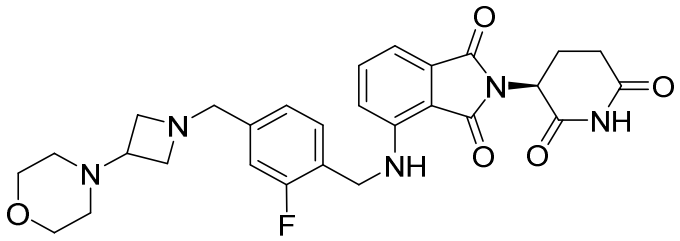
What is claimed is:

1. Use of a compound in the manufacture of a medicament for treating a hematological malignancy in combination with a second active agent, wherein the compound is Compound 1:



1,

or an enantiomer, mixture of enantiomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof; and wherein the second active agent is one or more of an HDAC inhibitor, a BCL2 inhibitor, a BTK inhibitor, an mTOR inhibitor, a PI3K inhibitor, a PKCβ inhibitor, a SYK inhibitor, a JAK2 inhibitor, an Aurora kinase inhibitor, an EZH2 inhibitor, a BET inhibitor, a hypomethylating agent, a DOT1L inhibitor, a HAT inhibitor, a WDR5 inhibitor, a DNMT1 inhibitor, an LSD-1 inhibitor, a G9A inhibitor, a PRMT5 inhibitor, a BRD inhibitor, a SUV420H1/H2 inhibitor, a CARM1 inhibitor, a PLK1 inhibitor, an NEK2 inhibitor, an MEK inhibitor, a PHF19 inhibitor, a PIM inhibitor, an IGF-1R inhibitor, an XPO1 inhibitor, a BIRC5 inhibitor, or a chemotherapy.

2. The use of claim 1, wherein the second active agent is an HDAC inhibitor, and wherein the HDAC inhibitor is panobinostat, romidepsin, vorinostat, or citarinostat, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

3. The use of claim 1, wherein the second active agent is a BCL2 inhibitor, and wherein the BCL2 inhibitor is venetoclax, or a tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

4. The use of claim 1, wherein the second active agent is a BTK inhibitor, and wherein the BTK inhibitor is ibrutinib, or acalabrutinib, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

5. The use of claim 1, wherein the second active agent is an mTOR inhibitor, and wherein the mTOR inhibitor is everolimus.

6. The use of claim 1, wherein the second active agent is a PI3K inhibitor, and wherein the PI3K inhibitor is idelalisib, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

7. The use of claim 1, wherein the second active agent is a PKCβ inhibitor, and wherein the PKCβ inhibitor is enzastaurin, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

8. The use of claim 1, wherein the second active agent is a SYK inhibitor, and wherein the SYK inhibitor is fostamatinib, or a tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

9. The use of claim 1, wherein the second active agent is a JAK2 inhibitor, and wherein the JAK2 inhibitor is fedratinib, pacritinib, ruxolitinib, baricitinib, gandotinib, lestaurtinib, or momelotinib, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

10. The use of claim 1, wherein the second active agent is an Aurora kinase inhibitor, and wherein the Aurora kinase inhibitor is alisertib, barasertib, AZD1152-HQPA, danusertib, AT9283, PF-03814735, AMG900, tozasertib, ZM447439, MLN8054, hesperidin, SNS-314, PHA-680632, CYC116, GSK1070916, TAK-901, or CCT137690, or a tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

11. The use of claim 1, wherein the second active agent is an EZH2 inhibitor, and wherein the EZH2 inhibitor is tazemetostat, GSK126, CPI-1205, 3-deazaneplanocin A (DZNep), EPZ005687, EI1, UNC1999, or sinefungin, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

12. The use of claim 1, wherein the second active agent is a BET inhibitor, and wherein the BET inhibitor is birabresib or 4-[2-(cyclopropylmethoxy)-5-(methanesulfonyl)phenyl]-2-methylisoquinolin-1(2H)-one, BMS-986158, RO-6870810, CPI-0610, or molibresib, or a

stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

13. The use of claim 1, wherein the second active agent is a hypomethylating agent, and wherein the hypomethylating agent is 5-azacytidine or decitabine, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

14. The use of claim 1, wherein the second active agent is a DOT1L inhibitor, and wherein the DOT1L inhibitor is SGC0946, or pinometostat, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

15. The use of claim 1, wherein the second active agent is a HAT inhibitor, and wherein the HAT inhibitor is C646, or a tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

16. The use of claim 1, wherein the second active agent is a WDR5 inhibitor, and wherein the WDR5 inhibitor is OICR-9429, or a tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

17. The use of claim 1, wherein the second active agent is a DNMT1 inhibitor, and wherein the DNMT1 inhibitor is GSK3484862, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

18. The use of claim 1, wherein the second active agent is an LSD-1 inhibitor, and wherein the LSD-1 inhibitor is 4-(2-(4-aminopiperidin-1-yl)-5-(3-fluoro-4-methoxyphenyl)-1-methyl-6-oxo-1,6-dihydropyrimidin-4-yl)-2-fluorobenzonitrile or seclidemstat, or a tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

19. The use of claim 1, wherein the second active agent is a G9A inhibitor, and wherein the G9A inhibitor is UNC0631, or a tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

20. The use of claim 1, wherein the second active agent is a PRMT5 inhibitor, and wherein the PRMT5 inhibitor is GSK3326595, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

21. The use of claim 1, wherein the second active agent is a BRD inhibitor, and wherein the BRD inhibitor is LP99 or JQ1, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

22. The use of claim 1, wherein the second active agent is a SUV420H1/H2 inhibitor, and wherein the SUV420H1/H2 inhibitor is A-196, or a tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

23. The use of claim 1, wherein the second active agent is a CARM1 inhibitor, and wherein the CARM1 inhibitor is EZM2302, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

24. The use of claim 1, wherein the second agent is a PLK1 inhibitor, and wherein the PLK1 inhibitor is BI2536, volasertib, CYC140, onvansertib, GSK461364, or TAK960, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

25. The use of claim 1, wherein the second agent is an NEK2 inhibitor, and wherein the NEK2 inhibitor is JH-295 or rac-CCT 250863.

26. The use of claim 1, wherein the second agent is an MEK inhibitor, and wherein the MEK inhibitor is trametinib, trametinib dimethyl sulfoxide, cobimetinib, binimetinib, or selumetinib, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

27. The use of claim 1, wherein the second active agent is a PIM inhibitor, and wherein the PIM inhibitor is LGH-447, AZD1208, SGI-1776, or TP-3654, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, or pharmaceutically acceptable salt thereof.

28. The use of claim 1, wherein the second active agent is an IGF-1R inhibitor, and wherein the IGF-1R inhibitor is linsitinib.

29. The use of claim 1, wherein the second active agent is an XPO1 inhibitor, and wherein the XPO1 inhibitor is selinexor.

30. The use of claim 1, wherein the second active agent is a BIRC5 inhibitor, and wherein the BIRC5 inhibitor is YM155.

31. The use of claim 1, wherein the second active agent is a chemotherapy, and wherein the chemotherapy is bendamustine, doxorubicin, etoposide, methotrexate, cytarabine, vincristine, ifosfamide, melphalan, oxaliplatin, or dexamethasone, or a stereoisomer, mixture of stereoisomers, tautomer, isotopolog, prodrug, or pharmaceutically acceptable salt thereof.

32. The use of any one of claims 1 to 31, wherein the compound is a hydrochloride salt of Compound 1.

33. The use of any one of claims 1 to 32, wherein the hematological malignancy is acute myeloid leukemia (AML), acute lymphocytic leukemia (ALL), multiple myeloma (MM), non-Hodgkin's lymphoma (NHL), diffuse large B-cell lymphoma (DLBCL), Hodgkin's lymphoma (HL), T-cell lymphoma (TCL), Burkitt lymphoma (BL), chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL), marginal zone lymphoma (MZL), or myelodysplastic syndromes (MDS).

34. The use of claim 33, wherein the hematological malignancy is relapsed or refractory.

35. The use of claim 33, wherein the hematological malignancy is newly diagnosed.

36. The use of claim 33, wherein the hematological malignancy is DLBCL.

37. The use of claim 36, wherein the DLBCL is relapsed or refractory DLBCL.

38. The use of claim 37, wherein the DLBCL is refractory to one or more of rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone, etoposide, bendamustine, lenalidomide, or gemcitabine.

39. The use of claim 36, wherein the DLBCL is newly diagnosed DLBCL.

40. The use of claim 33, wherein the hematological malignancy is CLL/SLL.

41. The use of claim 40, wherein the CLL/SLL is relapsed or refractory CLL/SLL.

42. The use of claim 41, wherein the CLL/SLL is relapsed or refractory to at least two prior therapies.

43. The use of claim 42, wherein at least one of the prior therapies is a Bruton's tyrosine kinase (BTK) inhibitor.

44. The use of claim 43, wherein the BTK inhibitor is ibrutinib, acalabrutinib, zanubrutinib, or tirabrutinib.

45. The use of claim 40, wherein the CLL/SLL is newly diagnosed.

46. The use of claim 33, wherein the hematological malignancy is AML, and the AML is B-cell AML.

47. The use of claim 33, wherein the hematological malignancy is multiple myeloma, and the multiple myeloma is plasma cell leukemia (PCL).

48. The use of claim 33, wherein the hematological malignancy is TCL, and the TCL is anaplastic large cell lymphoma (ALCL) or Sezary Syndrome.

49. The use of claim 33, wherein the hematological malignancy is MZL, and the MZL is splenic marginal zone lymphoma (SMZL).