



## Reversible Natural Product Glycosyltransferase-catalyzed Reactions, Compounds And Related Methods

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### The Invention

The present invention relates to methods of use of glycosyltransferases and related compounds. The invention exploits the reversibility of glycosyltransferases to generate new sugars, unnatural biomolecules and numerous one-pot reactions for generation of new biomolecules having varied backbones such as enediynes, vancomycins, bleomycins, anthracyclines, macrolides, pluramycins, aureolic acids, indolocarbazoles, aminoglycosides, glycopeptides, polyenes, coumarins, benzoisochromanequinones, calicheamicins, erythromycin, avermectins, ivermectins, angucyclines, cardiac glycosides, steroids or flavinoids. In preferred embodiments, the invention specifically relates to biosynthesis of anticancer (the enediyne calicheamicin, CLM), anthelmintic agents (the macrolides avermectin, ivermectin and erythromycin) and antibiotic (the glycopeptide vancomycin, VCM) natural product-based drugs developed by reversible, bidirectional glycosyltransferase-catalyzed reactions.

#### Tech Fields

- [Drug Discovery & Development : Compound libraries](#)
- [Therapeutics & Vaccines : Anti-infectives \(antibacterials, antifungals, antivirals\)](#)

For current licensing status, please contact Rafael Diaz at [rdiaz@warf.org](mailto:rdiaz@warf.org) or 608-960-9847