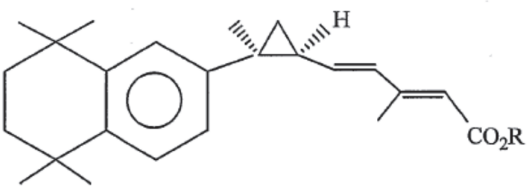
disclosed treatments are the exclusive therapy in the time interval in which they are conducted. In some embodiments, the herein disclosed treatments serve as a debulking treatment in preparation for subsequent surgical removal of tumor. In some embodiments, the herein disclosed treatments are applied as adjuvant therapy subsequent to surgical removal of tumor to address any residual disease or potential recurrent disease.

[0012] Other embodiments include combination drug compositions or formulations comprising at least one Her2-targeting therapeutic agent and at least one RXR agonist capable of inhibiting cancer growth. In other embodiments the combination (used for treatment) may include more than one agent in one or the other classification (Her2 targeting agent and/or RXR agonist). In still other embodiments the combination may further include thyroid hormone. In some embodiments the thyroid hormone is thyroxine.

[0012a] In one aspect, there is provided a use of a RXR agonist of Formula I,



(Formula I)

wherein R is H, or lower alkyl of 1 to 6 carbons; or a pharmaceutically-acceptable salt thereof in the preparation of a medicament, for treating a patient with Her2$^+$ cancer, wherein the patient has received, is receiving, or is scheduled to receive a Her2-targeted therapeutic agent.

[0012b] In another aspect, there is provided a use of a RXR agonist of Formula I described herein, wherein R is H, or lower alkyl of 1 to 6 carbons; or a pharmaceutically acceptable salt thereof, in the preparation of a medicament for treating a patient with Her2$^+$ cancer, wherein said RXR agonist is to be used in combination with a Her2-targeted therapeutic agent.

[0012c] In yet another aspect, there is provided a combination comprising a Her2-targeted therapeutic agent and a RXR agonist of Formula I described herein, wherein R is H, or lower alkyl of 1 to 6 carbons; or a pharmaceutically-acceptable salt thereof.

BRIEF DESCRIPTION OF DRAWINGS

[0013] **FIGURE 1** is a three-dimensional plot depicting the growth inhibitory effects of IRX4204 and trastuzumab, alone and in combination, on breast cancer cell lines: MCF7 cells (Figure 1 A) and SkBr3 cells (Figure 1B).

[0014] **FIGURE 2** is a three-dimensional plot depicting the growth inhibitory effects of IRX4204 and lapatinib, alone and in combination, on breast cancer cell lines: MCF7 cells

(Figure 2A), SkBr3 cells (Figure 2B), BT474 cells (Figure 2C), and MDA-MB-361 cells (Figure 2D).

[0015] **FIGURE 3** is a three-dimensional plot depicting the growth inhibitory effect of IRX4204 and neratinib, alone and in combination, on breast cancer cell lines: MCF7 cells (Figure 3A), SkBr3 cells (Figure 3B), BT474 cells (Figure 3C), and MDA-MB-361 cells (Figure 3D).

DESCRIPTION

[0016] The herein disclosed embodiments include methods of treating $Her2^+$ cancers, such as $Her2^+$ carcinoma of the breast, with a combination a retinoid X (rexinoid) receptor (RXR) agonist and a Her2-targeted anticancer agent. Some embodiment further comprise administration of thyroid hormone in conjunction with the RXR agonist. Embodiments include a RXR agonist for use in combination with a Her2-targeted anticancer agent, or a thyroid hormone and a Her2-targeted anticancer agent, in the treatment of $Her2^+$ cancers. In some embodiments the $Her2^+$ cancer is $Her2^+$ breast cancer.