

(SD2021-146) ANTICANCER AND ANTIFUNGAL SPLICE MODULATORS

Tech ID: 32495 / UC Case 2021-Z08-1

BACKGROUND

While splice modulators have entered clinical trials, limited clinical efficacy in splicing factor mutation-driven malignancies, such as acute myeloid leukemia, has remained a challenge. There is a pressing unmet medical need for developing potent small molecule splice modulators for the treatment of a broad array of malignancies characterized by splicing deregulation.

However, the inability to practically access gram-scale lead molecules with viable pharmacological properties continues to hinder their application.

TECHNOLOGY DESCRIPTION

Researchers from UC San Diego report on a scalable approach to prepare 17S-FD-895, a potent in vivo active splice modulator. The strategy described herein not only provides material to enable clinical translation but also furthers lead validation by expanding the structure-activity relationships that guide splice modulation.

ADVANTAGES

- ▶ Process scaled synthesis of a complex polyketide
- ▶ Complete control of regioselective bond assembly
- ▶ Installation of 11 stereocenters with high enantioselectivity
- ▶ Synthetic access to single stereoisomeric and single-atom isotopically labeled analogs

STATE OF DEVELOPMENT

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OTHER INFORMATION

KEYWORDS

medicinal chemistry, polyketide,

stereochemistry, splicing modulator,

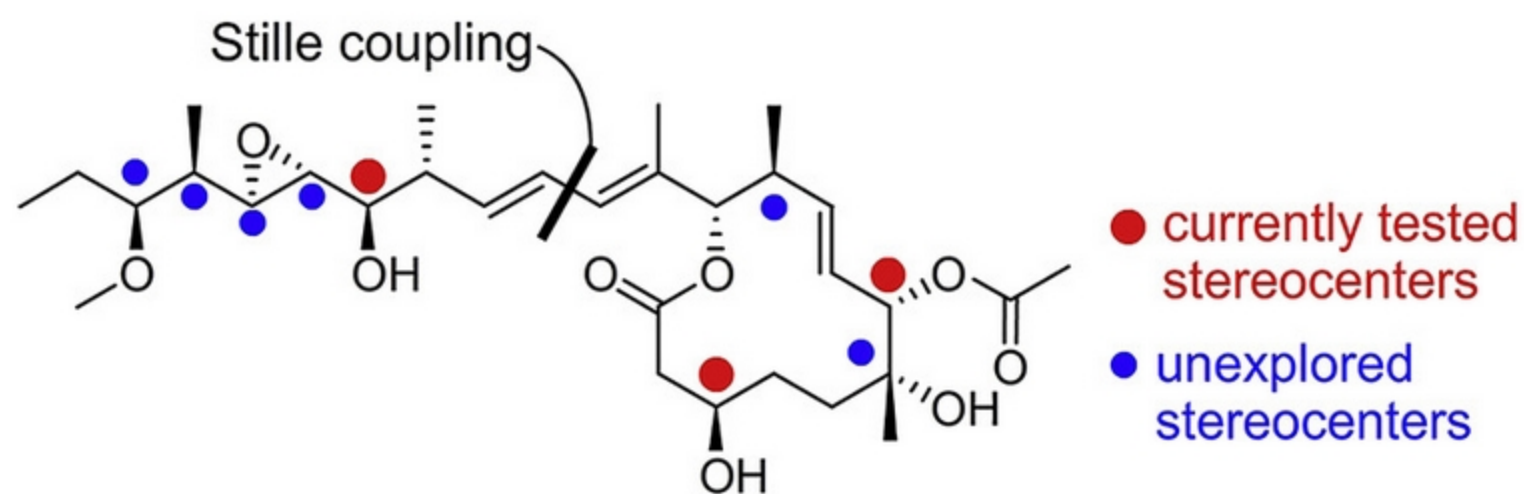
process chemistry

CATEGORIZED AS

- ▶ **Medical**
 - ▶ Disease: Cancer
 - ▶ New Chemical Entities, Drug Leads
 - ▶ Therapeutics

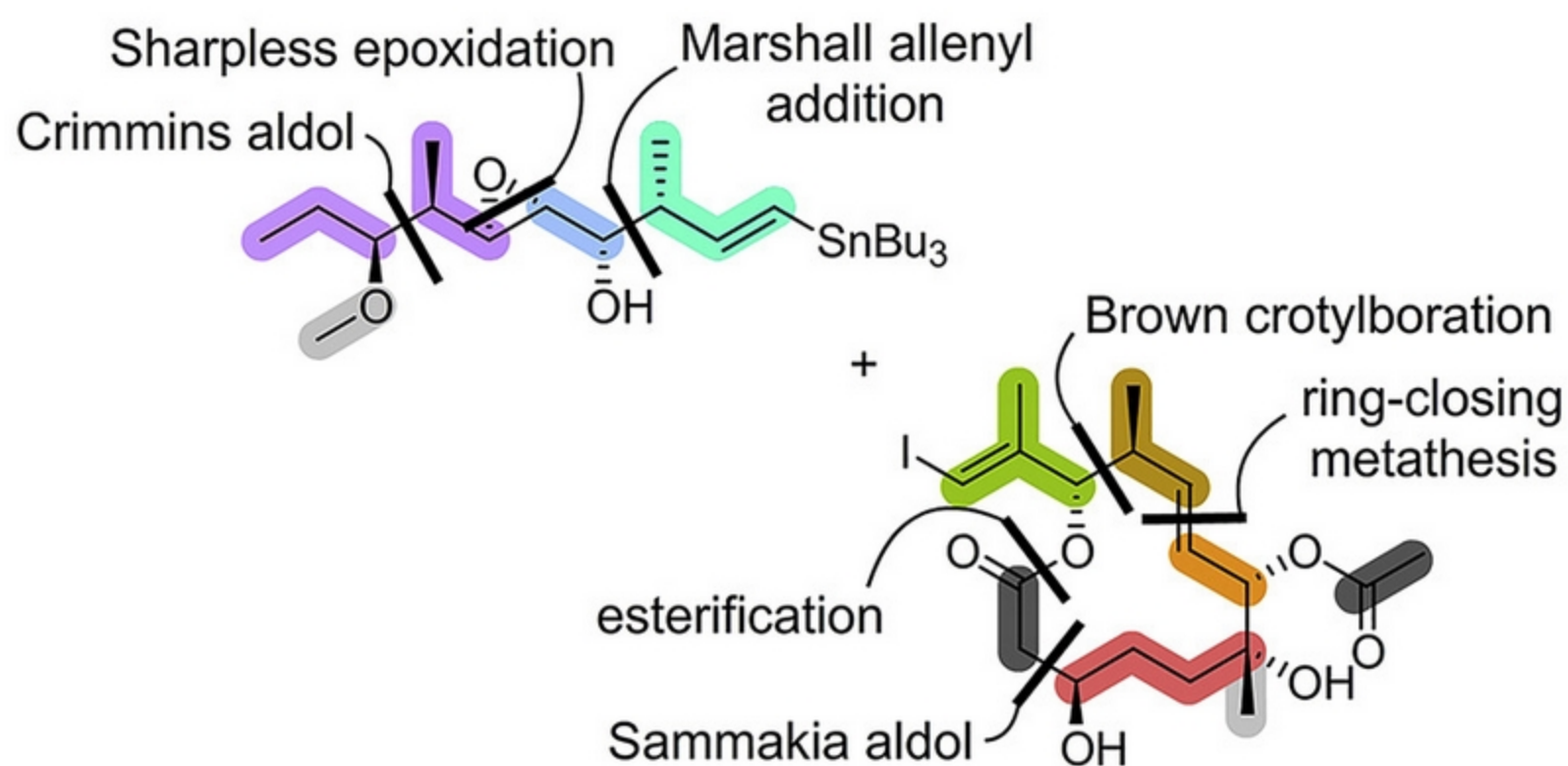
RELATED CASES

2021-Z08-1



17S-FD-895

gram-scaled synthesis \Downarrow *SAR enabling methodology*



INTELLECTUAL PROPERTY INFO

UC San Diego is seeking companies interested in commercializing this technology into products.

RELATED MATERIALS

► Warren C. Chan, James J. La Clair, Brian León, Kelsey A. Trieger, Martijn Q. Slagt, Mark T. Verhaar, Dominika U. Bachera, Minze T. Rispens, Remco M. Hofman, Vincent L. de Boer, Rory van der Hulst, Rutger Bus, Pieter Hiemstra, Michael L. Neville, Kyle A. Mandla, Joshua S. Figueroa, Catriona Jamieson, Michael D. Burkart, Scalable Synthesis of 17S-FD-895 Expands the Structural Understanding of Splice Modulatory Activity, *Cell Reports Physical Science*, Volume 1, Issue 12, 2020,