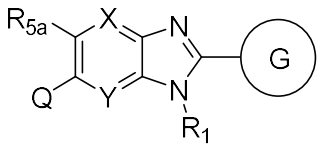
CLAIMS

What is claimed is:

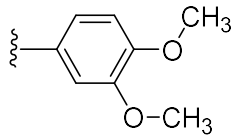
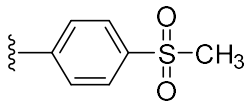
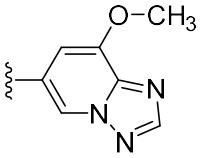
1. A compound of Formula (I):



(I)

or a salt thereof, wherein:

one of X and Y is N and the other of X and Y is CR_{5b};

G is:   or ;

Q is piperidinyl, phenyl, tetrahydropyridinyl, pyridinyl, or azabicyclo[3.2.1]octanyl, each substituted with $-L-R_4$ and zero to 2 R_{4b};

L is a bond, $-(CR_xR_x)_{1\text{-}2}-$, or $-C(O)(CR_xR_x)_{0\text{-}2}-$;

R_1 is hydrogen, $C_{1\text{-}3}$ alkyl, $C_{1\text{-}2}$ fluoroalkyl, or $C_{3\text{-}4}$ cycloalkyl;

each R_2 is independently halo, $-CN$, $-OH$, $-NO_2$, C_{1-4} alkyl, C_{1-2} fluoroalkyl, C_{1-2} cyanoalkyl, C_{1-3} hydroxyalkyl, C_{1-3} aminoalkyl, $-O(CH_2)_{1-2}OH$, $-(CH_2)_{0-4}O(C_{1-4}$ alkyl), C_{1-3} fluoroalkoxy, $-O(CH_2)_{1-2}OC(O)(C_{1-3}$ alkyl), $-O(CH_2)_{1-2}NR_xR_x$, $-C(O)O(C_{1-3}$ alkyl), $-(CH_2)_{0-2}C(O)NR_yR_y$, $-C(O)NR_x(C_{1-5}$ hydroxyalkyl), $-C(O)NR_x(C_{2-6}$ alkoxyalkyl), $-C(O)NR_x(C_{3-6}$ cycloalkyl), $-NR_yR_y$, $-NR_y(C_{1-3}$ fluoroalkyl), $-NR_y(C_{1-4}$ hydroxyalkyl), $-NR_xCH_2$(phenyl), $-NR_xS(O)_2(C_{3-6}$ cycloalkyl), $-NR_xC(O)(C_{1-3}$ alkyl), $-NR_xCH_2(C_{3-6}$ cycloalkyl), $-S(O)_2(C_{1-3}$ alkyl), $-S(O)_2N(C_{1\text{-}3}$ alkyl)$_2$, $-S(O)(NH)N(C_{1\text{-}3}$ alkyl)$_2$, $-(CH_2)_{0-2}(C_{3-6}$ cycloalkyl), $-(CH_2)_{0-2}$(phenyl), morpholinyl, dioxothiomorpholinyl, dimethyl pyrazolyl, methylpiperidinyl, methylpiperazinyl, amino-oxadiazolyl, imidazolyl, triazolyl, or $-C(O)$(thiazolyl);

R_{2a} is C_{1-6} alkyl, C_{1-3} fluoroalkyl, C_{1-6} hydroxyalkyl, C_{1-3} aminoalkyl, $-(CH_2)_{0-4}O(C_{1-3}$ alkyl), C_{3-6} cycloalkyl, $-(CH_2)_{1-3}C(O)NR_xR_x$, $-CH_2(C_{3-6}$ cycloalkyl), $-CH_2$(phenyl), tetrahydrofuranyl, tetrahydropyranyl, or phenyl;

each R_{2b} is independently hydrogen, halo, –CN, $–NR_xR_x$, $C_{1–6}$ alkyl, $C_{1–3}$ fluoroalkyl, $C_{1–3}$ hydroxyalkyl, $C_{1–3}$ fluoroalkoxy, $–(CH_2)_{0–2}O(C_{1–3}$ alkyl), $–(CH_2)_{0–3}C(O)NR_xR_x$, $–(CH_2)_{1–3}(C_{3-6}$ cycloalkyl), $–C(O)O(C_{1–3}$ alkyl), $–C(O)NR_x(C_{1–3}$ alkyl), $–CR_x=CR_xR_x$, or $–CR_x=CH(C_{3–6}$ cycloalkyl);

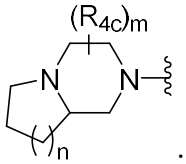
R_{2c} is R_{2a} or R_{2b};

R_{2d} is R_{2a} or R_{2b}; provided that one of R_{2c} and R_{2d} is R_{2a}, and the other of R_{2c} and R_{2d} is R_{2b};

R_4 is:

(i) $–N(CH_3)_2$;

(ii) pyrrolidinyl, piperidinyl, piperazinyl, pyridinyl, azepanyl, azaspiro[3.3]heptanyl, octahydrocyclopenta[c]pyrrolyl, diazaspiro[3.3]heptanyl, azabicyclo[3.2.1]octanyl, or hexahydropyrrolo[3,4-c]pyrrolyl, each substituted with zero to 2 R_{4a}; or

(iii) 

;

each R_{4a} is independently C_{1-6} alkyl, C_{1-3} fluoroalkyl, C_{1-4} hydroxyalkyl, $–(CH_2)_{1-3}OCH_3$, C_{3-6} cycloalkyl, $–(CH_2)_{1–3}(C_{3-6}$ cycloalkyl), $–(CH_2)_{1–3}$(oxetanyl), $–(CH_2)_{1–3}$(morpholinyl), $–C(O)(C_{1-4}$ alkyl), $–C(O)(C_{3-6}$ cycloalkyl), –C(O)(phenyl), $–C(O)CH_2(C_{3-6}$ cycloalkyl), $–C(O)CH_2$(phenyl), $–C(O)O(C_{1-4}$ alkyl), $–NR_yR_y$, $–NR_x(C_{3–6}$ cycloalkyl), azetidinyl, oxetanyl, tetrahydropyranyl, pyrrolidinyl, phenyl, morpholinyl, or piperidinyl substituted with zero to 2 substituents selected from –OH or $–CH_3$;

R_{4b} is F, Cl, –CN, or $–CH_3$;

each R_{4c} is independently C_{1-6} alkyl, C_{1-3} fluoroalkyl, $–CH_2(C_{3-6}$ cycloalkyl), $–C(O)(C_{1-4}$ alkyl), –C(O)(phenyl), $–C(O)CH_2$(phenyl), $–C(O)OCH_2CH_3$, or C_{3-6} cycloalkyl;

R_{5a} is hydrogen, F, Cl, C_{1-2} alkyl, C_{1-2} fluoroalkyl, or cyclopropyl;

R_{5b} is hydrogen, F, Cl, C_{1-2} alkyl, C_{1-2} fluoroalkyl, or cyclopropyl;

each R_x is independently hydrogen or $–CH_3$;

each R_y is independently hydrogen or $C_{1–6}$ alkyl;

m is zero, 1, or 2;

n is zero, 1, or 2;

p is zero, 1, 2, 3, or 4; and

q is 1 or 2.

2. The compound according to claim 1 having the structure of Formula (I) or a salt thereof, wherein:

G is phenyl substituted with 1 to 3 substituents independently selected from F, Cl, Br, –CN, $C_{1\text{-}2}$ alkoxy, $C_{1\text{-}2}$ fluoroalkoxy, $C_{3\text{-}4}$ cycloalkyl, $–C(O)NR_yR_y$, $–S(O)_2CH_3$, $–S(O)_2$(phenyl), $–S(O)_2$(cyclopropyl), $–S(O)_2NR_xR_x$, $–S(O)(NH)NR_xR_x$, and $–NHS(O)_2CH_3$;

L is a bond, $–CH_2–$, or $–CH_2CH_2–$;

Q is piperidinyl, phenyl, tetrahydropyridinyl, or pyridinyl, each substituted with $–L–R_4$ and zero to 1 R_{4b};

R_1 is hydrogen, $C_{1–3}$ alkyl, $–CHF_2$, $–CF_3$, or $C_{3–4}$ cycloalkyl;

each R_2 is independently Cl, $–CH_3$, $–CH_2CH_3$, $–CH_2OH$, $–CH_2CH_2OH$, $–CH_2CN$, $–OCH_3$, or $–CH_2OCH_3$;

R_4 is pyrrolidinyl, piperidinyl, piperazinyl, pyridinyl, azaspiro[3.3]heptanyl, octahydrocyclopenta[c]pyrrolyl, diazaspiro[3.3]heptanyl, azabicyclo[3.2.1]octanyl, or hexahydropyrrolo[3,4-c]pyrrolyl, each substituted with zero to 1 R_{4a};

R_{4a} is $–CH_3$, $–CH_2CH_3$, $–CH(CH_3)_2$, $–CH_2CH(CH_3)_2$, $–CH_2C(CH_3)_2OH$, $–CH_2CH_2OCH_3$, $–C(O)CH(CH_3)_2$, cyclopropyl, cyclobutyl, $–CH_2$(cyclopropyl), $–CH_2$(cyclobutyl), $–CH_2$(oxetanyl), $–CH_2CH_2$(morpholinyl), $–CH_2CH_2CH_2$(morpholinyl), $–N(CH_3)_2$, $–N(CH_3)(CH_2CH_3)$, $–N(CH_3)$(cyclopropyl), azetidinyl, oxetanyl, tetrahydropyranyl, pyrrolidinyl, phenyl, morpholinyl, or piperidinyl substituted with zero to 2 substituents selected from –OH or $–CH_3$;

R_{4b} is F, –CN, or $–CH_3$;

R_{5a} is hydrogen, $–CH_3$, $–CF_3$, or cyclopropyl; and

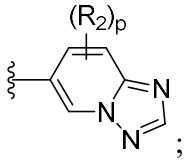
R_{5b} is hydrogen, $–CH_3$, or $–CF_3$.

3. The compound according to claim 1 having the structure of Formula (I) or a salt thereof, wherein:

G is:

(i) phenyl substituted $-S(O)_2CH_3$;

(ii) phenyl substituted with two $-OCH_3$; or

(iii)  ;

Q is phenyl or piperidinyl, each substituted with $-L-R_4$;

L is a bond or $-CH_2-$;

R_1 is hydrogen, $-CH_3$, or cyclopropyl;

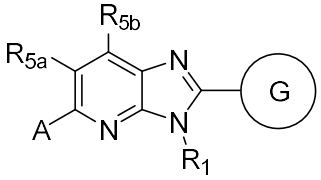
R_4 is piperidinyl, piperazinyl, octahydrocyclopenta[c]pyrrolyl, diazaspiro[3.3]heptanyl, or azabicyclo[3.2.1]octanyl, each substituted with zero or 1 R_{4a};

R_{4a} is $-CH_3$, $-CH(CH_3)_2$, $-CH_2CH(CH_3)_2$, $-CH_2C(CH_3)_2OH$, $-CH_2CH_2OCH_3$, $-CH_2$(cyclopropyl), $-CH_2CH_2$(morpholinyl), $-CH_2CH_2CH_2$(morpholinyl), cyclopropyl, cyclobutyl, pyrrolidinyl, oxetanyl, tetrahydropyranyl, or morpholinyl;

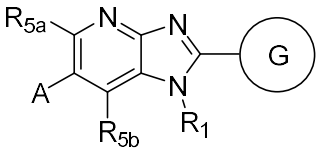
R_{5a} is hydrogen; and

R_{5b} is hydrogen or $-CH_3$.

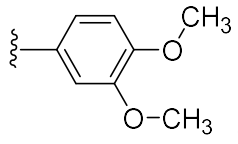
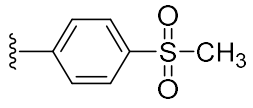
4. The compound according to claim 1 having the structure of Formula (I) or a salt thereof, having the structure of Formula (Ia):

 (Ia).

5. The compound according to claim 1 having the structure of Formula (I) or a salt thereof, having the structure of Formula (Ib):

 (Ib).

6. The compound according to claim 1 having the structure of Formula (I) or a salt thereof, wherein:

G is:  or .

7. The compound according to claim 1 having the structure of Formula (I) or a salt thereof, wherein L is a bond.

8. The compound according to claim 1 having the structure of Formula (I) or a salt thereof, wherein L is $-(CR_xR_x)_{1-2}-$.

9. The compound according to claim 1 or a salt thereof, wherein said compound is:

5-(4-((6-cyclobutyl-2,6-diazaspiro[3.3]heptan-2-yl)methyl)phenyl)-3-cyclopropyl-7-methyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (1);

3-cyclopropyl-7-methyl-2-(4-(methylsulfonyl)phenyl)-5-(4-((4-(pyrrolidin-1-yl) piperidin-1-yl)methyl)phenyl)-3H-imidazo[4,5-b]pyridine (2);

3-cyclopropyl-5-(4-((6-isopropyl-2,6-diazaspiro[3.3]heptan-2-yl)methyl)phenyl)-7-methyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (3);

3-cyclopropyl-5-(4-((6-isobutyl-2,6-diazaspiro[3.3]heptan-2-yl)methyl)phenyl)-7-methyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (4);

3-cyclopropyl-7-methyl-2-(4-(methylsulfonyl)phenyl)-5-(4-((6-(tetrahydro-2H-pyran-4-yl)-2,6-diazaspiro[3.3]heptan-2-yl)methyl)phenyl)-3H-imidazo[4,5-b]pyridine (5);

3-cyclopropyl-7-methyl-2-(4-(methylsulfonyl)phenyl)-5-(4-((6-(oxetan-3-yl)-2,6-diazaspiro[3.3]heptan-2-yl)methyl)phenyl)-3H-imidazo[4,5-b]pyridine (6);

5-(4-(4-isopropylpiperazin-1-yl)phenyl)-3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (7);

5-(4-(4-isobutylpiperazin-1-yl)phenyl)-3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (8);

3-cyclopropyl-7-methyl-5-(4-(1-methylpiperidin-4-yl)phenyl)-2-(4-(methylsulfonyl) phenyl)-3H-imidazo[4,5-b]pyridine (9);

2-(3,4-dimethoxyphenyl)-5-(4-(4-isopropylpiperazin-1-yl)phenyl)-3,7-dimethyl-3H-imidazo[4,5-b]pyridine (10);

2-(3,4-dimethoxyphenyl)-6-(1'-isopropyl-[1,4'-bipiperidin]-4-yl)-1H-imidazo[4,5-b]

pyridine (11);

2-(3,4-dimethoxyphenyl)-6-(1'-isobutyl-[1,4'-bipiperidin]-4-yl)-1H-imidazo[4,5-b] pyridine (12);

6-(1'-cyclopropyl-[1,4'-bipiperidin]-4-yl)-2-(3,4-dimethoxyphenyl)-1H-imidazo[4,5-b]pyridine (13);

6-(1'-isopropyl-[1,4'-bipiperidin]-4-yl)-1-methyl-2-(4-(methylsulfonyl)phenyl)-1H-imidazo[4,5-b]pyridine (14);

6-(1'-isobutyl-[1,4'-bipiperidin]-4-yl)-1-methyl-2-(4-(methylsulfonyl)phenyl)-1H-imidazo[4,5-b]pyridine (15);

6-(1'-cyclopropyl-[1,4'-bipiperidin]-4-yl)-1-methyl-2-(4-(methylsulfonyl)phenyl)-1H-imidazo[4,5-b]pyridine (16);

5-(1'-isopropyl-[1,4'-bipiperidin]-4-yl)-3-methyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (17);

5-(1'-isobutyl-[1,4'-bipiperidin]-4-yl)-3-methyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (18);

5-(1'-cyclopropyl-[1,4'-bipiperidin]-4-yl)-3-methyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (19);

5-(1'-isopropyl-[1,4'-bipiperidin]-4-yl)-3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (20);

5-(1'-isobutyl-[1,4'-bipiperidin]-4-yl)-3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (21);

1-(4-(3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridin-5-yl)-[1,4'-bipiperidin]-1'-yl)-2-methylpropan-2-ol (22);

5-(1'-(cyclopropylmethyl)-[1,4'-bipiperidin]-4-yl)-3,7-dimethyl-2-(4-(methylsulfonyl) phenyl)-3H-imidazo[4,5-b]pyridine (23);

5-(1'-cyclobutyl-[1,4'-bipiperidin]-4-yl)-3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (24);

3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-5-(1'-(tetrahydro-2H-pyran-4-yl)-[1,4'-bipiperidin]-4-yl)-3H-imidazo[4,5-b]pyridine (25);

5-(1-(8-isopropyl-8-azabicyclo[3.2.1]octan-3-yl)piperidin-4-yl)-3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (26-27);

5-(1-(8-isobutyl-8-azabicyclo[3.2.1]octan-3-yl)piperidin-4-yl)-3,7-dimethyl-2-(4-

(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (28-29);

5-(1-(8-(cyclopropylmethyl)-8-azabicyclo[3.2.1]octan-3-yl)piperidin-4-yl)-3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (30-31);

5-(1-(8-cyclobutyl-8-azabicyclo[3.2.1]octan-3-yl)piperidin-4-yl)-3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-3H-imidazo[4,5-b]pyridine (32-33);

3,7-dimethyl-2-(4-(methylsulfonyl)phenyl)-5-(1-(8-(tetrahydro-2H-pyran-4-yl)-8-azabicyclo[3.2.1]octan-3-yl)piperidin-4-yl)-3H-imidazo[4,5-b]pyridine (34-35);

2-(3,4-dimethoxyphenyl)-5-(1-(2-isopropyloctahydrocyclopenta[c]pyrrol-5-yl) piperidin-4-yl)-3,7-dimethyl-3H-imidazo[4,5-b]pyridine (36);

2-(3,4-dimethoxyphenyl)-5-(1-(2-isobutyloctahydrocyclopenta[c]pyrrol-5-yl) piperidin-4-yl)-3,7-dimethyl-3H-imidazo[4,5-b]pyridine (37);

5-(1-(2-(cyclopropylmethyl)octahydrocyclopenta[c]pyrrol-5-yl)piperidin-4-yl)-2-(3,4-dimethoxyphenyl)-3,7-dimethyl-3H-imidazo[4,5-b]pyridine (38);

5-(1-(2-cyclobutyloctahydrocyclopenta[c]pyrrol-5-yl)piperidin-4-yl)-2-(3,4-dimethoxyphenyl)-3,7-dimethyl-3H-imidazo[4,5-b]pyridine (39);

2-(3,4-dimethoxyphenyl)-3,7-dimethyl-5-(1-(2-(tetrahydro-2H-pyran-4-yl) octahydrocyclopenta[c]pyrrol-5-yl)piperidin-4-yl)-3H-imidazo[4,5-b]pyridine (40); or

2-(3,4-dimethoxyphenyl)-5-(1-((3aR,5s,6aS)-2-(2-methoxyethyl) octahydrocyclopenta[c]pyrrol-5-yl)piperidin-4-yl)-3,7-dimethyl-3H-imidazo[4,5-b] pyridine (41).

10. A pharmaceutical composition comprising one or more compounds according to any one of claims 1 to 9 and a pharmaceutically acceptable carrier or diluent.

11. A compound according to any one of claims 1 to 9 or salt thereof or composition according to claim 10 for use in therapy.

12. A compound according to any one of claims 1 to 9 or salt thereof or composition according to claim 10 in the treatment of inflammatory disease, autoimmune disease, or cancer.

13. A compound according to any one of claims 1 to 9 or pharmaceutical salt thereof, for use in treating pathological fibrosis.

14. The compound for use according to claim 13, wherein the pathological fibrosis is liver fibrosis, renal fibrosis, biliary fibrosis, or pancreatic fibrosis.

15. A compound according to any one of claims 1 to 9 or a pharmaceutically acceptable salt thereof, for use in treating nonalcoholic steatohepatitis (NASH), non-alcoholic fatty liver disease (NAFLD), chronic kidney disease, diabetic kidney disease, primary sclerosing cholangitis (PSC), or primary biliary cirrhosis (PBC).

16. A compound according to any one of claims 1 to 9 or a pharmaceutically acceptable salt thereof, for use in treating idiopathic pulmonary fibrosis (IPF).

17. Use of the compound according to any one of claims 1 to 9 or salt thereof or composition according to claim 10 in the manufacture of a medicament for treating inflammatory disease, autoimmune disease, or cancer.

18. Use of the compound according to any one of claims 1 to 9 or pharmaceutical salt thereof in the manufacture of a medicament for treating pathological fibrosis.

19. The use in claim 18, wherein the pathological fibrosis is liver fibrosis, renal fibrosis, biliary fibrosis, or pancreatic fibrosis.

20. Use of the compound according to any one of claims 1 to 9 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating nonalcoholic steatohepatitis (NASH), non-alcoholic fatty liver disease (NAFLD), chronic kidney disease, diabetic kidney disease, primary sclerosing cholangitis (PSC), or primary biliary cirrhosis (PBC).

21. Use of the compound according to any one of claims 1 to 9 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating idiopathic

pulmonary fibrosis (IPF).