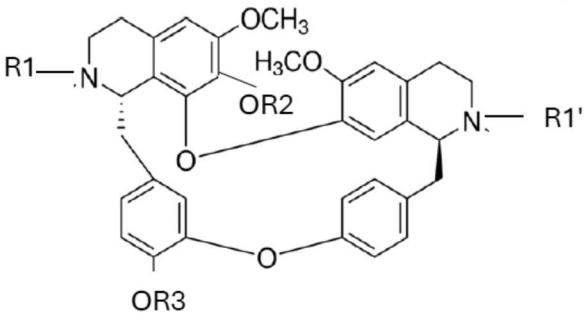
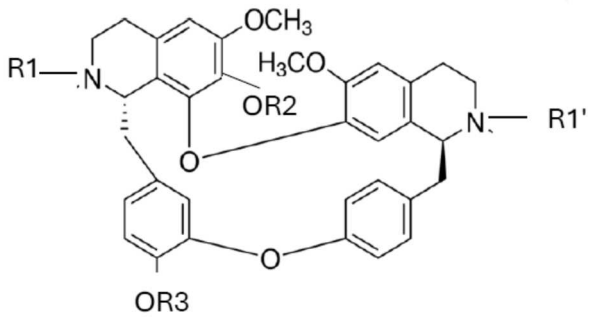
WHAT IS CLAIMED:

1. A compound for use in treating preneoplastic and neoplastic diseases and solid tumors in a subject in need thereof, wherein the compound is a compound of Formula I (tetrandrine (TET)) comprising the following structural formula:



   a. wherein R_1 and R_1' are the same or different short chained carbon-based ligands comprising CH_3, CO_2CH_3 or H; and R_2 is CH_3 or C_2H_5; and R_3 is CH_3 or hydrogen, has the "S" isomeric configuration at the C-1′ chiral carbon location;
   b. wherein the disease is selected from the group consisting of myelodysplastic syndrome (MDS), myeloproliferative neoplasms (MPN), leukemia, and solid tumors;
   c. wherein TET inhibits beta-catenin; and
   d. wherein an effective amount of TET comprises 0.01 mg/m^2 to 1000 mg/m^2.

2. Use of a compound in the manufacture of a medicament for treating preneoplastic and neoplastic diseases and solid tumors in a subject in need thereof, wherein the compound is a compound of Formula I (tetrandrine (TET)) comprising the following structural formula:



a. wherein R_1 and R_1' are the same or different short chained carbon-based ligands comprising CH_3, CO_2CH_3 or H; and R_2 is CH_3 or C_2H_5; and R_3 is CH_3 or hydrogen, has the "S" isomeric configuration at the C-1′ chiral carbon location;
b. wherein the disease is selected from the group consisting of myelodysplastic syndrome (MDS), myeloproliferative neoplasms (MPN), leukemia, and solid tumors;
c. wherein TET inhibits beta-catenin; and
d. wherein an effective amount of TET comprises 0.01 mg/m^2 to 1000 mg/m^2.

3. The compound for use according to claim 1 or the use according to claim 2, wherein the disease is selected from the group consisting of chronic myeloid leukemia (CML), atypical chronic myeloid leukemia (aCML), acute myeloid leukemia (AML), polycythemia vera (PV), MDS/MPN unclassifiable, acute lymphoblastic leukemia (ALL), chronic lymphoblastic leukemia (CLL), myeloproliferative syndrome (MPS), and myelofibrosis (MF).

4. The compound for use according to claim 1 or 3, or the use according to claim 2 or 3, wherein the compound is to be administered:
   a. before treatment with a tyrosine kinase inhibitor or other chemotherapeutic regimens, or immunologic therapeutics;
   b. after treatment with the tyrosine kinase inhibitor, or other chemotherapeutic regimens, or immunologic therapeutics; or

c. contemporaneously with the tyrosine kinase inhibitor or other chemotherapeutic regimens or immunologic therapeutics; or
d. wherein the leukemia is resistant intrinsically or extra-intrinsically and has minimal residual disease after treatment with a tyrosine kinase inhibitor, or other chemotherapeutic regimens, or is refractory to or has resistance to a tyrosine kinase inhibitor or other chemotherapeutic regimens.

5. The compound for use, or the use according to claim 4, wherein an additional anti-leukemia agent(s) is to be administered, wherein said additional anti-leukemia agent(s) is selected from medicaments for treating leukemia, MDS or MPN and wherein said additional anti-leukemia agent is selected from one or more of tyrosine kinase inhibitors, BCR-ABL kinase inhibitors, SRC-kinase inhibitors, JAK2 kinase inhibitors, aurora kinase inhibitors, interferon alpha, hydroxyurea, anthracyclines, cytarabine, ara-C, daunorubicine or doxorubicin, and combinations of two or more anti-leukemia agents.

6. The compound for use according to claim 1, or the use according to claim 2, wherein the tetrandrine is to be administered by at least one of:

a. orally,
b. parenterally (infusion IV), and/or
c. subcutaneously.

7. The compound for use according to claim 1, or the use according to claim 2, wherein tetrandrine is to be administered at a frequency according to at least one of:

a. for hours to days by infusion;
b. biweekly;
c. progressive escalation of dosing based on patient tolerance;
d. selected and intermittent boost dose administrations;
e. dosing by a bolus, single, multiple daily and multiple doses/day;
f. release of the dose that is at least one of immediate, slow, and controlled;

g. daily;

h. for 7-14 days or more;

i. twice daily for seven days or more; or

j. up to 14-21 days consecutively in a 28 day cycle.

8. Tetrandrine for use in myeloablative conditioning prior to hematopoietic stem cell transplantation (HSCT) procedures, wherein the one or more myeloablative conditioning agents or procedures comprise:

   i. Cyclophosphamide,
   ii. Busulfan,
   iii. Radiation,
   iv. Fludarabine,
   v. Melphalan,
   vi. Clofarabine,
   vii. Amsacrine,
   viii. Cytarabine,
   ix. Decitabine, and
   x. Cedazuridine.

9. Tetrandrine for use according to claim 8, wherein tetrandrine or in the form of a derivative, isomer and/or analog, a modified form such as crystalline, salt forms, or a salt of this compound is to be administered with a pharmaceutically acceptable acid or in combination with a first other agent(s), preferably, wherein said first other agents include Alemtuzumab, Ambochlorin (Chlorambucil), Amboclorin (chlorambucil), Arzerra (Ofatumumab), Bendamustine Hydrochloride, Campath® (Alemtuzumab), Chlorambucil, Fludara® (Fludarabine Phosphate) Fludarabine Phosphate, Gazyva® (Obinutuzumab), Ibrutinib, Imbruvica® (Ibrutinib), Leukeran® (Chlorambucin), Linfolizin® (Chlorambucil), Obinutuzumab, Azacitidine, Decitabine, Inqovi® (Cedazuridine and Decitabine), Cedazuridine, Lenalidomide, Doxorubicin HCL, Arsenic Trioxide, Daunorubicin Hydrochloride, Cyclophosphamide, Cytarabine, Cytosar-U® (Cytarabine), Cytoxan® (Cyclophosphamide), JAK2 inhibitors (e.g., Fedratinib, deucravacitinib,

Ritlecitinib), Ketruda® (pembrolizumab) Neosar® (Cyclophosphamide), Obdivo® (nivolumab) Rubidomycin (Daunorubicin Hydrochloride), Tarabine PFS (Cytarabine), Trisenox® (Arsenic Trioxide), Vincasar PFS (Vincristine Sulfate), Vincristine Sulfate, Bosulif® (Bosutinib), Bosutinib, Busulfan, Busulfex® (Busulfan), Clafen® (Cyclophosphamide), Dasatinib, Gleevec® (Imatinib Mesylate), Iclusig® (Ponatinib Hydrochloride), Imatinib Mesylate, Myleran (Busulfan), Nilotinib, Omacetaxine Mepesuccinate, Ponatinib Hydrochloride, Sprycel (Dasatinib), Synribo (Omacetaxine Mepesuccinate), Tarabine PFS (Cytarabine), Tasigna® (Nilotinib), Velcade® (Bortezomib), Panobinostat, CAR-TCR therapies and related agents.

10. The compound for use according to claim 1, or the use according to claim 2, wherein the disease is chronic phase BCR-ABL-induced myeloid leukemia characterized by oncogene-mediated elevated beta-catenin, wherein the tetrandrin is to be administered in combination with a therapeutically effective dose of a BCR-ABL tyrosine kinase inhibitor to the subject, wherein leukemia stem cells are inhibited and wherein tetrandrine comprises derivatives, isomers and analogs, modified forms such as salt forms thereof.

11. The compound for use, or the use according to claim 10, wherein the BCR-ABL tyrosine kinase inhibitor is selected from the group consisting of: imatinib, dasatinib, nilotinib, bosutinib, ponatinib, lestaurtinib, tozasertib, danusertib, vatalanib, Nexavar (sorafenib tosylate), Midostaurin, AZD0530 (Saracatinib), NPB-001-05 (imatinib-resistant Bcr-Abl inhibitor), AT9283 (aurora kinase inhibitor), bafetinib, XL228 (multi-targeted protein kinase inhibitor), KW-2449 (multikinase inhibitor), AT-9283 (multi-targeted protein kinase inhibitor), VE-465 (Aurora kinase inhibitor), DCC-2036 (Rebasitinib), and PF-03814735 (Aurora kinase inhibitor).

12. The compound for use, or the use according to claim 10, wherein a therapeutically effective dose of an Hsp90 inhibitor and/or a therapeutically effective dose of an anti-cancer agent selected from the group consisting of: a protein synthesis inhibitor, an anti-metabolite, an alkylating agent, a steroid, interferon alpha 2b, and a combination of any two or more thereof and/or a therapeutically effective dose of a JAK2 kinase inhibitor,

and/or a therapeutically effective dose of a FLT-3 inhibitor is/are to be further administered.

13. The compound for use, or the use according to claim 10, wherein the BCR-ABL tyrosine kinase inhibitor is selected from the group consisting of: imatinib, dasatinib and nilotinib.

14. The compound for use, or the use according to claim 12, wherein the JAK2 kinase inhibitor comprises Fedratinib, deucravacitinib, or Ritlecitinib.

15. The compound for use, or the use according to claim 12, wherein the FLT-3 inhibitor comprises Sorafenib, Midostaurin, Lestaurtinib, gilteritinib, quizartinib, or crenolanib.

16. The compound for use according to claim 1, or the use according to claim 2, wherein R_1 and R_1' or R_2 are aliphatic, aromatic, heterocyclic, halide substituted amino, sulfhydryl, carboxylic, ketone, esters, carboxamides esters salts, sugar peptide protein, nucleic acid, antisense antibody substituents.