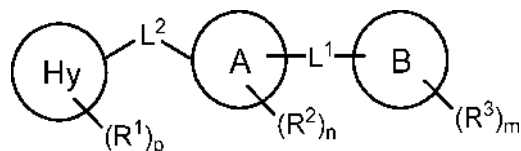


SUMMARY

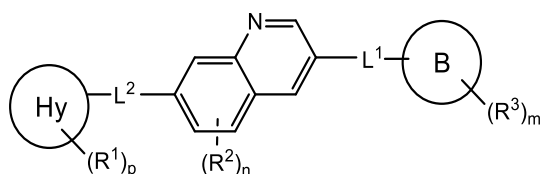
[0005] It has now been found that compounds of this present disclosure, and pharmaceutically acceptable compositions thereof, are effective as inhibitors of AHR. Such compounds have the general formula **I**:



I

or a pharmaceutically acceptable salt thereof, wherein each variable is as defined and described herein.

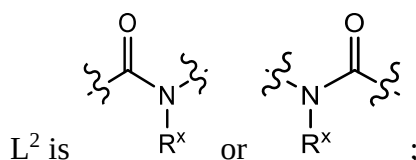
[0005a] In a first aspect, the present disclosure refers to a compound of formula **IV-g**:



IV-g

or a pharmaceutically acceptable salt thereof, wherein:

Hy is a 5-6 membered heteroaryl ring having 1-2 nitrogens;



each R^x is independently hydrogen or C_{1-4} alkyl;

Ring B is phenyl, or a 5-6 membered monocyclic heteroaromatic ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

each R^1 is independently hydrogen, deuterium, or optionally substituted C_{1-6} aliphatic;

each R is independently hydrogen, deuterium, or optionally substituted C_{1-6} aliphatic;

L^1 is a covalent bond; and

each of R^2 and R^3 is independently selected from R, halogen, cyano, nitro, and -OR;

each of m and n is independently 1, 2, 3, 4, or 5; and

p is 0, 1, 2, or 3.

[0005b] In another aspect, the present disclosure refers to a composition comprising a compound disclosed herein, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier, adjuvant, or vehicle.

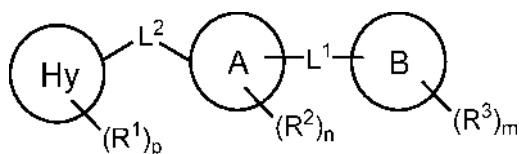
[0006] Compounds of the present disclosure, and pharmaceutically acceptable compositions thereof, are useful for treating a variety of diseases, disorders or conditions, associated with AHR. Such diseases, disorders, or conditions include those described herein.

[0007] Compounds provided by this present disclosure are also useful for the study of AHR in biological and pathological phenomena; the study of intracellular signal transduction pathways; and the comparative evaluation of new AHR inhibitors *in vitro* or *in vivo*.

DETAILED DESCRIPTION OF CERTAIN EMBODIMENTS

1. General Description of Compounds of the Invention:

[0008] In certain embodiments, the present invention provides inhibitors of AHR. In some embodiments, such compounds include those of formula **I**:

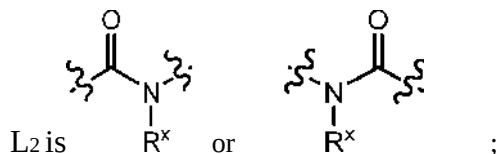


I

or a pharmaceutically acceptable salt thereof, wherein:

Hy is a 5-6 membered heteroaryl ring having 1-2 nitrogens;

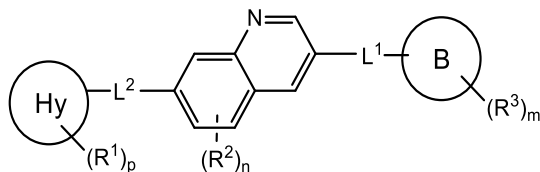
Ring A is selected from phenyl, pyridyl, or pyrimidinyl;



CLAIMS

We claim:

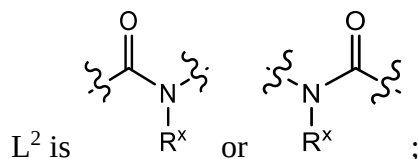
1. A compound of formula **IV-g**:



IV-g

or a pharmaceutically acceptable salt thereof, wherein:

Hy is a 5-6 membered heteroaryl ring having 1-2 nitrogens;



each R^x is independently hydrogen or C_{1-4} alkyl;

Ring B is phenyl, or a 5-6 membered monocyclic heteroaromatic ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

each R^1 is independently hydrogen, deuterium, or optionally substituted C_{1-6} aliphatic;

each R is independently hydrogen, deuterium, or optionally substituted C_{1-6} aliphatic;

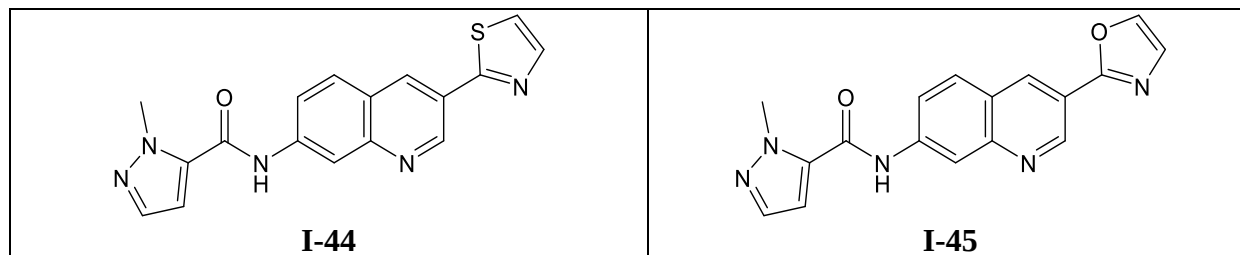
L^1 is a covalent bond; and

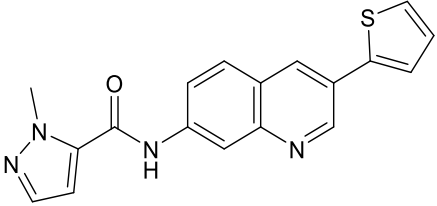
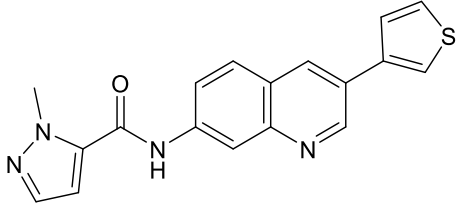
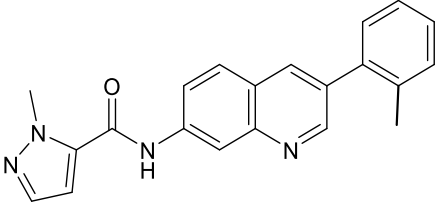
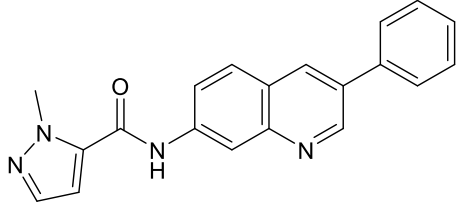
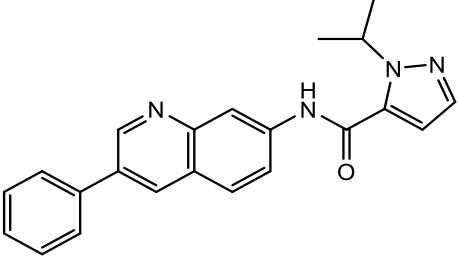
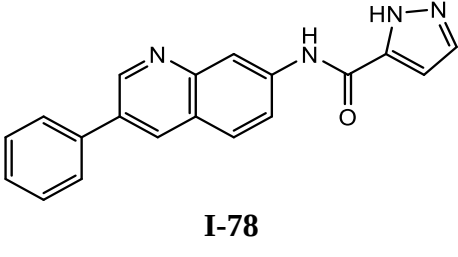
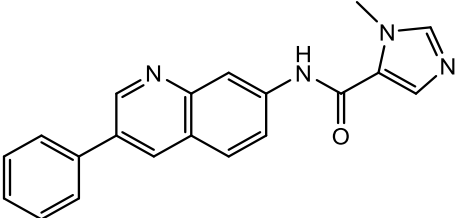
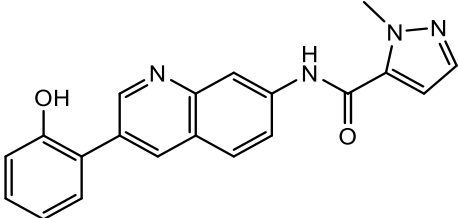
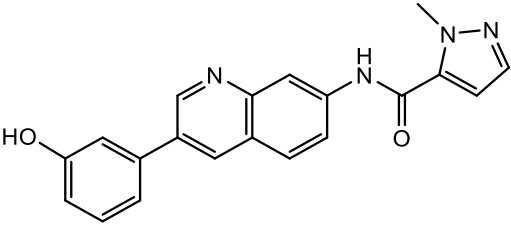
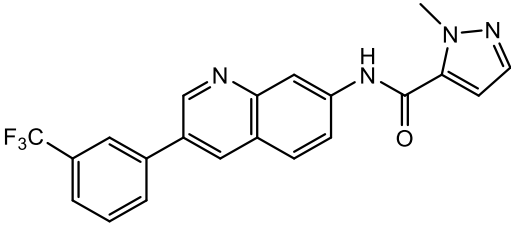
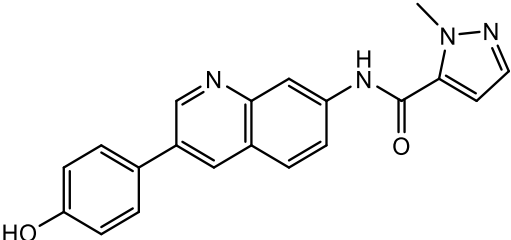
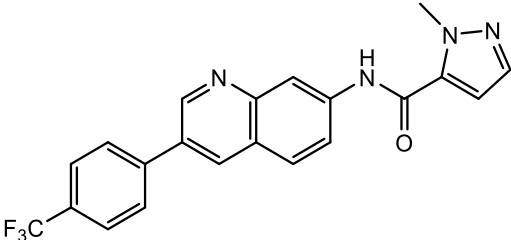
each of R^2 and R^3 is independently selected from R, halogen, cyano, nitro, and -OR;

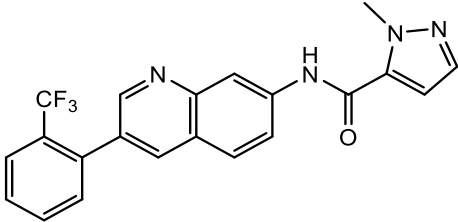
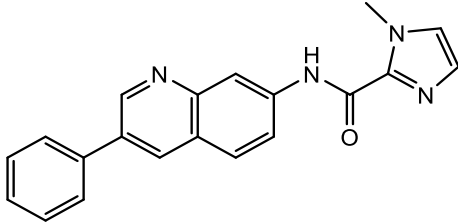
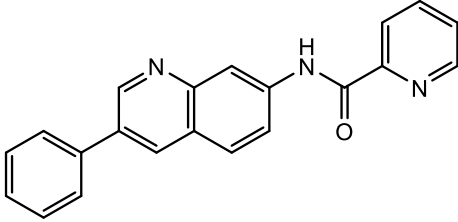
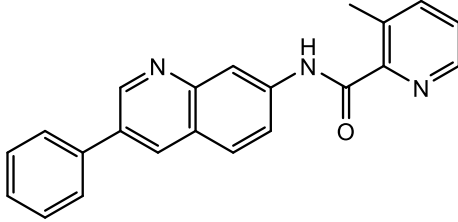
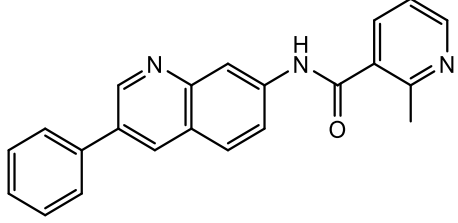
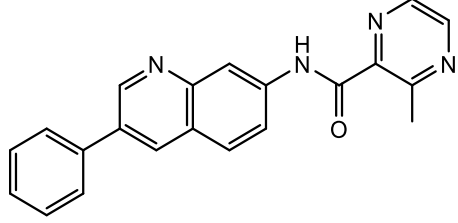
each of m and n is independently 1, 2, 3, 4, or 5; and

p is 0, 1, 2, or 3.

2. The compound according to Claim 1 wherein the compound is selected from:



 I-46	 I-48
 I-51	 I-70
 I-76	 I-78
 I-79	 I-81
 I-82	 I-84
 I-86	 I-87

 I-88	 I-90
 I-91	 I-92
 I-93	 I-94

or a pharmaceutically acceptable salt thereof.

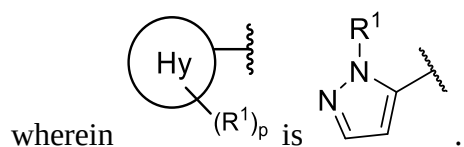
3. A composition comprising a compound according to claim 1, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier, adjuvant, or vehicle.
4. The composition according to claim 3, further comprising an additional therapeutic agent.
5. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein Hy is a 5-membered heteroaryl ring having 1-2 nitrogens.
6. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein Hy is pyrazolyl, imidazolyl, pyridinyl, or pyrazinyl.
7. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein R¹ is optionally substituted C₁₋₆ aliphatic.

8. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein R^1 is unsubstituted C_{1-6} aliphatic.

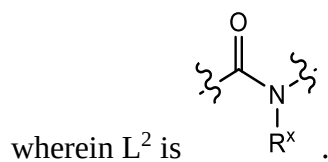
9. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein R^1 is $-CH_3$.

10. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein p is 1.

11. The compound according to claim 1, or a pharmaceutically acceptable salt thereof,

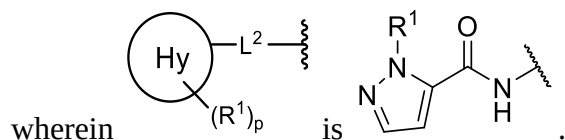


12. The compound according to claim 1, or a pharmaceutically acceptable salt thereof,



13. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein R^x is hydrogen.

14. The compound according to claim 1, or a pharmaceutically acceptable salt thereof,



15. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein R^2 is hydrogen.

16. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein L^1 is a covalent bond.

17. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein Ring B is phenyl.

18. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein Ring B is a 5-6 membered monocyclic heteroaromatic ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur.

19. The compound according to claim 1, or a pharmaceutically acceptable salt thereof,

wherein Ring B is , , or .

20. The compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein R^3 is hydrogen.