Modified Retinoid Compounds with Reduced Toxicity

INVENTORS • Margaret Clagett-Dame, Hector DeLuca, Sumithra Gowlugari

WARF: P02381US
View U.S. Patent No. 7,964,639 in PDF format.

The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing retinoid esters that have been modified to be significantly less toxic than the parent retinoids and can be administered orally with minimal side effects.

OVERVIEW

Orally administered retinoic acid isomers are used to treat many disorders; however, they cause serious side effects including weight loss, inanition, eye encrustation, bone loss, mucocutaneous toxicity, hyperlipidemia and teratogenic activity in patients who are pregnant.

THE INVENTION

UW-Madison researchers have developed modified retinoid esters with reduced toxicity. The carboxyl group of a retinoid is esterified with a highly sterically hindered compound, preferably a secondary or tertiary alcohol. The resulting retinoid esters are significantly less toxic than the parent retinoids and can be administered orally with minimal side effects.

APPLICATIONS

• Potentially useful for treating all diseases where retinoid compounds have been effective, including proliferative skin disorders, neoplastic diseases and skin conditions

KEY BENEFITS

• Resulting compounds can be administered orally
• Greatly reduces the risk of serious side effects typically associated with oral retinoid use
• Offer much greater therapeutic window than parent retinoids
ADDITIONAL INFORMATION

Related Technologies
See WARF reference number P03037US for a method of reducing the toxicity of retinoids containing a free carboxyl group.

Tech Fields
Pharmaceuticals & Vitamin D - Skin & connective tissue

CONTACT INFORMATION

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