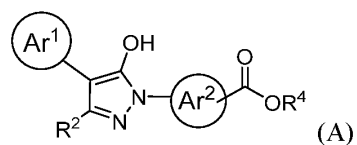


CLAIMS

1. A compound of Formula A:



or a pharmaceutically acceptable salt thereof, wherein:

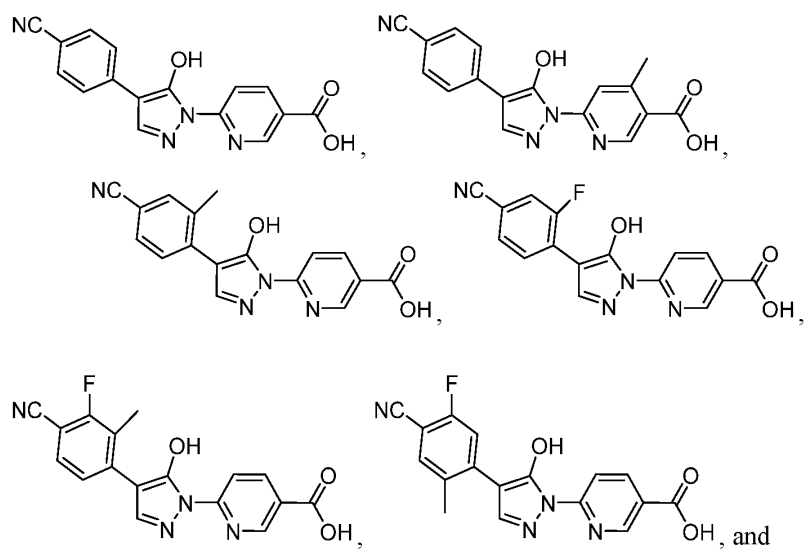
Ar¹ is phenyl or a six-membered nitrogen-containing heteroaryl, wherein said phenyl or heteroaryl is optionally substituted with halogen, CN, OH, C₁₋₃ alkyl optionally substituted with one or more halogens, or C₁₋₃ alkoxy;

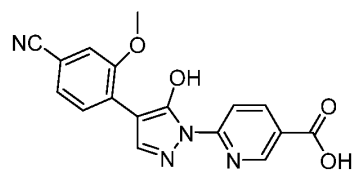
R² is H or C₁₋₃ alkyl;

Ar² is a six-membered nitrogen-containing heteroaryl, optionally substituted with halogen, OH, amine, or C₁₋₃ alkyl;

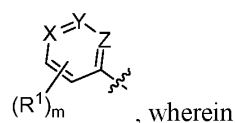
R⁴ is hydrogen or C₁₋₄ alkyl; and

wherein Formula (A) excludes the following compounds:





2. The compound of claim 1, wherein Ar¹ is

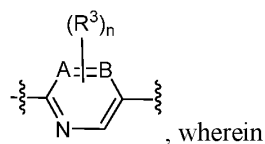


X, Y, and Z are independently CH or N, wherein N is optionally oxidized;

each R¹ is independently selected from the group consisting of hydrogen, halogen, CN, OH, C₁₋₃ alkyl optionally substituted with one or more halogens, and C₁₋₃ alkoxy; and

m is 1, 2, 3, or 4.

3. The compound of claim 1 or 2, wherein Ar¹ is a phenyl substituted by at least one R¹ that is CN or halogen.
4. The compound of claim 3, wherein Ar¹ is substituted by one or two R¹ groups independently selected from C₁₋₃ alkyl optionally substituted with one or more halogens, halogen, CN or OH.
5. The compound of claim 1 or 2, wherein Ar¹ is a pyridyl N-oxide or is a pyridyl optionally substituted by at least one R¹ that is C₁₋₃ alkoxy or halogen.
6. The compound of any one of claims 1-5, wherein Ar² is

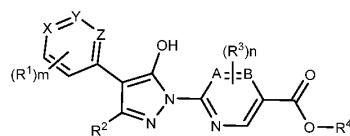


A and B are independently CH or N, wherein N is optionally oxidized;

each R^3 is independently selected from the group consisting of hydrogen, halogen, OH, amine, and C_{1-3} alkyl; and

n is 0, 1, or 2.

7. The compound of any one of claims 1-6, wherein Ar^2 is a group that is pyridyl or pyrazinyl, and wherein said group is unsubstituted or comprises a substituent that is halogen, C_{1-3} alkyl, or OH.
8. The compound of any one of claims 1-7, wherein R^2 is H or CH_3 .
9. The compound of any one of claims 1-8, wherein R^4 is H.
10. The compound of any one of claims 1-8, wherein R^4 is C_{1-4} alkyl.
11. The compound of claim 1, having a structure according to Formula (I):



(I)

or a pharmaceutically acceptable salt thereof, wherein:

X, Y, Z, A and B are independently CH or N, wherein N is optionally oxidized;

m is 1, 2, 3, or 4;

n is 0, 1, or 2;

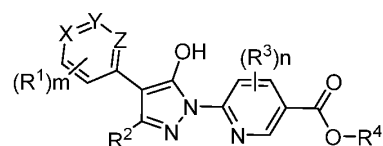
each R^1 is independently selected from the group consisting of hydrogen, halogen, CN, OH, C_{1-3} alkyl optionally substituted with one or more halogens, and C_{1-3} alkoxy;

R^2 is hydrogen or C_{1-3} alkyl;

each R^3 is independently selected from the group consisting of hydrogen, halogen, OH, amine, and C_{1-3} alkyl; and

R^4 is hydrogen or C_{1-4} alkyl.

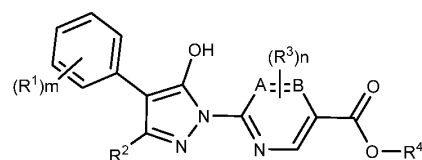
12. The compound of claim 11, having the structure of Formula (Ia):



(Ia)

or a pharmaceutically acceptable salt thereof.

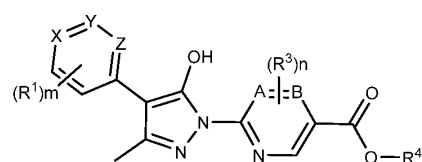
13. The compound of claim 11, having the structure of Formula (Ib):



(Ib)

or a pharmaceutically acceptable salt thereof.

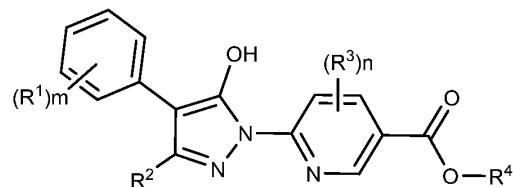
14. The compound of claim 11, having the structure of Formula (Ic):



(Ic)

or a pharmaceutically acceptable salt thereof.

15. The compound of claim 1, having a structure according to Formula (II):



(II)

or a pharmaceutically acceptable salt thereof, wherein:

m is 1, 2, 3, or 4;

n is 0, 1, or 2;

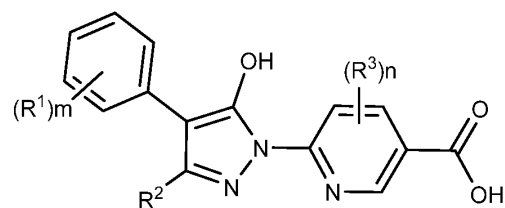
R¹, each time taken, is independently selected from the group consisting of hydrogen, halogen, CN, OH, C₁₋₃ alkyl optionally substituted with one or more halogens, and C₁₋₃ alkoxy;

R² is hydrogen or C₁₋₃ alkyl;

R³, each time taken, is independently selected from the group consisting of hydrogen, halogen, OH, amine, or C₁₋₃ alkyl; and

R⁴ is hydrogen or C₁₋₄ alkyl.

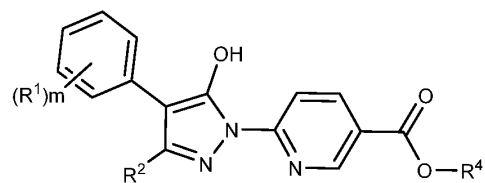
16. The compound of claim 15, having the structure of Formula (IIa):



(IIa)

or a pharmaceutically acceptable salt thereof

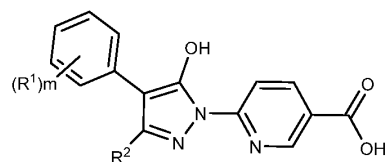
17. The compound of claim 15, having the structure of Formula (IIb):



(IIb)

or a pharmaceutically acceptable salt thereof.

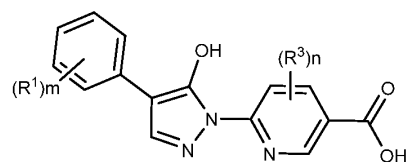
18. The compound of claim 15, having the structure of Formula (IIc):



(IIc)

or a pharmaceutically acceptable salt thereof.

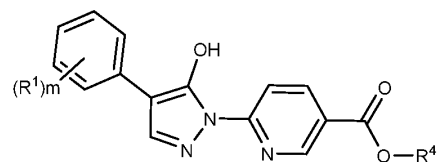
19. The compound of claim 15, having the structure of Formula (IId):



(IId)

or a pharmaceutically acceptable salt thereof.

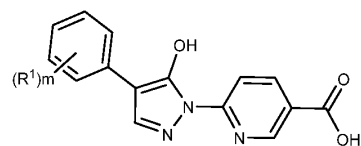
20. The compound of claim 15, having the structure of Formula (IIe):



(IIe)

or a pharmaceutically acceptable salt thereof.

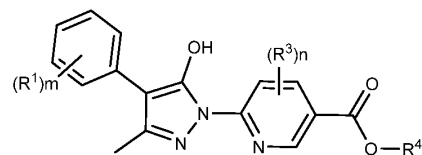
21. The compound of claim 15, having the structure of Formula (IIf):



(IIf)

or a pharmaceutically acceptable salt thereof.

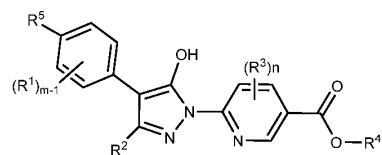
22. The compound of claim 15, having the structure of Formula (IIg):



(IIg)

or a pharmaceutically acceptable salt thereof.

23. The compound of claim 1, having a structure according to Formula III:



(III)

or a pharmaceutically acceptable salt thereof, wherein:

m is 1, 2, 3, or 4;

n is 0, 1, or 2;

R¹, each time taken, is independently selected from the group consisting of hydrogen, halogen, OH, and C₁₋₃ alkyl optionally substituted with one or more halogens;

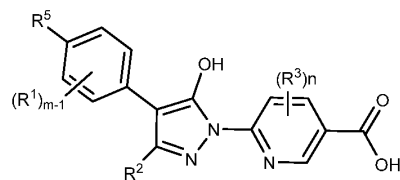
R² is hydrogen or C₁₋₃ alkyl;

R³, each time taken, is independently selected from the group consisting of hydrogen, halogen, OH, amine, and C₁₋₃ alkyl;

R⁴ is hydrogen or C₁₋₄ alkyl;

R⁵ is CN or halogen.

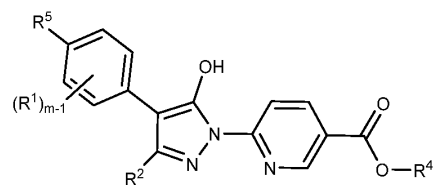
24. The compound of claim 23, having the structure of Formula (IIIa):



(IIIa)

or a pharmaceutically acceptable salt thereof.

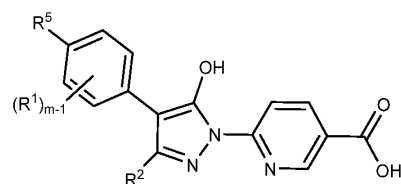
25. The compound of claim 23, having the structure of Formula (IIIb):



(IIIb)

or a pharmaceutically acceptable salt thereof.

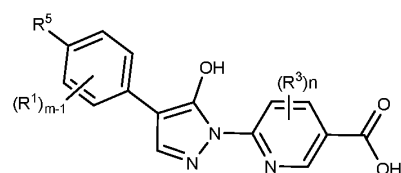
26. The compound of claim 23, having the structure of Formula (IIIc):



(IIIc)

or a pharmaceutically acceptable salt thereof.

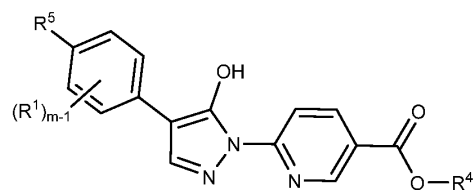
27. The compound of claim 23, having the structure of Formula (III d)



(III d)

or a pharmaceutically acceptable salt thereof.

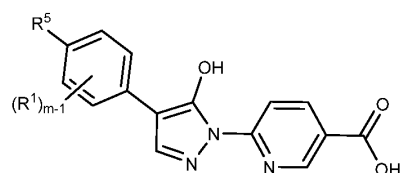
28. The compound of claim 23, having the structure of Formula (IIIe):



(IIIe)

or a pharmaceutically acceptable salt thereof.

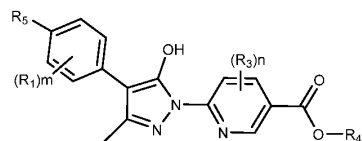
29. The compound of claim 23, having the structure of Formula (IIIf):



(IIIf)

or a pharmaceutically acceptable salt thereof.

30. The compound of claim 23, having the structure of Formula III(g):



III(g)

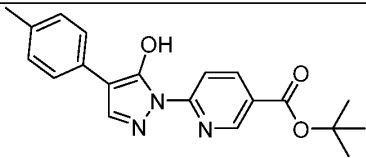
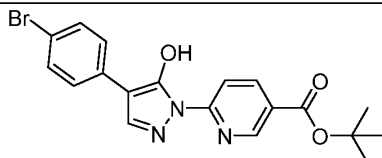
or a pharmaceutically acceptable salt thereof.

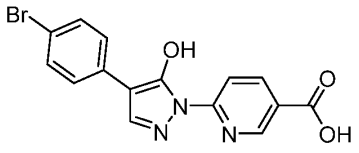
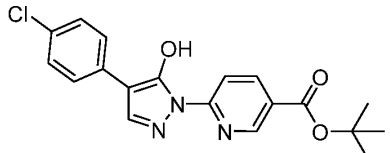
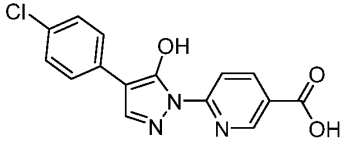
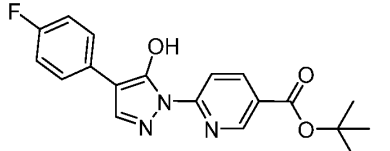
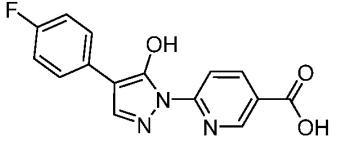
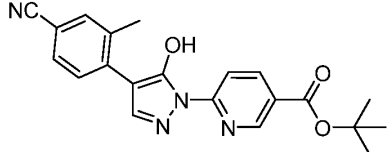
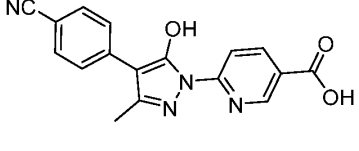
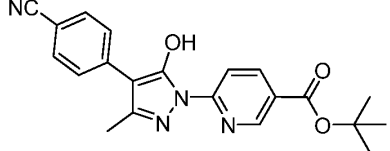
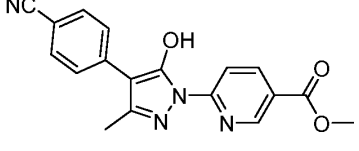
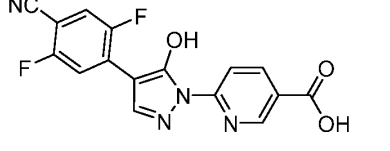
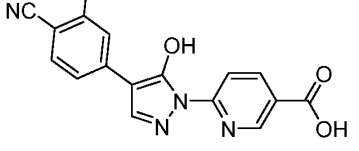
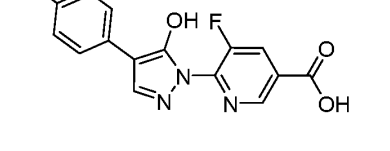
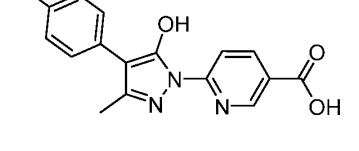
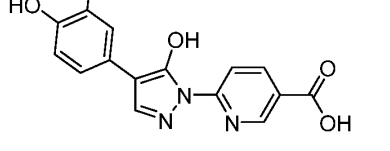
31. The compound of claim 11, 12, or 14, wherein X is CH.

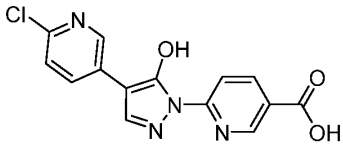
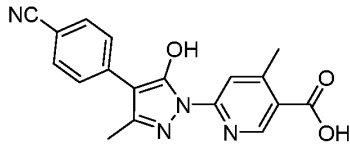
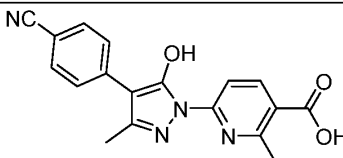
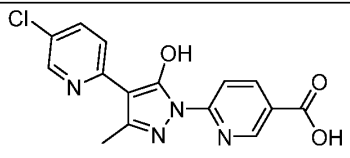
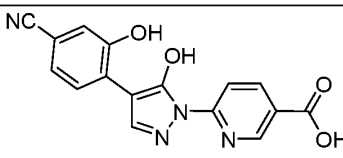
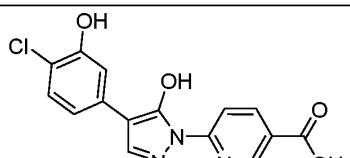
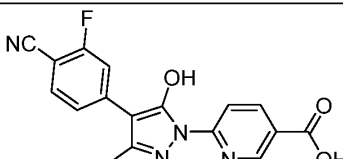
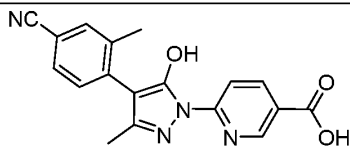
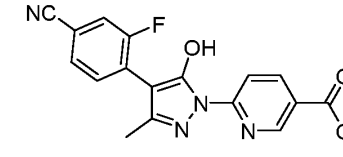
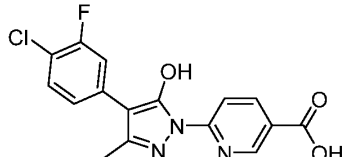
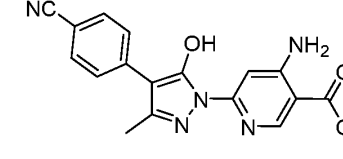
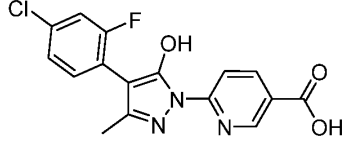
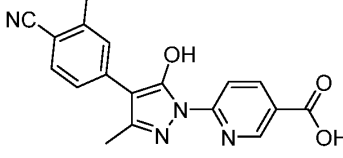
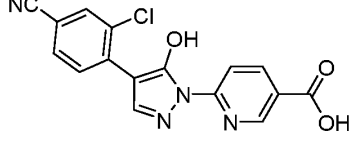
- 32. The compound of claim 11, 12, or 14, wherein X is N.
- 33. The compound of claim 32, wherein N is optionally oxidized.
- 34. The compound of claim 11, 12, or 14, wherein Y is CH.
- 35. The compound of claim 11, 12, or 14, wherein Y is N.
- 36. The compound of claim 11, 12, or 14, wherein Z is CH.
- 37. The compound of claim 11, 12, or 14, wherein Z is N.
- 38. The compound of claim 11, 12, or 14, wherein A is CH.
- 39. The compound of claim 11, 12, or 14, wherein A is N.
- 40. The compound of claim 11, 12, or 14, wherein B is CH.
- 41. The compound of claim 11, 12, or 14, wherein B is N.
- 42. The compound of any one of claims 11-30, wherein m is 1.
- 43. The compound of any one of claims 11-30, wherein m is 2.
- 44. The compound of any one of claims 11-30, wherein m is 3.
- 45. The compound of any one of claims 11-22, wherein m is 4.
- 46. The compound of any one of claims 11-16, 19, 22-24, 27 and 30, wherein n is 0.
- 47. The compound of any one of claims 11-16, 19, 22-24, 27 and 30, wherein n is 1.
- 48. The compound of any one of claims 11-16, 19, 22-24, 27 and 30, wherein n is 2.
- 49. The compound of any one of claims 11-30, wherein R¹ is hydrogen.
- 50. The compound of any one of claims 11-30, wherein R¹ is halogen.
- 51. The compound of claim 50, wherein R¹ is F.
- 52. The compound of claim 50, wherein R¹ is Cl.

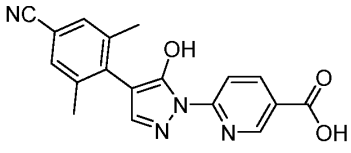
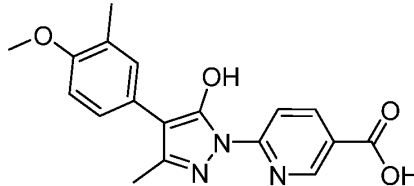
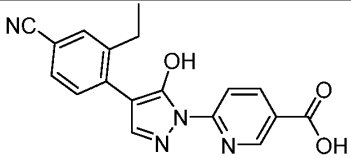
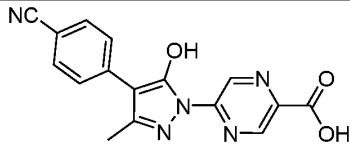
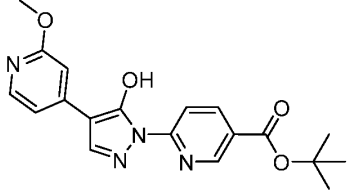
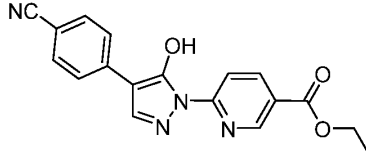
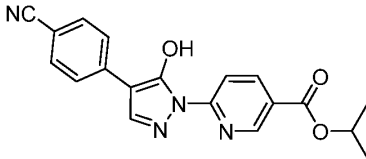
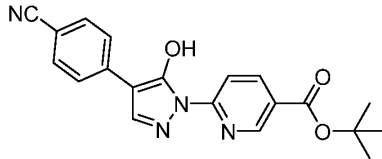
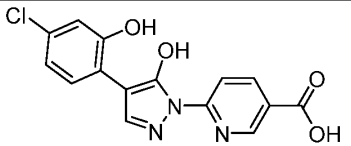
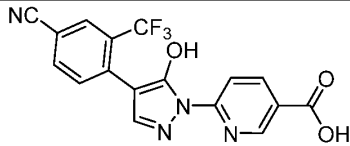
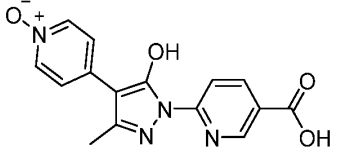
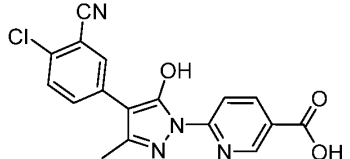
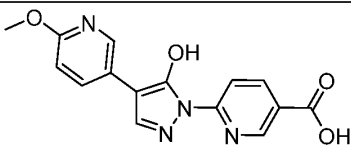
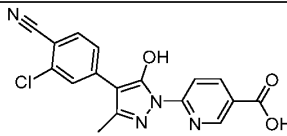
53. The compound of claim 50, wherein R¹ is Br.
54. The compound of any one of claims 11-30, wherein R¹ is CN.
55. The compound of any one of claims 11-30, wherein R¹ is OH.
56. The compound of any one of claims 11-30, wherein R¹ is C₁₋₃ alkyl optionally substituted with one or more halogens.
57. The compound of claim 56, wherein R¹ is C₁₋₃ alkyl.
58. The compound of claim 56, wherein R¹ is methyl.
59. The compound of claim 56 wherein R¹ is ethyl.
60. The compound of claim 56, wherein R¹ is CF₃.
61. The compound of any one of claims 11-30, wherein R¹ is C₁₋₃ alkoxy.
62. The compound of claim 61, wherein R¹ is methoxy.
63. The compound of any one of claims 11-18 and 23-26, wherein R² is hydrogen.
64. The compound of any one of claims 11-18 and 23-26, wherein R² is C₁₋₃ alkyl.
65. The compound of claim 64, wherein R² is methyl.
66. The compound of any one of claims 11-16, 19, 22-24, 27 and 30, wherein R³ is hydrogen.
67. The compound of any one of claims 11-16, 19, 22-24, 27 and 30, wherein R³ is halogen.
68. The compound of claim 56, wherein R³ is F.
69. The compound of any one of claims 11-16, 19, 22-24, 27 and 30, wherein R³ is OH.
70. The compound of any one of claims 11-16, 19, 22-24, 27 and 30, wherein R³ is amine.

71. The compound of claim 70, wherein R³ is NH₂.
72. The compound of any one of claims 11-16, 19, 22-24, 27 and 30, wherein R³ is C₁₋₃ alkyl.
73. The compound of claim 72, wherein R³ is methyl.
74. The compound of any one of claims 11-15, 17, 20, 22, 25, 28, and 30, wherein R⁴ is hydrogen.
75. The compound of any one of claims 11-15, 17, 20, 22, 25, and 30, wherein R⁴ is C₁₋₄ alkyl.
76. The compound of claim 75, wherein R⁴ is methyl.
77. The compound of claim 75, wherein R⁴ is ethyl.
78. The compound of claim 75, wherein R⁴ is isopropyl.
79. The compound of claim 75, wherein R⁴ is *tert*-butyl.
80. The compound of any one of claims 23-30, wherein R⁵ is F.
81. The compound of any one of claims 23-30, wherein R⁵ is Cl.
82. The compound of any one of claims 23-30, wherein R⁵ is Br.
83. The compound of any one of claims 23-30, wherein R⁵ is CN.
84. The compound of claim 1, which is selected from the group consisting of:

Compd. No.	Structure	Compd. No.	Structure
1		2	

3		4	
5		6	
7		8	
9		10	
11		12	
13		14	
15		16	

17		18	
19		20	
21		22	
23		24	
25		26	
27		28	
29		30	

31		32	
33		34	
35		36	
37		38	
39		40	
41		42	
43		44	

or a pharmaceutically acceptable salt thereof

85. The compound of any one of claims 1-84, or a pharmaceutically acceptable salt thereof wherein at least one hydrogen atom is replaced with a deuterium atom.
86. A pharmaceutical composition comprising the compound of any one of claims 1-85, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.
87. A method for treating a disease mediated by PHD activity comprising administering to a subject the compound of any one of claims 1-85.
88. The method of claim 87, wherein the disease mediated by PHD activity is an ischemic reperfusion injury.
89. The method of claim 88, wherein the ischemic reperfusion injury is selected from stroke, myocardial infarction, and acute kidney injury.
90. The method of claim 87, wherein the disease mediated by PHD activity is inflammatory bowel disease.
91. The method of claim 90, wherein the inflammatory bowel disease is ulcerative colitis.
92. The method of claim 90, wherein the inflammatory bowel disease is Crohn's disease.
93. The method of claim 87, wherein the disease mediated by PHD activity is cancer.
94. The method of claim 93, wherein the cancer is colorectal cancer.
95. The method of claim 87, wherein the disease mediated by PHD activity is liver disease.
96. The method of claim 87, wherein the disease mediated by PHD activity is atherosclerosis.
97. The method of claim 87, wherein the disease mediated by PHD activity is cardiovascular disease.
98. The method of claim 87, wherein the disease mediated by PHD activity is a disease or condition of the eye.

99. The method of claim 98, wherein the disease or condition of the eye is selected from radiation retinopathy, retinopathy of prematurity, diabetic retinopathy, age-related macular degeneration, and ocular ischemia.
100. The method of claim 87, wherein the disease is anemia.
101. The method of claim 100, wherein the anemia is anemia associated with chronic kidney disease.
102. The method of claim 87, wherein the disease is chronic kidney disease.
103. The method of claim 87, wherein the disease is associated with hyperoxia.
104. The method of claim 103, wherein the disease is retinopathy of prematurity.
105. The method of claim 103, wherein the disease is bronchopulmonary dysplasia (BPD).
106. The method of claim 87, wherein the disease is selected from ischemic heart disease, valvular heart disease, congestive heart failure, acute lung injury, pulmonary fibrosis, pulmonary hypertension, chronic obstructive pulmonary disease (COPD), acute liver failure, liver fibrosis, and cirrhosis.