CLAIMS

What it claimed is:

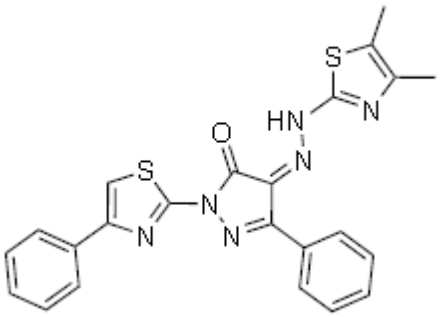
1. A pharmaceutical combination, comprising:

a B-cell lymphoma 2 associated X protein (BAX) activating compound; and

an anti-apoptotic protein inhibiting compound.

2. The pharmaceutical combination of claim 1, wherein the anti-apoptotic protein inhibiting compound is a BCL-XL inhibiting compound, a BCL-2 inhibiting compound, a BCL-w inhibiting compound, a BFL-1 inhibiting compound or a MCL-1 inhibiting compound.

3. The pharmaceutical combination of claim 1 or 2, wherein the BAX activating compound is a compound having a structure of BTSA1.2, or a pharmaceutically acceptable salt thereof



BTSA 1.2.

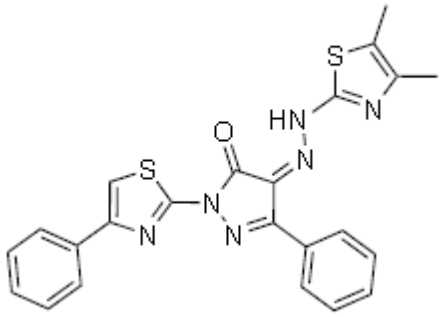
4. The pharmaceutical combination of claim 1 or claim 2, wherein the anti-apoptotic protein inhibiting compound comprises navitoclax or venetoclax.

5. The pharmaceutical combination of claim 1 or 2, wherein the anti-apoptotic protein inhibiting compound is ABT-737, navitoclax, venetoclax, AMG 176, AMG 397, AZD-4320, AZD-0466, AZD-5991, VU661013, S65487, MIK665, sabutoclax, gambogic acid, obatoclax mesylate, APG1252, DT2216 or a combination of any of the foregoing.

6. A pharmaceutical composition comprising the pharmaceutical combination of any of claims 1-3, and a pharmaceutically acceptable carrier.

7. Use of a B-cell lymphoma 2 associated X protein (BAX) activating compound in the manufacturing of a pharmaceutical composition for treating a cancer in a subject in combination with a B-cell lymphoma-extra large protein (BCL-XL) inhibiting compound, a BCL-2 inhibiting compound, a BCL-w inhibiting compound, a BFL-1 inhibiting compound or a MCL-1 inhibiting compound in an amount effective to treat the cancer in the subject.

8. The use of claim 7, wherein the BAX activating compound is a compound having a structure of BTSA1.2, or a pharmaceutically acceptable salt thereof.



BTSA1.2

9. The use of claim 7 or 8, wherein the anti-apoptotic protein inhibiting compound comprises Navitoclax or Venetoclax.

10. The use of any of claims 7-9, wherein the cancer is a hematological cancer or a solid tumor.

11. The use of any of claims 7-10, wherein the cancer is breast cancer, prostate cancer, lymphoma, skin cancer, pancreatic cancer, colon cancer, rectal cancer, colorectal cancer, melanoma, malignant melanoma, ovarian cancer, brain or spinal cord cancer, primary brain carcinoma, medulloblastoma, neuroblastoma, glioma, head-neck cancer, glioma, glioblastoma, liver cancer, bladder cancer, stomach cancer, kidney cancer, placental cancer, cancer of the gastrointestinal tract, non-small cell lung cancer (NSCLC), head or neck carcinoma, breast carcinoma, endocrine cancer, eye cancer, genitourinary cancer, cancer of the vulva, ovary, uterus or cervix, hematopoietic cancer, myeloma, leukemia, lymphoma, ovarian carcinoma, lung carcinoma, small-cell lung carcinoma, Wilms' tumor, cervical carcinoma, testicular carcinoma, bladder carcinoma, pancreatic carcinoma, stomach carcinoma, colon carcinoma, prostatic carcinoma, genitourinary carcinoma, thyroid carcinoma, esophageal carcinoma, myeloma, multiple myeloma, adrenal carcinoma, renal cell carcinoma, endometrial carcinoma, adrenal

cortex carcinoma, malignant pancreatic insulinoma, malignant carcinoid carcinoma, choriocarcinoma, mycosis fungoides, malignant hypercalcemia, cervical hyperplasia, leukemia, acute lymphocytic leukemia, chronic lymphocytic leukemia, chronic granulocytic leukemia, acute granulocytic leukemia, acute myelogenous leukemia, chronic myelogenous leukemia, hairy cell leukemia, neuroblastoma, rhabdomyosarcoma, Kaposi's sarcoma, polycythemia vera, essential thrombocytosis, Hodgkin's disease, non-Hodgkin's lymphoma, soft tissue cancer, soft-tissue sarcoma, osteogenic sarcoma, sarcoma, primary macroglobulinemia, central nervous system cancer and retinoblastoma.

12. The use of any of claims 7-11, wherein the cancer is colon cancer, rectal cancer, or colorectal cancer.

13. The use of any of claims 7-12, wherein a route of the administering comprises oral, rectal, sublingual, buccal, intravenous, intramuscular, transdermal, cutaneous, subcutaneous, intrathecal, nasal, vaginal, or a combination thereof.

14. The use of any of claims 7-13, wherein the route of the administering is oral.