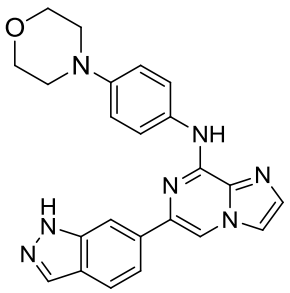
CLAIMS

What is claimed is:

1. Use of a therapeutically effective amount of a compound of formula I:



(I),

or a pharmaceutically acceptable salt in the preparation of a medicament for treating cancer in a human subject, wherein

the subject is a human who has a 17p deletion, a TP53 mutation, a NOTCH1 mutation, a SF3B1 mutation, a 11q deletion, or any combination thereof; and

the human subject has had a prior treatment of either (1) a regimen containing a therapeutic antibody administered for two or more doses of antibody treatment or (2) a regimen containing at least one cytotoxic agent administered for two or more cycles of cytotoxic treatment.

2. Use according to claim 1, wherein:

the compound or the pharmaceutically acceptable salt thereof is the only anti-cancer therapy administered to the subject; and

the subject is a human who is (i) refractory to at least one anti-cancer treatment, or (ii) in relapse after treatment with at least one anti-cancer therapy, or a combination thereof.

3. The use according to claim 1 or 2, wherein the subject has a 17p deletion, a TP53 mutation, or a combination thereof.

4. The use according to any one of claims 1 to 3, wherein the subject has a NOTCH1 mutation, a SF3B1 mutation, a 11q deletion, or any combination thereof.

5. The use according to claim 1 or 2, wherein the subject is not undergoing any other anti-cancer treatments using one or more PI3K inhibitors.

6. The use according to any one of claims 1 to 5, wherein the subject is refractory to at least one anti-cancer treatment.

7. The use according to any one of claims 1 to 5, wherein the subject is in relapse after treatment with at least one anti-cancer treatment.

8. The use according to any one of claims 1 to 7, wherein about 500 mg to about 1000 mg of the compound of formula I, or a pharmaceutically acceptable salt thereof, is administered to the subject twice daily.

9. The use according to claim 8, wherein about 800 mg of the compound of formula I, or a pharmaceutically acceptable salt thereof, is administered to the subject twice daily.

10. The use according to any one of claims 1 to 9, wherein:
the subject has a 17p deletion, a TP53 mutation, or a combination thereof; and
about 800 mg of the compound of formula I, or a pharmaceutically acceptable salt thereof, is administered to the subject twice daily.

11. The use according to any one of claims 1 to 10, wherein the cancer is a hematologic malignancy.

12. The use according to any one of claims 1 to 10, wherein the cancer is a leukemia.

13. The use according to claim 12, wherein the leukemia is chronic lymphocytic leukemia (CLL).

14. The use according to any one of claims 1 to 10, wherein the cancer is a lymphoma.

15. The use according to claim 14, wherein the lymphoma is non-Hodgkin's lymphoma (NHL).

16. The use according to claim 15, wherein the NHL is selected from the group of diffuse large B-cell lymphoma (DLBCL), mantle cell lymphoma (MCL), follicular lymphoma (FL), small lymphocytic lymphoma (SLL), lymphoplasmacytic lymphoma (LPL), and marginal zone lymphoma (MZL).

17. The use according to any one of claims 1 to 11, wherein the cancer is selected from the group consisting of acute lymphocytic leukemia (ALL), acute myeloid leukemia (AML), chronic lymphocytic leukemia (CLL), small lymphocytic lymphoma (SLL), myelodysplastic syndrome (MDS), myeloproliferative disease (MPD), chronic myeloid leukemia (CML), multiple myeloma (MM), non-Hodgkin's lymphoma (NHL), indolent non-Hodgkin's lymphoma (iNHL), refractory iNHL, mantle cell lymphoma (MCL), follicular lymphoma (FL), Waldestrom's macroglobulinemia (WM), T-cell lymphoma, B-cell lymphoma, diffuse large B-cell lymphoma (DLBCL), lymphoplasmacytic lymphoma (LPL), and marginal zone lymphoma (MZL).

18. The use according to any one of claims 1 to 17, wherein the pharmaceutically acceptable salt of the compound of formula I is selected from the group of hydrochlorate, phosphate, diphosphate, hydrobromate, sulfate, sulfinate, nitrate, malate, maleate, fumarate, tartrate, succinate, citrate, acetate, lactate, mesylate, p-toluenesulfonate, 2-hydroxyethylsulfonate, benzoate, salicylate, stearate, and alkanoate salts.