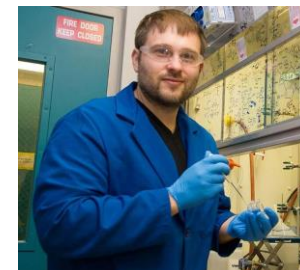
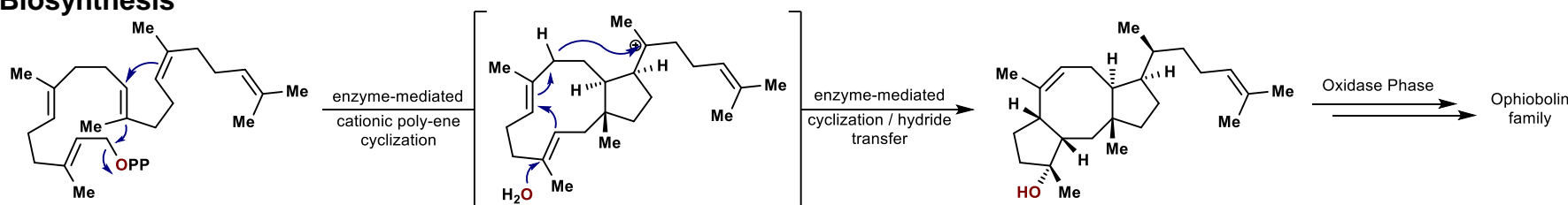


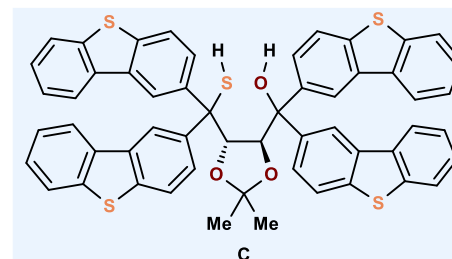
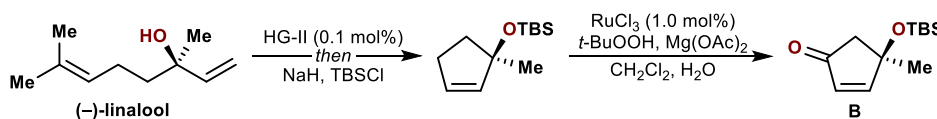
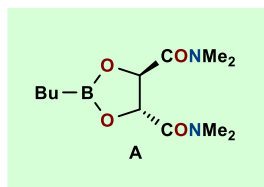
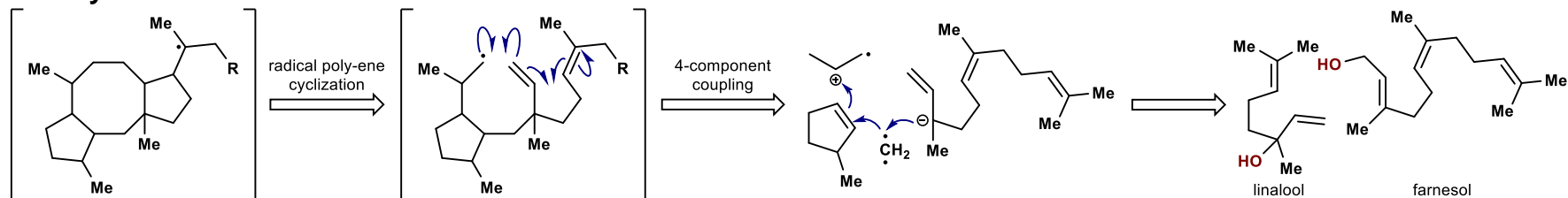
- Member of the ophiobolin sesterterpene (25 carbons) family of natural products
- Family contains a representative 5,8,5 fused ring system
- Family members possess a range of biological activities including phytotoxic and cytotoxic properties as well as calmodulin inhibition
- Only two previously reported syntheses within the family
 - Ophiobolin A (Nakada, 47 steps)
 - Ophiobolin C (Kishi, 38 steps)

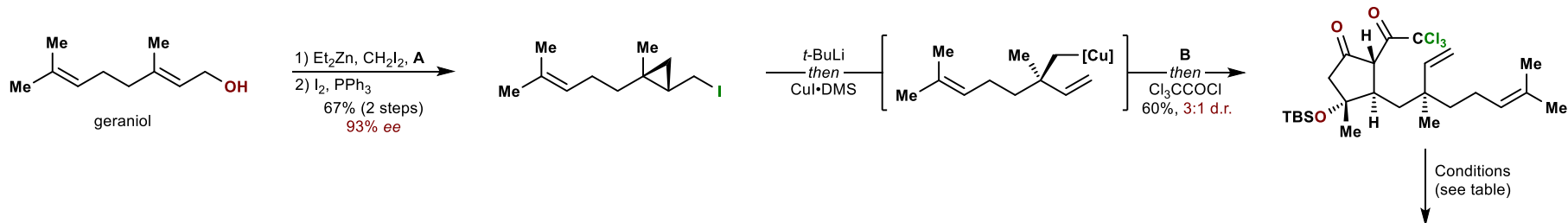


Biosynthesis

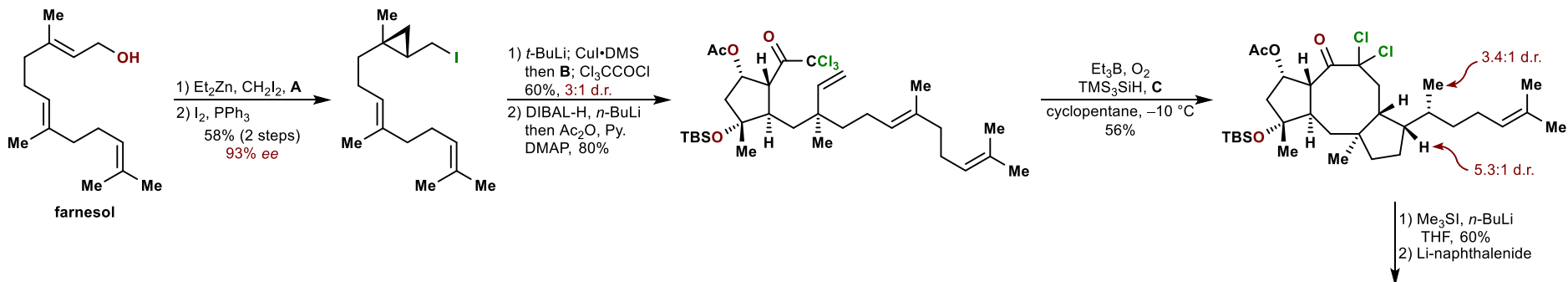
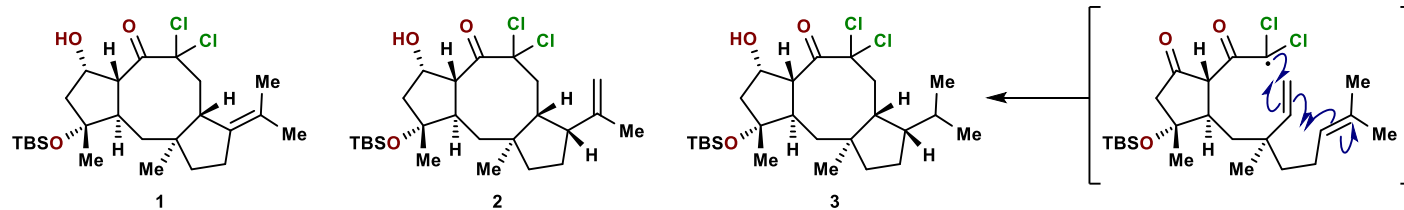


Retrosynthesis





Conditions	Yield (1:2:3)
CuCl, bipy, EtOH, Δ	43% (1:0:0)
1) DIBAL-H, <i>n</i> -BuLi 2) Ir(ppy) ₃ , Et ₃ N, <i>h</i> ν	1) 70% 2) 67% (0:57:10) + 15% Δ ₁₄₋₁₅ , 3:1 d.r.
1) DIBAL-H, <i>n</i> -BuLi 2) TMS ₃ SiH, Et ₃ B, O ₂ 3,5-CF ₃ PhSH	1) 70% 2) 74% (0:0:1)



First Total Synthesis
9 Steps
2% Overall Yield

