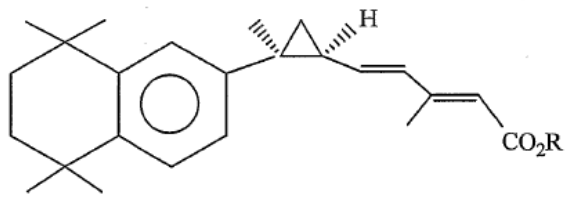
CLAIMS

1. Use of a retinoid X receptor (RXR) agonist, or a pharmaceutically-acceptable salt thereof, in the manufacture of a medicament for treating $Her2^+$ cancer resistant to at least one Her2-targeted therapeutic agent in a patient in need thereof, wherein the patient has received or is receiving the Her2-targeted therapeutic agent, and wherein the RXR agonist is of Formula I

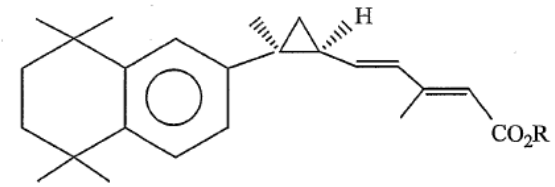


(Formula I)

wherein R is H, or lower alkyl of 1 to 6 carbons, or a pharmaceutically-acceptable salt thereof.

2. The use of claim 1, wherein the Her2-targeted therapeutic agent is to be further administered to the patient.

3. Use of a RXR agonist, or a pharmaceutically-acceptable salt thereof, in the manufacture of a medicament for treating $Her2^+$ cancer in a patient undergoing treatment with a Her2-targeted therapeutic agent, wherein the cancer has become resistant to the Her2-targeted therapeutic agent, wherein the patient continues treatment with the Her2-targeted therapeutic agent and treatment with the RXR agonist is to be initiated, and wherein the RXR agonist is of Formula I,

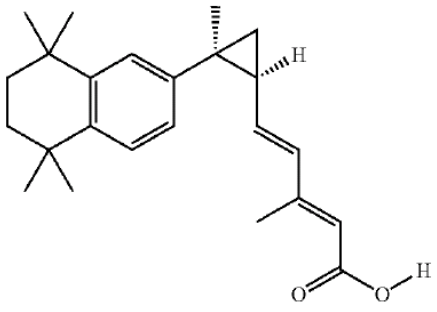


(Formula I)

wherein R is H, or lower alkyl of 1 to 6 carbons, or a pharmaceutically-acceptable salt thereof.

4. The use of claim 1 or claim 3, wherein a thyroid hormone is to be further administered to the patient in conjunction with the RXR agonist.

5. The use of claim 1 or claim 3, wherein the RXR agonist is a compound of Formula II



(Formula II).

6. The use of claim 1 or claim 3, wherein the Her2-targeted therapeutic agent comprises an anti-Her2 therapeutic antibody.

7. The use of claim 6, wherein the therapeutic antibody is trastuzumab or pertuzumab.

8. The use of claim 1 or claim 3, wherein the Her2-targeted therapeutic agent comprises an antibody-drug conjugate wherein the antibody is an anti-Her2 antibody.

9. The use of claim 1 or claim 3, wherein the Her2-targeted therapeutic agent comprises a Her2 kinase inhibitor.

10. The use of claim 9, wherein the Her2 kinase inhibitor is lapatinib, neratinib or tucatinib.

11. The use of claim 9, wherein the Her2 kinase inhibitor comprises afatinib, dacomitinib, canertinib, sapitinib, CP-724714, or CUDC-101.

12. The use of any one of claims 1-11, wherein the $Her2^+$ cancer is $Her2^+$ breast cancer.

13. The use of claim 1 or claim 3, wherein the $Her2^+$ cancer resistant to a Her2-targeted therapeutic agent is also resistant to the RXR agonist of Formula I.

14. The use of any one of claims 1, 3, or 13, wherein tumor cell growth is inhibited by a combination of the Her2-targeted therapeutic and the RXR agonist, and the inhibition of tumor cell growth by the combination is greater than additive inhibitory effects of each of the Her2-targeted therapeutic and the RXR agonist alone.