Claims

1. Use of combination comprising (1) a biguanide-based compound or a pharmaceutically acceptable salt thereof; (2) 2-deoxy-D-glucose; and (3) inositol hexaphosphate or a pharmaceutically acceptable salt thereof, inositol, or a mixture thereof for the manufacture of a medicine for treating cancer,

wherein the biguanide-based compound is metformin or phenformin, and

wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof, or inositol is in a range of 1: 0.2: 0.5 to 1: 5: 20,

wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof, or inositol is in a range of 1: 1: 1 to 1: 50: 200,

wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof: inositol is in a range of 1: 0.2: 0.5: 0.5 to 1: 5: 20: 20, or

wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof: inositol is in a range of 1: 1: 1: 1 to 1: 50: 200: 200.

2. The use of claim 1, wherein the inositol is at least one selected from the group consisting of D-chiro-inositol, L-chiro-inositol, myo-inositol, and scyllo-inositol.

3. The use of claim 1, wherein the biguanide-based compound is metformin and wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof is in a range of 1: 0.2: 0.5 to 1: 5: 20.

4. The use of claim 1, wherein the biguanide-based compound is phenformin and wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof is in a range of 1: 1: 1 to 1: 50: 200.

5. The use of claim 1, wherein the biguanide-based compound is metformin and wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol is in a range of 1: 0.2: 0.5 to 1: 5: 20.

6. The use of claim 1, wherein the biguanide-based compound is phenformin and wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol is in a range of 1: 1: 1 to 1: 50: 200.

7. The use of claim 1, wherein the cancer is at least one selected from the group consisting of liver cancer, lung cancer, stomach cancer, pancreatic cancer, colon cancer, cervical cancer, breast cancer, prostate cancer, ovarian cancer, brain cancer, osteosarcoma, and bladder cancer.

8. A combination comprising (1) a biguanide-based compound or a pharmaceutically acceptable salt thereof; (2) 2-deoxy-D-glucose; and (3) inositol hexaphosphate or a pharmaceutically acceptable salt thereof, inositol, or a mixture thereof,

wherein the biguanide-based compound is metformin or phenformin, and

wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof, or inositol is in a range of 1: 0.2: 0.5 to 1: 5: 20,

wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof, or inositol is in a range of 1: 1: 1 to 1: 50: 200,

wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof: inositol is in a range of 1: 0.2: 0.5: 0.5 to 1: 5: 20: 20, or

wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof: inositol is in a range of 1: 1: 1: 1 to 1: 50: 200: 200.

9. A composition comprising (1) a biguanide-based compound or a pharmaceutically acceptable salt thereof; (2) 2-deoxy-D-glucose; (3) inositol hexaphosphate or a pharmaceutically acceptable salt thereof, inositol, or a mixture thereof; and a pharmaceutically acceptable carrier,

wherein the biguanide-based compound is metformin or phenformin, and

wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof, or inositol is in a range of 1: 0.2: 0.5 to 1: 5: 20,

wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof, or inositol is in a range of 1: 1: 1 to 1: 50: 200,

wherein a weight ratio of metformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof: inositol is in a range of 1: 0.2: 0.5: 0.5 to 1: 5: 20: 20, or

wherein a weight ratio of phenformin or a pharmaceutically acceptable salt thereof: 2-deoxy-D-glucose: inositol hexaphosphate or a pharmaceutically acceptable salt thereof: inositol is in a range of 1: 1: 1: 1 to 1: 50: 200: 200.