WHAT IS CLAIMED IS:

1. Use of 6-thio-2'-deoxyguanosine (6-thio-dG) in the manufacture of a medicament for the treatment of a cancer in a subject, wherein the cancer treated is resistant to checkpoint inhibitors or the cancer is resistant to checkpoint inhibitors in combination with chemotherapy, wherein the medicament is to be administered to said subject followed by treatment with a PD-1 or PD-L1 checkpoint inhibitor, wherein the cancer is selected from the group consisting of pancreatic, lung, mesothelioma, stomach, esophagus, liver, biliary tract, bladder, head & neck, oral, nasopharyngeal, adult brain, colon, rectum, colorectal, prostate, ovarian, cervical, uterine, testicular, lymphoma, leukemia, skin, breast, kidney, neuroblastoma, Merkel cell carcinoma, myelodysplastic syndrome, myelofibrosis, and multiple myeloma.

2. Use of a PD-1 or PD-L1 checkpoint inhibitor in the manufacture of a medicament for the treatment of a cancer in a subject, wherein the cancer treated is resistant to checkpoint inhibitors or the cancer is resistant to checkpoint inhibitors in combination with chemotherapy, wherein the medicament is to be administered to said subject after treatment with 6-thio-2'-deoxyguanosine (6-thio-dG), wherein the cancer is selected from the group consisting of pancreatic, lung, mesothelioma, stomach, esophagus, liver, biliary tract, bladder, head & neck, oral, nasopharyngeal, adult brain, colon, rectum, colorectal, prostate, ovarian, cervical, uterine, testicular, lymphoma, leukemia, skin, breast, kidney, neuroblastoma, Merkel cell carcinoma, myelodysplastic syndrome, myelofibrosis, and multiple myeloma.

3. The use according to claim 1 or 2, wherein the checkpoint inhibitor is one or more PD-1 inhibitors.

4. The use according to claim 1 or 2, wherein the checkpoint inhibitor is one or more PD-L1 checkpoint inhibitors.

5. The use according to any one of claims 1 to 4, wherein the 6-thio-dG is to be administered for about 1 to about 5 days per therapeutic cycle, such as for about 1 to about 3 days per therapeutic cycle.

6. The use according to any one of claims 1 to 5, wherein the 6-thio-dG and the checkpoint inhibitor are to be administered in combination with a chemotherapeutic agent, a hormonal therapy, a toxin therapy or surgery.

7. The use according to claim 1 or 2, wherein the checkpoint inhibitor is cemiplimab (Libtayo®).

8. The use according to claim 1 or 2, wherein the checkpoint inhibitor is pembrolizumab.

9. The use according to claim 1 or 2, wherein the checkpoint inhibitor is atezolizumab and the cancer is selected from the group consisting of pancreatic, lung, stomach, liver, bladder, head & neck, oral, nasopharyngeal, colon, prostate, ovarian, cervical, testicular, lymphoma, leukemia, and skin.

10. The use according to claim 1 or 2, wherein the subject is to be further treated with radiotherapy.

11. The use according to any one of claims 1 to 10, wherein the total dosage of 6-thio-dG to be administered over about 1-5 days of therapy is about 20-2000 mg.

12. The use according to any one of claims 1 to 10, wherein the cancer is metastatic, recurrent, or therapy resistant, such as resistant to a checkpoint inhibitor, *e.g.*, resistant to one or more of PD-1, PD-L1, and/or CTLA-4 inhibitors.

13. The use according to any one of claims 1 to 6, wherein said subject was previously treated with a checkpoint inhibitor therapy, such as one or more of a PD-1, PD-L1, and CTLA-4 therapy.

14. The use according to any one of claims 1 to 13, wherein the administration of 6-thio-2'-deoxyguanosine (6-thio-dG) followed by treatment with the checkpoint inhibitor is to be repeated at least once.

15. The use according to any one of claims 1 to 13, wherein said 6-thio-dG and the checkpoint inhibitor are to be administered systemically, locally or regionally to a tumor site, or wherein said 6-thio-dG is to be administered locally or regionally to a tumor site and the checkpoint inhibitor is to be administered systemically.

16. The use according to any one of claims 1 to 15, wherein administration of 6-thio-dG and the checkpoint inhibitor results in inhibition of tumor growth, results in remission of said cancer, results in reduction in tumor burden, results in inhibition of cancer cell metastasis, or results in tumor eradication.