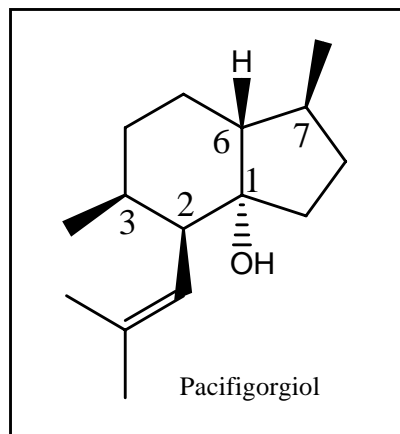


## Total Synthesis: Pacifigorgiol

Pacifigorgiol is a marine natural product isolated from the sea fan *Pacifigorgia cf. adansii* by Fenical and coworkers off the pacific coast of Mexico.<sup>1</sup> It was shown to exhibit ichthyotoxicity. Pacifigorgiol makes for an interesting synthetic target due to its relatively small size with significant stereochemical complexity. The proposed synthesis incorporates important synthetic challenges: (1) formation of the fused bicyclic core with enantiomeric control at C-6 via a step-wise Robinson annulation<sup>2</sup>, (2) Barton-McCombie radical deoxygenation<sup>3</sup> of C-3 and C-7 with stereochemical control, (3) stereoselective epoxidation of C-1 and C-2 followed by subsequent regioselective cuprate opening at C-2.



### References:

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