CLAIMS

1. Use of a pharmaceutical composition in the preparation of drugs for the treatment of a female patient suffering from non-small cell lung cancer, wherein

the pharmaceutical composition comprises 2,2'-dithio-bis-ethane sulfonate, or a pharmaceutically-acceptable salt thereof; and

an effective amount of ranges of 2,2'-dithio-bis-ethane sulfonate, or a pharmaceutically-acceptable salt thereof ranges from 0.01-10 grams per dose;

the patient is a non-smoker or never smoker; and

the drugs are to be administered to the patient in need thereof, and a second therapeutic agent useful in the treatment of non-small cell lung cancer is to be co-administered to the patient, the second therapeutic agent comprising carboplatin.

2. The use of claim 1, wherein the non-small cell lung cancer is lung adenocarcinoma.

3. The use of claim 1, wherein the second therapeutic agent further comprises paclitaxel or cisplatin.

4. The use of claim 1, wherein the second therapeutic agent further comprises one or more chemotherapeutic agents selected from camptothecin derivatives, paclitaxel, docetaxel, epothilone B, 5-FU, gemcitabine, oxaliplatin, cisplatinum, melphalam, dacarbazine, temozolomide, doxorubicin, imatinib, erlotinib, bevacizumab, and cetuximab.

5. The use of claim 1, wherein the non-small cell lung cancer is EGFR mutant positive non-small cell lung cancer.

6. Use of 2,2'-dithio-bis-ethane sulfonate, or a pharmaceutically-acceptable salt thereof and a second therapeutic agent in the manufacture of a pharmaceutical composition for the treatment of advanced and/or metastatic non-small cell lung cancer in female patients, wherein the pharmaceutical composition is to be administered to a human patient having non-small cell lung cancer who has received a second-line or a higher-line therapy, wherein

an effective amount of ranges of 2,2'-dithio-bis-ethane sulfonate, or a pharmaceutically-acceptable salt thereof ranges from 0.01-10 grams per dose;

each of the female patient is a non-smoker or never smoker; and

the second therapeutic agent comprises carboplatin.

7. The use of claim 6, wherein non-small cell lung cancer is EGFR mutation negative non-small cell lung cancer.

8. The use of claim 6, wherein the second therapeutic agent further comprises paclitaxel or cisplatin.

9. Use of 2,2'-dithio-bis-ethane sulfonate, or a pharmaceutically-acceptable salt thereof in the manufacture of a composition for the treatment of a female, nonsmoking patient suffering from non-small cell lung cancer, wherein

the patient is to be determined as a non-smoker;

the composition comprises an effective amount of ranges of 2,2'-dithio-bis-ethane sulfonate, or a pharmaceutically-acceptable salt thereof ranging from 0.01-10 grams per dose; and

the composition is to be administered to the non-smoker, and a second therapeutic agent useful in the treatment of non-small cell lung cancer is to be co-administered to the non-smoker, the second therapeutic agent comprising carboplatin.

10. The of use of Claim 9, wherein testing for EGFR mutants is to be carried out.

11. The use of claim 9, wherein the second therapeutic further comprises paclitaxel or cisplatin.

12. The use of claim 9, wherein the second therapeutic agent further comprises one or more chemotherapeutic agents selected from camptothecin derivatives, paclitaxel, docetaxel, epothilone B, 5-FU, gemcitabine, oxaliplatin, cisplatinum, melphalam, dacarbazine, temozolomide, doxorubicin, imatinib, erlotinib, bevacizumab, and cetuximab.

13. The use of claim 9, wherein the non-small cell lung cancer is to be further determined as ALK, ROS, MET, EGFR mutant-positive non-small cell lung cancer.

14. The use of claim 9, wherein the non-small cell lung cancer is to be determined to include ALK and ROS1 gene fusions/rearrangements, EGFR gene mutations/deletions, and MET/HGFR gene amplifications.