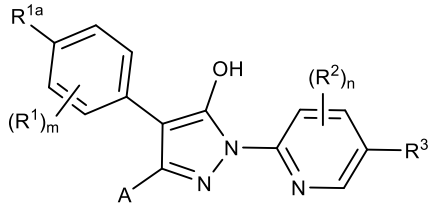
## CLAIMS

1. A compound of Formula III:



(III)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^1$, each time taken, 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;

$R^{1a}$ is CN, halogen, $C_{1-3}$ alkoxy, OH, or $C_{1-3}$ alkyl optionally substituted with CN;

$R^2$, each time taken, is independently selected from the group consisting of hydrogen, $NR^4R^5$, OH, $C_{1-3}$ alkyl, and $C_{3-6}$ cycloalkyl;

$R^3$ is $SO_2R^6$, $SOR^7R^8$, $SOR^9$, $COR^{10}$, $(CH_2)_pCOOH$, $NHR^{11}$, $POR^{12}R^{13}$, cycloalkyl, heterocycloalkyl optionally substituted with $SO_2R^{14}$ or =O, heteroaryl optionally substituted with $C_{1-3}$ alkyl or phenyl, or $C_{1-3}$ alkyl optionally substituted with one or more halogens;

$R^4$ and $R^5$ are each independently H or $C_{1-3}$ alkyl;

$R^6$ is $C_{1-3}$ alkyl, $NHCOR^{15}$, $NR^{16}R^{17}$, or phenyl;

$R^7$ is $C_{1-3}$ alkyl, $C_{3-5}$ cycloalkyl, phenyl, or $NR^{18}R^{19}$;

$R^8$ is NH, NCN, or $NCH_3$;

$R^9$ is $C_{1-3}$ alkyl;

$R^{10}$ is $C_{1-3}$ alkyl or $NHSO_2R^{20}$;

$R^{11}$ is $COR^{21}$ or $SO_2R^{22}$;

$R^{12}$ and $R^{13}$ are each independently $C_{1-3}$ alkyl;

$R^{14}$ is $C_{1-3}$ alkyl;

$R^{15}$ is $C_{1-3}$ alkyl;

$R^{16}$ and $R^{17}$ are each independently H, $C_{1-3}$ alkyl, aryl, cycloalkyl, or wherein $R^{16}$ and $R^{17}$ together with the carbon to which they are attached form a heterocycloalkyl;

$R^{18}$ and $R^{19}$ are independently H or $C_{1-3}$ alkyl;

$R^{20}$ is $C_{1-3}$ alkyl;

$R^{21}$ is heterocycloalkyl, cycloalkyl, or $C_{1-3}$ alkyl;

$R^{22}$ is $NR^{23}R^{24}$ or $C_{1-3}$ alkyl optionally substituted with carboxyl;

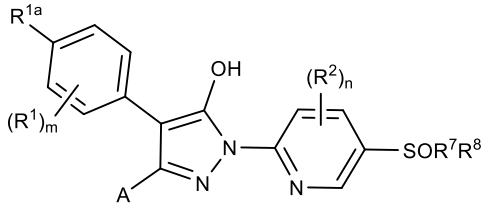
$R^{23}$ and $R^{24}$ are independently H or $C_{1-3}$ alkyl;

m is 1, 2, 3, or 4;

n is 0, 1, 2 or 3; and

p is 1, 2, or 3.

2. The compound of claim 1, having a structure according to Formula IV:




(IV)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^1$, each time taken, 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;

$R^{1a}$ is CN, halogen, $C_{1-3}$ alkoxy, OH, or $C_{1-3}$ alkyl optionally substituted with CN;

$R^2$, each time taken, is independently selected from the group consisting of hydrogen, $NR^4R^5$, OH, $C_{1-3}$ alkyl, and $C_{3-6}$ cycloalkyl;

$R^4$ and $R^5$ are each independently H or $C_{1-3}$ alkyl;

$R^7$ is $C_{1-3}$ alkyl, $C_{3-5}$ cycloalkyl, phenyl, or $NR^{18}R^{19}$;

$R^8$ is NH, NCN, or $NCH_3$;

$R^{18}$ and $R^{19}$ are each independently H or $C_{1-3}$ alkyl;

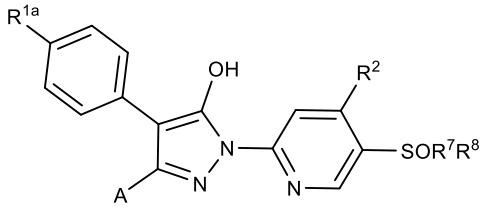
m is 1, 2, 3, or 4; and

n is 0, 1, 2 or 3.

3. The compound of claim 2, wherein $R^1$ is $C_{1-3}$ alkyl.

4. The compound of claim 3, wherein $R^1$ is $CH_3$.

5. The compound of claim 2 having a structure of Formula IVa:




(IVa)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_1$-$_3$ alkyl;

$R^{1a}$ is CN or halogen;

$R^2$ is selected from the group consisting of hydrogen or $C_{1-3}$ alkyl;

$R^7$ is $C_{1-3}$ alkyl, $C_{3-5}$ cycloalkyl, phenyl, or $NR^{18}R^{19}$;

$R^8$ is NH, NCN, or $NCH_3$; and

$R^{18}$ and $R^{19}$ are each independently H or $C_{1-3}$ alkyl.

6. The compound of any one of claims 2-5, wherein $R^{1a}$ is CN.

7. The compound of any one of claims 2-5, wherein $R^{1a}$ is halogen.

8. The compound of claim 7, wherein $R^{1a}$ is Cl.

9. The compound of any one of claims 2-8, wherein A is $C_{1-3}$ alkyl.

10. The compound of claim 9, wherein A is $CH_3$.

11. The compound of any one of claims 2-10, wherein $R^2$ is $C_{1-3}$ alkyl.

12. The compound of claim 11, wherein $R^2$ is $CH_3$.

13. The compound of any one of claims 2-12, wherein $R^7$ is $C_{1-3}$ alkyl.

14. The compound of claim 13, wherein $R^7$ is $CH_3$.

15. The compound of claim 13, wherein $R^7$ is $CH(CH_3)_2$.

16. The compound of claim 13, wherein $R^7$ is $CH_2CH_3$.

17. The compound of any one of claims 2-12, wherein $R^7$ is $C_{3-5}$ cycloalkyl.

18. The compound of claim 17, wherein $R^7$ is cyclopropyl.

19. The compound of claim 17, wherein $R^7$ is cyclopentyl.

20. The compound of any one of claims 2-12, wherein $R^7$ is phenyl.

21. The compound of any one of claims 2-12, wherein $R^7$ is $NR^{18}R^{19}$, and wherein $R^{18}$ and $R^{19}$ are each independently H or $C_{1-3}$ alkyl.

22. The compound of claim 21, wherein $R^{18}$ and $R^{19}$ are independently H.

23. The compound of claim 21, wherein $R^{18}$ is H and $R^{19}$ is $C_{1-3}$ alkyl.

24. The compound of claim 23, wherein $R^{19}$ is $CH_3$.

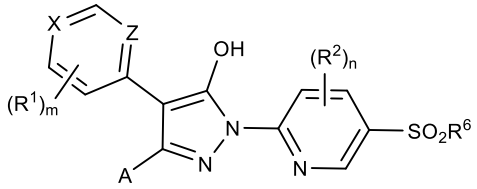
25. The compound of claim 21, wherein $R^{18}$ and $R^{19}$ are independently $CH_3$.

26. The compound of any one of claims 2-25, wherein $R^8$ is NH.

27. The compound of any one of claims 2-25, wherein $R^8$ is NCN.

28. The compound of any one of claims 2-25, wherein $R^8$ is $NCH_3$.

29. The compound of claim 1, having a structure according to Formula V:




(V)

or a pharmaceutically acceptable salt thereof, wherein:

X is $CR^{1a}$;

Z is CH;

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^1$, each time taken, 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;

$R^{1a}$ is CN, halogen, $C_{1-3}$ alkoxy, OH, or $C_{1-3}$ alkyl optionally substituted with CN;

$R^2$, each time taken, is independently selected from the group consisting of hydrogen, $NR^4R^5$, OH, $C_{1-3}$ alkyl, and $C_{3-6}$ cycloalkyl;

$R^4$ and $R^5$ are each independently H or $C_{1-3}$ alkyl;

$R^6$ is $C_{1-3}$ alkyl, $NHCOR^{15}$, $NR^{16}R^{17}$, or phenyl; and

$R^{15}$ is $C_{1-3}$ alkyl;

$R^{16}$ and $R^{17}$ are each independently H, $C_{1-3}$ alkyl, aryl, cycloalkyl, or wherein $R^{16}$ and $R^{17}$ together with the carbon to which they are attached form a heterocycloalkyl;

m is 1, 2, 3, or 4; and

n is 0, 1, 2 or 3.

30. The compound of claim 29, wherein A is $C_{1-3}$ alkyl.

31. The compound of claim 30, wherein A is $CH_3$.

32. The compound of claim 30, wherein A is $CH_2CH_3$.

33. The compound of claim 29, wherein A is $C_{3-6}$ cycloalkyl.

34. The compound of claim 33, wherein A is cyclopropyl.

35. The compound of any one of claims 29-34, wherein $R^{1a}$ is CN.

36. The compound of any one of claims 29-34, wherein $R^{1a}$ is halogen.

37. The compound of claim 36, wherein $R^{1a}$ is Cl.

38. The compound of claim 36, wherein $R^{1a}$ is F.

39. The compound of claim 36, wherein $R^{1a}$ is Br.

40. The compound of any one of claims 29-34, wherein $R^{1a}$ is $C_{1-3}$ alkoxy.

41. The compound of claim 40, wherein $R^{1a}$ is methoxy.

42. The compound of any one of claims 29-34, wherein $R^{1a}$ is $C_{1-3}$ alkyl optionally substituted with CN.

43. The compound of claim 42, wherein $R^{1a}$ is $CH_2CN$.

44. The compound of any one of claims 29-34, wherein $R^{1a}$ is OH.

45. The compound of any one of claims 29-44, wherein $R^1$ is H.

46. The compound of any one of claims 29-44, wherein $R^1$ is $C_{1-3}$ alkyl.

47. The compound of claim 46, wherein $R^1$ is $CH_3$.

48. The compound of any one of claims 29-44, wherein $R^1$ is $C_{1-3}$ alkoxy.

49. The compound of claim 48, wherein $R^1$ is methoxy.

50. The compound of anyone of claims 29-44, wherein $R^1$ is CN.

51. The compound of any one of claims 29-50, wherein $R^2$ is H.

52. The compound of any one of claims 29-50, wherein $R^2$ is $C_{1-3}$ alkyl.

53. The compound of claim 52, wherein $R^2$ is $CH_3$.

54. The compound of any one of claims 29-53, wherein $R^6$ is $C_{1-3}$ alkyl.

55. The compound of claim 54, wherein $R^6$ is $CH_3$.

56. The compound of anyone of claims 29-53, wherein $R^6$ is $NHCOR^{15}$, and wherein $R^{15}$ is $C_{1-3}$ alkyl.

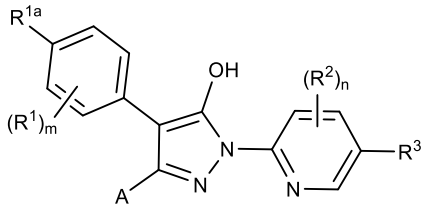
57. The compound of claim 56, wherein $R^{15}$ is $CH_3$.

58. The compound of anyone of claims 29-53, wherein $R^6$ is $NR^{16}R^{17}$, and wherein $R^{16}$ and $R^{17}$ are each independently H, $C_{1-3}$ alkyl, aryl, cycloalkyl, or wherein $R^{16}$ and $R^{17}$ together with the carbon to which they are attached form a heterocycloalkyl.

59. The compound of claim 58, wherein $R^6$ is $NH_2$.

60. The compound of anyone of claims 29-53, wherein $R^6$ is phenyl.

61. The compound of claim 1, having a structure according to Formula VI:




(VI)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^1$, each time taken, 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;

$R^{1a}$ is CN, halogen, $C_{1-3}$ alkoxy, OH, or $C_{1-3}$ alkyl optionally substituted with CN;

$R^2$, each time taken, is independently selected from the group consisting of hydrogen, $NR^4R^5$, OH, $C_{1-3}$ alkyl, and $C_{3-6}$ cycloalkyl;

$R^3$ is cycloalkyl or heterocycloalkyl optionally substituted with $SO_2R^{14}$ or =O;

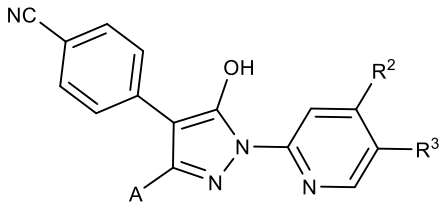
$R^4$ and $R^5$ are each independently H or $C_{1-3}$ alkyl;

$R^{14}$ is $C_{1-3}$ alkyl;

m is 1, 2, 3, or 4; and

n is 0, 1, 2 or 3.

62. The compound of claim 61 having a structure of Formula VIa:




(VIa)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl;

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

$R^3$ is cycloalkyl or heterocycloalkyl optionally substituted with $SO_2R^{14}$ or =O; and

$R^{14}$ is $C_{1-3}$ alkyl.

63. The compound of claim 61 or 62, wherein A is $C_{1-3}$ alkyl.

64. The compound of claim 63, wherein A is $CH_3$.

65. The compound of any one of claims 61-64, wherein $R^2$ is H.

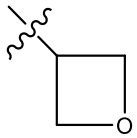
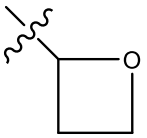
66. The compound of any one of claims 61-64, wherein $R^2$ is $C_{1\text{-}3}$ alkyl.

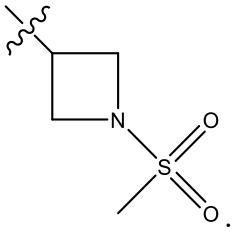
67. The compound of claim 66, wherein $R^2$ is $CH_3$.

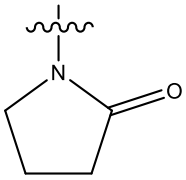
68. The compound of any one of claims 61-67, wherein $R^3$ is cycloalkyl.

69. The compound of claim 68, wherein $R^3$ is cyclopropyl.

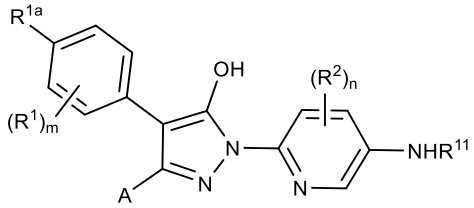
70. The compound of any one of claims 61-67, wherein $R^3$ is heterocycloalkyl optionally substituted with $SO_2R^{14}$ or =O, and wherein $R^{14}$ is $C_{1\text{-}3}$ alkyl.

71. The compound of claim 70, wherein $R^3$ is  or .

72. The compound of claim 70, wherein $R^3$ is .

73. The compound of claim 70, wherein $R^3$ is .

74. The compound of claim 1, having a structure according to Formula VII:



(VII)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^1$, each time taken, 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;

$R^{1a}$ is CN, halogen, $C_{1-3}$ alkoxy, OH, or $C_{1-3}$ alkyl optionally substituted with CN;

$R^2$, each time taken, is independently selected from the group consisting of hydrogen, $NR^4R^5$, OH, $C_{1-3}$ alkyl, and $C_{3-6}$ cycloalkyl;

$R^4$ and $R^5$ are each independently H or $C_{1-3}$ alkyl;

$R^{11}$ is $COR^{21}$ or $SO_2R^{22}$;

$R^{21}$ is heterocycloalkyl, cycloalkyl, or $C_{1-3}$ alkyl;

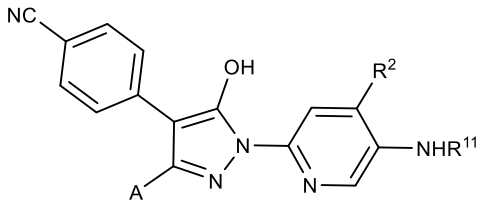
$R^{22}$ is $NR^{23}R^{24}$ or $C_{1-3}$ alkyl optionally substituted with carboxyl;

$R^{23}$ and $R^{24}$ are independently H or $C_{1-3}$ alkyl;

m is 1, 2, 3, or 4; and

n is 0, 1, 2 or 3.

75. The compound of claim 74 having a structure of Formula VIIa:




(VIIa)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^2$ is hydrogen, $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^{11}$ is $COR^{21}$ or $SO_2R^{22}$;

$R^{21}$ is heterocycloalkyl, cycloalkyl, or $C_{1-3}$ alkyl;

$R^{22}$ is $NR^{23}R^{24}$ or $C_{1-3}$ alkyl optionally substituted with carboxyl; and

$R^{23}$ and $R^{24}$ are independently H or $C_{1-3}$ alkyl.

76. The compound of claim 74 or 75, wherein A is $C_{1-3}$ alkyl.

77. The compound of claim 76, wherein A is $CH_3$.

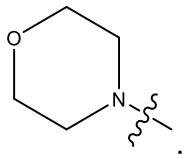
78. The compound of any one of claims 74-77, wherein $R^2$ is H.

79. The compound of any one of claims 74-77, wherein $R^2$ is $C_{1-3}$ alkyl.

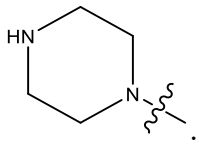
80. The compound of claim 79, wherein $R^2$ is $CH_3$.

81. The compound of any one of claims 74-80, wherein $R^{11}$ is $COR^{21}$, and wherein $R^{21}$ is heterocycloalkyl, cycloalkyl, or $C_{1-3}$ alkyl.

82. The compound of claim 81, wherein $R^{21}$ is heterocycloalkyl.

83. The compound of claim 82, wherein $R^{21}$ is 

.

84. The compound of claim 82, wherein $R^{21}$ is 

.

85. The compound of claim 81, wherein $R^{21}$ is cycloalkyl.

86. The compound of claim 85, wherein $R^{21}$ is cyclopropyl.

87. The compound of claim 81, wherein $R^{21}$ is $C_{1-3}$ alkyl.

88. The compound of claim 87, wherein $R^{21}$ is $CH_2CH_3$.

89. The compound of any one of claims 74-80, wherein $R^{11}$ is $SO_2R^{22}$, wherein $R^{22}$ is $NR^{23}R^{24}$ or $C_{1-3}$ alkyl optionally substituted with carboxyl, and wherein $R^{23}$ and $R^{24}$ are independently H or $C_{1-3}$ alkyl.

90. The compound of claim 89, wherein $R^{22}$ is $C_{1-3}$ alkyl optionally substituted with carboxyl.

91. The compound of claim 90, wherein $R^{22}$ is $CH_3$.

92. The compound of claim 90, wherein $R^{22}$ is $CH_2CH_3$.

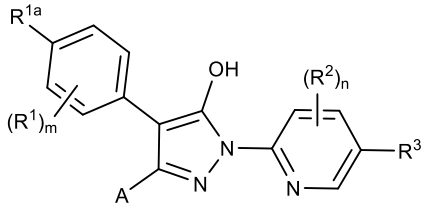
93. The compound of claim 90, wherein $R^{22}$ is $CH_2COOH$.

94. The compound of claim 89, wherein $R^{22}$ is $NR^{23}R^{24}$, and wherein $R^{23}$ and $R^{24}$ are independently H or $C_{1-3}$ alkyl.

95. The compound of claim 94, wherein $R^{22}$ is $NHCH_3$.

96. The compound of claim 94, wherein $R^{22}$ is $N(CH_3)_2$.

97. The compound of claim 1, having a structure according to Formula VIII:




(VIII)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^1$, each time taken, 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;

$R^{1a}$ is CN, halogen, $C_{1-3}$ alkoxy, OH, or $C_{1-3}$ alkyl optionally substituted with CN;

$R^2$, each time taken, is independently selected from the group consisting of hydrogen, $NR^4R^5$, OH, $C_{1-3}$ alkyl, and $C_{3-6}$ cycloalkyl;

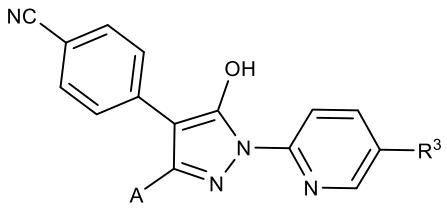
$R^3$ is heteroaryl optionally substituted with $C_{1-3}$ alkyl or phenyl;

$R^4$ and $R^5$ are each independently H or $C_{1-3}$ alkyl;

m is 1, 2, 3, or 4; and

n is 0, 1, 2 or 3.

98. The compound of claim 97 having a structure of Formula VIIIa:




(VIIIa)

or a pharmaceutically acceptable salt thereof, wherein:

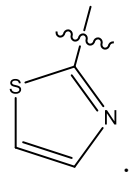
A is $C_{1-3}$ alkyl or cycloalkyl; and

$R^3$ is heteroaryl optionally substituted with $C_{1-3}$ alkyl or phenyl.

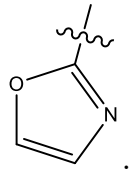
99. The compound of claim 97 or 98, wherein A is $C_{1-3}$ alkyl.

100. The compound of claim 99, wherein A is $CH_3$.

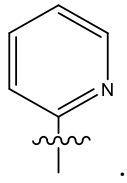
101. The compound of anyone of claims 97-100, wherein $R^3$ is heteroaryl.

102. The compound of claim 101, wherein $R^3$ is 

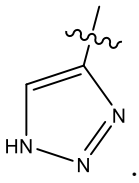
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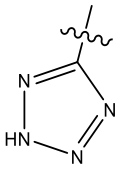
103. The compound of claim 101, wherein $R^3$ is 

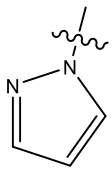
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104. The compound of claim 101, wherein $R^3$ is 

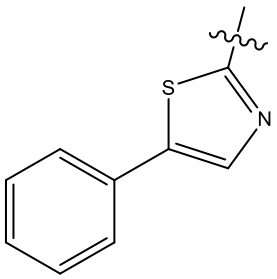
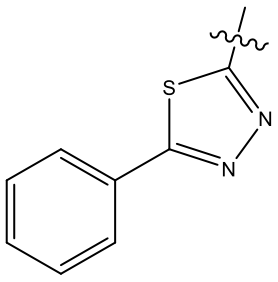
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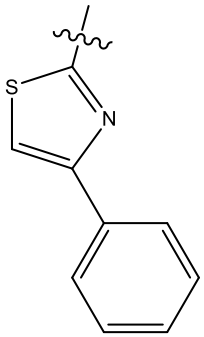
105. The compound of claim 101, wherein $R^3$ is .

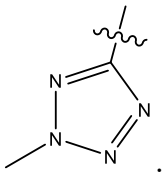
106. The compound of claim 101, wherein $R^3$ is .

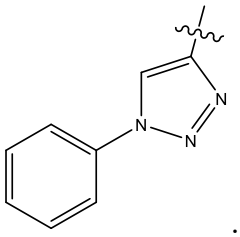
107. The compound of claim 101, wherein $R^3$ is .

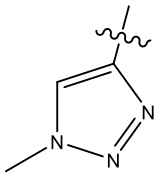
108. The compound of anyone of claims 97-100, wherein $R^3$ is heteroaryl optionally substituted with $C_{1-3}$ alkyl or phenyl.

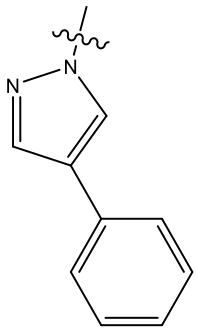
109. The compound of claim 108, wherein $R^3$ is  or .

110. The compound of claim 108, wherein $R^3$ is .

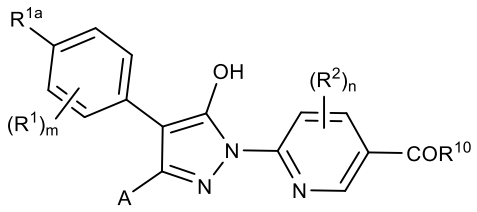
111. The compound of claim 108, wherein $R^3$ is  .

112. The compound of claim 108, wherein $R^3$ is  .

113. The compound of claim 108, wherein $R^3$ is  .

114. The compound of claim 108, wherein $R^3$ is  .

115. The compound of claim 1, having a structure according to Formula IX:



(IX)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^1$, each time taken, 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;

$R^{1a}$ is CN, halogen, $C_{1-3}$ alkoxy, OH, or $C_{1-3}$ alkyl optionally substituted with CN;

$R^2$, each time taken, is independently selected from the group consisting of hydrogen, $NR^4R^5$, OH, $C_{1-3}$ alkyl, and $C_{3-6}$ cycloalkyl;

$R^4$ and $R^5$ are each independently H or $C_{1-3}$ alkyl;

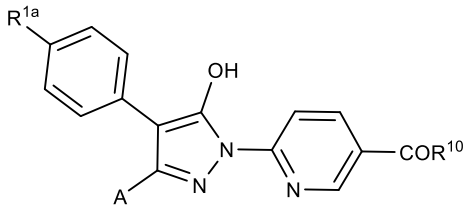
$R^{10}$ is $C_{1-3}$ alkyl or $NHSO_2R^{20}$;

$R^{20}$ is $C_{1-3}$ alkyl;

m is 1, 2, 3, or 4; and

n is 0, 1, 2 or 3.

116. The compound of claim 115 having a structure of Formula IXa:




(IXa)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl;

$R^{1a}$ is CN or halogen;

$R^{10}$ is $C_{1-3}$ alkyl or $NHSO_2R^{20}$; and

$R^{20}$ is $C_{1-3}$ alkyl.

117. The compound of claim 115 or 116, wherein $R^{1a}$ is CN.

118. The compound of claim 115 or 116, wherein $R^{1a}$ is halogen.

119. The compound of claim 118, wherein $R^{1a}$ is Cl.

120. The compound of any one of claims 115-119, wherein $R^{10}$ is $C_{1-3}$ alkyl.

121. The compound of claim 120, wherein $R^{10}$ is $CH_3$.

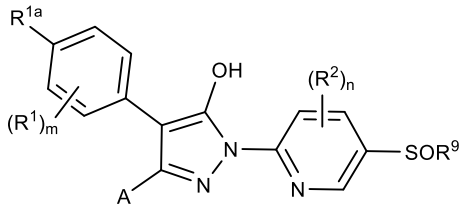
122. The compound of claim 120, wherein $R^{10}$ is $CH(CH_3)_2$.

123. The compound of claim 120, wherein $R^{10}$ is $CH_2CH_3$.

124. The compound of any one of claims 115-119, wherein $R^{10}$ is $NHSO_2R^{20}$, and wherein $R^{20}$is $C_{1-3}$ alkyl.

125. The compound of claim 124, wherein $R^{20}$ is $CH_3$.

126. The compound of claim 1, having a structure according to Formula X:




(X)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^1$, each time taken, 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;

$R^{1a}$ is CN, halogen, $C_{1-3}$ alkoxy, OH, or $C_{1-3}$ alkyl optionally substituted with CN;

$R^2$, each time taken, is independently selected from the group consisting of hydrogen, $NR^4R^5$, OH, $C_{1-3}$ alkyl, and $C_{3-6}$ cycloalkyl;

$R^4$ and $R^5$ are each independently H or $C_{1-3}$ alkyl;

$R^9$ is $C_{1-3}$ alkyl;

m is 1, 2, 3, or 4; and

n is 0, 1, 2 or 3.

127. The compound of claim 126, wherein $R^{1a}$ is CN.

128. The compound of claim 126 or 127, wherein $R^1$ is H.

129. The compound of any one of claims 126-128, wherein A is $C_{1-3}$ alkyl.

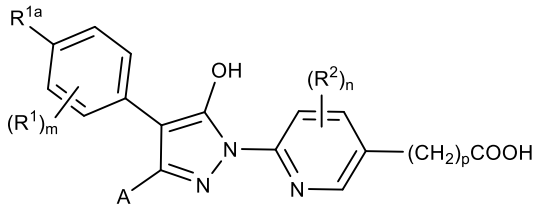
130. The compound of claim 129, wherein A is $CH_3$.

131. The compound of any one of claims 126-130, wherein $R^2$ is H.

132. The compound of any one of claims 126-131, wherein $R^9$ is $C_{1-3}$ alkyl.

133. The compound of claim 132, wherein $R^9$ is $CH_3$.

134. The compound of claim 1, having a structure according to Formula XI:




(XI)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^1$, each time taken, 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;

$R^{1a}$ is CN, halogen, $C_{1-3}$ alkoxy, OH, or $C_{1-3}$ alkyl optionally substituted with CN;

$R^2$, each time taken, is independently selected from the group consisting of hydrogen, $NR^4R^5$, OH, $C_{1-3}$ alkyl, and $C_{3-6}$ cycloalkyl;

$R^4$ and $R^5$ are each independently H or $C_{1-3}$ alkyl;

m is 1, 2, 3, or 4;

n is 0, 1, 2 or 3; and

p is 1, 2, or 3.

135. The compound of claim 134, wherein $R^{1a}$ is CN.

136. The compound of claim 134 or 136, wherein $R^1$ is H.

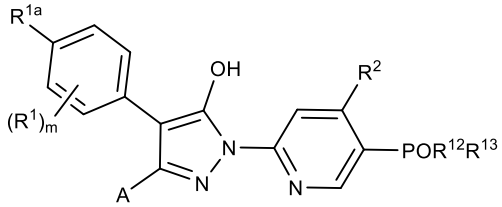
137. The compound of any one of claims 134-136, wherein A is $C_{1-3}$ alkyl.

138. The compound of claim 137, wherein A is $CH_3$.

139. The compound of any one of claims 134-138, wherein $R^2$ is H.

140. The compound of anyone of claims 134-139, wherein p is 1.

141. The compound of claim 1, having a structure according to Formula XIII:




(XIII)

or a pharmaceutically acceptable salt thereof, wherein:

A is $C_{1-3}$ alkyl or $C_{3-6}$ cycloalkyl;

$R^1$, each time taken, 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;

$R^{1a}$ is CN, halogen, $C_{1-3}$ alkoxy, OH, or $C_{1-3}$ alkyl optionally substituted with CN;

$R^2$, each time taken, is independently selected from the group consisting of hydrogen, $NR^4R^5$, OH, $C_{1-3}$ alkyl, and $C_{3-6}$ cycloalkyl;

$R^4$ and $R^5$ are each independently H or $C_{1-3}$ alkyl;

$R^{12}$ is $C_{1-3}$ alkyl;

$R^{13}$ is $C_{1-3}$ alkyl; and

m is 1, 2, 3, or 4.

142. The compound of claim 141, wherein $R^{1a}$ is CN.

143. The compound of claim 141 or 142, wherein $R^1$ is H.

144. The compound of any one of claims 141-143, wherein A is $C_{1-3}$ alkyl.

145. The compound of claim 144, wherein A is $CH_3$.

146. The compound of any one of claims 141-145, wherein $R^2$ is $C_{1-3}$ alkyl.

147. The compound of claim 146, wherein $R^2$ is $CH_3$.

148. The compound of any one of claims 141-147, wherein $R^{12}$ is $C_{1-3}$ alkyl.

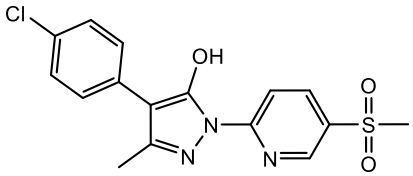
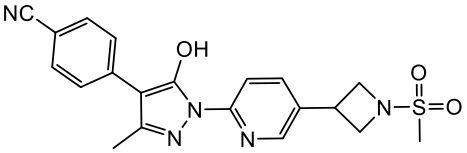
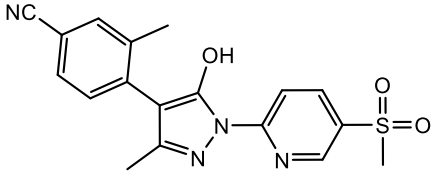
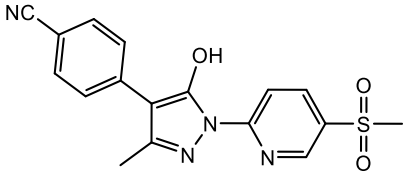
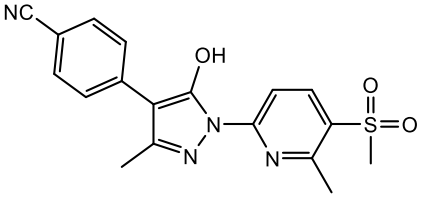
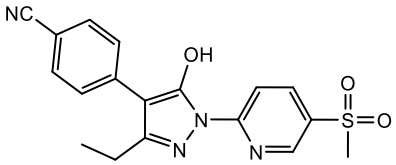
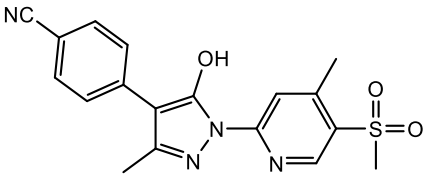
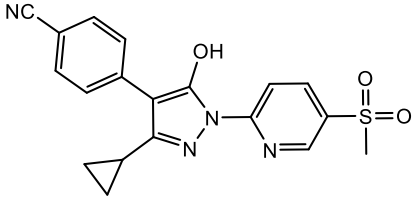
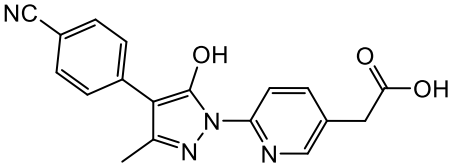
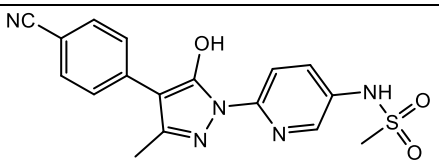
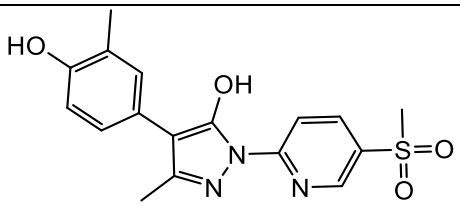
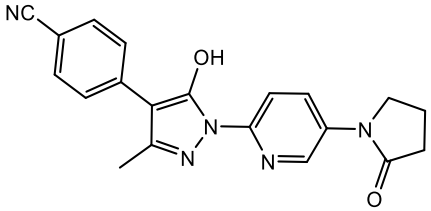
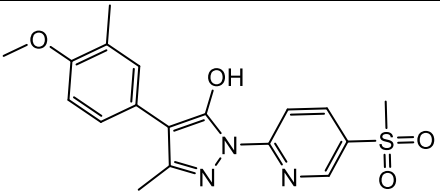
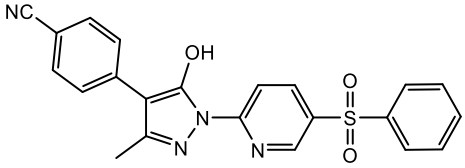
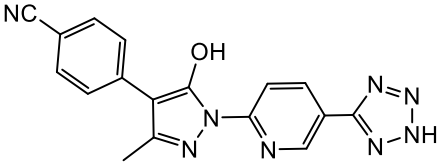
149. The compound of claim 148, wherein $R^{12}$ is $CH_3$.

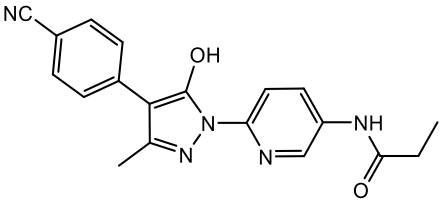
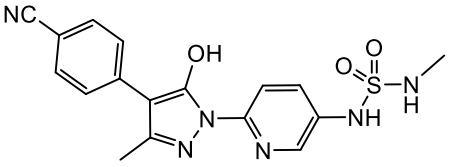
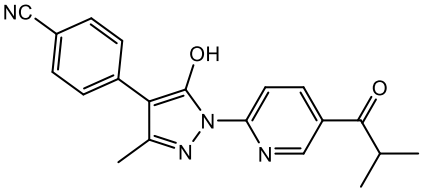
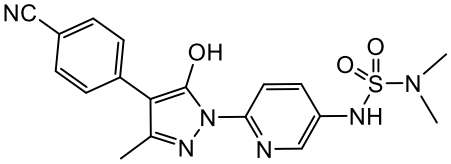
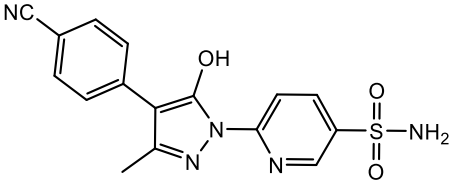
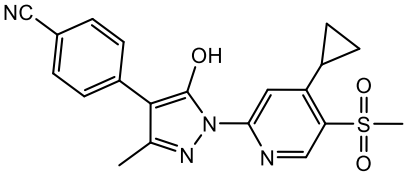
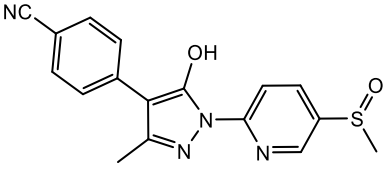
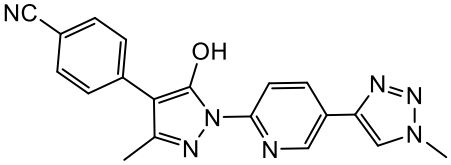
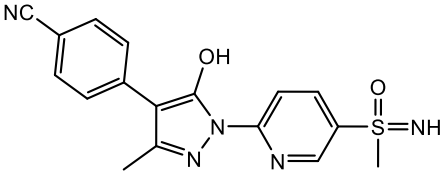
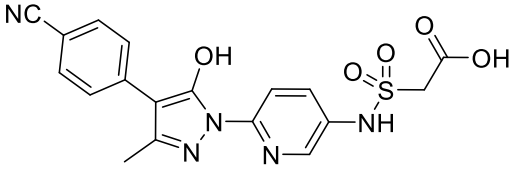
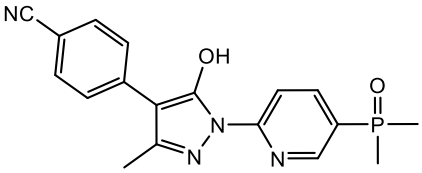
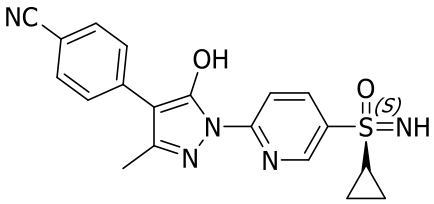
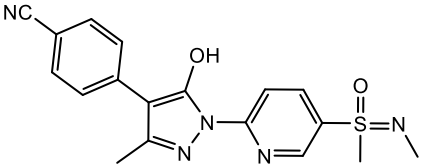
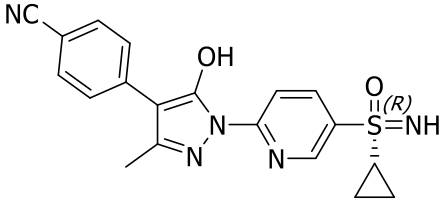
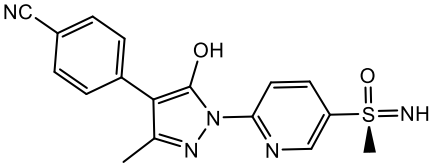
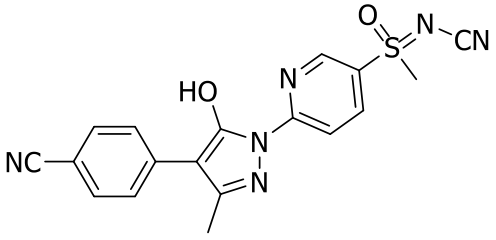
150. The compound of anyone of claims 141-149, wherein $R^{13}$ is $C_{1-3}$ alkyl.

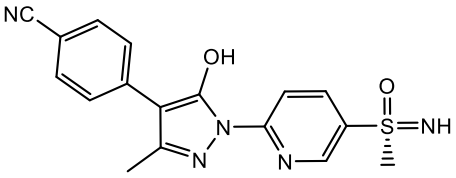
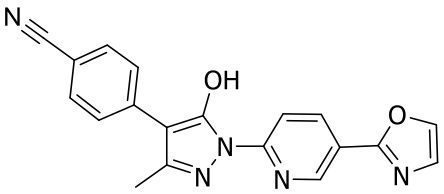
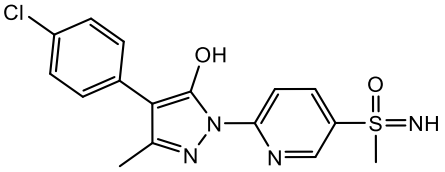
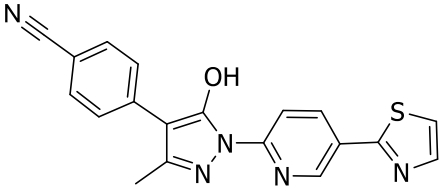
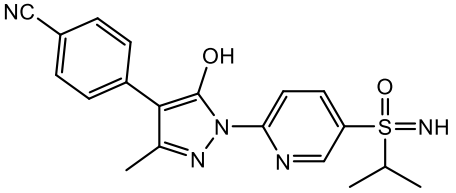
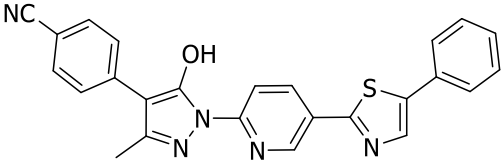
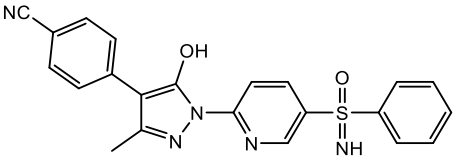
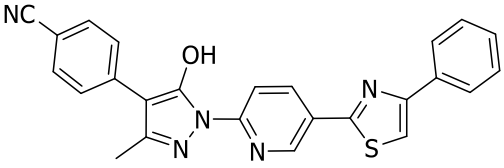
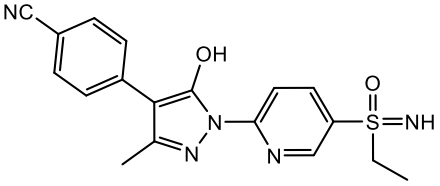
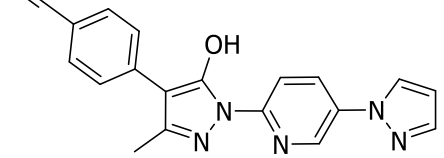
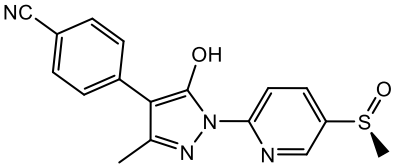
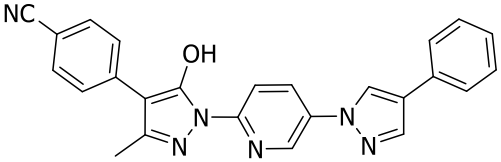
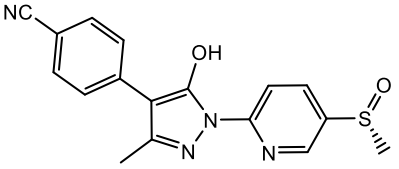
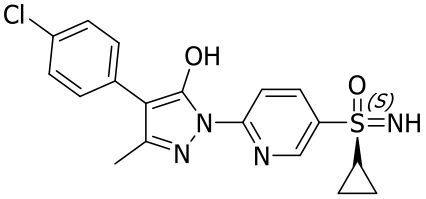
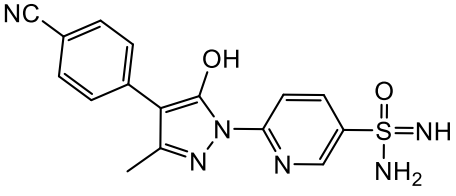
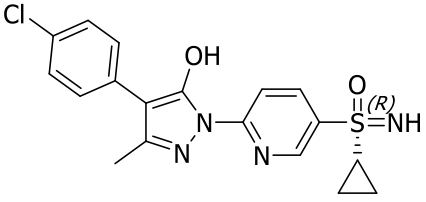
151. The compound of claim 150, wherein $R^{13}$ is $CH_3$.

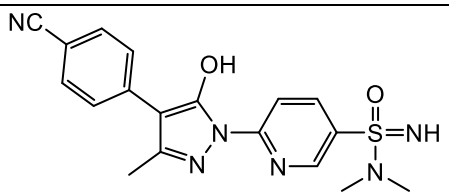
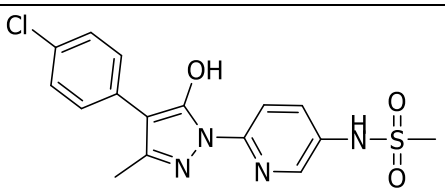
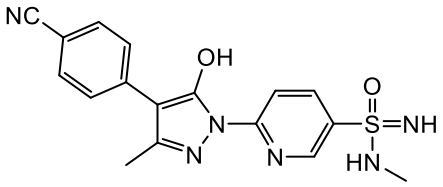
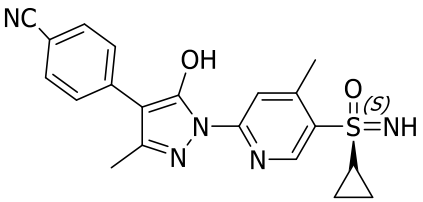
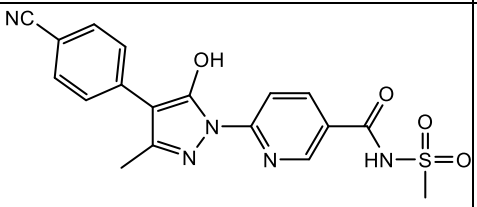
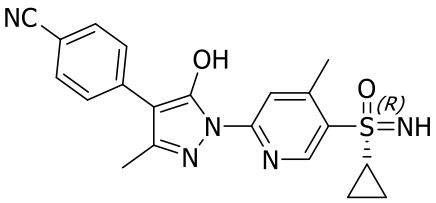
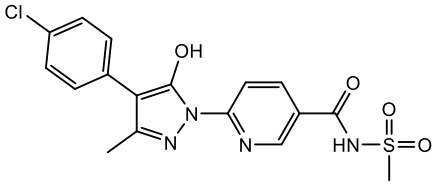
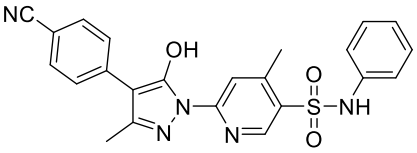
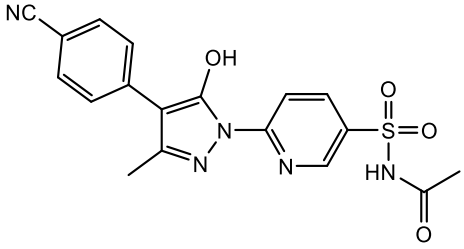
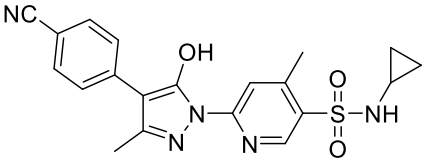
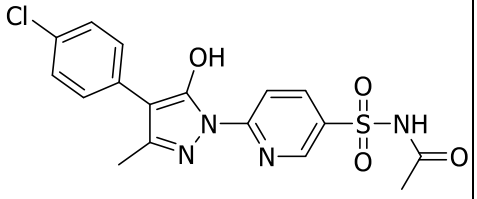
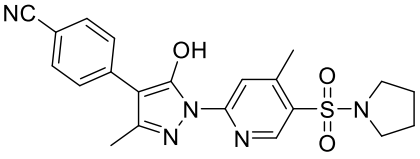
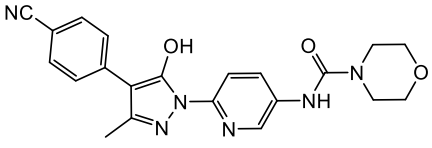
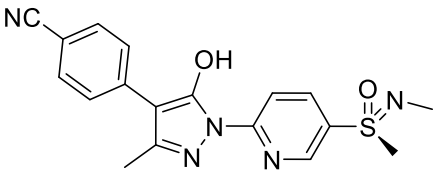
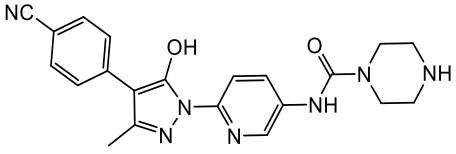
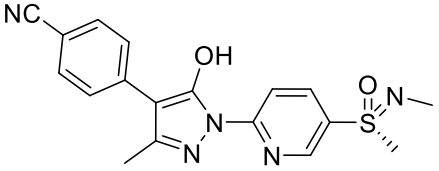
152. The compound of claim 1, wherein the compound is selected from the group consisting of:

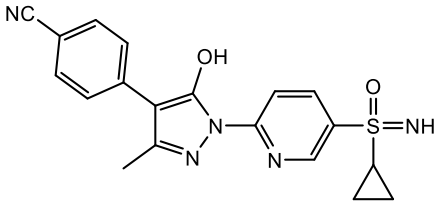
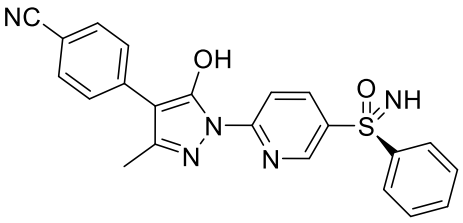
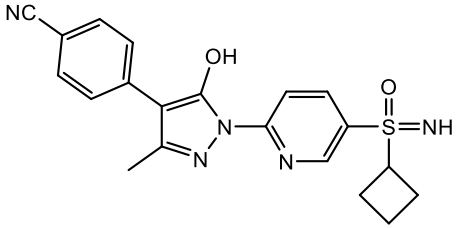
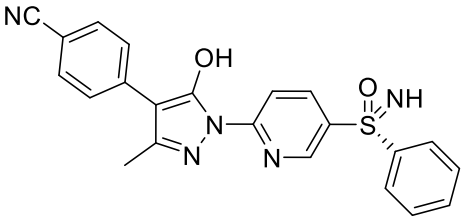
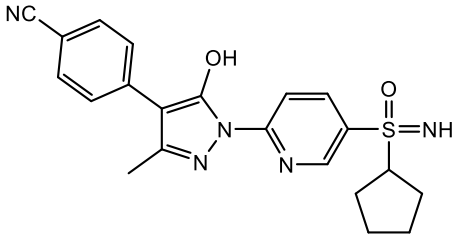
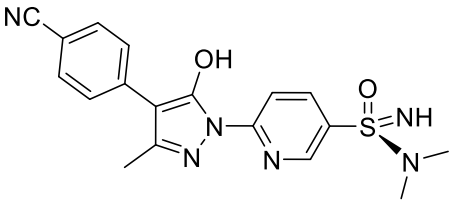
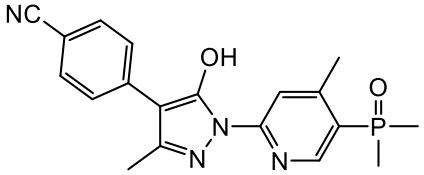
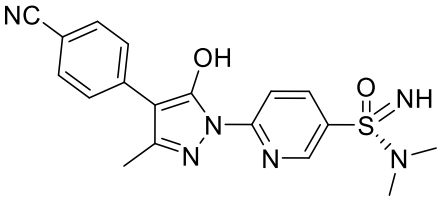
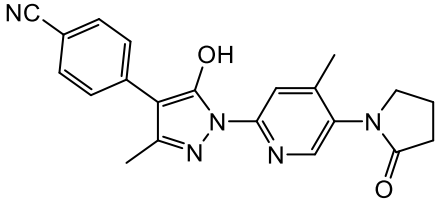
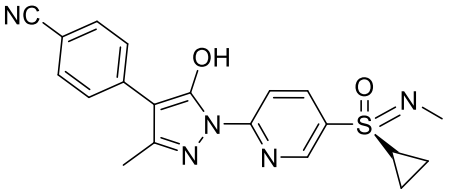
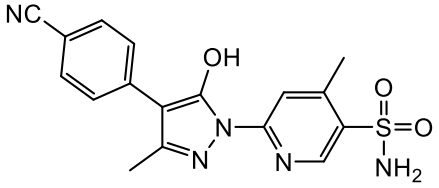
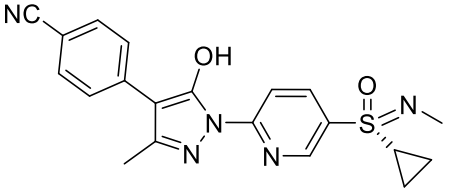
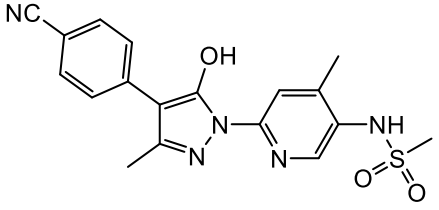
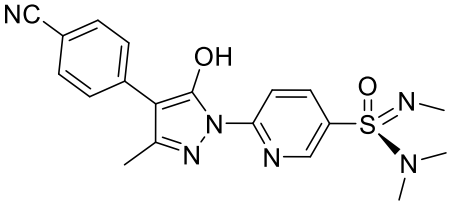
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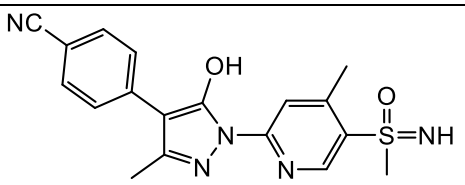
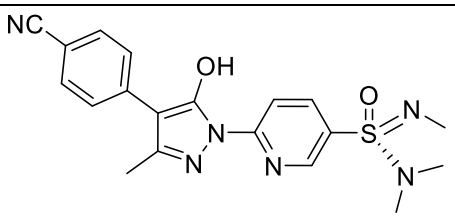
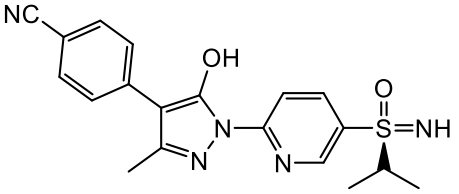
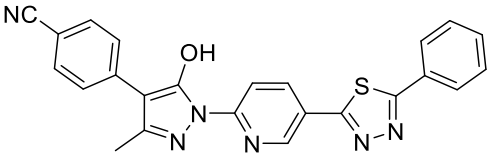
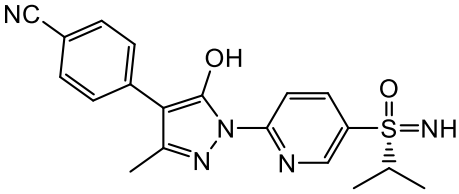
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or a pharmaceutically acceptable salt thereof.

153. The compound of any one of claims 1-152, or a pharmaceutically acceptable salt thereof, wherein at least one hydrogen atom is replaced with a deuterium atom.

154. A pharmaceutical composition comprising the compound of any one of claims 1-153, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

155. Use of a compound of any one of claims 1-153, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating a disease mediated by PHD activity in a subject is an ischemic reperfusion injury, inflammatory bowel disease, cancer, liver disease, atherosclerosis, cardiovascular disease, a disease or condition of the eye, anemia, chronic kidney disease, or a disease associated with hyperoxia.

156. The use of claim 155, wherein the disease mediated by PHD activity is an ischemic reperfusion injury.

157. The use of claim 156, wherein the ischemic reperfusion injury is selected from stroke, myocardial infarction, and acute kidney injury.

158. The use of claim 155, wherein the disease mediated by PHD activity is inflammatory bowel disease.

159. The use of claim 158, wherein the inflammatory bowel disease is ulcerative colitis.

160. The use of claim 158, wherein the inflammatory bowel disease is Crohn's disease.

161. The use of claim 155, wherein the disease mediated by PHD activity is cancer.

162. The use of claim 161, wherein the cancer is colorectal cancer.

163. The use of claim 155, wherein the disease mediated by PHD activity is liver disease.

164. The use of claim 155, wherein the disease mediated by PHD activity is atherosclerosis.

165. The use of claim 155, wherein the disease mediated by PHD activity is cardiovascular disease.

166. The use of claim 155, wherein the disease mediated by PHD activity is a disease or condition of the eye.

167. The use of claim 166, 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.

168. The use of claim 155, wherein the disease is anemia.

169. The use of claim 168, wherein the anemia is anemia associated with chronic kidney disease.

170. The use of claim 155, wherein the disease is chronic kidney disease.

171. The use of claim 155, wherein the disease is associated with hyperoxia.

172. The use of claim 171, wherein the disease is retinopathy of prematurity.

173. The use of claim 171, wherein the disease is bronchopulmonary dysplasia (BPD).

174. The use of claim 155, 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.