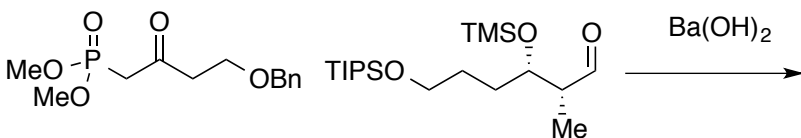
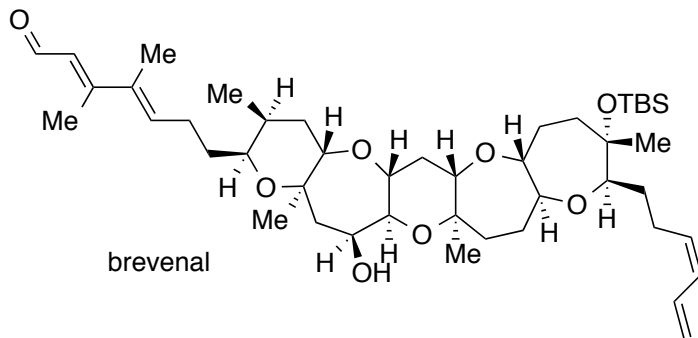
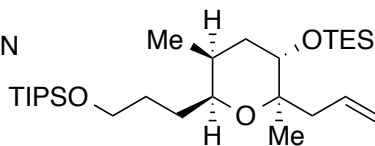


Partial Synthesis of Brevenal, Crimmins, UNC Chapel Hill, 2010.

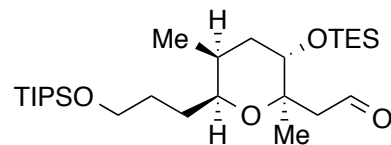
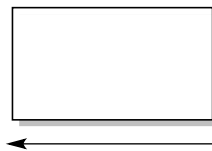
Isolated from marine dinoflagellates off Florida coast. Competitively displaces red tide neurotoxin, dihydrobrevetoxin-B, from voltage-sensitive sodium channels.



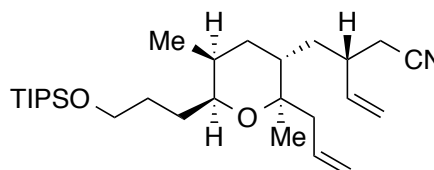
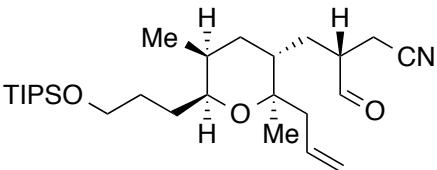
1. CSA, MeOH
2. NaH, BrCH₂CO₂H
3. Me₃CCOCl, Et₃N
4. NaN(SiMe₃)₂, BrCH₂CN
5. NaBH₄
6. (COCl)₂, DMSO, Et₃N



1. *i*Bu₂AlH
2. NH₄F
3. CSA, mol sieves
4. DMSO
5. EtSH, Zn(OTf)₂
6. TESCOI, KN(SiMe₃)₂
7. *m*-CPBA, then AlMe₃
8. Na, naphthalene
9. (COCl)₂, DMSO, Et₃N



1. Grubbs 2nd Gen.
2. OsO₄, NMO
3. PPTS, CH₂=CH(OMe)CH₃
4. *t*Bu₂AlH



5. BuLi, CH₃P(O)(OMe)₂, -78 °C
6. DMP

