Catalysis for Total Synthesis

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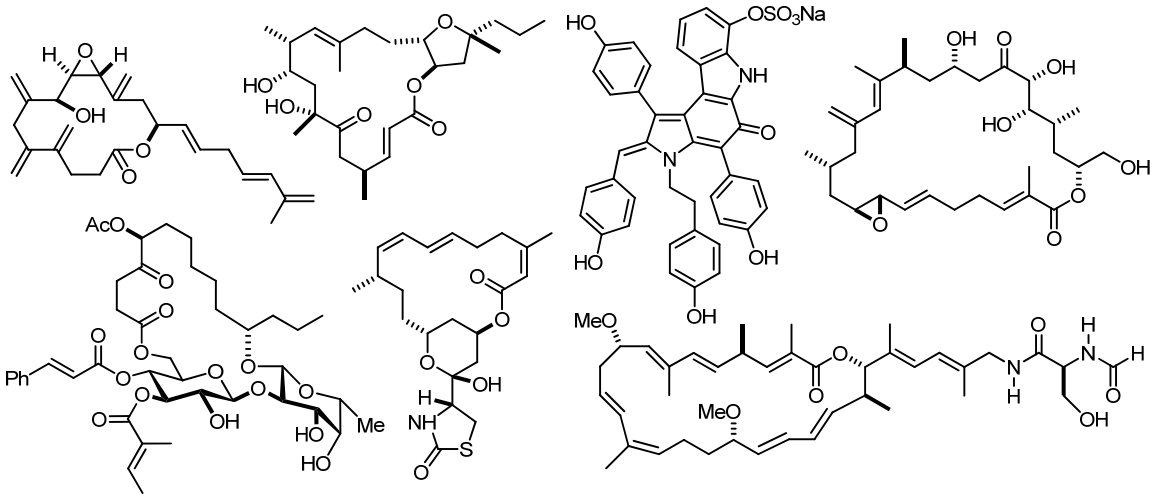
This lecture will provide an up-date on our ongoing programs concerning the total synthesis and evaluation of complex natural products of biological significance. Targets of current interest include the latrunculin family of actin binding macrolides [1], the highly cytotoxic polyene iejimalide [2], various members of the amphidinolide series [3-5], complex glycolipids such as ipomoeassin [6], and the telomerase inhibitors dictyodendrin A-E [7]. All syntheses are largely catalysis-based, featuring the scope of methodology under scrutiny in this laboratory (ring closing alkene- and alkyne metathesis, iron catalyzed coupling reactions, titanium-induced heterocycle syntheses).



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