Therapeutics & Vaccines

Analogs of Diptoindonesin G for Breast Cancer Drug Development

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a novel set of compounds that have been shown to inhibit tumor growth in animal studies.

Overview

The natural product diptoindonesin G (Dip G) was first isolated in 2009 from the tree bark of *Hopea mengarawan*. It has shown antiproliferation effects in murine leukemia as well as immunosuppressant activity. Recently, it was reported to promote degradation of estrogen receptor alpha (ERα) while stabilizing ERβ, a tumor suppressor in breast cancer. Importantly, Dip G, by taking a different mechanism from the existing Selective Estrogen Receptor Degrader (SERDs), significantly decreases ERα mutant protein levels found in recurrent, metastatic breast cancer.

The Invention

UW–Madison researchers have synthesized analogs of Dip G that have shown a greater ability than the parent molecule to decrease ERα expression and stabilize ERβ in cultured breast cancer cells. The compounds are active for ameliorating, attenuating and halting the growth/metastasis of breast cancers.

Applications

- Novel compounds for development into breast cancer pharmaceuticals
- Novel compounds for development in treating endocrine resistant breast cancer harboring ERα mutations

Key Benefits

- Promising toxicity and efficacy data
- Provides a drug development opportunity in surging market space
- Innovative licensing and/or development terms may be available.

Stage of Development

These compounds have been shown to degrade mutant ERα that are resistant to Faslodex and Tamoxifen in cell culture model. They also have been shown to shrink breast cancer tumors in a murine model of human breast cancer.

Additional Information

For More Information About the Inventors

- Wei Xu
- Weiping Tang

Tech Fields

- Therapeutics & Vaccines : Oncology

For current licensing status, please contact Rafael Diaz at rdiaz@warf.org or 608-960-9847