbonyl (such as -CONR^bR^c), -OCOR^b, -OCO₂R^a, -OCONR^bR^c, -OP^(O)(O^{R^b})OR^c, sulfanyl (such as SR^b), sulfinyl (such as -SOR^a) or sulfonyl (such as -SO₂R^a and -SO₂NR^bR^c),

where R^a is optionally substituted C₁-C₆ alkyl, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, optionally substituted alkenyl, optionally substituted alkynyl, optionally substituted aryl, or optionally substituted heteroaryl;

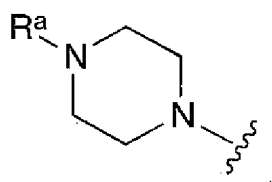
R^b is hydrogen, optionally substituted C₁-C₆ alkyl, optionally substituted cycloalkyl, optionally substituted heterocycloalkyl, optionally substituted aryl, or optionally substituted heteroaryl; and

R^c is hydrogen or optionally substituted C₁-C₄ alkyl; or

R^b and R^c, and the nitrogen to which they are attached, form an optionally substituted heterocycloalkyl group; and

where each optionally substituted group is unsubstituted or independently substituted with one or more, such as one, two, or three, substituents independently chosen from C₁-C₄ alkyl, aryl, heteroaryl, aryl-C₁-C₄ alkyl-, heteroaryl-C₁-C₄ alkyl-, C₁-C₄ haloalkyl, -OC₁-C₄ alkyl, -OC₁-C₄ alkylphenyl, -C₁-C₄ alkyl-OH, -OC₁-C₄ haloalkyl, halo, -OH, -NH₂, -C₁-C₄ alkyl-NH₂, -N(C₁-C₄ alkyl)(C₁-C₄ alkyl), -NH(C₁-C₄ alkyl), -N(C₁-C₄ alkyl)(C₁-C₄ alkylphenyl), -NH(C₁-C₄ alkylphenyl), cyano, nitro, oxo (as a substituent for cycloalkyl or heterocycloalkyl), -CO₂H, -C(O)OC₁-C₄ alkyl, -CON(C₁-C₄ alkyl)(C₁-C₄ alkyl), -CONH(C₁-C₄ alkyl), -CONH₂, -NHC(O)(C₁-C₄ alkyl), -NHC(O)(phenyl), -N(C₁-C₄ alkyl)C(O)(C₁-C₄ alkyl), -N(C₁-C₄ alkyl)C(O)(phenyl), -C(O)C₁-C₄ alkyl, -C(O)C₁-C₄ alkylphenyl, -C(O)C₁-C₄ haloalkyl, -OC(O)C₁-C₄ alkyl, -SO₂(C₁-C₄ alkyl), -SO₂(phenyl), -SO₂(C₁-C₄ haloalkyl), -SO₂NH₂, -SO₂NH(C₁-C₄ alkyl), -SO₂NH(phenyl), -NHSO₂(C₁-C₄ alkyl), -NHSO₂(phenyl), and -NHSO₂(C₁-C₄ haloalkyl).

54. The compound or pharmaceutically acceptable salt of claim 53, wherein R₃ is



55. The compound or pharmaceutically acceptable salt of claim 54, wherein R^a is C₁-C₆ alkyl, optionally substituted with C₁-C₄ alkyl, aryl, heteroaryl, aryl-C₁-C₄ alkyl-, heteroaryl-C₁-C₄

alkyl-, C₁-C₄ haloalkyl, -OC₁-C₄ alkyl, -OC₁-C₄ alkylphenyl, -C₁-C₄ alkyl-OH, -OC₁-C₄ haloalkyl, halo, -OH, -NH₂, -C₁-C₄ alkyl-NH₂, -N(C₁-C₄ alkyl)(C₁-C₄ alkyl), -NH(C₁-C₄ alkyl), -N(C₁-C₄ alkyl)(C₁-C₄ alkylphenyl), -NH(C₁-C₄ alkylphenyl), cyano, nitro, oxo (as a substituent for cycloalkyl or heterocycloalkyl), -CO₂H, -C(O)OC₁-C₄ alkyl, -CON(C₁-C₄ alkyl)(C₁-C₄ alkyl), -CONH(C₁-C₄ alkyl), -CONH₂, -NHC(O)(C₁-C₄ alkyl), -NHC(O)(phenyl), -N(C₁-C₄ alkyl)C(O)(C₁-C₄ alkyl), -N(C₁-C₄ alkyl)C(O)(phenyl), -C(O)C₁-C₄ alkyl, -C(O)C₁-C₄ alkylphenyl, -C(O)C₁-C₄ haloalkyl, -OC(O)C₁-C₄ alkyl, -SO₂(C₁-C₄ alkyl), -SO₂(phenyl), -SO₂(C₁-C₄ haloalkyl), -SO₂NH₂, -SO₂NH(C₁-C₄ alkyl), -SO₂NH(phenyl), -NHSO₂(C₁-C₄ alkyl), -NHSO₂(phenyl), or -NHSO₂(C₁-C₄ haloalkyl).

56. The compound or pharmaceutically acceptable salt of claim 55, wherein R^a is C₁-C₆ alkyl, optionally substituted with -OH, halo, C₁-C₄ alkyl, or -OC₁-C₄ alkyl.

57. The compound or pharmaceutically acceptable salt of claim 56, wherein R^a is -CH₃, -CH₂CH₂OH, -CH₂CH₂F, -CH₂CH₂OMe, -CH₂C(CH₃)₂OH, or -CH₂CH(CH₃)OH.

58. A compound or pharmaceutically acceptable salt thereof, wherein the compound is chosen from the group consisting of:

N-(3-(2-((4-(piperazin-1-yl)phenyl)amino)pyrido[3,2-d]pyrimidin-8-yl)phenyl)acetamide

N-(3-(2-((4-(piperazin-1-yl)phenyl)amino)pyrido[4,3-d]pyrimidin-8-yl)phenyl)acetamide

N-(3-(2-((4-(piperazin-1-yl)phenyl)amino)pyrido[3,4-d]pyrimidin-8-yl)phenyl)acetamide

8-phenyl-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(2-chlorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(2,6-difluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(5-chloro-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-chlorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

N-(4-fluoro-3-(2-((4-(piperazin-1-yl)phenyl)amino)pyrido[3,4-d]pyrimidin-8-yl)phenyl)acetamide

8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-(2-(dimethylamino)ethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-(2-(dimethylamino)ethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidin-2-amine

N1-(1-(2-fluoroethyl)azetidin-3-yl)-N4-(8-(2-fluorophenyl)pyrido[3,4-d]pyrimidin-2-yl)benzene-1,4-diamine

N1-(1-(2-fluoroethyl)azetidin-3-yl)-N4-(8-(3-(2-morpholinoethoxy)phenyl)pyrido[3,4-d]pyrimidin-2-yl)benzene-1,4-diamine

N1-(8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)pyrido[3,4-d]pyrimidin-2-yl)-N4-(1-(2-fluoroethyl)azetidin-3-yl)benzene-1,4-diamine

N1-(8-(5-chloro-2-fluorophenyl)pyrido[3,4-d]pyrimidin-2-yl)-N4-(1-(2-fluoroethyl)azetidin-3-yl)benzene-1,4-diamine

8-(3-aminophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(3-aminophenyl)-N-(4-(4-methylpiperazin-1-yl)phenyl)quinazolin-2-amine

N-(3-(2-((4-(piperazin-1-yl)phenyl)amino)quinazolin-8-yl)phenyl)acetamide

N-(3-(2-((4-(4-methylpiperazin-1-yl)phenyl)amino)quinazolin-8-yl)phenyl)acetamide

8-phenyl-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(2-chlorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(2,6-difluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(5-chloro-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(3-chlorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(3-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

N-(4-fluoro-3-(2-((4-(piperazin-1-yl)phenyl)amino)quinazolin-8-yl)phenyl)acetamide

8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(3-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(3-(2-(dimethylamino)ethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(4-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(4-(2-(dimethylamino)ethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(4-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

N-(3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[3,2-d]pyrimidin-8-yl)phenyl)acetamide

N-(3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[4,3-d]pyrimidin-8-yl)phenyl)acetamide

N-(3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[3,4-d]pyrimidin-8-yl)phenyl)acetamide

8-phenyl-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(2-chlorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(2,6-difluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(5-chloro-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-chlorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

N-(4-fluoro-3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[3,4-d]pyrimidin-8-yl)phenyl)acetamide

8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-(2-(dimethylamino)ethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-(2-(dimethylamino)ethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(3-aminophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(3-aminophenyl)-N-(6-(4-methylpiperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

N-(3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)quinazolin-8-yl)phenyl)acetamide

N-(3-(2-((6-(4-methylpiperazin-1-yl)pyridin-3-yl)amino)quinazolin-8-yl)phenyl)acetamide

8-phenyl-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(2-chlorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(2,6-difluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(5-chloro-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(3-chlorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(3-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

N-(4-fluoro-3-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)quinazolin-8-yl)phenyl)acetamide

8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(3-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(3-(2-(dimethylamino)ethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-(2-(dimethylamino)ethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-aminopyridin-2-yl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(4-aminopyridin-2-yl)-N-(4-(4-methylpiperazin-1-yl)phenyl)quinazolin-2-amine

N-(2-(2-((4-(4-methylpiperazin-1-yl)phenyl)amino)quinazolin-8-yl)pyridin-4-yl)acetamide

N-(4-(piperazin-1-yl)phenyl)-8-(pyridin-2-yl)quinazolin-2-amine

N-(2-(2-((4-(piperazin-1-yl)phenyl)amino)quinazolin-8-yl)pyridin-4-yl)acetamide

8-(4-(2-morpholinoethoxy)pyridin-2-yl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(4-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(5-(2-morpholinoethoxy)pyridin-2-yl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

8-(5-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(4-(piperazin-1-yl)phenyl)quinazolin-2-amine

N-(2-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[3,2-d]pyrimidin-8-yl)pyridin-4-yl)acetamide

N-(2-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[4,3-d]pyrimidin-8-yl)pyridin-4-yl)acetamide

N-(6-(piperazin-1-yl)pyridin-3-yl)-8-(pyridin-2-yl)pyrido[3,4-d]pyrimidin-2-amine

N-(2-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)pyrido[3,4-d]pyrimidin-8-yl)pyridin-4-yl)acetamide

8-(4-(2-morpholinoethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(5-(2-morpholinoethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(5-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidin-2-amine

8-(4-aminopyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-aminopyridin-2-yl)-N-(6-(4-methylpiperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

N-(2-(2-((6-(piperazin-1-yl)pyridin-3-yl)amino)quinazolin-8-yl)pyridin-4-yl)acetamide

N-(2-(2-((6-(4-methylpiperazin-1-yl)pyridin-3-yl)amino)quinazolin-8-yl)pyridin-4-yl)acetamide

N-(6-(piperazin-1-yl)pyridin-3-yl)-8-(pyridin-2-yl)quinazolin-2-amine

8-(4-(2-morpholinoethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(5-(2-morpholinoethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(5-(2-(dimethylamino)ethoxy)pyridin-2-yl)-N-(6-(piperazin-1-yl)pyridin-3-yl)quinazolin-2-amine

8-(4-(2-morpholinoethoxy)pyridin-2-yl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine

N2-(6-(piperazin-1-yl)pyridin-3-yl)-8-(pyridin-2-yl)quinazoline-2,4-diamine

8-(5-chloro-2-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidine-2,4-diamine

8-(2,6-difluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidine-2,4-diamine

8-(2-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidine-2,4-diamine

N2-(6-(piperazin-1-yl)pyridin-3-yl)-8-(pyridin-2-yl)pyrido[3,4-d]pyrimidine-2,4-diamine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)pyrido[3,4-d]pyrimidine-2,4-diamine

N2-(4-(piperazin-1-yl)phenyl)-8-(pyridin-2-yl)pyrido[3,4-d]pyrimidine-2,4-diamine

N2-(4-(piperazin-1-yl)phenyl)-8-(pyridin-2-yl)quinazoline-2,4-diamine

8-(3-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine

8

8-(5-chloro-2-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine

8-(2,6-difluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine

8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine

8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine

8-(2-fluorophenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N2-(6-(piperazin-1-yl)pyridin-3-yl)quinazoline-2,4-diamine

8-(5-chloro-2-fluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine

8-(2,6-difluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine

8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine

8-(5-(2-(dimethylamino)ethoxy)-2-fluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine

8-(2-fluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N2-(4-(piperazin-1-yl)phenyl)pyrido[3,4-d]pyrimidine-2,4-diamine

8-(2-fluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)quinazoline-2,4-diamine

8-(5-chloro-2-fluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)quinazoline-2,4-diamine

8-(2,6-difluorophenyl)-N2-(4-(piperazin-1-yl)phenyl)quinazoline-2,4-diamine

8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)-N2-(4-(piperazin-1-yl)phenyl)quinazoline-2,4-diamine

8-(2-fluoro-4-(2-morpholinoethoxy)phenyl)-N2-(4-(piperazin-1-yl)phenyl)quinazoline-2,4-diamine

tert-butyl 4-(4-((8-(2-fluorophenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-(2-chlorophenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-(3-fluorophenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-(5-chloro-2-fluorophenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-(3-chlorophenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-phenylquinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

tert-butyl 4-(4-((8-(2-fluoro-5-(2-morpholinoethoxy)phenyl)quinazolin-2-yl)amino)phenyl)piperazine-1-carboxylate

N-(3-(2-((4-(4-methylpiperazin-1-yl)phenyl)amino)quinazolin-8-yl)phenyl)propionamide, and

N-(3-(7-methyl-2-((4-(4-methylpiperazin-1-yl)phenyl)amino)quinazolin-8-yl)phenyl)propionamide.

59. A pharmaceutically acceptable salt of any of the compounds of claims 1-58.
60. The pharmaceutically acceptable salt of claim 59, wherein the salt is a chloride, carbonate, gluconate, benzoate, acetate, lactate, citrate, propionate, hydrogenphosphate, fumarate, succinate, or TRIS (hydroxymethyl-aminomethane), maleate, malonate, tartrate, oxalate, pamoate, or stearate salt.

61. The pharmaceutically acceptable salt of claim 60, wherein the salt is a chloride, fumarate, malonate, maleate, acetate, lactate, citrate, succinate, or tartrate salt.
62. The pharmaceutically acceptable salt of claim 61, wherein the salt is a chloride, fumarate, malonate, maleate, or tartrate salt.
63. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound or pharmaceutically acceptable salt of any one of claims 1 to 62.
64. A pharmaceutical composition of claim 63, wherein the composition is formulated in a form chosen from the group consisting of tablets, capsules, powders, liquids, suspensions, suppositories, and aerosols.
65. A packaged pharmaceutical composition comprising a pharmaceutical composition of claim 63 or 64 and instructions for using the composition to treat a subject suffering from cancer.
66. Use of a compound or pharmaceutically acceptable salt of any one of claims 1 to 62 in the manufacture of a medicament for treating cancer in a subject.
67. The use of claim 66, wherein the cancer is colon carcinoma, pancreatic cancer, breast cancer, ovarian cancer, prostate cancer, thyroid cancer, fibrosarcoma, myxosarcoma, liposarcoma, chondrosarcoma, osteogenic sarcoma, chondroma, angiosarcoma, endotheliosarcoma, lymphangiosarcoma, lymphangioendotheliosarcoma, synovioma, mesothelioma, Ewing's tumor, leiomyosarcoma, rhabdomyosarcoma, squamous cell carcinoma, basal cell carcinoma, adenocarcinoma, sweat gland carcinoma, thyroid cancer, sebaceous gland carcinoma, papillary carcinoma, papillary adenocarcinomas, cystadenocarcinoma, medullary carcinoma, bronchogenic carcinoma, renal cell carcinoma, hepatoma, bile duct carcinoma, choriocarcinoma, seminoma, embryonal carcinoma, Wilms' tumor, cervical cancer, testicular tumor, lung carcinoma, small cell lung carcinoma, non-small cell lung cancer, bladder carcinoma, epithelial carcinoma, glioma, astrocytoma, medulloblastoma, craniopharyngioma, ependymoma, pinealoma, hemangioblastoma, acoustic neuroma, oligodendroglioma, meningioma, melanoma, neuroblastoma, retinoblastoma, leukemia, acute lymphocytic leukemia and acute myelocytic leukemia (myeloblastic, promyelocytic, myelomonocytic, monocytic and erythroleukemia); chronic leukemia (chronic myelocytic (granulocytic) leukemia and chronic lymphocytic leukemia); and polycythemia vera, lymphoma (Hodgkin's disease and non-Hodgkin's disease), multiple myeloma, Waldenstrom's macroglobulinemia, or heavy chain disease.
68. The use of claim 67, wherein the cancer is non-small cell lung cancer, breast cancer, colon cancer, thyroid cancer, or ovarian cancer.

69. Use of a compound or pharmaceutically acceptable salt of any one of claims 1 to 62, in the manufacture of a medicament for treating a cancer in a subject in need thereof, wherein the subject has a EGFR mutation or double mutation.
70. The use of claim 69, wherein the EGFR mutation is in codon 790.
71. The use of claim 69, wherein the EGFR mutation is del E746-A750, del E747-E749/A750P, del E747-S752/P753S, del E747-T751/Sins/A750P, del S752-I759, G719S, G719C, L861Q, L858R, T790M, or L858R/T790M.
72. The use of claim 69, wherein the cancer is colon carcinoma, pancreatic cancer, breast cancer, ovarian cancer, prostate cancer, thyroid cancer, fibrosarcoma, myxosarcoma, liposarcoma, chondrosarcoma, osteogenic sarcoma, chondroma, angiosarcoma, endotheliosarcoma, lymphangiosarcoma, lymphangioendotheliosarcoma, synovioma, mesothelioma, Ewing's tumor, leiomyosarcoma, rhabdomyosarcoma, squamous cell carcinoma, basal cell carcinoma, adenocarcinoma, sweat gland carcinoma, sebaceous gland carcinoma, papillary carcinoma, papillary adenocarcinomas, cystadenocarcinoma, medullary carcinoma, bronchogenic carcinoma, renal cell carcinoma, hepatoma, bile duct carcinoma, choriocarcinoma, seminoma, embryonal carcinoma, Wilms' tumor, cervical cancer, testicular tumor, lung carcinoma, small cell lung carcinoma, non-small cell lung cancer, bladder carcinoma, epithelial carcinoma, glioma, astrocytoma, medulloblastoma, craniopharyngioma, ependymoma, pinealoma, hemangioblastoma, acoustic neuroma, oligodendroglioma, meningioma, melanoma, neuroblastoma, retinoblastoma, leukemia, acute lymphocytic leukemia and acute myelocytic leukemia (myeloblastic, promyelocytic, myelomonocytic, monocytic and erythroleukemia); chronic leukemia (chronic myelocytic (granulocytic) leukemia and chronic lymphocytic leukemia); and polycythemia vera, lymphoma (Hodgkin's disease and non-Hodgkin's disease), multiple myeloma, Waldenstrom's macroglobulinemia, or heavy chain disease.
73. The use of claim 72, wherein the cancer is non-small cell lung cancer, colon cancer, thyroid cancer, or ovarian cancer.
74. The use of any one of claims 66-73, further comprising administering an additional anti-cancer and/or cytotoxic agent.