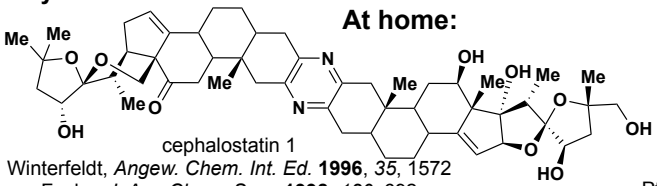
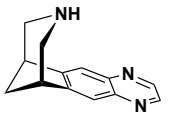
Study music: Philip Glass (part 1)

Syntheses discussed:

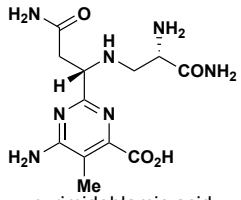
At home:



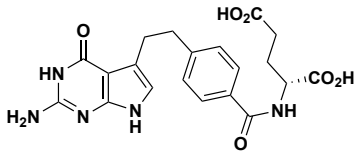
cephalostatin 1
Winterfeldt, *Angew. Chem. Int. Ed.* **1996**, *35*, 1572
Fuchs, *J. Am. Chem. Soc.*. **1998**, *120*, 692
Heathcock, *J. Org.. Chem.* **1994**, *59*, 6828
Shair, *J. Am. Chem. Soc.*, **2010**, *132*, 275



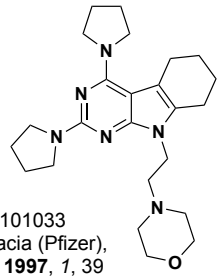
varenicline
Pfizer, *J. Med. Chem.* **2005**, *48*, 3474
(see Lecture 8 for more)



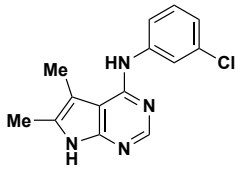
pyrimidoblamic acid
Boger, *Angew. Chem. Int. Ed.* **1993**, *32*, 273
JACS. **2014**, *136*, 2119.



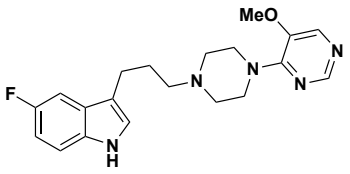
LY231514
Lilly, *OPRD* **1999**, *3*, 184



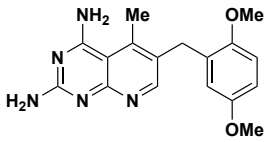
U-101033
Pharmacia (Pfizer),
OPRD **1997**, *1*, 39



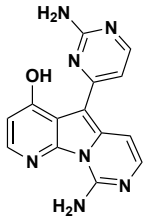
CGP59326
Novartis, *OPRD* **2001**, *5*, 581



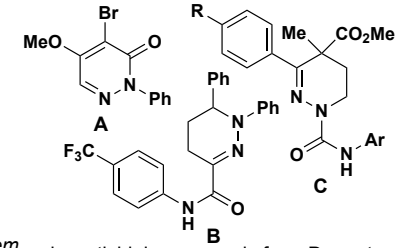
transport inhibitor
BMS, *OPRD* **1997**, *1*, 300



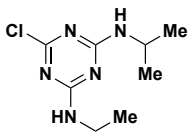
piritrexim (PTX)
MPI, *J. Med. Chem.* **1995**, *38*, 4739



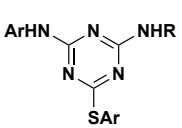
variolin B
Molina, *J. Org. Chem.* **2003**, *68*, 489



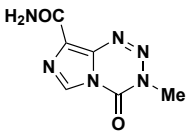
insecticidal compounds from Dupont



atrazine
Syngenta



secretase inhibitor
AstraZeneca



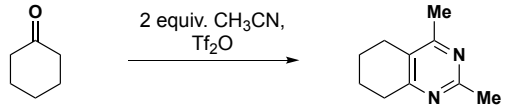
Temodar (temozolomide)
Schering-Plough, *J.Org. Chem.* **1997**, *62*, 7288

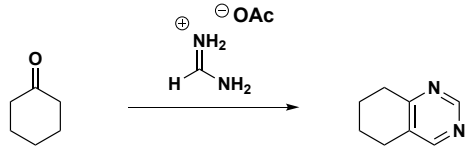
Reading assignment: **HC chapters 13-14 and pgs. 574-579**

Partial list of concepts/transforms discussed:

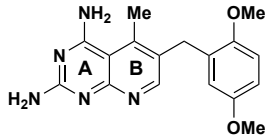
Beirut reaction	Boger pyrimidine synthesis
Traube pyrimidine synthesis	Dakin-West reaction
Pinner pyrimidine synthesis	Dimroth rearrangement
Biginelli	von Richter cinnoline synthesis

Problems of the day:

1. 

2. 

3. Provide 2 retrosynthesis of piritexim to break both rings A and B



4. 