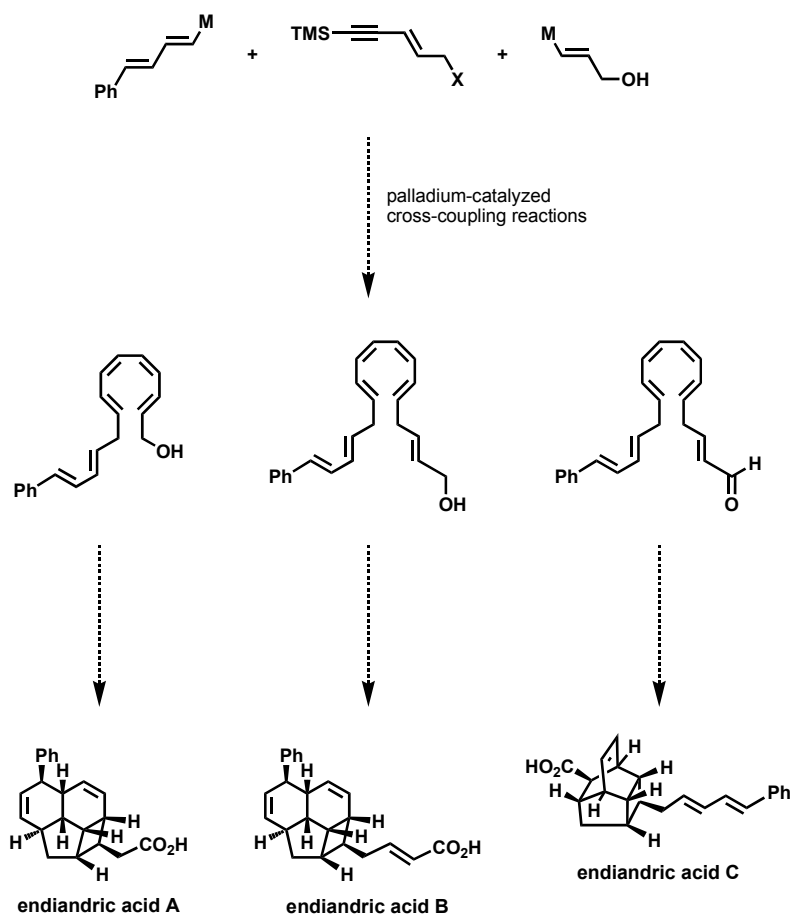


Palladium-Catalyzed Cross-Coupling Reactions in the Convergent Biomimetic Synthesis of the Endiandric Acids

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Background. The endiandric acids are a family of cyclic polyketides isolated from the Australian plant *Endiandra introrsa*. Aside from their intricate structural complexities, one of the acids (endiandric acid H) has potential for the treatment of asthma. The biomimetic synthesis of these compounds consists of a cascade of two electrocyclizations and a Diels-Alder reaction from tetraene precursors.



Results. The efficiency of the Negishi, Stille, and Suzuki coupling reactions was tested in the convergent synthesis of the precursors to the endiandric acid cascade. Coupling partners were synthesized from readily available starting materials. In most cases, simpler compounds were used as model systems. Ultimately, the Negishi couplings proved unsuccessful, while the Stille and Suzuki coupling strategies show promise.

Funding for this project was provided by NSF-REU, Research Corporation, and the Dreyfus Foundation.