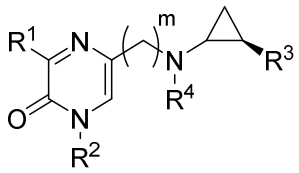
CLAIMS

What is claimed is:

1. A compound of structural Formula I:



(I)

or a salt or ester thereof, wherein:

m is chosen from 0, 1, 2, 3, and 4;

R^1 is a nitrogen-containing heterocycloalkyl or heteroaryl, either of which is optionally substituted with 1, 2, or 3 R^5 groups;

R^2 is H, or is chosen from alkyl, cycloalkyl, haloalkyl, heterocycloalkyl, aryl, and heteroaryl, any of which is optionally substituted with 1, 2, or 3 R^6 groups;

R^3 is chosen from aryl and heteroaryl, either of which is optionally substituted with 1, 2, or 3 R^7 groups;

each R^4 is independently chosen from hydrogen, alkyl, alkenyl, alkynyl, and cycloalkyl;

each R^5 is independently chosen from halogen, alkyl, alkenyl, alkynyl, hydroxy, amino, oxo, cyano, COR^8, $CONR^8R^9$, $COOR^8$, $NHCOR^8$, $NHCONR^8R^9$, SOR^8, SO_2R^8, $NHSO_2R^8$, and $SO_2NR^8R^9$;

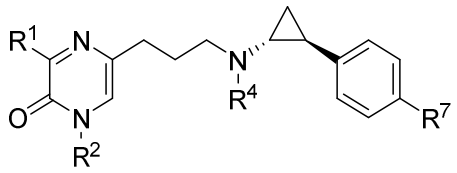
each R^6 is independently chosen from hydrogen, halogen, alkyl, alkylsulfonylaryl, alkenyl, alkynyl, cycloalkyl, haloalkyl, haloalkoxy, haloaryl, alkoxyaryl, aryl, aryloxy, aralkyl, heterocycloalkyl, heteroaryl, alkylheteroaryl, heteroarylalkyl, cyano, alkoxy, alkoxyaryl, amino, alkylamino, dialkylamino, oxo, COR^8, SO_2R^8, $NHSO_2R^8$, $NHSO_2NHR^8$, $SO_2NR^8R^9$, $NHCOR^8$, $NHCONHR^8$, $CONHR^8$, and $CONR^8R^9$;

each R^7 is independently chosen from alkyl, amino, cyano, halo, and hydroxy; and

each R^8 and R^9 is independently chosen from hydrogen, aryl, and lower alkyl; or R^8 and R^9 may be taken together to form a nitrogen-containing heterocycloalkyl or heteroaryl ring, which is optionally substituted with lower alkyl.

2. The compound as recited in claim 1, or a salt or ester thereof, wherein R^3 is phenyl, and is optionally substituted with 1 or 2 R^7 groups, and R^7 is fluorine.

3. The compound as recited in claim 1, having structural Formula II:



(II)

or a salt or ester thereof, wherein:

R^1 is a nitrogen-containing heterocycloalkyl or heteroaryl, either of which is optionally substituted with 1, 2, or 3 R^5 groups;

R^2 is H, or is chosen from alkyl, cycloalkyl, haloalkyl, heterocycloalkyl, aryl, and heteroaryl, any of which is optionally substituted with 1, 2, or 3 R^6 groups;

each R^4 is independently chosen from hydrogen, alkyl, alkenyl, alkynyl, and cycloalkyl;

each R^5 is independently chosen from halogen, alkyl, alkenyl, alkynyl, hydroxy, amino, oxo, cyano, COR^8, $CONR^8R^9$, $COOR^8$, $NHCOR^8$, $NHCONR^8R^9$, SOR^8, SO_2R^8, $NHSO_2R^8$, and $SO_2NR^8R^9$;

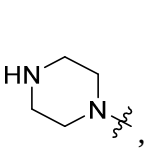
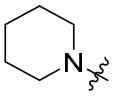
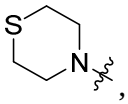
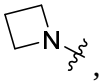
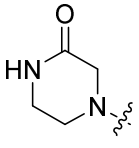
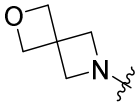
each R^6 is independently chosen from hydrogen, halogen, alkyl, alkylsulfonylaryl, alkenyl, alkynyl, cycloalkyl, haloalkyl, haloalkoxy, haloaryl, alkoxyaryl, aryl, aryloxy, aralkyl, heterocycloalkyl, heteroaryl, alkylheteroaryl, heteroarylalkyl, cyano, alkoxy, alkoxyaryl, amino, alkylamino, dialkylamino, oxo, COR^8, SO_2R^8, $NHSO_2R^8$, $NHSO_2NHR^8$, $SO_2NR^8R^9$, $NHCOR^8$, $NHCONHR^8$, $CONHR^8$, and $CONR^8R^9$;

each R^7 is independently chosen from hydrogen, alkyl, amino, cyano, halo, and hydroxy; and

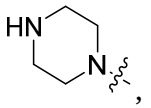
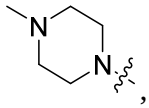
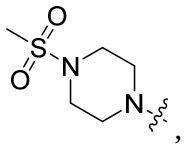
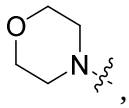
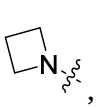
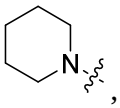
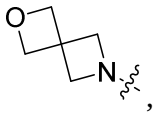
each R^8 and R^9 is independently chosen from hydrogen, aryl, and lower alkyl; or R^8 and R^9 may be taken together to form a nitrogen-containing heterocycloalkyl or heteroaryl ring, which is optionally substituted with lower alkyl.

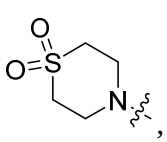
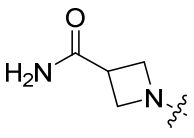
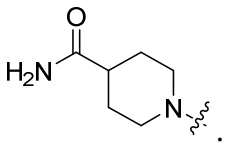
4. The compound as recited in any one of claims 1 – 3, or a salt or ester thereof, wherein R^4 is hydrogen.

5. The compound as recited in claim 3, or a salt or ester thereof, wherein R^1 is chosen from:

, , , , , and , and is optionally substituted with 1, 2, or 3 R^5 groups, and each R^5 is independently chosen from halogen, alkyl, hydroxy, amino, oxo, cyano, COR^8, $CONR^8R^9$, $COOR^8$, $NHCOR^8$, $NHCONR^8R^9$, SOR^8, SO_2R^8, $NHSO_2R^8$, and $SO_2NR^8R^9$.

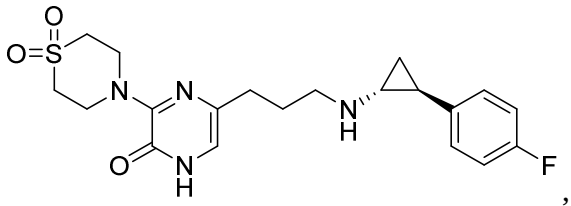
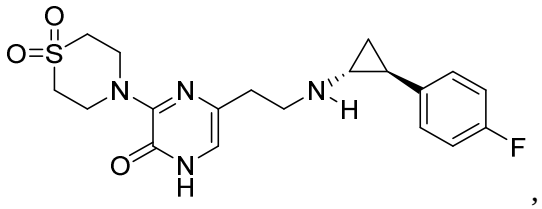
6. The compound as recited in claim 3, or a salt or ester thereof, wherein R^1, with substitution R_5 where appropriate, and further with substitutions R^8 and R^9 where appropriate, is chosen from:

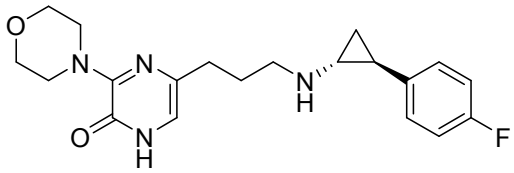
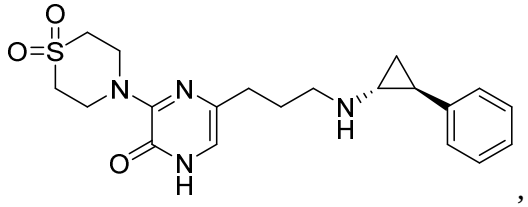
, , , , , , ,

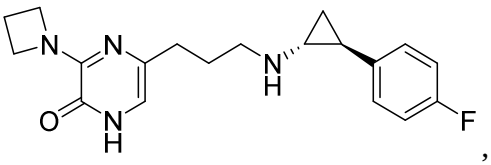
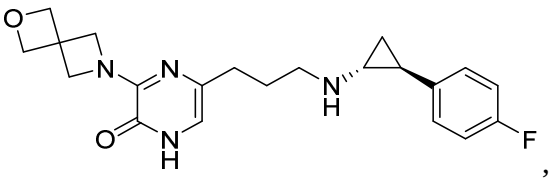
, , and .

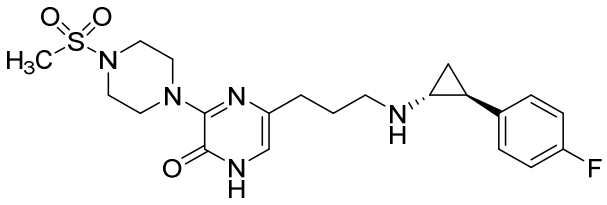
7. The compound as recited in claim 3, or a salt or ester thereof, wherein R^2 is H.

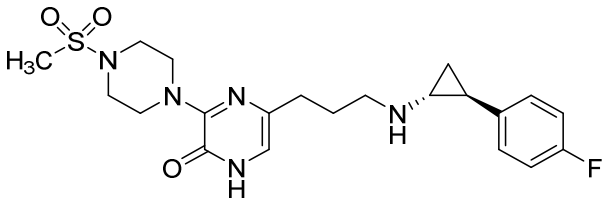
8. The compound as recited in claim 1, wherein the structure is chosen from:

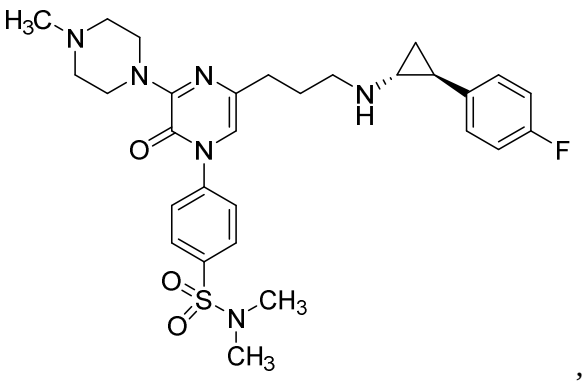
, ,

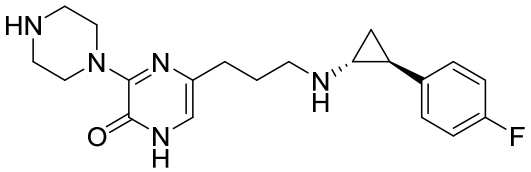
, ,

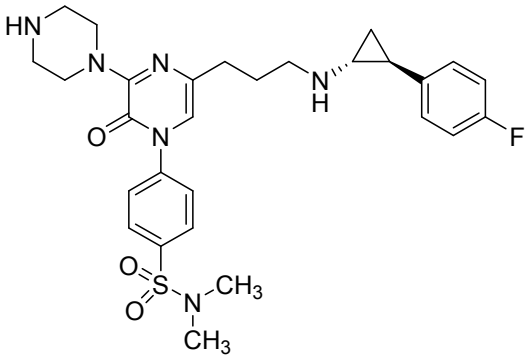
, ,

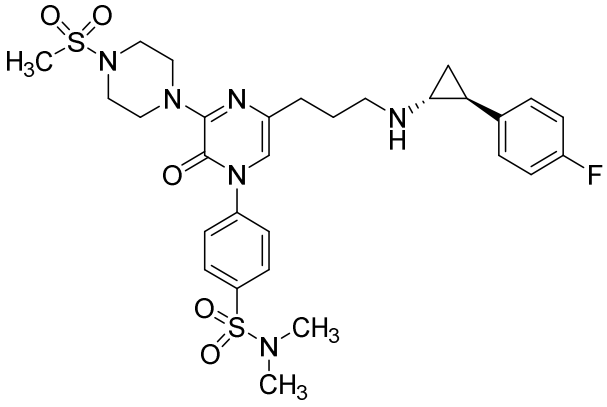

,

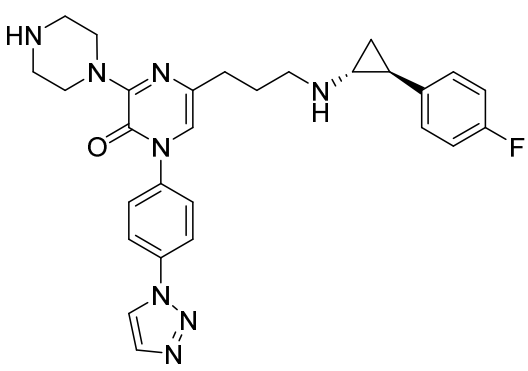
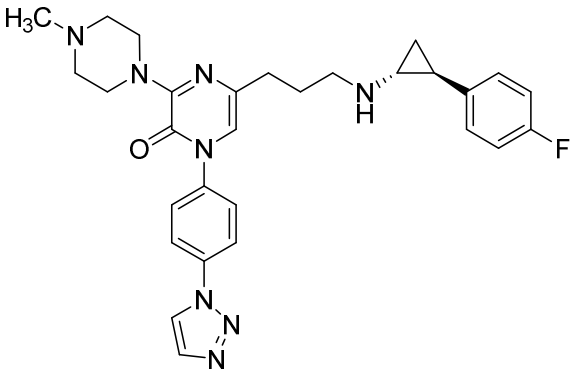
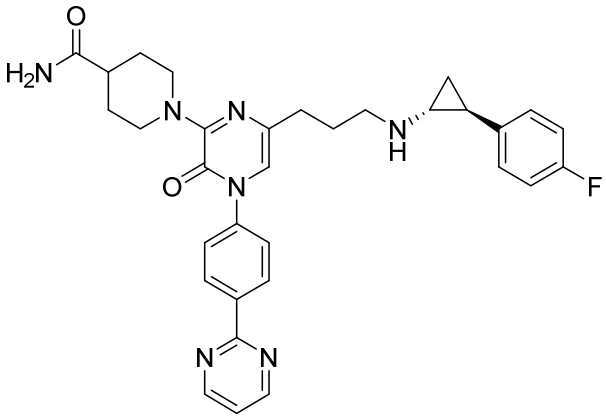
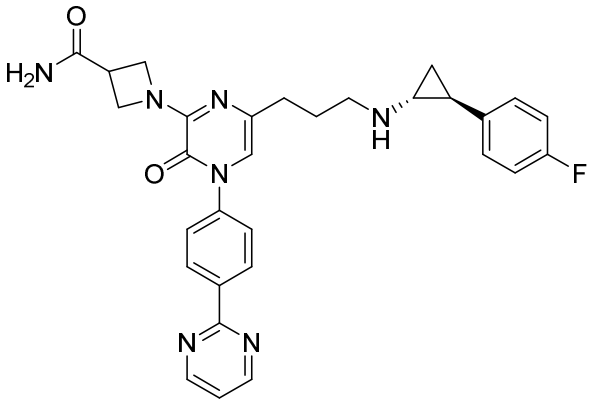

,

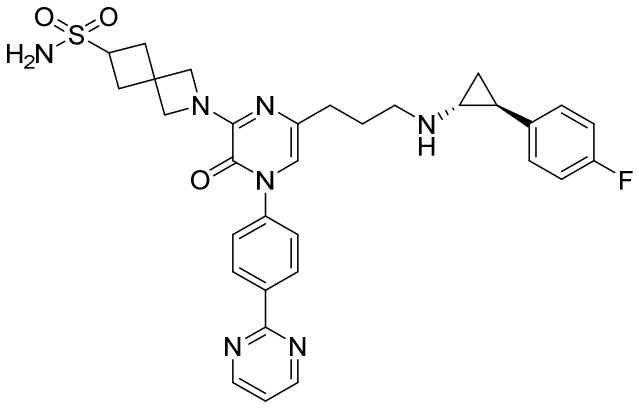

,


,

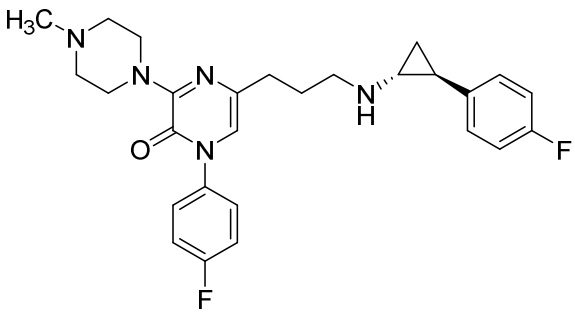

,


,

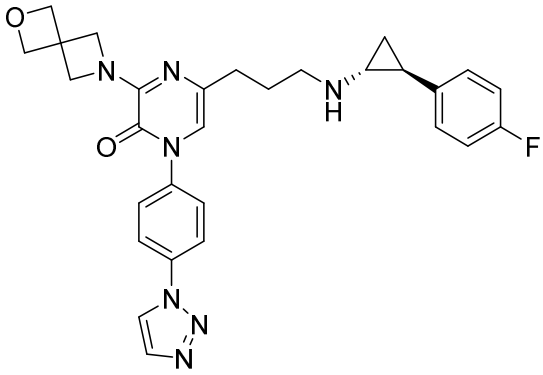

,

,

,

,



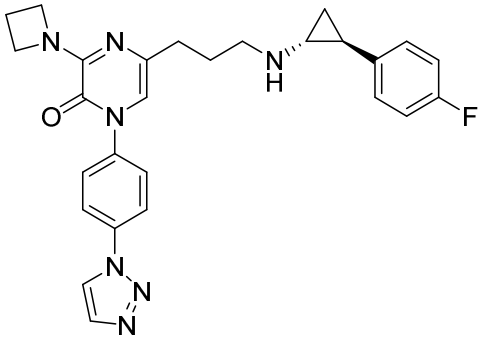
,



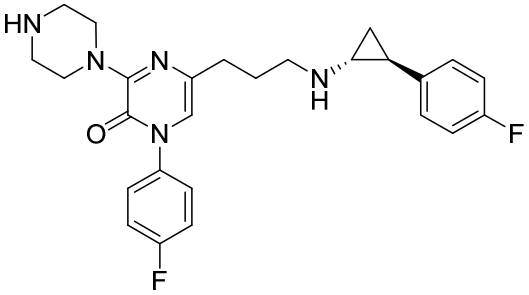
,



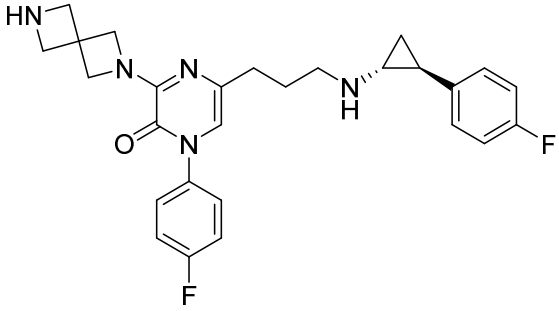
,



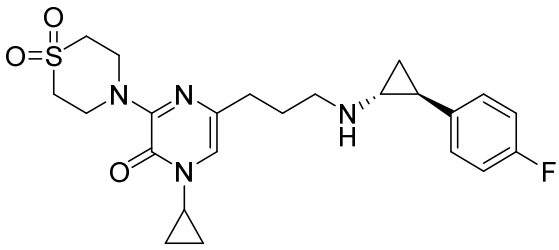
,



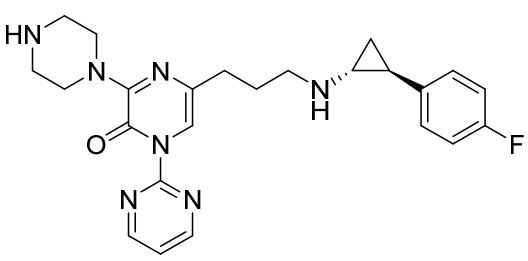
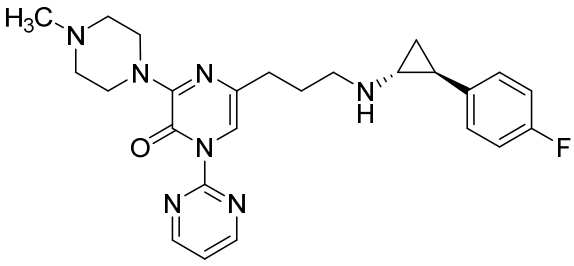
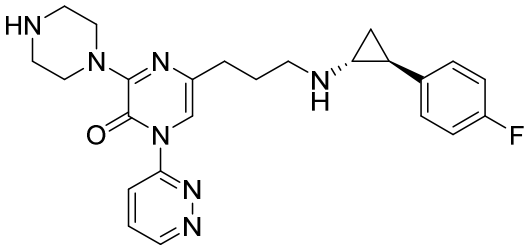
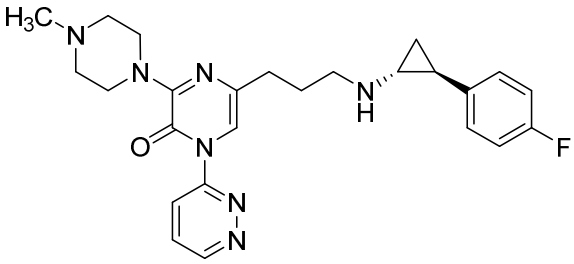
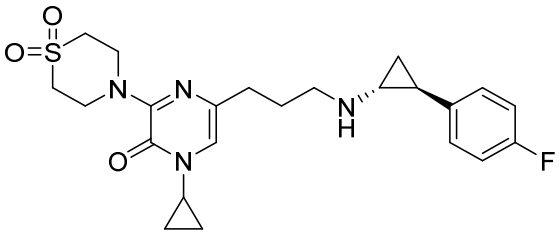
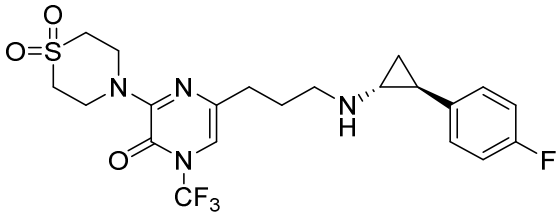
,



,



,


,

,

,

,

,

, and

, or a salt or ester thereof.

9. A compound as recited in Claim 1, or a salt or ester thereof, for use as a medicament.

10. A compound as recited in Claim 1, or a salt or ester thereof, for use in the treatment of a KDM1A-mediated disease.

11. The use as recited in claim 10, wherein the disease is chosen from cancer, myeloid disease, and inflammatory disease.

12. The use as recited in claim 11, wherein the cancer is chosen from Ewing's sarcoma, multiple myeloma, T-cell luekemia,Wilm's tumor, small-cell lung cancer, bladder cancer, prostate cancer, breast cancer, head/ neck cancer, colon cancer, and ovarian cancer.

13. The use as recited in claim 11, wherein the myeloid disease is chosen from Myelofibrosis, Polycythemia Vera, Essential Thrombocythemia, Myelodysplastic Syndrome (MDS), Acute Myelogenous Leukemia (AML), and Chronic Myelogenous Leukemia (CML).

14. The use as recited in claim 11, wherein the inflammatory disease is chosen from inflammatory bowel disease, rheumatoid arthritis, or systemic lupus erythematosus.

15. A compound as recited in Claim 1, or a salt or ester thereof; and another therapeutic agent, for use in the treatment of a KDM1A-mediated disease.

16. The use as recited in Claim 15, wherein said other agent is chosen from a DNA methyltransferase inhibitor, a histone deacetylase inhibitor, a histone de-sumoylase inhibitor, a histone de-ubiquitinase inhibitor, a histone phosphatase inhibitor, an antisense RNA that inhibits the expression of other components of the protein complex bound at the DR site in the gamma globin promoter, a Klf1 inhibitor, an agent that inhibits expression of *KLF1*, a Bcl11a inhibitor, an agent that inhibits the expression of *BCL11A*, an agent that inhibits cell cycle progression, and an agent that induce differentiation in leukemic cells.

17. A compound as recited in claim 1, or a salt or ester thereof, for use in a method of treatment of a globin-mediated disease.

18. A pharmaceutical composition comprising a compound as recited in claim 1, or a salt or ester thereof, together with a pharmaceutically acceptable carrier.