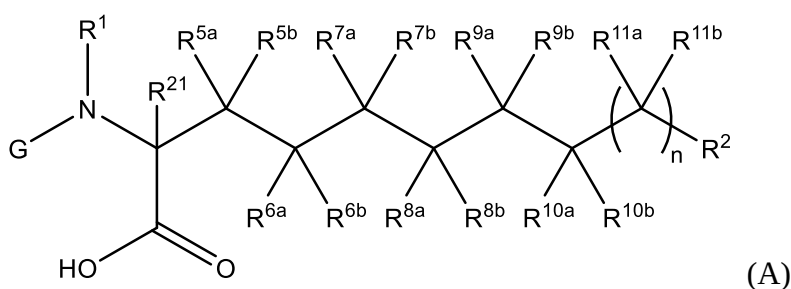


[0013] Primary sclerosing cholangitis (PSC) involves bile duct inflammation, and fibrosis that obliterates the bile ducts. The resulting impediment to the flow of bile to the intestines can lead to cirrhosis of the liver and subsequent complications such as liver failure and liver cancer. Expression of $\alpha_v\beta_6$ is elevated in liver and bile duct of PSC patients.

[0014] The present disclosure provides for $\alpha_v\beta_6$ integrin inhibitors that may be useful for treatment of fibrosis.

SUMMARY

[0014a] In one aspect, the present disclosure refers to a compound of formula (A):



or a salt thereof, wherein:

R¹ is hydrogen;

R² is 5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl optionally substituted by R¹², 1,2,3,4-tetrahydro-1,8-naphthyridin-2-yl optionally substituted by R¹², 6-aminopyridin-2-yl optionally substituted by R¹², or (pyridin-2-yl)amino optionally substituted by R¹²;

G is -C(O)R³ or R⁴;

R³ is -OR^{3a}, -NR^{3b}R^{3c}, C₁-C₆ alkyl optionally substituted by R^{3d}, C₃-C₁₂ cycloalkyl optionally substituted by R^{3e}, 3- to 12-membered heterocyclyl optionally substituted by R^{3f}, C₃-C₈ cycloalkenyl optionally substituted by R³ⁱ;

R⁴ is C₁-C₆ alkyl optionally substituted by R^{4a}, C₃-C₈ cycloalkyl optionally substituted by R^{4b}, 3- to 12-membered heterocyclyl optionally substituted by R^{4c}, C₆-C₁₄ aryl optionally substituted by R^{4d}, or 5- to 10-membered heteroaryl optionally substituted by R^{4e};

R^{3a} is C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, or 3- to 12-membered heterocyclyl, wherein the C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, and 3- to 12-membered heterocyclyl of R^{3a} are independently optionally substituted by R^{3g};

R^{3b} and R^{3c} are each independently hydrogen, deuterium, C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, or 3- to 12-membered heterocyclyl,

wherein the C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, and 3- to 12-membered heterocyclyl of R^{3b} and R^{3c} are independently optionally substituted by R^{3h};

R^{5a}, R^{5b}, R^{6a}, R^{6b}, R^{7a}, R^{7b}, R^{8a}, R^{8b}, R^{9a}, R^{9b}, R^{10a}, and R^{10b} are each independently hydrogen, deuterium, or halogen;

each R^{11a} and R^{11b} are independently hydrogen, deuterium, or halogen;

n is 0, 1, or 2;

each R^{3d}, R^{3e}, R^{3f}, R^{3g}, R^{3h}, R³ⁱ, R^{4a}, R^{4b}, R^{4c}, R^{4d}, and R^{4e} is independently oxo or R¹²;

each R¹² is independently C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, 3- to 12-membered heterocyclyl, 5- to 10-membered heteroaryl, C₆-C₁₄ aryl, halogen,

deuterium, -CN, -OR¹³, -SR¹³, -NR¹⁴R¹⁵, -NO₂, -C=NH(OR¹³), -C(O)R¹³, -OC(O)R¹³, -C(O)OR¹³, -C(O)NR¹⁴R¹⁵, -NR¹³C(O)R¹⁴, -NR¹³C(O)OR¹⁴, -NR¹³C(O)NR¹⁴R¹⁵, -S(O)R¹³, -S(O)₂R¹³, -NR¹³S(O)R¹⁴, -NR¹³S(O)₂R¹⁴, -S(O)NR¹⁴R¹⁵, -S(O)₂NR¹⁴R¹⁵, or -P(O)(OR¹³)(OR¹⁴), wherein the C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, 3- to 12-membered heterocyclyl, 5- to 10-membered heteroaryl, and C₆-C₁₄ aryl of R¹² are independently optionally substituted by R^{12a};

each R^{12a} is independently deuterium, halogen, oxo, -OR¹⁶, -NR¹⁶R¹⁷, -C(O)R¹⁶, -C(O)OR¹⁶, -NR¹⁶C(O)OR¹⁸, -CN, -S(O)R¹⁶, -S(O)₂R¹⁶, -P(O)(OR¹⁶)(OR¹⁷), C₃-C₈ cycloalkyl, 3- to 12-membered heterocyclyl, 5- to 10-membered heteroaryl, C₆-C₁₄ aryl, or C₁-C₆ alkyl, wherein the 3- to 12-membered heterocyclyl, 5- to 10-membered heteroaryl, C₆-C₁₄ aryl, and C₁-C₆ alkyl of R^{12a} are independently optionally substituted by R^{12b};

each R^{12b} is independently deuterium, oxo, -OH, halogen, or C₁-C₆ alkyl;

each R¹³ is independently hydrogen, deuterium, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, or 3- to 6-membered heterocyclyl, wherein the C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, and 3- to 6-membered heterocyclyl of R¹³ are each independently optionally substituted by R^{13a};

each R^{13a} is independently halogen, deuterium, oxo, -CN, -OR¹⁸, -NR¹⁹R²⁰, -P(O)(OR¹⁹)(OR²⁰), 3- to 12-membered heterocyclyl, or C₁-C₆ alkyl optionally substituted by deuterium, halogen, -OH, or oxo;

each R¹⁴ is independently hydrogen, deuterium, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, or 3- to 6-membered heterocyclyl, wherein the C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄

aryl, 5- to 10-membered heteroaryl, and 3- to 6-membered heterocyclyl of R¹⁴ and R¹⁵ are independently optionally substituted by deuterium, halogen, oxo, -CN, -OR¹⁸, -NR¹⁹R²⁰, or C₁-C₆ alkyl optionally substituted by deuterium, halogen, -OH, or oxo;

each R¹⁵ is independently hydrogen, deuterium, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, or 3- to 6-membered heterocyclyl, wherein the C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, and 3- to 6-membered heterocyclyl of R¹⁴ and R¹⁵ are independently optionally substituted by deuterium, halogen, oxo, -CN, -OR¹⁸, -NR¹⁹R²⁰, or C₁-C₆ alkyl optionally substituted by deuterium, halogen, -OH, or oxo;

or R¹⁴ and R¹⁵ are taken together with the atom to which they attached to form a 3- to 6-membered heterocyclyl optionally substituted by deuterium, halogen, oxo, -OR¹⁸, -NR¹⁹R²⁰, or C₁-C₆ alkyl optionally substituted by deuterium, halogen, oxo, or -OH;

each R¹⁶ is independently hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₂-C₆ alkynyl optionally substituted by deuterium, halogen, or oxo;

each R¹⁷ is independently hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₂-C₆ alkynyl optionally substituted by deuterium, halogen, or oxo;

each R¹⁸ is independently hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₂-C₆ alkynyl optionally substituted by deuterium, halogen, or oxo;

each R¹⁹ is independently hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₂-C₆ alkynyl optionally substituted by deuterium, halogen, or oxo; and

each R²⁰ is independently hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₂-C₆ alkynyl optionally substituted by deuterium, halogen, or oxo;

or R¹⁹ and R²⁰ are taken together with the atom to which they attached to form a 3-6 membered heterocyclyl optionally substituted by deuterium, halogen, oxo or C₁-C₆ alkyl optionally substituted by deuterium, oxo, or halogen; and

R²¹ is hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₃-C₆ cycloalkyl optionally substituted by deuterium, halogen, or oxo,

provided that the compound is other than a compound in **Table 1X** or a salt thereof.

[0014b] In another aspect, the present disclosure refers to a compound selected from **Compound Nos. 1-77** in **Table 1**, **FIG. 1**, or a salt thereof.

[0014c] In yet another aspect, the present disclosure refers to a compound, or a salt thereof, wherein the compound is one of:

selected from **Compound Nos. 1-77** in **Table 1**, **FIG. 1**;

selected from **Compound Nos. 78-124** in **Table 1**, **FIG. 1**; or

selected from **Compound Nos. 1-124** in **Table 1**, **FIG. 1**.

[0014d] In a further aspect, the present disclosure refers to a compound, or a salt thereof, selected from the group consisting of: (2-pivalamido-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(pyridin-2-yl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-methyl-2-(pyridin-3-yl)propanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-ethylbutanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(morpholine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-methyltetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-phenylpyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-benzylpyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-methyl-2-phenylpropanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(pyrimidin-2-ylmethyl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(2-(Pyridin-4-yl)acetyl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(pyrimidin-4-ylmethyl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(pyridin-3-ylmethyl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(tert-butoxycarbonyl)piperidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-(2-chlorophenyl)acetamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(tert-butoxycarbonyl)-3-methylpiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(tert-butoxycarbonyl)piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-(1-(tert-butoxycarbonyl)pyrrolidin-2-yl)acetamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-benzylazetidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(3-methoxypropanoyl)-3-methylpyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(3-methoxypropanoyl)piperidine-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-

naphthyridin-2-yl)nonanoic acid; 2-(4-(methylsulfonyl)butanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-hydroxy-2-phenylacetamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-hydroxy-2-phenylpropanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3,3-diethylureido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-methoxybutanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(tetrahydrofuran-3-carboxamido)nonanoic acid; 2-((((1-(tert-butoxycarbonyl)-3-methylazetidin-3-yl)oxy)carbonyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-[(1-(tert-butoxycarbonylazetidin-3-yl)oxycarbonylamino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(tetrahydro-2H-pyran-4-carboxamido)nonanoic acid; 2-(1-acetylpiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(methylsulfonyl)piperidine-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-sulfamoylpropanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(methylsulfonyl)piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-(methylsulfonamido)propanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-methyltetrahydrofuran-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(4-(trifluoromethyl)tetrahydro-2H-pyran-4-carboxamido)nonanoic acid; 2-(8-oxabicyclo[3.2.1]octane-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-methylcyclohexanecarboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(bicyclo[1.1.1]pentane-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(chromane-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-methyltetrahydro-2H-pyran-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-(((tert-butoxycarbonyl)amino)methyl)tetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-Phenyltetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-(aminomethyl)tetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-methylpiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-fluorotetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((6-(propylsulfonyl)pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((1-methyl-1H-pyrazolo[4,3-d]pyrimidin-7-yl)amino)-9-

(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((5-(pyridin-3-yl)pyrimidin-2-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((1H-pyrazolo[4,3-d]pyrimidin-7-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((6-(difluoromethyl)pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((5-(pyridin-4-yl)pyrimidin-2-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((6-morpholinopyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((6-(pyrrolidin-1-yl)pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((1-methyl-1H-pyrazolo[3,4-d]pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((1H-pyrazolo[3,4-d]pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((1H-pyrazolo[3,4-d]pyrimidin-6-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((6-(4,4-difluoropiperidin-1-yl)pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((6-(dimethylamino)pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(pyrimidin-4-ylamino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((8-bromoquinazolin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(quinazolin-4-ylamino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((2,3-dihydrobenzo[b][1,4]dioxin-6-yl)methyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(benzylamino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((quinolin-4-ylmethyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((quinolin-6-ylmethyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((quinolin-8-ylmethyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((1-phenylethyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((1H-pyrrolo[2,3-b]pyridin-3-yl)methyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-(tert-butoxycarbonyl)morpholine-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(7-oxabicyclo[2.2.1]heptane-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-methyl-2-(tetrahydro-2H-pyran-4-yl)propanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(tert-butoxycarbonyl)-3,3-difluoropiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2,6-dimethyltetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2,2-dimethyltetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(tert-butoxycarbonyl)-4-(trifluoromethyl)piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-

naphthyridin-2-yl)-2-(2,2,6,6-tetramethyltetrahydro-2H-pyran-4-carboxamido)nonanoic acid;
 2-(1-(tert-butoxycarbonyl)-4-(2,2-difluoroethyl)piperidine-4-carboxamido)-9-(5,6,7,8-
 tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-
 2-(3,4,5,6-tetrahydro-[1,1'-biphenyl]-2-ylcarboxamido)nonanoic acid; 2-(2-(pyridin-4-
 yl)acetamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-
 (phenylsulfonyl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-
 yl)nonanoic acid; 2-(((4-methyltetrahydro-2H-pyran-4-yl)methyl)amino)-9-(5,6,7,8-
 tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((1-(pyridin-3-yl)ethyl)amino)-9-(5,6,7,8-
 tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-
 2-(((1,3,5-trimethyl-1H-pyrazol-4-yl)methyl)amino)nonanoic acid; 2-(2,6-
 Dimethylpiperidine-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic
 acid; 2-(2,5-dimethylpyrrolidine-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-
 yl)nonanoic acid; 2-(3,5-dimethylmorpholine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-
 naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(2,4,6-
 trimethylpiperazine-1-carboxamido)nonanoic acid; 2-(3-azabicyclo[3.3.1]nonane-9-
 carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-acetyl-3-
 azabicyclo[3.3.1]nonane-9-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-
 yl)nonanoic acid; 2-(4-methyl-1-((1-methyl-1H-pyrazol-4-yl)methyl)piperidine-4-
 carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-((tert-
 butoxycarbonyl)amino)bicyclo[2.2.2]octane-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-
 naphthyridin-2-yl)nonanoic acid; 2-(adamantane-1-carbonylamino)-9-(5,6,7,8-tetrahydro-1,8-
 naphthyridin-2-yl)nonanoic acid; 2-(4-((tert-butoxycarbonyl)amino)-1-methylcyclohexane-1-
 carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-amino-1-
 methylcyclohexane-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic
 acid; 2-(4-aminobicyclo[2.2.2]octane-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-
 naphthyridin-2-yl)nonanoic acid; 2-(4-acetamido-1-methylcyclohexane-1-carboxamido)-9-
 (5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(5,5-dimethyl-3-
 (phenylsulfonyl)thiazolidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-
 yl)nonanoic acid; 2-(4-methyl-1-(3,3,3-trifluoropropyl)piperidine-4-carboxamido)-9-(5,6,7,8-
 tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-[(1-acetyl-4-methyl-piperidine-4-
 carbonyl)amino]-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-methyl-1-
 pivaloylpiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic
 acid; 2-(1-(3-fluoropropyl)-4-methylpiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-
 naphthyridin-2-yl)nonanoic acid; 2-(4-(hydroxymethyl)tetrahydro-2H-pyran-4-carboxamido)-

9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 5,5-difluoro-2-(4-methyltetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 5,5-difluoro-2-(quinazolin-4-ylamino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-[[2,2,2-trifluoro-1-tetrahydropyran-4-yl-ethyl]amino]nonanoic acid; and 2-(4-cyanotetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid.

[0014e] In another aspect, the present disclosure refers to a pharmaceutical composition comprising a compound disclosed herein, or a salt thereof, and a pharmaceutically acceptable carrier or excipient.

[0014f] In yet another aspect, the present disclosure refers to a use of a compound disclosed herein, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a fibrotic disease.

[0014g] In a further aspect, the present disclosure refers to a kit comprising a compound disclosed herein, or a pharmaceutically acceptable salt thereof.

[0014h] In another aspect, the present disclosure refers to a use of a compound disclosed herein, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for inhibiting $\alpha_v\beta_6$ integrin.

[0014i] In yet another aspect, the present disclosure refers to use of a compound disclosed herein, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for inhibiting TGF β activation in a cell.

[0014j] In a further aspect, the present disclosure refers to a use of a compound disclosed herein, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for modulating at least one integrin in a subject, the at least one integrin comprising an α_v subunit.

[0014k] In another aspect, the present disclosure refers to a use of a compound disclosed herein, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for modulating TGF β activation in a cell.

[0014l] In yet another aspect, the present disclosure refers to a use of a compound disclosed herein, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a subject in need thereof, wherein the subject has at least one tissue in need of therapy and the tissue has at least one elevated level of:

- TGF β activation and/or expression;
- $\alpha_v\beta_1$ integrin activity and/or expression; or
- $\alpha_v\beta_6$ integrin activity and/or expression;

wherein the at least one elevated level is elevated compared to a healthy state of the tissue.

[0014m] In a further aspect, the present disclosure refers to a compound disclosed herein, or a pharmaceutically acceptable salt thereof, for use in

- treating a fibrotic disease,
- inhibiting $\alpha_v\beta_6$ integrin,
- inhibiting TGF β activation in a cell,
- modulating at least one integrin in a subject, the at least one integrin comprising an α_v subunit,
- modulating TGF β activation in a cell, or
- treating a subject in need thereof, wherein the subject has at least one tissue in need of therapy and the tissue has at least one elevated level of:

TGF β activation and/or expression;

$\alpha_v\beta_1$ integrin activity and/or expression; or

$\alpha_v\beta_6$ integrin activity and/or expression;

wherein the at least one elevated level is elevated compared to a healthy state of the tissue.

[0015] Disclosed are amino acid compounds that are $\alpha_v\beta_6$ integrin inhibitors, compositions containing these compounds and methods for treating diseases mediated by $\alpha_v\beta_6$ integrin such as a fibrotic disease.

[0016] In one example, provided is a compound of formula (I), or any variation thereof, or a salt thereof (*e.g.*, a pharmaceutically acceptable salt thereof), as detailed herein.

[0017] Further provided is a pharmaceutical composition comprising a compound of formula (I), or any variation thereof detailed herein, or a salt thereof (*e.g.*, a pharmaceutically acceptable salt thereof), and a pharmaceutically acceptable carrier or excipient.

[0018] In another example, provided is a method of treating a fibrotic disease in an individual (such as a human) in need thereof comprising administering to the individual a therapeutically effective amount of a compound of formula (I), or any variation thereof detailed herein, or a pharmaceutically acceptable salt thereof. In some examples, the fibrotic disease is pulmonary fibrosis (such as IPF), liver fibrosis, skin fibrosis, scleroderma, cardiac fibrosis, renal fibrosis, gastrointestinal fibrosis, primary sclerosing cholangitis, or biliary fibrosis (such as PBC).

[0019] In another example, provided is a method of delaying the onset and/or development of a fibrotic disease in an individual (such as a human) who is at risk for developing a fibrotic disease comprising administering to the individual a therapeutically

effective amount of a compound of formula (I), or any variation thereof detailed herein, or a pharmaceutically acceptable salt thereof. In some examples, the fibrotic disease is pulmonary fibrosis (such as IPF), liver fibrosis, skin fibrosis, scleroderma, cardiac fibrosis, renal fibrosis, gastrointestinal fibrosis, primary sclerosing cholangitis, or PBC. In some examples, the individual at risk of developing a fibrotic disease has or is suspected of having NAFLD, NASH, CKD, scleroderma, Crohn's Disease, NSIP, PSC, PBC, or is an individual who has had or is suspected of having had a myocardial infarction.

[0020] Also provided is a compound of formula (I), or any variation thereof detailed herein, or a pharmaceutical composition thereof, for the treatment of a fibrotic disease.

[0021] Also provided is use of a compound of formula (I), or any variation thereof detailed herein, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition comprising any of the foregoing, in the manufacture of a medicament for the treatment of a fibrotic disease.

[0022] Further provided is a kit comprising a compound of formula (I), or any variation thereof detailed herein, or a pharmaceutically acceptable salt thereof. In some examples, the kit comprises instructions for use according to a method described herein, such as a method of treating a fibrotic disease in an individual.

[0023] In another example, provided is a method of making a compound of formula (I) or any variation thereof, or a pharmaceutically acceptable salt thereof. Also provided are compound intermediates useful in synthesis of a compound of formula (I), or any variation thereof.

BRIEF DESCRIPTION OF THE FIGURES

[0024] **FIG. 1, Table 1** shows the chemical structures of **Compound Nos. 1-124**.

[0025] **FIG. 2 Table B-2** shows biological data for various compounds disclosed herein.

DETAILED DESCRIPTION OF THE INVENTION

[0026] The present disclosure provides, *inter alia*, compounds of formula (I), and variations thereof, or a salt thereof, pharmaceutical compositions comprising compounds of formula (I) or a salt thereof, and methods of using such compounds and compositions in treating fibrotic diseases.

Definitions

[0027] For use herein, unless clearly indicated otherwise, use of the terms “a”, “an” and the like refers to one or more.

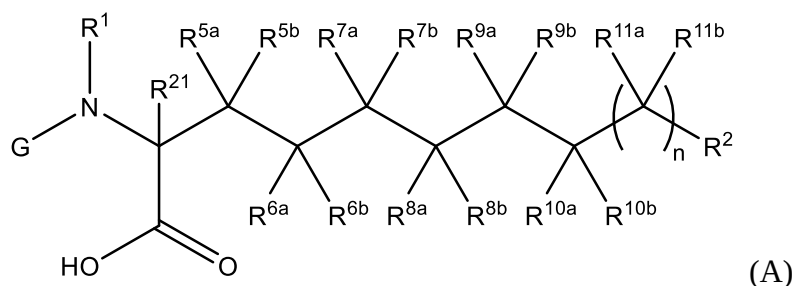
[0028] Reference to “about” a value or parameter herein includes (and describes) embodiments that are directed to that value or parameter per se. For example, description referring to “about X” includes description of “X”.

[0029] “Alkyl” as used herein refers to and includes, unless otherwise stated, a saturated linear (*i.e.*, unbranched) or branched univalent hydrocarbon chain or combination thereof, having the number of carbon atoms designated (*i.e.*, C₁-C₁₀ means one to ten carbon atoms).

CLAIMS

What is claimed is:

1. A compound of formula (A):



or a salt thereof, wherein:

R¹ is hydrogen;

R² is 5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl optionally substituted by R¹², 1,2,3,4-tetrahydro-1,8-naphthyridin-2-yl optionally substituted by R¹², 6-aminopyridin-2-yl optionally substituted by R¹², or (pyridin-2-yl)amino optionally substituted by R¹²;

G is -C(O)R³ or R⁴;

R³ is -OR^{3a}, -NR^{3b}R^{3c}, C₁-C₆ alkyl optionally substituted by R^{3d}, C₃-C₁₂ cycloalkyl optionally substituted by R^{3e}, 3- to 12-membered heterocyclyl optionally substituted by R^{3f},

C₃-C₈ cycloalkenyl optionally substituted by R³ⁱ;

R⁴ is C₁-C₆ alkyl optionally substituted by R^{4a}, C₃-C₈ cycloalkyl optionally substituted by R^{4b}, 3- to 12-membered heterocyclyl optionally substituted by R^{4c}, C₆-C₁₄ aryl optionally substituted by R^{4d}, or 5- to 10-membered heteroaryl optionally substituted by R^{4e};

R^{3a} is C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, or 3- to 12-membered heterocyclyl, wherein the C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, and 3- to 12-membered heterocyclyl of R^{3a} are independently optionally substituted by R^{3g};

R^{3b} and R^{3c} are each independently hydrogen, deuterium, C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, or 3- to 12-membered heterocyclyl, wherein the C₁-C₆ alkyl, C₃-C₈ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, and 3- to 12-membered heterocyclyl of R^{3b} and R^{3c} are independently optionally substituted by R^{3h};

R^{5a}, R^{5b}, R^{6a}, R^{6b}, R^{7a}, R^{7b}, R^{8a}, R^{8b}, R^{9a}, R^{9b}, R^{10a}, and R^{10b} are each independently hydrogen, deuterium, or halogen;

each R^{11a} and R^{11b} are independently hydrogen, deuterium, or halogen;

n is 0, 1, or 2;

each R^{3d}, R^{3e}, R^{3f}, R^{3g}, R^{3h}, R³ⁱ, R^{4a}, R^{4b}, R^{4c}, R^{4d}, and R^{4e} is independently oxo or R¹²;

each R¹² is independently C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, 3- to 12-membered heterocyclyl, 5- to 10-membered heteroaryl, C₆-C₁₄ aryl, halogen, deuterium, -CN, -OR¹³, -SR¹³, -NR¹⁴R¹⁵, -NO₂, -C=NH(OR¹³), -C(O)R¹³, -OC(O)R¹³, -C(O)OR¹³, -C(O)NR¹⁴R¹⁵, -NR¹³C(O)R¹⁴, -NR¹³C(O)OR¹⁴, -NR¹³C(O)NR¹⁴R¹⁵, -S(O)R¹³, -S(O)₂R¹³, -NR¹³S(O)R¹⁴, -NR¹³S(O)₂R¹⁴, -S(O)NR¹⁴R¹⁵, -S(O)₂NR¹⁴R¹⁵, or -P(O)(OR¹³)(OR¹⁴), wherein the C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₈ cycloalkyl, 3- to 12-membered heterocyclyl, 5- to 10-membered heteroaryl, and C₆-C₁₄ aryl of R¹² are independently optionally substituted by R^{12a};

each R^{12a} is independently deuterium, halogen, oxo, -OR¹⁶, -NR¹⁶R¹⁷, -C(O)R¹⁶, -C(O)OR¹⁶, -NR¹⁶C(O)OR¹⁸, -CN, -S(O)R¹⁶, -S(O)₂R¹⁶, -P(O)(OR¹⁶)(OR¹⁷), C₃-C₈ cycloalkyl, 3- to 12-membered heterocyclyl, 5- to 10-membered heteroaryl, C₆-C₁₄ aryl, or C₁-C₆ alkyl, wherein the 3- to 12-membered heterocyclyl, 5- to 10-membered heteroaryl, C₆-C₁₄ aryl, and C₁-C₆ alkyl of R^{12a} are independently optionally substituted by R^{12b};

each R^{12b} is independently deuterium, oxo, -OH, halogen, or C₁-C₆ alkyl;

each R¹³ is independently hydrogen, deuterium, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, or 3- to 6-membered heterocyclyl, wherein the C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, and 3- to 6-membered heterocyclyl of R¹³ are each independently optionally substituted by R^{13a};

each R^{13a} is independently halogen, deuterium, oxo, -CN, -OR¹⁸, -NR¹⁹R²⁰, -P(O)(OR¹⁹)(OR²⁰), 3- to 12-membered heterocyclyl, or C₁-C₆ alkyl optionally substituted by deuterium, halogen, -OH, or oxo;

each R¹⁴ is independently hydrogen, deuterium, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, or 3- to 6-membered heterocyclyl, wherein the C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, and 3- to 6-membered heterocyclyl of R¹⁴ and R¹⁵ are independently optionally substituted by deuterium, halogen, oxo, -CN, -OR¹⁸, -NR¹⁹R²⁰, or C₁-C₆ alkyl optionally substituted by deuterium, halogen, -OH, or oxo;

each R¹⁵ is independently hydrogen, deuterium, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, or 3- to 6-membered heterocyclyl, wherein the C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₆-C₁₄ aryl, 5- to 10-membered heteroaryl, and 3- to 6-membered heterocyclyl of R¹⁴ and R¹⁵ are independently optionally substituted by deuterium, halogen, oxo, -CN, -OR¹⁸, -NR¹⁹R²⁰, or C₁-C₆ alkyl optionally substituted by deuterium, halogen, -OH, or oxo;

or R¹⁴ and R¹⁵ are taken together with the atom to which they attached to form a 3- to 6-membered heterocyclyl optionally substituted by deuterium, halogen, oxo, -OR¹⁸, -NR¹⁹R²⁰, or C₁-C₆ alkyl optionally substituted by deuterium, halogen, oxo, or -OH;

each R¹⁶ is independently hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₂-C₆ alkynyl optionally substituted by deuterium, halogen, or oxo;

each R¹⁷ is independently hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₂-C₆ alkynyl optionally substituted by deuterium, halogen, or oxo;

each R¹⁸ is independently hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₂-C₆ alkynyl optionally substituted by deuterium, halogen, or oxo;

each R¹⁹ is independently hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₂-C₆ alkynyl optionally substituted by deuterium, halogen, or oxo; and

each R²⁰ is independently hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₂-C₆ alkynyl optionally substituted by deuterium, halogen, or oxo;

or R¹⁹ and R²⁰ are taken together with the atom to which they attached to form a 3-6 membered heterocyclyl optionally substituted by deuterium, halogen, oxo or C₁-C₆ alkyl optionally substituted by deuterium, oxo, or halogen; and

R²¹ is hydrogen, deuterium, C₁-C₆ alkyl optionally substituted by deuterium, halogen, or oxo, C₂-C₆ alkenyl optionally substituted by deuterium, halogen, or oxo, or C₃-C₆ cycloalkyl optionally substituted by deuterium, halogen, or oxo,

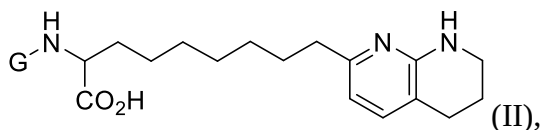
provided that the compound is other than a compound in **Table 1X** or a salt thereof.

- [illegible]

wherein when G is $-\text{C}(\text{O})\text{R}^3$, R^3 is $-\text{OR}^{3a}$, $-\text{NR}^{3b}\text{R}^{3c}$, $\text{C}_1\text{-C}_6$ alkyl optionally substituted by R^{3d} , $\text{C}_3\text{-C}_8$ cycloalkyl optionally substituted by R^{3e} , or 3- to 12-membered heterocyclyl optionally substituted by R^{3f} and each R^{12b} is independently deuterium, oxo, $-\text{OH}$, or halogen.

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8. The compound of claim 6, wherein R^2 is 5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl and is represented by the compound of formula (II):



or a salt thereof.

9. The compound of any one of claims 1-4, or a salt thereof, wherein R^3 is C_3 - C_8 cycloalkyl optionally substituted by R^{3e} or 3- to 12-membered heterocyclyl optionally substituted by R^{3f} .
10. The compound of any one of claims 1-4, wherein:
- a. when G is $-C(O)R^3$ and R^3 is C_1 - C_6 alkyl optionally substituted by R^{3d} , then:
 - i. R^3 is C_2 - C_6 alkyl optionally substituted by R^{3d} ; or
 - ii. R^3 is C_1 alkyl substituted by 2-5 R^{3d} ; or
 - iii. R^3 is C_1 alkyl substituted by at least one R^{3d} , which is further substituted by R^{12a} ; and
 - b. when G is $-C(O)R^3$ and R^3 is $-OR^{3a}$, then R^{3a} is unsubstituted C_1 - C_6 alkyl; and
 - c. when G is $-C(O)R^3$ and R^3 is $-NR^{3b}R^{3c}$, then:
 - i. R^{3b} and R^{3c} are other than hydrogen; or
 - ii. at least one of R^{3b} or R^{3c} is unsubstituted C_1 - C_6 alkyl,
- or a salt thereof.

11. The compound of any one of claims 1-8, or a salt thereof, wherein G is $-C(O)R^3$.
12. The compound of claim 11, or a salt thereof, wherein R^3 is C_1 - C_6 alkyl substituted by 0-5 R^{3d} ; or the compound of claim 11, or a salt thereof, wherein R^3 is unsubstituted C_4 - C_5

- alkyl; or the compound of claim 11, or a salt thereof, wherein R^3 is C_1 - C_3 alkyl substituted by 0-5 R^{3d} .
13. The compound of claim 12, or a salt thereof, wherein R^3 is substituted by 1-5 R^{3d} , wherein at least one of the R^{3d} is $-OR^{13}$, preferably wherein R^{13} is hydrogen or C_1 - C_6 alkyl; or the compound of claim 12, or a salt thereof, wherein R^3 is substituted by 1-5 R^{3d} , wherein at least one of the R^{3d} is C_6 - C_{14} aryl substituted by 0-5 halogen, preferably wherein R^{3d} is unsubstituted phenyl or phenyl substituted by 1-4 halogen; or the compound of claim 12, or a salt thereof, wherein R^3 is substituted by 2-5 R^{3d} , wherein at least one R^{3d} is unsubstituted phenyl and at least one R^{3d} is OR^{13} ; or the compound of claim 12, or a salt thereof, wherein R^3 is substituted by 1-5 R^{3d} , wherein at least one of the R^{3d} is 3- to 12-membered heterocyclyl substituted by 0-5 $-C(O)OR^{16}$, preferably wherein R^{3d} is pyrrolidinyl substituted by at least one $-C(O)OR^{16}$, preferably wherein R^{16} is C_1 - C_4 alkyl; or the compound of claim 12, or a salt thereof, wherein R^3 is substituted by 1-5 R^{3d} , wherein at least one of the R^{3d} is 5- to 10-membered heteroaryl substituted by 0-5 R^{12a} , preferably wherein R^{3d} is unsubstituted pyridinyl; or the compound of claim 12, or a salt thereof, wherein R^3 is substituted by 1-5 R^{3d} , wherein at least one of the R^{3d} is $-S(O)_2R^{13}$, $-NR^{13}S(O)_2R^{14}$, or $-S(O)_2NR^{14}R^{15}$.
 14. The compound of claim 11, or a salt thereof, wherein R^3 is C_3 - C_8 cycloalkyl substituted by 0-5 R^{3e} , or the compound of claim 11, or a salt thereof, wherein R^3 is cyclohexanyl substituted by 0-5 C_1 - C_3 alkyl; or the compound of claim 11, or a salt thereof, wherein R^3 is bicyclo[1.1.1]pentanyl.
 15. The compound of claim 11, or a salt thereof, wherein R^3 is 3- to 12-membered heterocyclyl substituted by 0-5 R^{3f} ; or the compound of claim 11, or a salt thereof, wherein R^3 is 4- to 6-membered heterocyclyl substituted by 0-5 R^{3f} ; or the compound of claim 11, or a salt thereof, wherein R^3 is azetidiny, pyrrolidinyl, tetrahydrofuranyl, piperidinyl, tetrahydropyranyl, or morpholinyl, each of which is independently substituted by 0-5 R^{3f} .
 16. The compound of claim 15, or a salt thereof, wherein R^3 is substituted by 1-5 R^{3f} , wherein at least one R^{3f} is C_1 - C_6 alkyl substituted by 0-5 moieties selected from the group consisting of halogen, $-NR^{16}R^{17}$, $-NR^{16}C(O)OR^{18}$, 5- to 10-membered heteroaryl,

and C₆-C₁₄ aryl, wherein the 5- to 10-membered heteroaryl and C₆-C₁₄ aryl of R^{3f} are independently substituted by 0-5 R^{12b}, preferably wherein the at least one R^{3f} is C₁-C₂ alkyl substituted by 0-5 fluoro, -NH₂, -NHC(O)O-t-butyl, pyridinyl, pyrimidinyl, or phenyl.

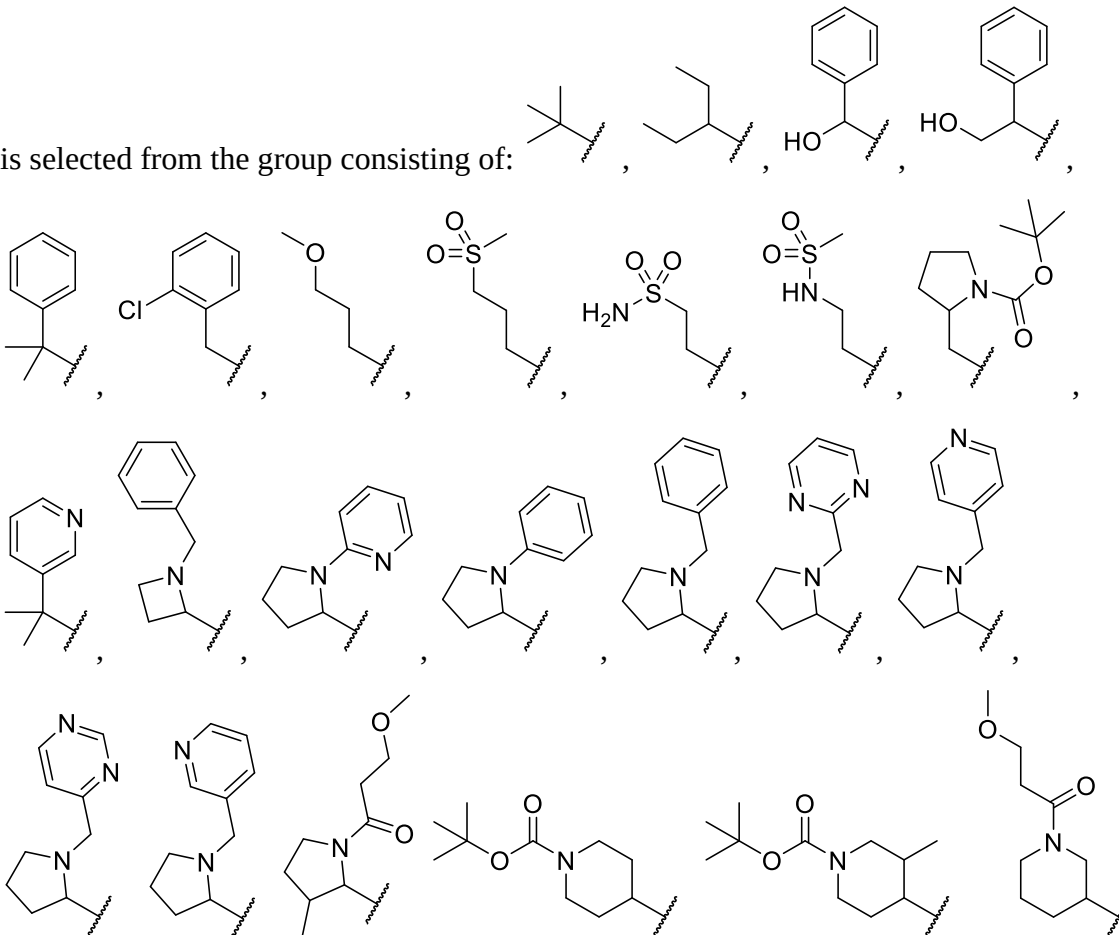
17. The compound of claim 15, or a salt thereof, wherein R³ is substituted by 1-5 R^{3f}, wherein at least one R^{3f} is 5- to 10-membered heteroaryl or C₆-C₁₄ aryl, each of which is independently substituted by 0-5 R^{12a}.
18. The compound of claim 17, or a salt thereof, wherein the at least one R^{3f} is unsubstituted 5- to 10-membered heteroaryl or unsubstituted C₆-C₁₄ aryl; or the compound of claim 17, or a salt thereof, wherein the at least one R^{3f} is 5- to 10-membered heteroaryl or C₆-C₁₄ aryl, each of which is independently substituted by 1-5 R^{12a}; or the compound of claim 17, or a salt thereof, wherein the at least one R^{3f} is pyridinyl or phenyl, each of which is independently optionally substituted, preferably wherein the at least one R^{3f} is substituted pyridinyl or substituted phenyl, or preferably wherein the at least one R^{3f} is unsubstituted pyridinyl or unsubstituted phenyl.
19. The compound of any one of claims 14-15, or a salt thereof, wherein R³ is substituted by 1-5 R^{3f}, wherein at least one R^{3f} is -C(O)R¹³, -C(O)OR¹³, or -S(O)₂R¹³, preferably wherein each R¹³ is independently C₁-C₆ alkyl substituted by 0-5 -OR¹⁸, wherein R¹⁸ is C₁-C₆ alkyl substituted by 0-5 deuterium, halogen, or oxo; or the compound of claim 15, or a salt thereof, wherein R³ is substituted by two or more R^{3f}, wherein each R^{3f} is independently selected from the group consisting of C₁-C₆ alkyl, -C(O)R¹³, and -C(O)OR¹³.
20. The compound of claim 11, or a salt thereof, wherein R³ is -OR^{3a}.
21. The compound of claim 20, or a salt thereof, wherein R^{3a} is C₁-C₆ alkyl or 3- to 12-membered heterocyclyl, each of which is independently substituted by 0-5 R^{3g}.
22. The compound of claim 21, or a salt thereof, wherein R^{3a} is t-butyl substituted by 0-5 R^{3g}; or the compound of claim 21, or a salt thereof, wherein R^{3a} is 4- to 6-membered heterocyclyl substituted by 0-5 R^{3g}; or the compound of claim 21, or a salt thereof, wherein R^{3a} is azetidiny substituted by 0-5 R^{3g}.

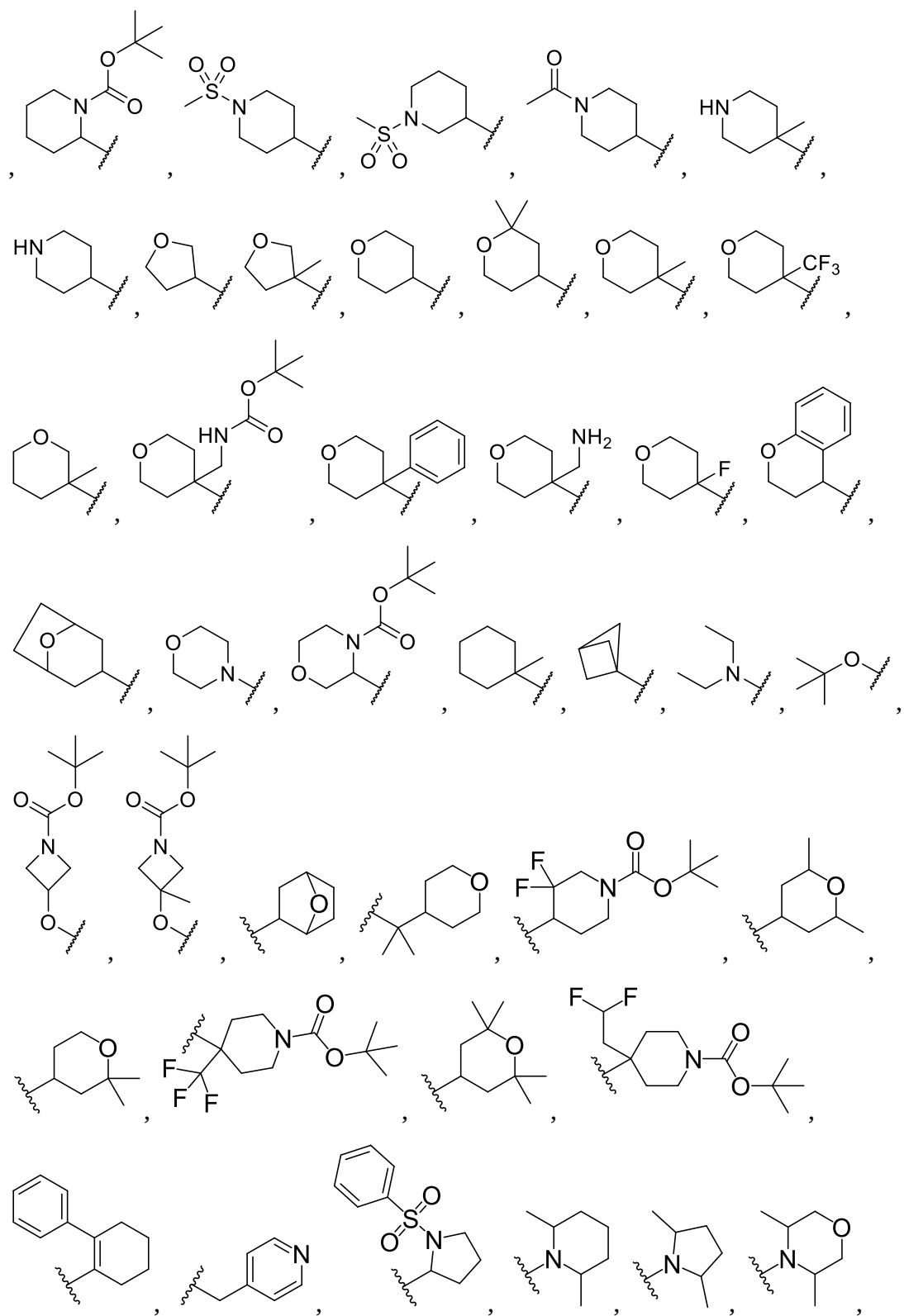
23. The compound of any one of claims 21-22, wherein R^{3g} is optionally substituted C_1 - C_6 alkyl or $-C(O)OR^{13}$, wherein R^{13} is C_1 - C_6 alkyl.
24. The compound of claim 11, or a salt thereof, wherein R^3 is $-NR^{3b}R^{3c}$, preferably wherein R^{3b} and R^{3c} are independently C_1 - C_6 alkyl, preferably wherein both R^{3b} and R^{3c} are C_2 alkyl.
25. The compound of any one of claims 1-8, or a salt thereof, wherein G is R^4 .
26. The compound of claim 25, or a salt thereof, wherein R^4 is C_1 - C_6 alkyl substituted by 0-5 R^{4a} ; or the compound of claim 25, or a salt thereof, wherein R^4 is C_1 - C_2 alkyl substituted by 0-5 R^{4a} ; or the compound of claim 25, or a salt thereof, wherein R^4 is substituted by 1-5 R^{4a} , wherein at least one R^{4a} is 3- to 12-membered heterocyclyl, 5- to 10-membered heteroaryl, or C_6 - C_{14} aryl, each of which is independently substituted by 0-5 R^{12a} , preferably wherein the at least one R^{4a} is 10-membered heterocyclyl, 9- to 10-membered heteroaryl, or C_6 aryl, each of which is independently substituted by 0-5 R^{12a} , preferably wherein the at least one R^{4a} is quinolinyl, pyrrolopyridinyl, or phenyl, each of which is independently substituted by 0-5 R^{12a} .
27. The compound of claim 26, or a salt thereof, wherein the at least one R^{4a} is substituted by 0-1 R^{12a} ; or the compound of claim 26, or a salt thereof, wherein the at least one R^{4a} is unsubstituted.
28. The compound of claim 25, or a salt thereof, wherein R^4 is 5- to 10-membered heteroaryl substituted by 0-5 R^{4e} ; or the compound of claim 25, or a salt thereof, wherein R^4 is pyrimidinyl substituted by 0-3 R^{4e} ; or the compound of claim 25, or a salt thereof, wherein R^4 is pyrimidin-4-yl or pyrimidin-2-yl, each of which is independently substituted by 0-3 R^{4e} .
29. The compound of claim 28, or a salt thereof, wherein R^4 is unsubstituted; or the compound of claim 28, or a salt thereof, wherein R^4 is substituted by 1-5 R^{4e} , wherein at least one R^{4e} is C_1 - C_6 alkyl, 3- to 12-membered heterocyclyl, 5- to 10-membered heteroaryl, $-NR^{14}R^{15}$, or $-S(O)_2R^{13}$, wherein the C_1 - C_6 alkyl, 3- to 12-membered heterocyclyl, and 5- to 10-membered heteroaryl of R^{4e} are independently substituted by 0-5 R^{12a} , preferably wherein the at least one R^{4e} is C_1 - C_4 alkyl, 5- to 6-membered

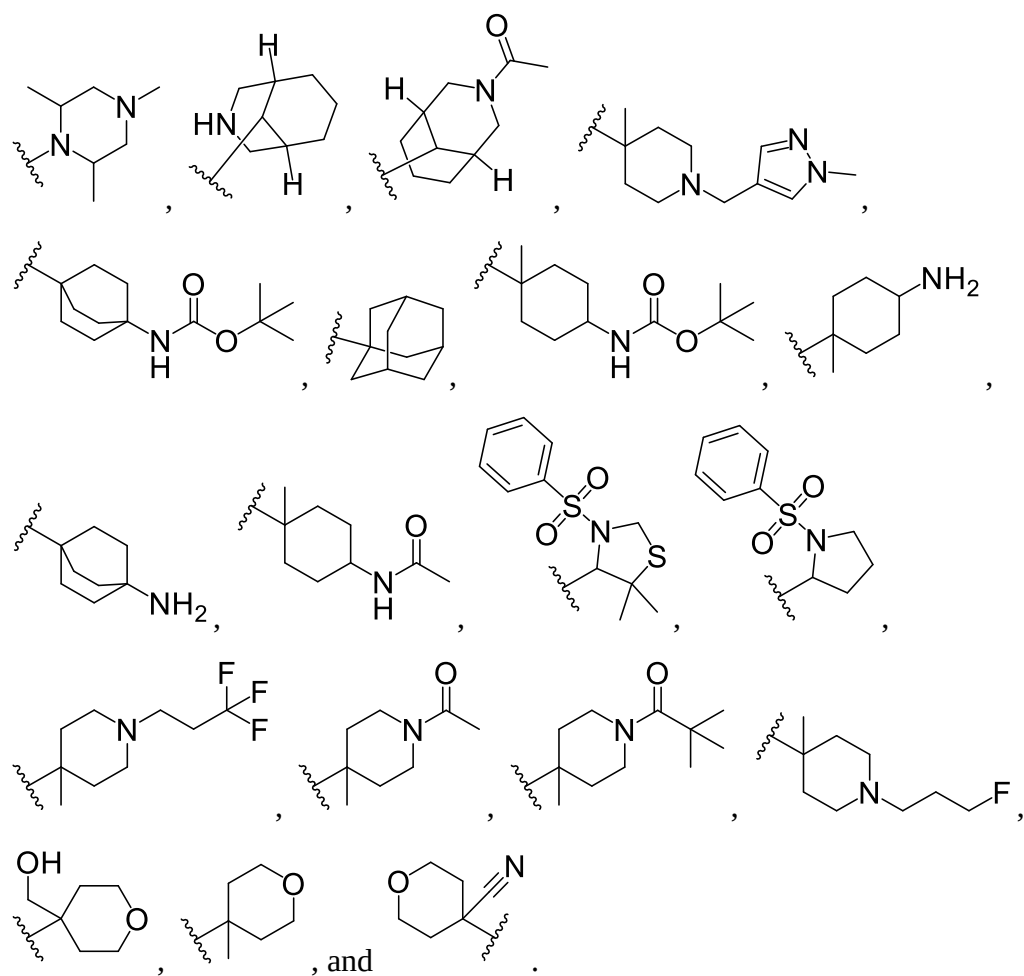
heterocyclyl, or 6-membered heteroaryl, each of which is independently substituted by 0-5 halogen, preferably wherein the at least one R^{4e} is methyl, difluoromethyl, trifluoromethyl, t-butyl, pyrrolidinyl, morpholinyl, or optionally substituted piperidinyl, or preferably wherein R⁴ is substituted by 2-5 R^{4e}, wherein at least one R^{4e} is methyl and at least one R^{4e} is trifluoromethyl.

30. The compound of claim 28, or a salt thereof, wherein R⁴ is quinazolinyl or pyrazolopyrimidinyl, each of which is independently substituted by 0-5 R^{4e}.
31. The compound of claim 30, or a salt thereof, wherein R⁴ is unsubstituted; or the compound of claim 30, or a salt thereof, wherein R⁴ is substituted by 1-5 R^{4e}, wherein at least one R^{4e} is C₁-C₆ alkyl or halogen.
32. The compound of any one of claims 1-8, or a salt thereof, wherein G is -C(O)R³ and R³

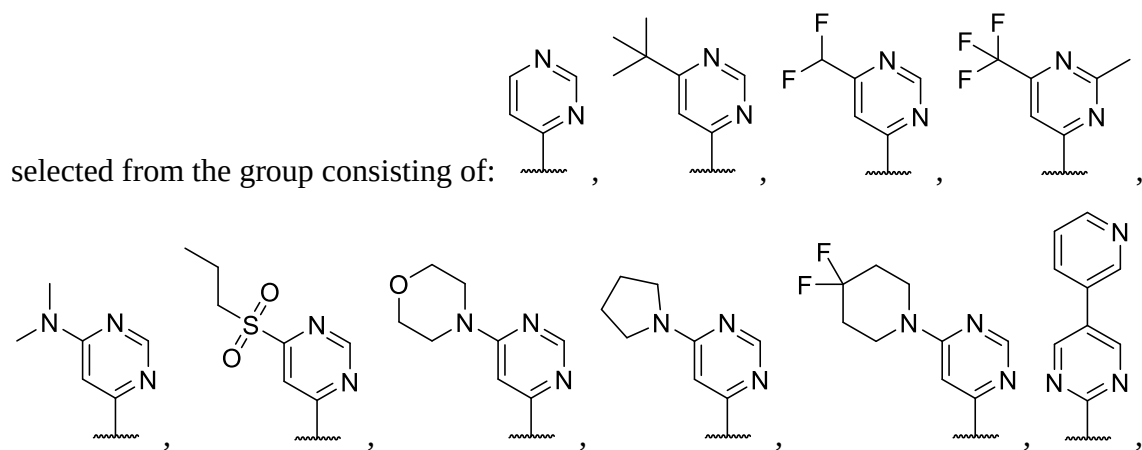
is selected from the group consisting of:

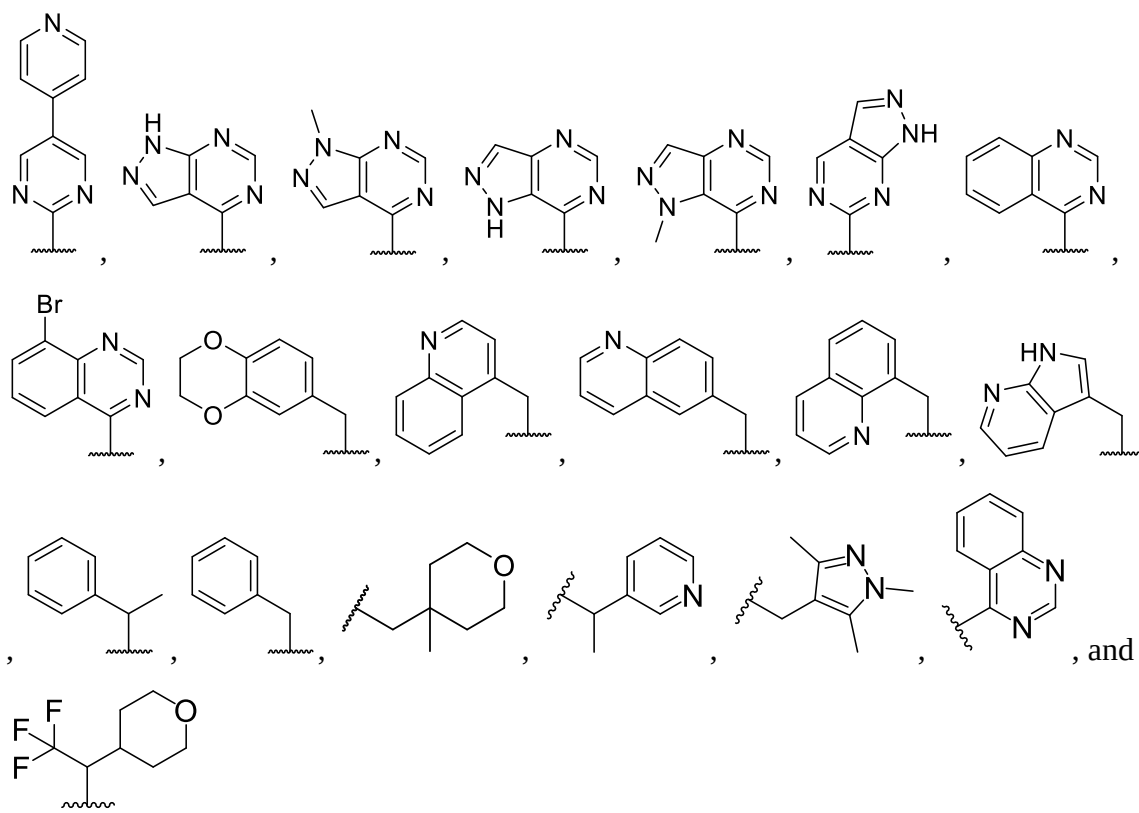




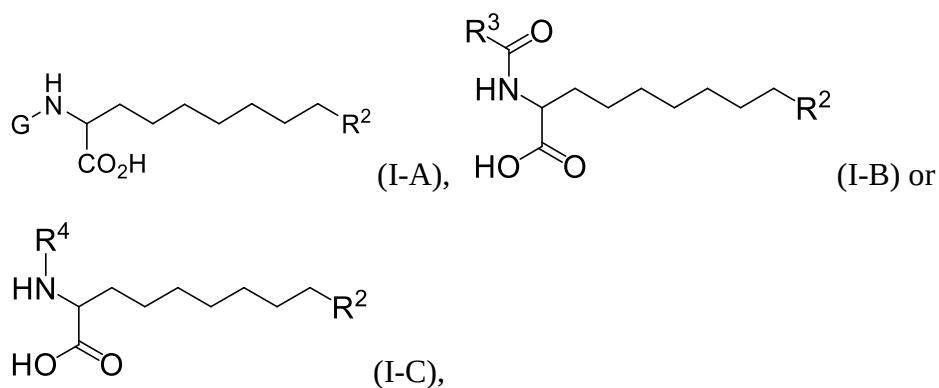


33. The compound of any one of claims 1-8, or a salt thereof, wherein G is R⁴ and R⁴ is



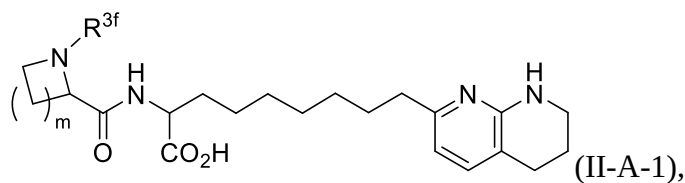


34. The compound of any one of claims 1-5, or a salt thereof, wherein at least one of R^{3b} , R^{3c} , R^{5a} , R^{5b} , R^{6a} , R^{6b} , R^{7a} , R^{7b} , R^{8a} , R^{8b} , R^{9a} , R^{9b} , R^{10a} , R^{10b} , R^{11a} , R^{11b} , R^{12} , R^{12a} , R^{12b} , R^{13} , R^{13a} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , or R^{21} is deuterium.
35. The compound of claim 1, wherein the compound is represented by formula (I-A), (I-B), or (I-C):



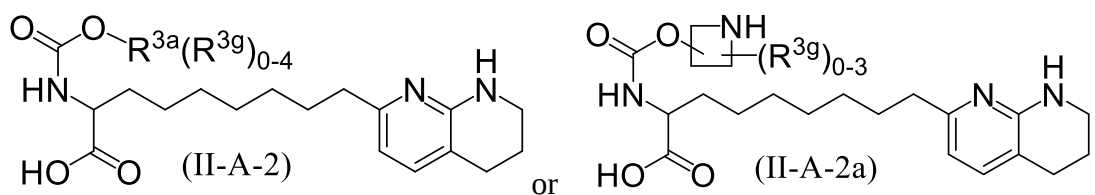
or a salt of any of the foregoing; or

the compound of claim 1, wherein the compound is represented by formula (II-A-1):



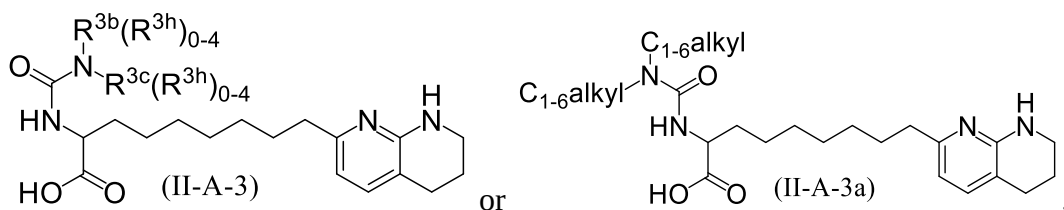
or a salt thereof; or

the compound of claim 1, wherein the compound is represented by formula (II-A-2) or (II-A-2a):



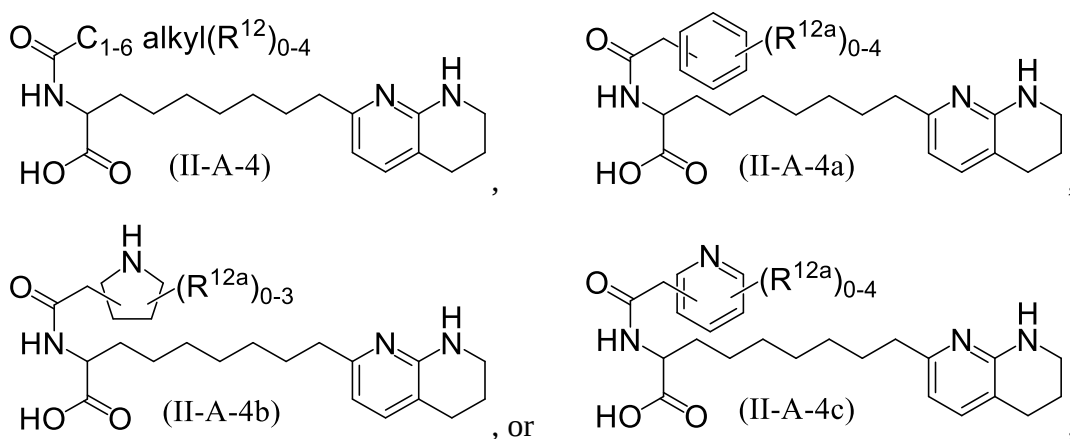
or a salt of any of the foregoing; or

the compound of claim 1, wherein the compound is represented by formula (II-A-3) or (II-A-3a):



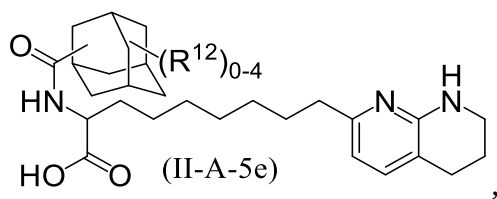
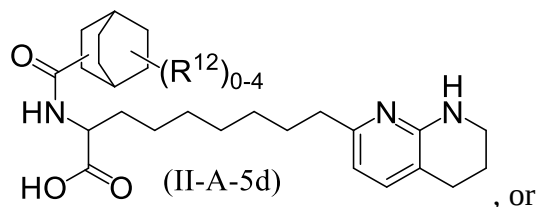
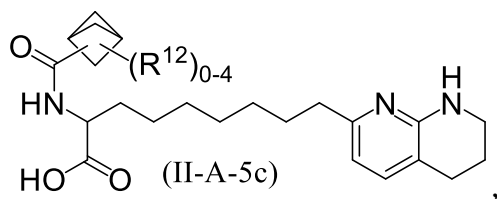
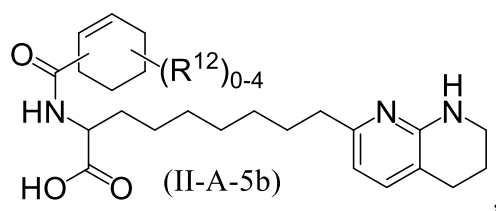
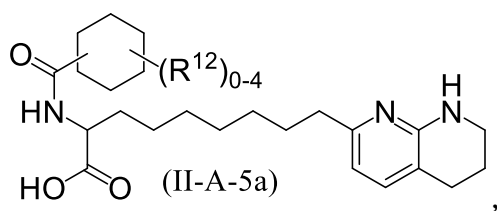
or a salt of any of the foregoing; or

the compound of claim 1, wherein the compound is represented by formula (II-A-4), (II-A-4a), (II-A-4b), or (II-A-4c):



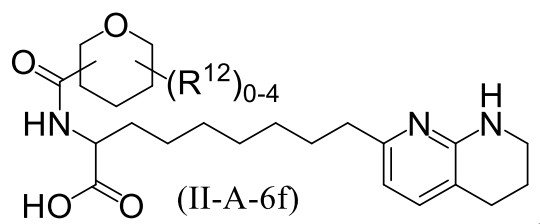
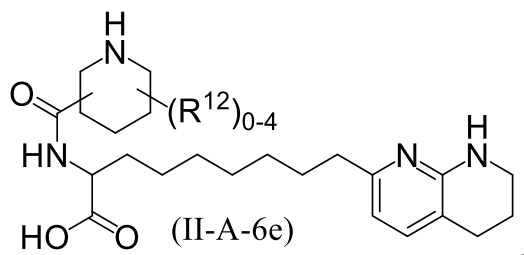
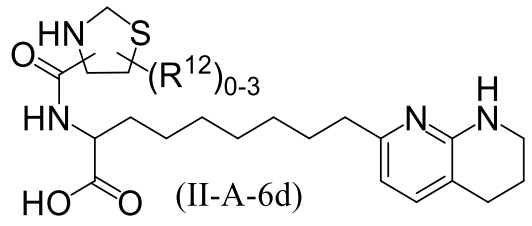
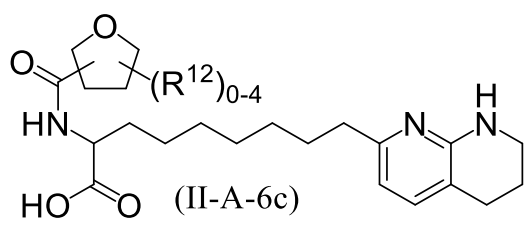
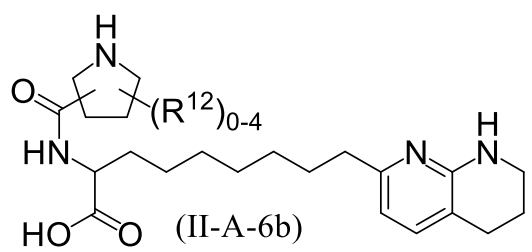
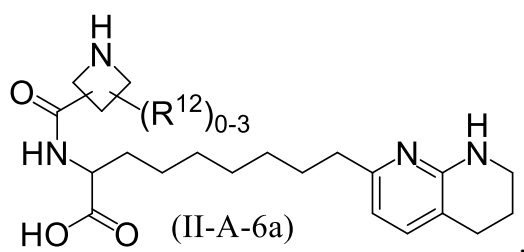
or a salt of any of the foregoing; or

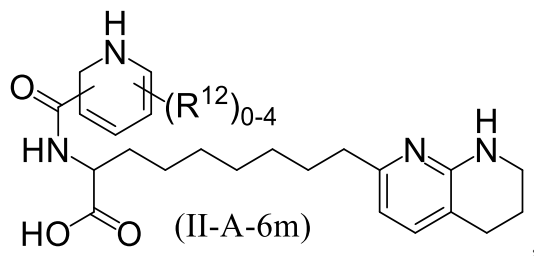
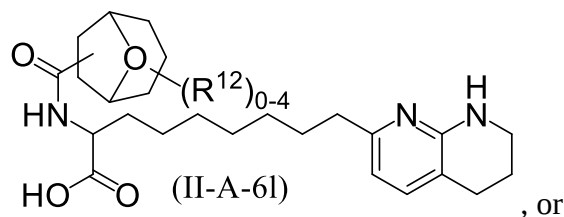
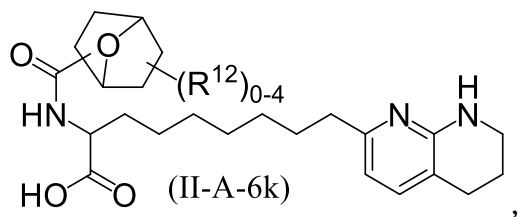
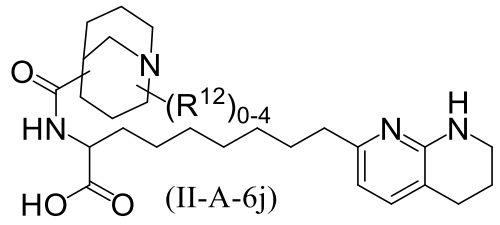
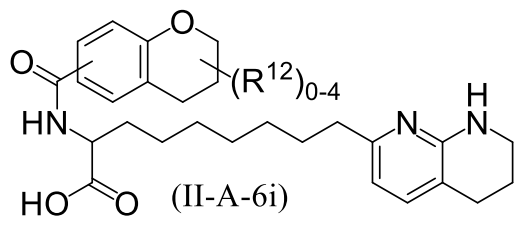
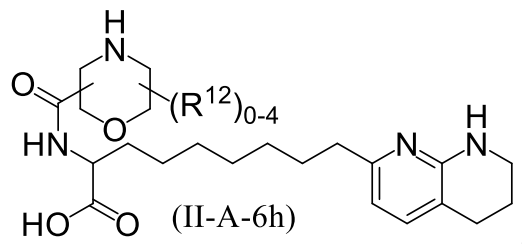
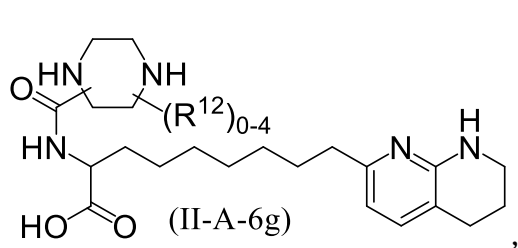
the compound of claim 1, wherein the compound is represented by formula (II-A-5a), (II-A-5b), (II-A-5c), (II-A-5d), or (II-A-5e):



or a salt of any of the foregoing; or

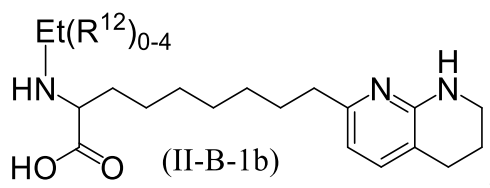
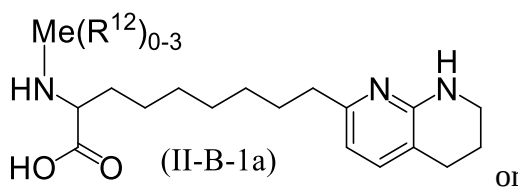
the compound of claim 1, wherein the compound is represented by formula (II-A-6a), (II-A-6b), (II-A-6c), (II-A-6d), (II-A-6e), (II-A-6f), (II-A-6g), (II-A-6h), (II-A-6i), (II-A-6j), (II-A-6k), (II-A-6l), or (II-A-6m):





or a salt of any of the foregoing; or

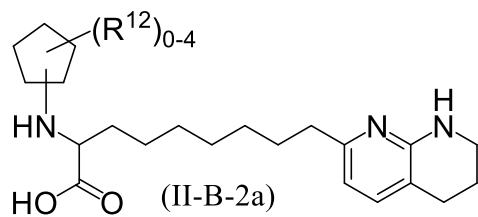
the compound of claim 1, wherein the compound is represented by formula (II-B-1a) or (II-B-1b):



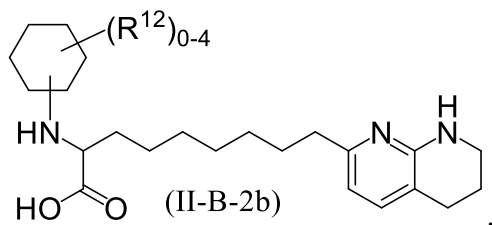
or

or a salt of any of the foregoing; or

the compound of claim 1, wherein the compound is represented by formula (II-B-2a) or (II-B-2b):

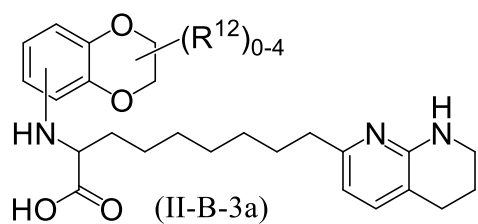


or

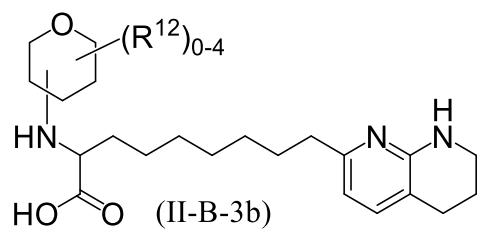


or a salt of any of the foregoing; or

the compound of claim 1, wherein the compound is represented by formula (II-B-3a) or (II-B-3b):

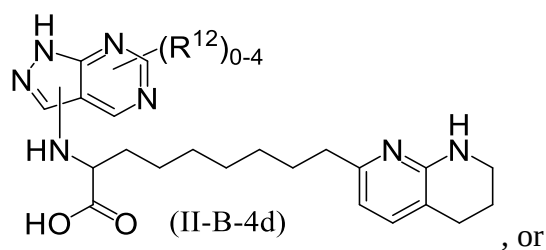
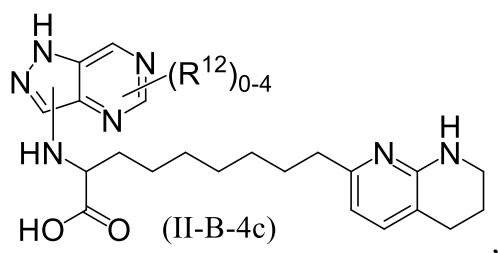
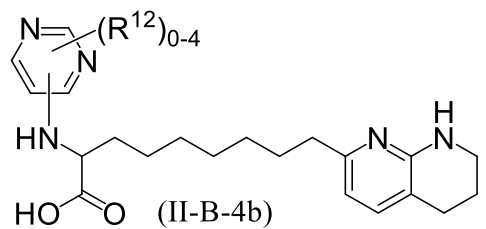
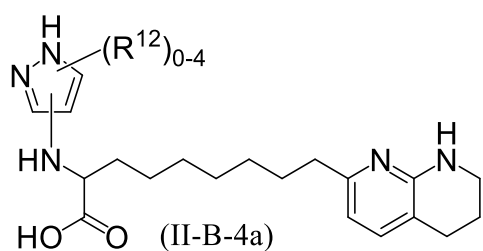


or

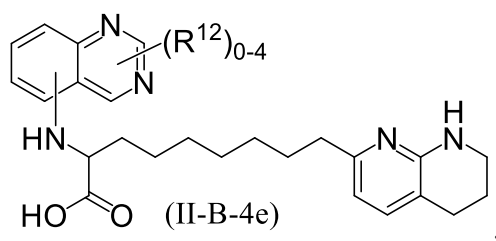


or a salt of any of the foregoing; or

the compound of claim 1, wherein the compound is represented by formula (II-B-4a), (II-B-4b), (II-B-4c), (II-B-4d), or (II-B-4e):

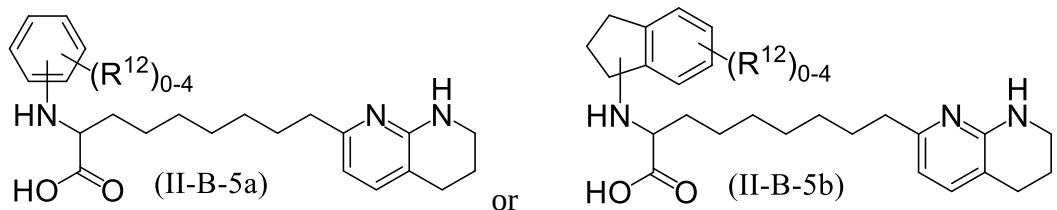


, or



or a salt of any of the foregoing; or

the compound of claim 1, wherein the compound is represented by formula (II-B-5a) or (II-B-5b):



or a salt of any of the foregoing.

36. A compound selected from **Compound Nos. 1-77** in **Table 1, FIG. 1**, or a salt thereof.

37. A compound, or a salt thereof, wherein the compound is one of:

selected from **Compound Nos. 1-77** in **Table 1, FIG. 1**;

selected from **Compound Nos. 78-124** in **Table 1, FIG. 1**; or

selected from **Compound Nos. 1-124** in **Table 1, FIG. 1**.

38. A compound, or a salt thereof, selected from the group consisting of: (2-pivalamido-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(pyridin-2-yl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-methyl-2-(pyridin-3-yl)propanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-ethylbutanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(morpholine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-methyltetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-phenylpyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-benzylpyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-methyl-2-phenylpropanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(pyrimidin-2-ylmethyl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-

yl)nonanoic acid; 2-(1-(2-(Pyridin-4-yl)acetyl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(pyrimidin-4-ylmethyl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(pyridin-3-ylmethyl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(tert-butoxycarbonyl)piperidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-(2-chlorophenyl)acetamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(tert-butoxycarbonyl)-3-methylpiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(tert-butoxycarbonyl)piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-(1-(tert-butoxycarbonyl)pyrrolidin-2-yl)acetamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-benzylazetidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(3-methoxypropanoyl)-3-methylpyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(3-methoxypropanoyl)piperidine-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-(methylsulfonyl)butanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-hydroxy-2-phenylacetamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-hydroxy-2-phenylpropanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3,3-diethylureido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-methoxybutanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(tetrahydrofuran-3-carboxamido)nonanoic acid; 2-((((1-(tert-butoxycarbonyl)-3-methylazetidin-3-yl)oxy)carbonyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-[[1-(tert-butoxycarbonylazetidin-3-yl)oxycarbonylamino]-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(tetrahydro-2H-pyran-4-carboxamido)nonanoic acid; 2-(1-acetyl piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(methylsulfonyl)piperidine-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-sulfamoylpropanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(methylsulfonyl)piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-(methylsulfonamido)propanamido)-9-(5,6,7,8-

tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-methyltetrahydrofuran-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(4-(trifluoromethyl)tetrahydro-2H-pyran-4-carboxamido)nonanoic acid; 2-(8-oxabicyclo[3.2.1]octane-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-methylcyclohexanecarboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(bicyclo[1.1.1]pentane-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(chromane-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-methyltetrahydro-2H-pyran-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-(((tert-butoxycarbonyl)amino)methyl)tetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-Phenyltetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-(aminomethyl)tetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-methylpiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-fluorotetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((propylsulfonyl)pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((1-methyl-1H-pyrazolo[4,3-d]pyrimidin-7-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((5-(pyridin-3-yl)pyrimidin-2-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((1H-pyrazolo[4,3-d]pyrimidin-7-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((6-(difluoromethyl)pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((5-(pyridin-4-yl)pyrimidin-2-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((6-morpholinopyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((6-(pyrrolidin-1-yl)pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((1-methyl-1H-pyrazolo[3,4-d]pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((1H-pyrazolo[3,4-d]pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((1H-pyrazolo[3,4-d]pyrimidin-6-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((6-(4,4-difluoropiperidin-1-yl)pyrimidin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((6-(dimethylamino)pyrimidin-4-yl)amino)-9-

(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(pyrimidin-4-ylamino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((8-bromoquinazolin-4-yl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(quinazolin-4-ylamino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((2,3-dihydrobenzo[b][1,4]dioxin-6-yl)methyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(benzylamino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((quinolin-4-ylmethyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((quinolin-6-ylmethyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((quinolin-8-ylmethyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((1-phenylethyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((1H-pyrrolo[2,3-b]pyridin-3-yl)methyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-(tert-butoxycarbonyl)morpholine-3-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(7-oxabicyclo[2.2.1]heptane-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2-methyl-2-(tetrahydro-2H-pyran-4-yl)propanamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(tert-butoxycarbonyl)-3,3-difluoropiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2,6-dimethyltetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2,2-dimethyltetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(tert-butoxycarbonyl)-4-(trifluoromethyl)piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(2,2,6,6-tetramethyltetrahydro-2H-pyran-4-carboxamido)nonanoic acid; 2-(1-(tert-butoxycarbonyl)-4-(2,2-difluoroethyl)piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(3,4,5,6-tetrahydro-[1,1'-biphenyl]-2-ylcarboxamido)nonanoic acid; 2-(2-(pyridin-4-yl)acetamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(phenylsulfonyl)pyrrolidine-2-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(((4-methyltetrahydro-2H-pyran-4-yl)methyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-((1-(pyridin-3-yl)ethyl)amino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(((1,3,5-trimethyl-1H-pyrazol-4-yl)methyl)amino)nonanoic acid; 2-

(2,6-Dimethylpiperidine-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(2,5-dimethylpyrrolidine-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3,5-dimethylmorpholine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-(2,4,6-trimethylpiperazine-1-carboxamido)nonanoic acid; 2-(3-azabicyclo[3.3.1]nonane-9-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(3-acetyl-3-azabicyclo[3.3.1]nonane-9-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-methyl-1-((1-methyl-1H-pyrazol-4-yl)methyl)piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-((tert-butoxycarbonyl)amino)bicyclo[2.2.2]octane-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(adamantane-1-carboxylamino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-((tert-butoxycarbonyl)amino)-1-methylcyclohexane-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-amino-1-methylcyclohexane-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-aminobicyclo[2.2.2]octane-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-acetamido-1-methylcyclohexane-1-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(5,5-dimethyl-3-(phenylsulfonyl)thiazolidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-methyl-1-(3,3,3-trifluoropropyl)piperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-[(1-acetyl-4-methyl-piperidine-4-carbonyl)amino]-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-methyl-1-pivaloylpiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(1-(3-fluoropropyl)-4-methylpiperidine-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 2-(4-(hydroxymethyl)tetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 5,5-difluoro-2-(4-methyltetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 5,5-difluoro-2-(quinazolin-4-ylamino)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid; 9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)-2-[[2,2,2-trifluoro-1-tetrahydropyran-4-ylethyl]amino]nonanoic acid; and 2-(4-cyanotetrahydro-2H-pyran-4-carboxamido)-9-(5,6,7,8-tetrahydro-1,8-naphthyridin-2-yl)nonanoic acid.

39. A pharmaceutical composition comprising a compound of any one of claims 1 to 38, or a salt thereof, and a pharmaceutically acceptable carrier or excipient.
40. Use of a compound of any one of claims 1 to 38, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a fibrotic disease.
41. The use of claim 40, wherein the fibrotic disease is pulmonary fibrosis, liver fibrosis, skin fibrosis, cardiac fibrosis, kidney fibrosis, gastrointestinal fibrosis, primary sclerosing cholangitis, or biliary fibrosis.
42. A kit comprising a compound of any one of claims 1 to 38, or a pharmaceutically acceptable salt thereof.
43. The kit of claim 42, further comprising instructions for the treatment of a fibrotic disease.
44. Use of a compound of any one of claims 1 to 38, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for inhibiting $\alpha_v\beta_6$ integrin.
45. Use of a compound of any one of claims 1 to 38, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for inhibiting TGF β activation in a cell.
46. Use of a compound of any one of claims 1 to 38, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for modulating at least one integrin in a subject, the at least one integrin comprising an α_v subunit.
47. The use of claim 46, the modulating comprising inhibiting the at least one integrin in the subject.
48. The use of claim 46, the at least one integrin comprising at least one of $\alpha_v\beta_1$ integrin and $\alpha_v\beta_6$ integrin.
49. The use of claim 46, wherein:

the subject has or is at risk of a fibrotic disease selected from the group consisting of: idiopathic pulmonary fibrosis (IPF), interstitial lung disease, radiation-induced pulmonary fibrosis, nonalcoholic fatty liver disease (NAFLD), nonalcoholic steatohepatitis (NASH), alcoholic liver disease induced fibrosis, Alport syndrome,

primary sclerosing cholangitis (PSC), primary biliary cholangitis, biliary atresia, systemic sclerosis associated interstitial lung disease, scleroderma, diabetic nephropathy, diabetic kidney disease, focal segmental glomerulosclerosis, chronic kidney disease, and Crohn's Disease; and

the at least one integrin including one or both of $\alpha_v\beta_1$ integrin and $\alpha_v\beta_6$ integrin in the subject,

thereby treating the fibrotic disease in the subject.

50. The use of any of claims 46-49, the subject being in need of treatment for NASH.

51. The use of any of claims 46-49, the subject being in need of treatment for IPF.

52. The use of any of claims 46-49, the subject being in need of treatment for PSC.

53. Use of a compound of any one of claims 1 to 38, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for modulating TGF β activation in a cell.

54. The use of claim 53, the modulating comprising inhibiting TGF β activation in the cell.

55. The use of claim 53, the TGF β activation being mediated in the cell by at least one of $\alpha_v\beta_1$ integrin and $\alpha_v\beta_6$ integrin.

56. Use of a compound of any one of claims 1 to 38, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a subject in need thereof, wherein the subject has at least one tissue in need of therapy and the tissue has at least one elevated level of:

TGF β activation and/or expression;

$\alpha_v\beta_1$ integrin activity and/or expression; or

$\alpha_v\beta_6$ integrin activity and/or expression;

wherein the at least one elevated level is elevated compared to a healthy state of the tissue.

57. The use of claim 56, wherein the use selectively inhibits $\alpha_v\beta_1$ integrin compared to $\alpha_v\beta_6$ integrin in the subject; or the use of claim 56, wherein the use selectively inhibits $\alpha_v\beta_6$

integrin compared to $\alpha_v\beta_1$ integrin in the subject; or the use of claim 56, wherein the use inhibits both of $\alpha_v\beta_1$ integrin and $\alpha_v\beta_6$ integrin in the subject.

58. The use of claim 56, wherein the use selectively inhibits both $\alpha_v\beta_1$ integrin and $\alpha_v\beta_6$ integrin compared to at least one other α_v -containing integrin in the subject.
59. The use of claim 56, wherein the $\alpha_v\beta_1$ integrin is inhibited in one or more fibroblasts in the subject.
60. The use of claim 56, wherein the $\alpha_v\beta_6$ integrin is inhibited in one or more epithelial cells in the subject.
61. The use of claim 56, wherein the at least one tissue in the subject comprises one or more of: lung tissue, liver tissue, skin tissue, cardiac tissue, kidney tissue, gastrointestinal tissue, gall bladder tissue, and bile duct tissue.
62. A compound of any one of claims 1 to 38, or a pharmaceutically acceptable salt thereof, for use in
- treating a fibrotic disease,
 - inhibiting $\alpha_v\beta_6$ integrin,
 - inhibiting TGF β activation in a cell,
 - modulating at least one integrin in a subject, the at least one integrin comprising an α_v subunit,
 - modulating TGF β activation in a cell, or
 - treating a subject in need thereof, wherein the subject has at least one tissue in need of therapy and the tissue has at least one elevated level of:

TGF β activation and/or expression;

$\alpha_v\beta_1$ integrin activity and/or expression; or

$\alpha_v\beta_6$ integrin activity and/or expression;

wherein the at least one elevated level is elevated compared to a healthy state of the tissue.