Therapeutics & Vaccines

Novel Analogs of Podophyllotoxin May Treat Cancer and Viral Infections

WARF: P08343US

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing novel compounds with anticancer and antiviral activity.

Overview

Podophyllotoxin is a natural product derived from a plant. Although two clinically useful glycosylated analogs have been developed for treating cancer, podophyllotoxin is difficult to synthesize, hindering efforts to optimize the sugars on the parent molecule and maximize efficacy.

UW–Madison researchers previously developed a method, known as neoglycorandomization, for adding sugars to natural products to create a library of compounds for screening. The approach uses a universal chemical glycosylation method that employs reducing sugars and requires no protection or activation.

The Invention

UW–Madison researchers have now synthesized a library of podophyllotoxin derivatives using the neoglycorandomization method. The new derivatives may be useful for treating cancer or as antivirals.

Applications

- Cancer treatment
- Antivirals

Key Benefits

- Novel compounds
- Derived from a natural product

Additional Information

Related Technologies

- WARF reference number P04455US describes the method of glycosylating natural compounds to create a large library of diverse compounds for high throughput screening.

Tech Fields

- Therapeutics & Vaccines : Anti-infectives (antibacterials, antifungals, antivirals)
- Therapeutics & Vaccines : Oncology

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