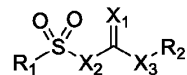


CLAIMS

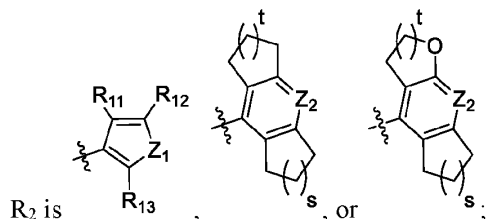
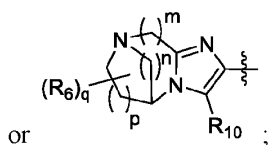
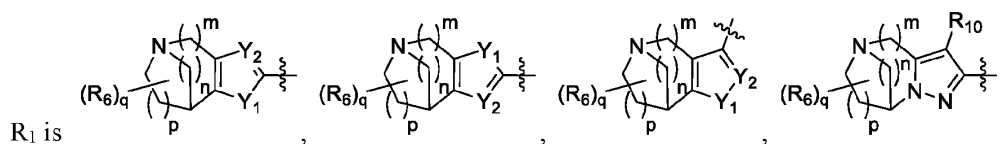
WHAT IS CLAIMED IS:

1. A compound of Formula (I'), or a pharmaceutically acceptable salt or solvate thereof:



Formula (I');

wherein:

 X_1 is O, S, or N(R₃); X_2 is -N(R₄)- or -C(R₄)₂-; X_3 is -N(R₅)- or -C(R₅)₂-; Y_1 is O, S, or N(R₈); Y_2 is N or C(R₉); Z_1 is O, S, N(R₃), or -C(R₁₇)=C(R₁₇)-; Z_2 is N or C(R₁₉); R_3 is hydrogen, -OR₁₄, -CN, -NO₂, or -S(=O)₂R₁₅;each R₄ is independently selected from hydrogen, C₁-C₆alkyl, -C₁-C₆alkyl-OR₇, and -C₁-C₆alkyl-N(R₇)₂;each R₅ is independently selected from hydrogen, C₁-C₆alkyl, -C₁-C₆alkyl-OR₇, and -C₁-C₆alkyl-N(R₇)₂;each R₆ is independently selected from C₁-C₆alkyl, -C₁-C₆alkyl-CO₂R₁₈, C₁-C₆haloalkyl, -C₁-C₆alkyl-OR₇, and -C₁-C₆alkyl-N(R₇)₂;each R₇ is independently selected from hydrogen and C₁-C₆alkyl; R_8 is hydrogen, C₁-C₆alkyl, -C₁-C₆alkyl-OR₇, -C₁-C₆alkyl-N(R₇)₂, or C₃-C₆cycloalkyl;

R₉ is hydrogen, halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, or C₃-C₆cycloalkyl;

R₁₀ is hydrogen, halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -C₁-C₆alkyl-OR₇, or -C₁-C₆alkyl-N(R₇)₂;

R₁₁ and R₁₂ are independently selected from hydrogen, halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -C₁-C₆alkyl-OR₇, and -C₁-C₆alkyl-N(R₇)₂; or R₁₁ and R₁₂ are combined to form a 5- or 6-membered cycloalkyl ring;

R₁₃ is hydrogen, C₁-C₆alkyl, C₁-C₆haloalkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₃-C₅cycloalkyl, C₂-C₉heterocycloalkyl, phenyl, or C₂-C₉heteroaryl, wherein C₃-C₅cycloalkyl, C₂-C₉heterocycloalkyl, phenyl, and C₂-C₉heteroaryl are optionally substituted by 1, 2, 3, or 4 R₁₆;

R₁₄ is hydrogen or C₁-C₆alkyl;

R₁₅ is C₁-C₆alkyl;

each R₁₆ is independently selected from halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₆alkoxy, C₁-C₆haloalkoxy, C₃-C₆cycloalkyl, C₂-C₉heterocycloalkyl, C₆-C₁₀aryl, C₂-C₉heteroaryl, wherein C₃-C₆cycloalkyl, C₂-C₉heterocycloalkyl, C₆-C₁₀aryl, C₂-C₉heteroaryl are optionally substituted with 1, 2, or 3 groups selected from halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₆alkoxy, and C₁-C₆haloalkoxy;

each R₁₇ is independently selected from hydrogen, halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -C₁-C₆alkyl-OR₇, and -C₁-C₆alkyl-N(R₇)₂;

R₁₈ is hydrogen or C₁-C₆alkyl;

R₁₉ is hydrogen, halogen, -CN, C₁-C₆alkyl, C₁-C₆haloalkyl, -C₁-C₆alkyl-OR₇, or -C₁-C₆alkyl-N(R₇)₂;

m is 0, 1, or 2;

n is 1, 2, or 3;

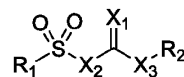
p is 0, 1, or 2;

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

s is 1, 2, or 3; and

t is 1, 2, or 3.

2. A compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof:



Formula (I);

wherein:

X₁ is O, S, or N(R₃);

X₂ is -N(R₄)- or -C(R₄)₂-;

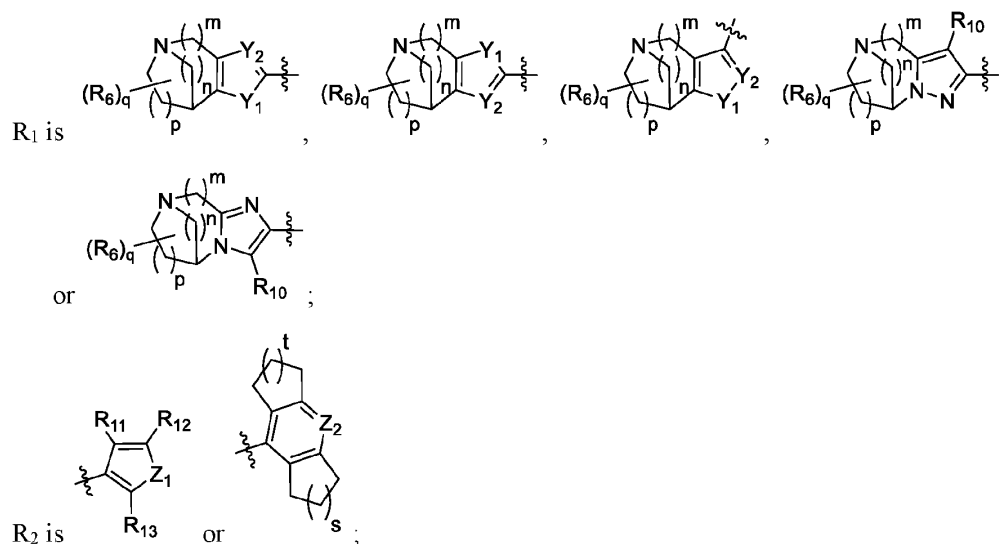
X₃ is -N(R₅)- or -C(R₅)₂-;

Y₁ is O, S, or N(R₈);

Y₂ is N or C(R₉);

Z₁ is O, S, N(R₃), or -C(R₁₇)=C(R₁₇)-;

Z₂ is N or C(R₁₉);



R₃ is hydrogen, -OR₁₄, -CN, -NO₂, or -S(=O)₂R₁₅;

each R₄ is independently selected from hydrogen, C₁-C₆alkyl, -C₁-C₆alkyl-OR₇, and -C₁-C₆alkyl-N(R₇)₂;

each R₅ is independently selected from hydrogen, C₁-C₆alkyl, -C₁-C₆alkyl-OR₇, and -C₁-C₆alkyl-N(R₇)₂;

each R₆ is independently selected from C₁-C₆alkyl, -C₁-C₆alkyl-CO₂R₁₈, C₁-C₆haloalkyl, -C₁-C₆alkyl-OR₇, and -C₁-C₆alkyl-N(R₇)₂;

each R₇ is independently selected from hydrogen and C₁-C₆alkyl;

R₈ is hydrogen, C₁-C₆alkyl, -C₁-C₆alkyl-OR₇, -C₁-C₆alkyl-N(R₇)₂, or C₃-C₆cycloalkyl;

R₉ is hydrogen, halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, or C₃-C₆cycloalkyl;

R₁₀ is hydrogen, halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -C₁-C₆alkyl-OR₇, or -C₁-C₆alkyl-N(R₇)₂;

R₁₁ and R₁₂ are independently selected from halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -C₁-C₆alkyl-OR₇, and -C₁-C₆alkyl-N(R₇)₂; or R₁₁ and R₁₂ are combined to form a 5- or 6-membered cycloalkyl ring;

R₁₃ is phenyl or C₂-C₉heteroaryl, wherein phenyl and C₂-C₉heteroaryl are optionally substituted by 1, 2, 3, or 4 R₁₆;

R₁₄ is hydrogen or C₁-C₆alkyl;

R₁₅ is C₁-C₆alkyl;

each R₁₆ is independently selected from halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₆alkoxy, C₁-C₆haloalkoxy, C₃-C₆cycloalkyl, C₂-C₉heterocycloalkyl, C₆-C₁₀aryl, C₂-C₉heteroaryl, wherein C₃-C₆cycloalkyl, C₂-C₉heterocycloalkyl, C₆-C₁₀aryl, C₂-C₉heteroaryl are optionally substituted with 1, 2, or 3 groups selected from halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, C₁-C₆alkoxy, and C₁-C₆haloalkoxy;

each R₁₇ is independently selected from hydrogen, halogen, C₁-C₆alkyl, C₁-C₆haloalkyl, -C₁-C₆alkyl-OR₇, and -C₁-C₆alkyl-N(R₇)₂;

R₁₈ is hydrogen or C₁-C₆alkyl;

R₁₉ is hydrogen, halogen, -CN, C₁-C₆alkyl, C₁-C₆haloalkyl, -C₁-C₆alkyl-OR₇, or -C₁-C₆alkyl-N(R₇)₂;

m is 0, 1, or 2;

n is 1, 2, or 3;

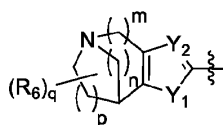
p is 0, 1, or 2;

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

s is 1, 2, or 3; and

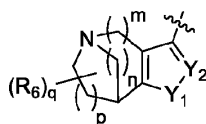
t is 1, 2, or 3.

3. The compound of claim 1 or claim 2, or a pharmaceutically acceptable salt or solvate



thereof, wherein R₁ is

4. The compound of claim 1 or claim 2, or a pharmaceutically acceptable salt or solvate



thereof, wherein R₁ is

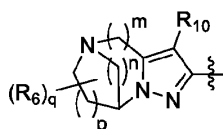
5. The compound of any one of claims 1-4, or a pharmaceutically acceptable salt or solvate thereof, wherein Y₂ is C(R₉).

6. The compound of claim 5, or a pharmaceutically acceptable salt or solvate thereof, wherein R₉ is hydrogen or C₁-C₆alkyl.

7. The compound of claim 6, or a pharmaceutically acceptable salt or solvate thereof, wherein R₉ is hydrogen.

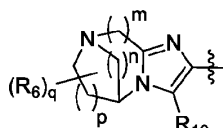
8. The compound of any one of claims 1-4, or a pharmaceutically acceptable salt or solvate thereof, wherein Y₂ is N.

9. The compound of any one of claims 1-8, or a pharmaceutically acceptable salt or solvate thereof, wherein Y₁ is O.
10. The compound of any one of claims 1-8, or a pharmaceutically acceptable salt or solvate thereof, wherein Y₁ is S.
11. The compound of any one of claims 1-8, or a pharmaceutically acceptable salt or solvate thereof, wherein Y₁ is N(R₈).
12. The compound of claim 11, or a pharmaceutically acceptable salt or solvate thereof, wherein R₈ is hydrogen, C₁-C₆alkyl, or C₃-C₆cycloalkyl.
13. The compound of claim 12, or a pharmaceutically acceptable salt or solvate thereof, wherein R₈ is hydrogen.
14. The compound of claim 12, or a pharmaceutically acceptable salt or solvate thereof, wherein R₈ is C₁-C₆alkyl.
15. The compound of claim 12, or a pharmaceutically acceptable salt or solvate thereof, wherein R₈ is C₃-C₆cycloalkyl.
16. The compound of claim 1 or claim 2, or a pharmaceutically acceptable salt or solvate thereof,



thereof, wherein R₁ is

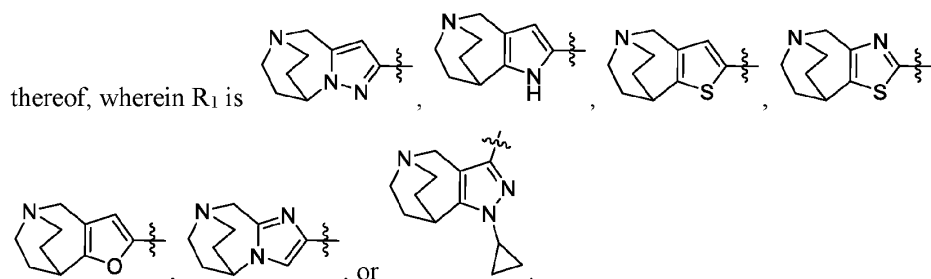
17. The compound of claim 1 or claim 2, or a pharmaceutically acceptable salt or solvate



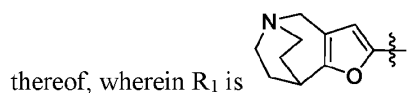
thereof, wherein R₁ is

18. The compound of claim 16 or claim 17, or a pharmaceutically acceptable salt or solvate thereof, wherein R₁₀ is hydrogen.
19. The compound of any one of claims 1-18, or a pharmaceutically acceptable salt or solvate thereof, wherein each R₆ is independently selected from C₁-C₆alkyl.
20. The compound of any one of claims 1-19, or a pharmaceutically acceptable salt or solvate thereof, wherein each R₆ is -CH₃.
21. The compound of any one of claims 1-20, or a pharmaceutically acceptable salt or solvate thereof, wherein q is 1.
22. The compound of any one of claims 1-20, or a pharmaceutically acceptable salt or solvate thereof, wherein q is 2.
23. The compound of any one of claims 1-20, or a pharmaceutically acceptable salt or solvate thereof, wherein q is 3.

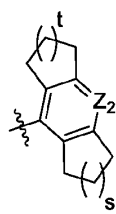
24. The compound of any one of claims 1-18, or a pharmaceutically acceptable salt or solvate thereof, wherein q is 0.
25. The compound of any one of claims 1-24, or a pharmaceutically acceptable salt or solvate thereof, wherein n is 2.
26. The compound of any one of claims 1-24, or a pharmaceutically acceptable salt or solvate thereof, wherein n is 1.
27. The compound of any one of claims 1-26, or a pharmaceutically acceptable salt or solvate thereof, wherein m is 1.
28. The compound of any one of claims 1-27, or a pharmaceutically acceptable salt or solvate thereof, wherein p is 1.
29. The compound of claim 1 or claim 2, or a pharmaceutically acceptable salt or solvate



30. The compound of claim 1 or claim 2, or a pharmaceutically acceptable salt or solvate

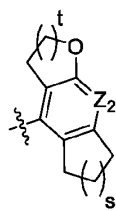


31. The compound of any one of claims 1-30, or a pharmaceutically acceptable salt or solvate



thereof, wherein R₂ is

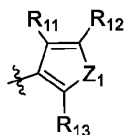
32. The compound of any one of claims 1-30, or a pharmaceutically acceptable salt or solvate



thereof, wherein R₂ is

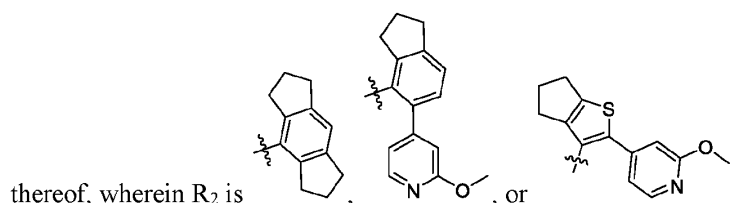
33. The compound of claim 31 or claim 32, or a pharmaceutically acceptable salt or solvate thereof, wherein s is 1.

34. The compound of any one of claims 31-33, or a pharmaceutically acceptable salt or solvate thereof, wherein t is 1.
35. The compound of any one of claims 31-34, or a pharmaceutically acceptable salt or solvate thereof, wherein Z_2 is $C(R_{19})$.
36. The compound of claim 35, or a pharmaceutically acceptable salt or solvate thereof, wherein R_{19} is hydrogen.
37. The compound of claim 35, or a pharmaceutically acceptable salt or solvate thereof, wherein R_{19} is halogen.
38. The compound of any one of claims 31-34, or a pharmaceutically acceptable salt or solvate thereof, wherein Z_2 is N.
39. The compound of any one of claims 1-30, or a pharmaceutically acceptable salt or solvate

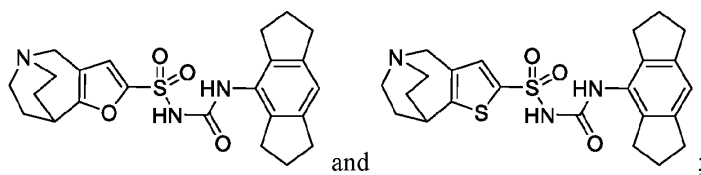


- thereof, wherein R_2 is
40. The compound of claim 39, or a pharmaceutically acceptable salt or solvate thereof, wherein Z_1 is S.
41. The compound of claim 39, or a pharmaceutically acceptable salt or solvate thereof, wherein Z_1 is O.
42. The compound of claim 39, or a pharmaceutically acceptable salt or solvate thereof, wherein Z_1 is $-C(R_{17})=C(R_{17})-$.
43. The compound of claim 42, or a pharmaceutically acceptable salt or solvate thereof, wherein each R_{17} is independently selected from hydrogen and halogen.
44. The compound of claim 42, or a pharmaceutically acceptable salt or solvate thereof, wherein each R_{17} is hydrogen.
45. The compound of any one of claims 39-44, or a pharmaceutically acceptable salt or solvate thereof, wherein R_{11} and R_{12} are combined to form a 5- or 6-membered cycloalkyl ring.
46. The compound of any one of claims 39-45, or a pharmaceutically acceptable salt or solvate thereof, wherein R_{11} and R_{12} are combined to form a 5-membered cycloalkyl ring.
47. The compound of any one of claims 39-44, or a pharmaceutically acceptable salt or solvate thereof, wherein R_{11} and R_{12} are independently selected from hydrogen, halogen, and C_1 - C_6 alkyl.
48. The compound of any one of claims 39-47, or a pharmaceutically acceptable salt or solvate thereof, wherein R_{13} is phenyl optionally substituted by 1, 2, 3, or 4 R_{16} .

49. The compound of any one of claims 39-47, or a pharmaceutically acceptable salt or solvate thereof, wherein R_{13} is C_2 - C_9 heteroaryl optionally substituted by 1, 2, 3, or 4 R_{16} .
50. The compound of claim 49, or a pharmaceutically acceptable salt or solvate thereof, wherein R_{13} is pyridyl optionally substituted by 1, 2, 3, or 4 R_{16} .
51. The compound of any one of claims 48-50, or a pharmaceutically acceptable salt or solvate thereof, wherein each R_{16} is independently selected from halogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, and C_1 - C_6 alkoxy.
52. The compound of claim 51, or a pharmaceutically acceptable salt or solvate thereof, wherein each R_{16} is C_1 - C_6 alkoxy.
53. The compound of any one of claims 39-47, or a pharmaceutically acceptable salt or solvate thereof, wherein R_{13} is C_1 - C_6 alkyl.
54. The compound of any one of claims 39-47, or a pharmaceutically acceptable salt or solvate thereof, wherein R_{13} is C_3 - C_5 cycloalkyl.
55. The compound of any one of claims 1-30, or a pharmaceutically acceptable salt or solvate

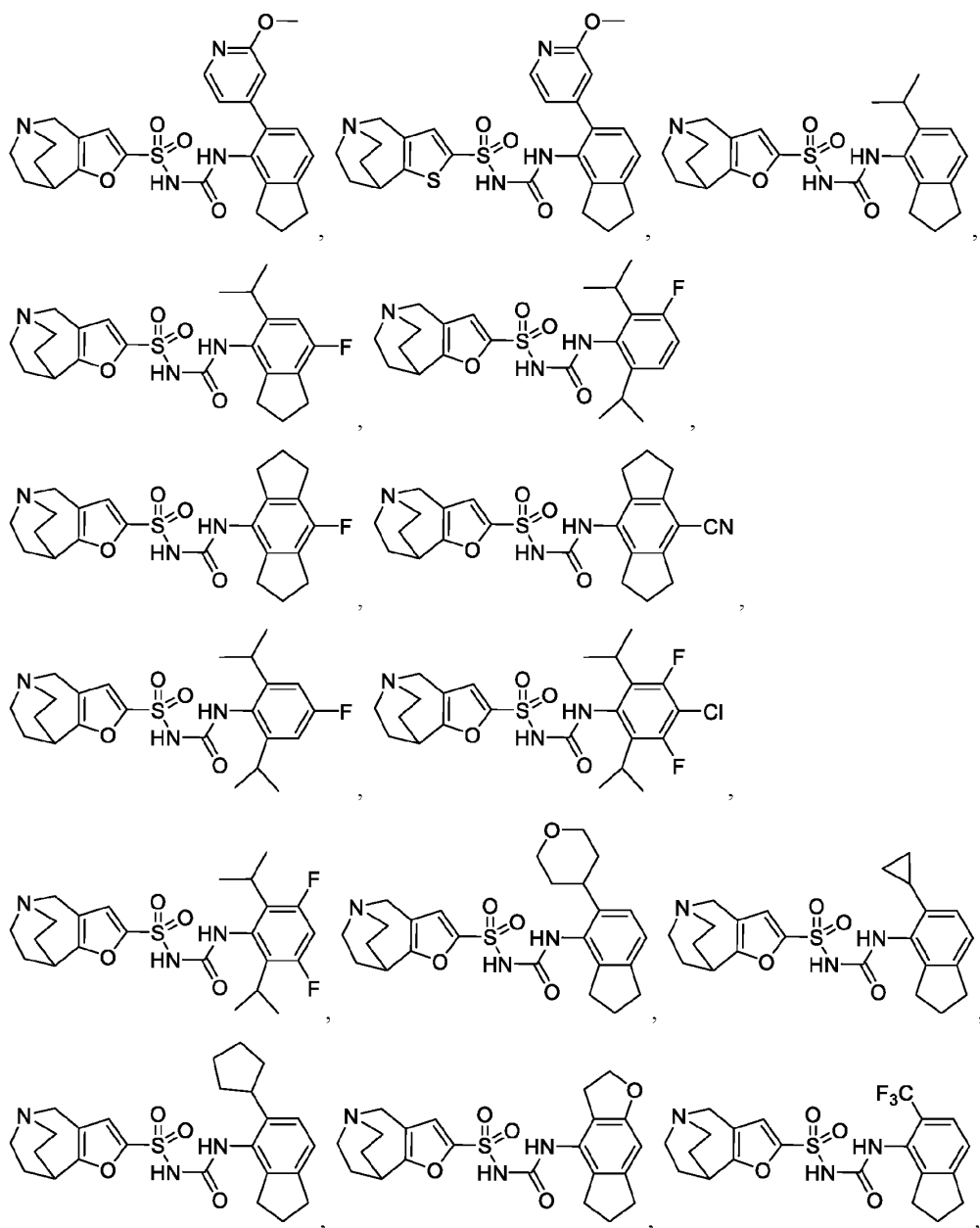


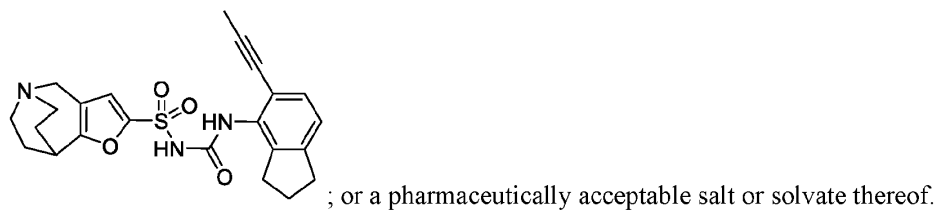
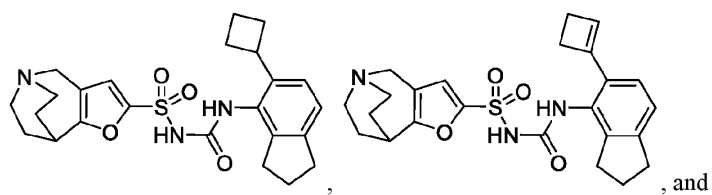
56. The compound of any one of claims 1-55, or a pharmaceutically acceptable salt or solvate thereof, wherein X_2 is $-N(R_4)-$.
57. The compound of any one of claims 1-56, or a pharmaceutically acceptable salt or solvate thereof, wherein each R_4 is hydrogen.
58. The compound of any one of claims 1-57, or a pharmaceutically acceptable salt or solvate thereof, wherein X_3 is $-N(R_5)-$.
59. The compound of any one of claims 1-57, or a pharmaceutically acceptable salt or solvate thereof, wherein X_3 is $-C(R_5)_2-$.
60. The compound of any one of claims 1-59, or a pharmaceutically acceptable salt or solvate thereof, wherein each R_5 is hydrogen.
61. The compound of any one of claims 1-60, or a pharmaceutically acceptable salt or solvate thereof, wherein X_1 is O.
62. A compound selected from:



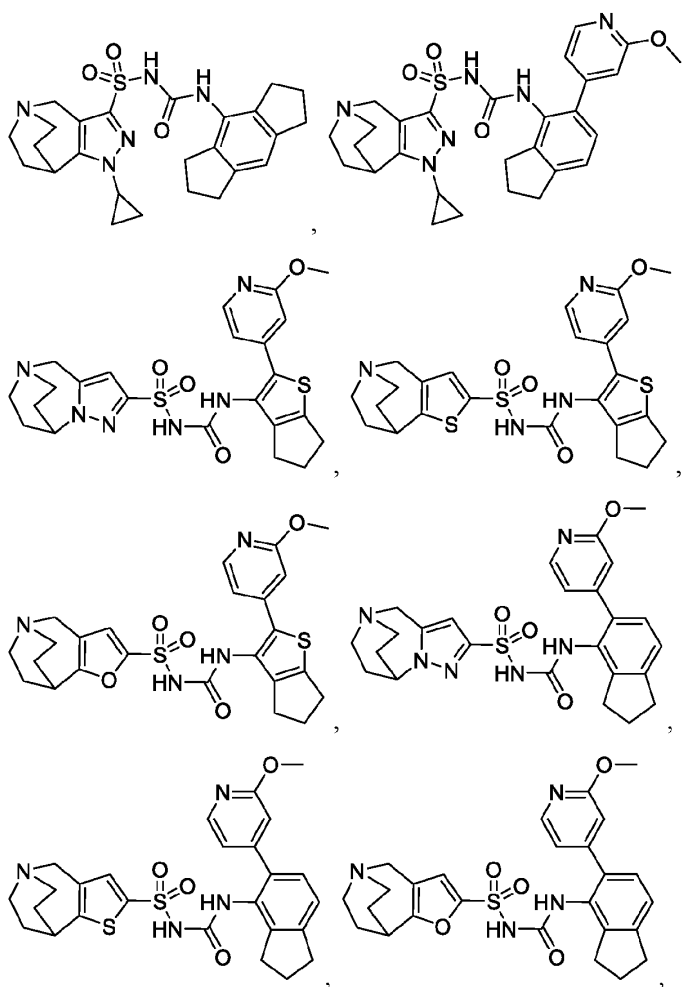
or a pharmaceutically acceptable salt or solvate thereof.

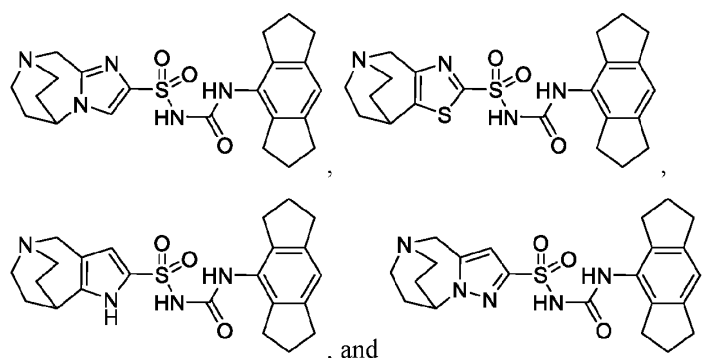
63. A compound selected from:





64. A compound selected from:





or a pharmaceutically acceptable salt or solvate thereof.

65. A pharmaceutical composition comprising a compound of any one of claims 1-64, or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable excipient.
66. A method of treating a metabolic disease in a patient in need thereof, comprising administering to the patient a therapeutically effective amount of a compound of any one of claims 1-64, or a pharmaceutically acceptable salt or solvate thereof.
67. The method of claim 66, wherein the metabolic disease is selected from type 2 diabetes, atherosclerosis, obesity and gout.
68. A method of treating a liver disease in a patient in need thereof, comprising administering to the patient a therapeutically effective amount of a compound of any one of claims 1-64, or a pharmaceutically acceptable salt or solvate thereof.
69. The method of claim 68, wherein the liver disease is selected from non-alcoholic fatty liver disease (NAFLD), non-alcoholic steatohepatitis (NASH), alcoholic steatohepatitis (ASH), viral hepatitis, and cirrhosis.
70. A method of treating a lung disease in a patient in need thereof, comprising administering to the patient a therapeutically effective amount of a compound of any one of claims 1-64, or a pharmaceutically acceptable salt or solvate thereof.
71. The method of claim 70, wherein the lung disease is selected from asthma, chronic obstructive pulmonary disease (COPD), and pulmonary idiopathic fibrosis.
72. A method of treating a central nervous system disease in a patient in need thereof, comprising administering to the patient a therapeutically effective amount of a compound of any one of claims 1-64, or a pharmaceutically acceptable salt or solvate thereof.
73. The method of claim 72, wherein the central nervous system disease is selected from Alzheimer's disease, multiple sclerosis, Amyotrophic Lateral Sclerosis, and Parkinson's disease.

74. A method of treating an inflammatory or autoimmune disease in a patient in need thereof, comprising administering to the patient a therapeutically effective amount of a compound of any one of claims 1-64, or a pharmaceutically acceptable salt or solvate thereof.
75. The method of claim 74, wherein the inflammatory or autoimmune disease is selected from rheumatoid arthritis, multiple sclerosis, psoriasis, lupus, inflammatory bowel disease, Crohn's disease, and ulcerative colitis.
76. A method of treating a cardiovascular disease in a patient in need thereof, comprising administering to the patient a therapeutically effective amount of a compound of any one of claims 1-64, or a pharmaceutically acceptable salt or solvate thereof.
77. The method of claim 76, wherein the cardiovascular disease is atherosclerosis or stroke.