Divergent Approach to Enmein-Type Natural Products

Significance: Dong and co-workers have attained three highly oxygenated ent-kaurenoids from the isodon family of natural products by means of total synthesis. The significance of the work lies in the expeditious construction of key intermediate \( L \), which was subsequently utilized as a common starting point in the preparation of \((-\)-sculponin \( R \), \((-\)-isodocarpin, and \((-\)-enmein.

Comment: The authors commenced their synthetic route with the assembly of bicyclic ketone \( E \) by Diels–Alder cycloaddition. Birch reduction provided access to acetal \( G \), which was subsequently transformed into enone \( I \). In a single pot, Dong and co-workers constructed pivotal vinyl bromide \( L \). Relying on reductive alkenylation strategies, this pentacycle was used to access the three highlighted natural products.

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Synfacts 2018, 14(07), 0663  Published online: 18.06.2018
DOI: 10.1055/s-0037-1609866; Reg-No.: C03318SF