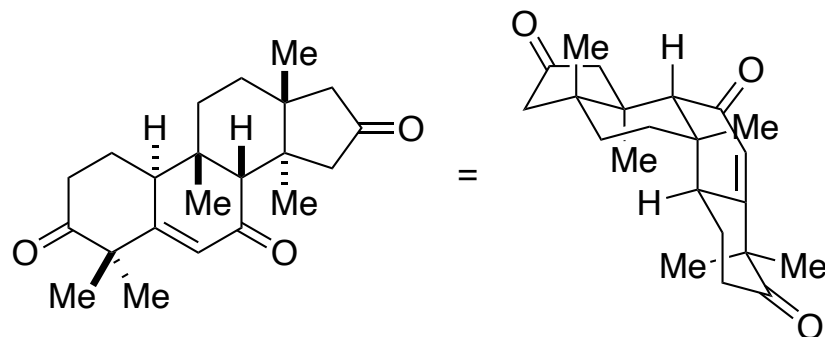


Asymmetric De Novo Synthesis of a Cucurbitane Triterpenoid: Total Synthesis of Octanorcucurbitacin B

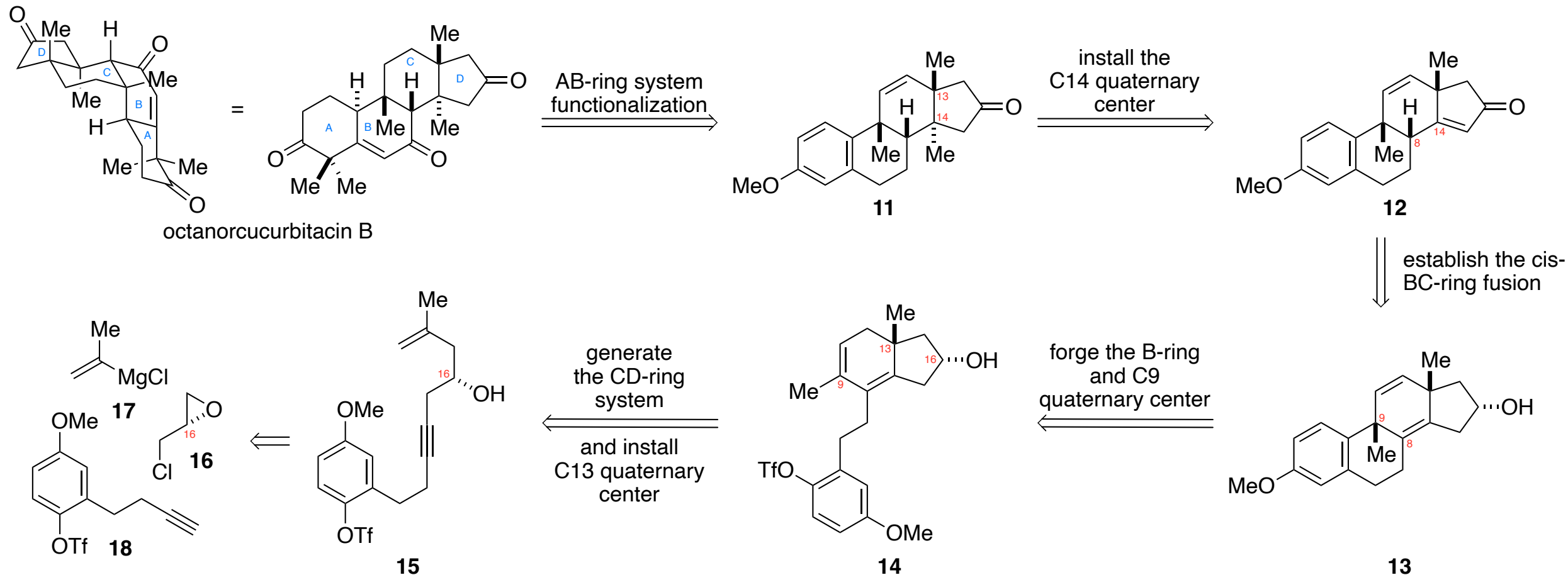


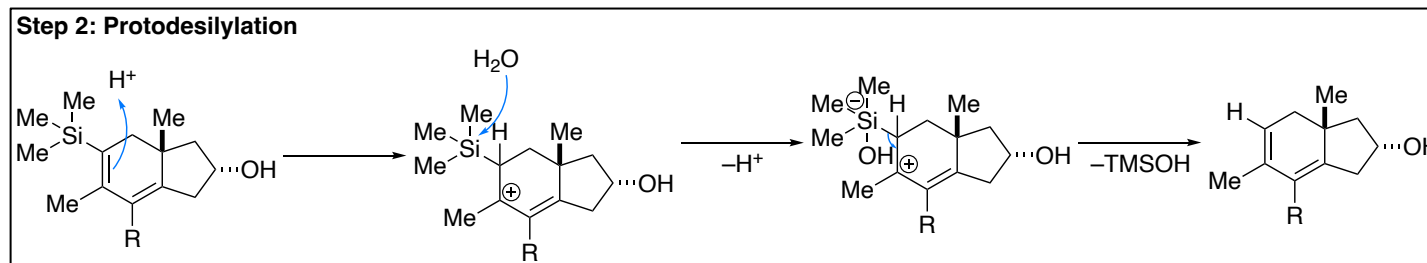
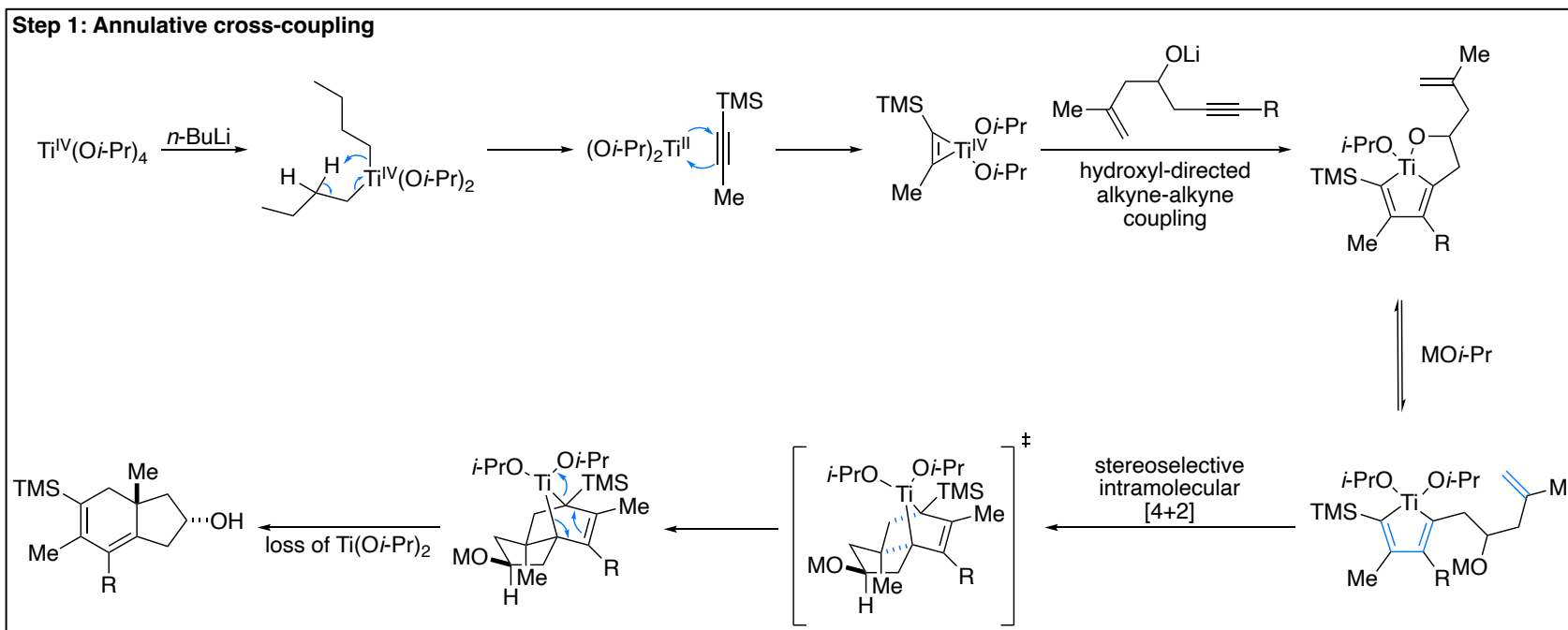
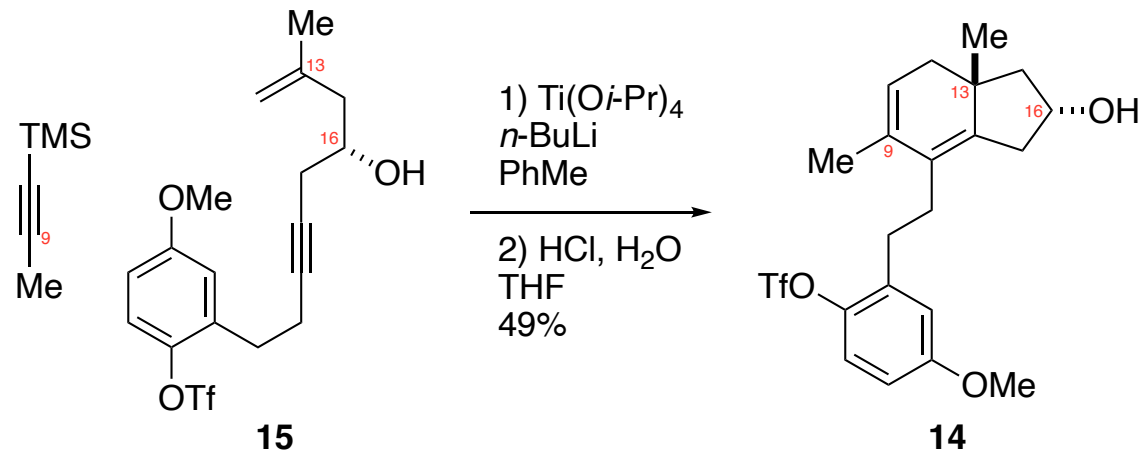
octanorcucurbitacin B

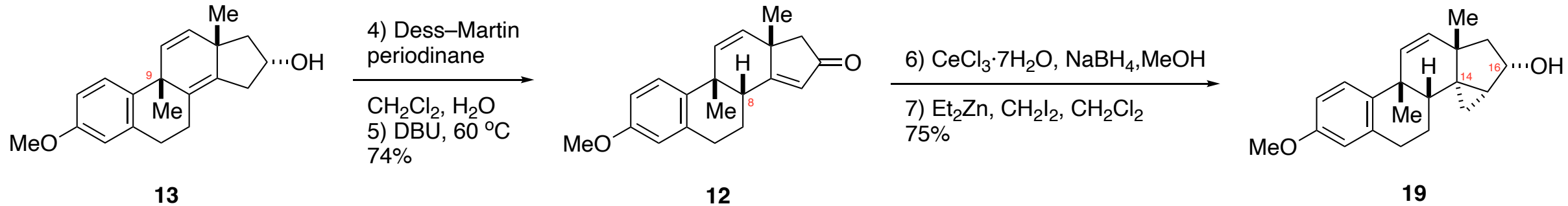
- Cucurbitanes are known to possess antitumor, anti-inflammatory, and anti-HIV activities
- *cis*-fused BC ring system that results in a convex tetracyclic system
- Octanorcucurbitacin B was isolated from the stems of the bitter gourd, *Momordica charantia*
- 15 chemical steps

Jason Wu
Liu group
Total Synthesis
6/22/2022

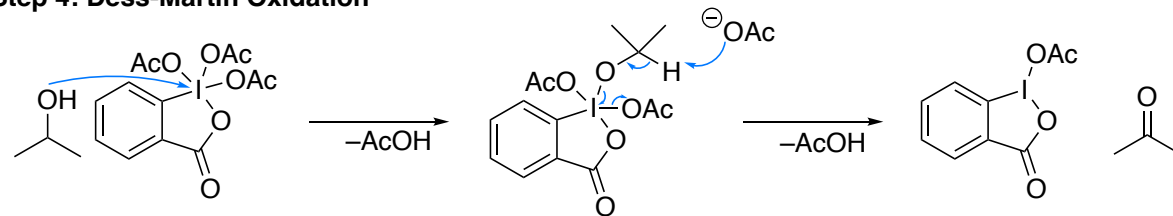
Retrosynthetic Analysis of Octanorcucurbitacin B



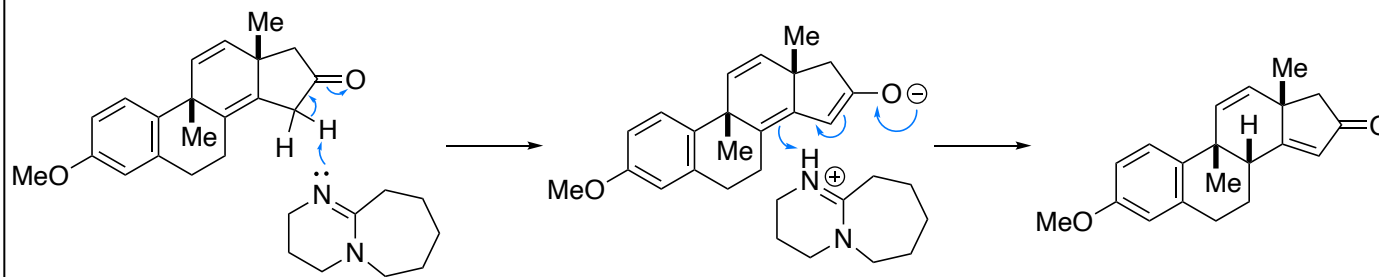




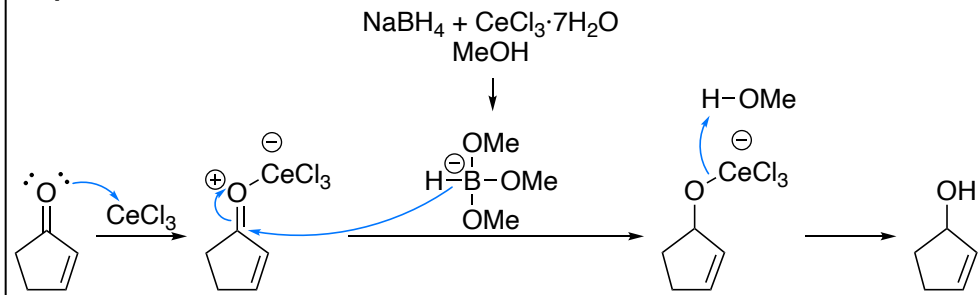
Step 4: Dess-Martin Oxidation



Step 5: DBU-mediated isomerization



Step 6: Luche reduction



Step 7: Simmons-Smith cyclopropanation

