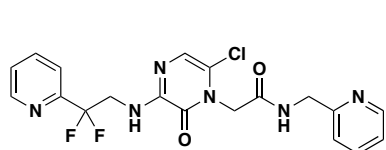
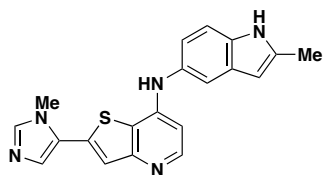
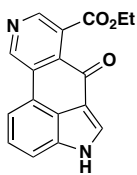
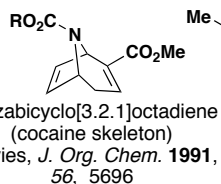
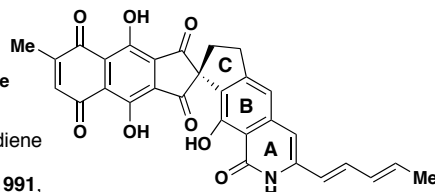
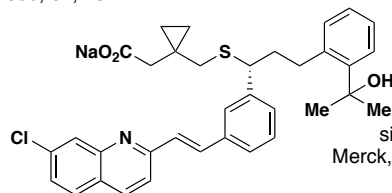


Wednesday, April 2<sup>nd</sup>, 2008**Background music:** Grieg, Piano concerto suites 1 & 2**Syntheses discussed:**thrombin inhibitor  
Merck, *Org. Proc. Res. Dev.* **2004**, *8*, 192 - 200.kinase inhibitor  
Pfizer, *Org. Proc. Res. Dev.* **2003**, *7*, 676 - 683.8-azaergoline ring system  
Doll, *J. Org. Chem.* **1999**, *64*, 1372.8-azabicyclo[3.2.1]octadiene  
(cocaine skeleton)  
Davies, *J. Org. Chem.* **1991**,  
*56*, 5696fredericamycin A  
Boger, *J. Am. Chem. Soc.* **1995**, *117*, 11839.singulair (montelukast sodium)  
Merck, *BMCL*, **1992**, 1141 and **1995**, 283*Reading assignment:* HC chapters 4, 10, 12, 16, 20; Li chapters 8.3.2 and 8.4; Schlosser handout**Partial list of concepts/transforms discussed:**

Nucleophilic attack on hydrogen (metallation of heterocycles)

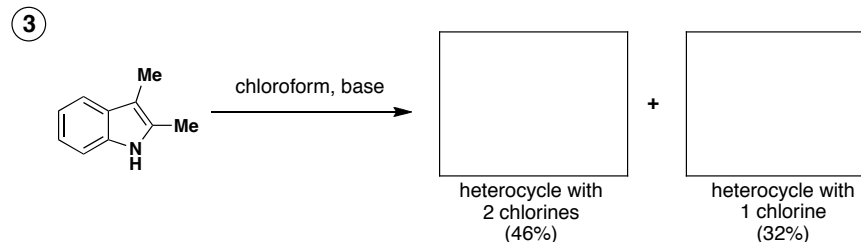
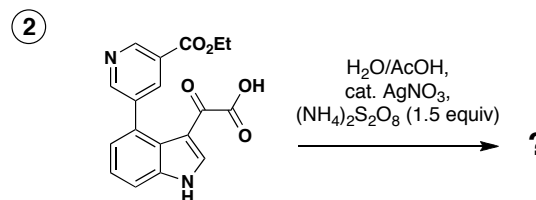
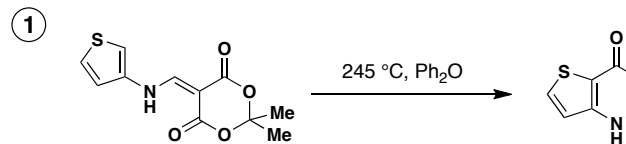
Reaction of heterocycles with radicals and electron deficient species

Minisci reaction

Ciamician-Dennstedt rearrangement

Effect of heterocycles on their substituents:

- By electron withdrawal
- By electron donation

**Problems of the day:**

④ Propose a synthesis of the following compound from a pyridine based s.m.

