Chroman-Derived Anti-Androgens for Treatment of Androgen-Mediated Disorders

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WARF: P03163US
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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing improved anti-androgen compounds for preventing and treating androgen-mediated disorders, such as prostate cancer.

OVERVIEW

Androgens (male sex hormones) contribute significantly to the development of prostate cancer. Current anti-androgen hormonal therapies for prostate cancer cause many unpleasant side effects, including impotence, hot flashes, diarrhea, breast enlargement, loss of libido, nausea and toxic liver effects. They can also stimulate prostate cancers in a subset of patients. These side effects occur, in part, because current anti-androgen compounds can cross the blood brain barrier and affect androgen receptors in the central nervous system.

THE INVENTION

UW-Madison researchers have developed improved anti-androgen compounds for preventing and treating androgen-mediated disorders, such as prostate cancer. The inventors discovered that the chromanol-derived moiety of vitamin E (alpha-tocopherol) exhibits anti-androgen properties and blocks androgen-associated effects in prostate cells.

Because these compounds are water soluble, they do not readily cross the blood-brain barrier and do not significantly affect the androgen receptors in brain tissues. Instead, these compounds block the androgen receptors only in peripheral tissues, resulting in treatment of androgen-mediated disorders with few side effects.

APPLICATIONS

- Preventing and treating androgen-mediated disorders including prostate cancer

THE WARF ADVANTAGE

WARF: A Leader in Technology Transfer Since 1925
Since its founding as a private, nonprofit affiliate of the University of Wisconsin—Madison, WARF has provided patent and licensing services to UW–Madison and worked with commercial partners to transform university research into products that benefit society. WARF intellectual property managers and licensing staff members are leaders in the field of university-based technology transfer. They are familiar with the intricacies of patenting, have worked with researchers in relevant disciplines, understand industries and markets, and have negotiated innovative licensing strategies to meet the individual needs of business clients.

The University of Wisconsin and WARF – A Single Location to Accelerate Translational Development of New Drugs
UW–Madison has the integrative capabilities to complete many key components of the drug development cycle, from discovery through clinical trials. As one of the top research universities in the world, and one of the two best-funded universities for research in the country, UW–Madison offers state-of-the-art facilities unmatched by most public universities.

These include the Small Molecule Screening Facility at the UW Comprehensive Cancer Center; the Zeeh Pharmaceutical Experiment Station, which provides consulting and laboratory services for developing formulations and studying solubility, stability and more; the Waisman Clinical Biomanufacturing Facility; the Wisconsin Institute for Medical Research, which provides UW–Madison with a complete translational research facility; and the innovative, interdisciplinary Wisconsin Institutes for Discovery, home to the private, nonprofit Morgridge Institute for Research and its public twin, WID, part of the university's graduate school. The highly qualified experts at these facilities are ready to work with you to create a library of candidates for drug development.
KEY BENEFITS

- Offers patients the benefits of hormone therapy with reduced adverse side effects
- Specifically targets peripheral tissue rather than the central nervous system
- Exhibits pure antagonist activity toward the androgen receptor
- Never acts as an androgen receptor agonist
- May be administered in many forms

ADDITIONAL INFORMATION

Tech Fields
Pharmaceuticals & Vitamin D - Oncology & hematology

CONTACT INFORMATION

For current licensing status, please contact John Nagel at jnagel@warf.org or (608) 265-7956.