

Vitamin D Analog "DA2HE" to Treat and Prevent Polyps, Hyperplastic Intestinal Disorders



INVENTORS • Hector DeLuca, Margaret Clagett-Dame, Lori Plum, Agnieszka Glebocka

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a vitamin D analog showing strong cell selectivity that may provide therapy for some cancers as well as intestinal disorders like Crohn's and celiac disease.

OVERVIEW

The hormonally active form of vitamin D, known as calcitriol or 1,25 dihydroxyvitamin D₃, has shown promise for treating diseases ranging from osteoporosis to cancer to psoriasis. However, the hormone mobilizes calcium from bones and increases intestinal absorption of dietary calcium. Effective therapeutic concentrations can lead to hypercalcemia; a condition characterized by elevated blood calcium levels, alterations in mental status, muscle weakness and calcification of soft tissues and organs such as the heart and kidneys. Therefore, a need exists for new compounds that provide desirable therapeutic effects without causing dose-limiting hypercalcemia.

THE INVENTION

UW-Madison researchers have developed a vitamin D analog, seco-A-2,19-dinor-1,25-dihydroxyvitamin D₃. Known as DA2HE, the compound exhibits high activity *in vivo*, especially in intestinal tissues. Relatively low receptor binding, differentiation and transcription activities suggest strong cell selectivity for use against polyps, some cancers and intestinal disorders. The compound's high intestinal calcium transport activity may be useful against bone diseases.

APPLICATIONS

- Therapy for polyps and colon cancer
- Treating and preventing Crohn's disease, ulcerative colitis, celiac disease and other intestinal disorders
- Treating bone diseases

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

- High intestinal activity
- Potential for strong cell selectivity
- Less likely to cause dose-limiting hypercalcemia than calcitriol
- Can be administered in many forms

ADDITIONAL INFORMATION

Tech Fields

Pharmaceuticals & Vitamin D - Vitamin D

Pharmaceuticals & Vitamin D - Oncology & hematology

Pharmaceuticals & Vitamin D - Immunity & auto-immune

CONTACT INFORMATION

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

