

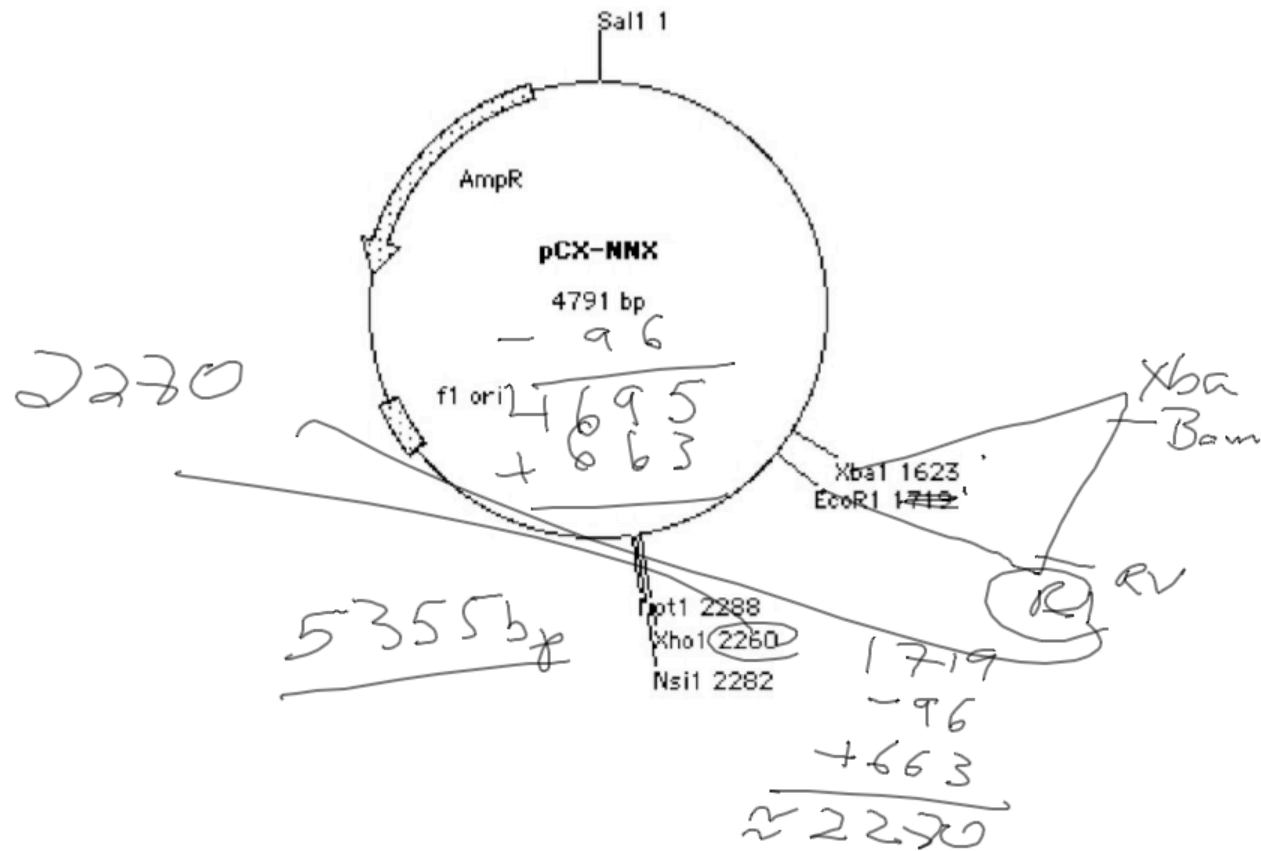
# DNA Engineering

## M1D4

20.109

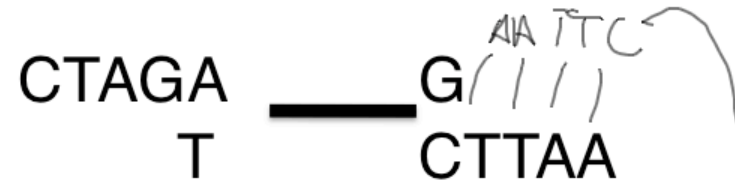
09.23.10

# Quick review of FNT...



*Last time in 20.109...*

delta5 EGFP insert:

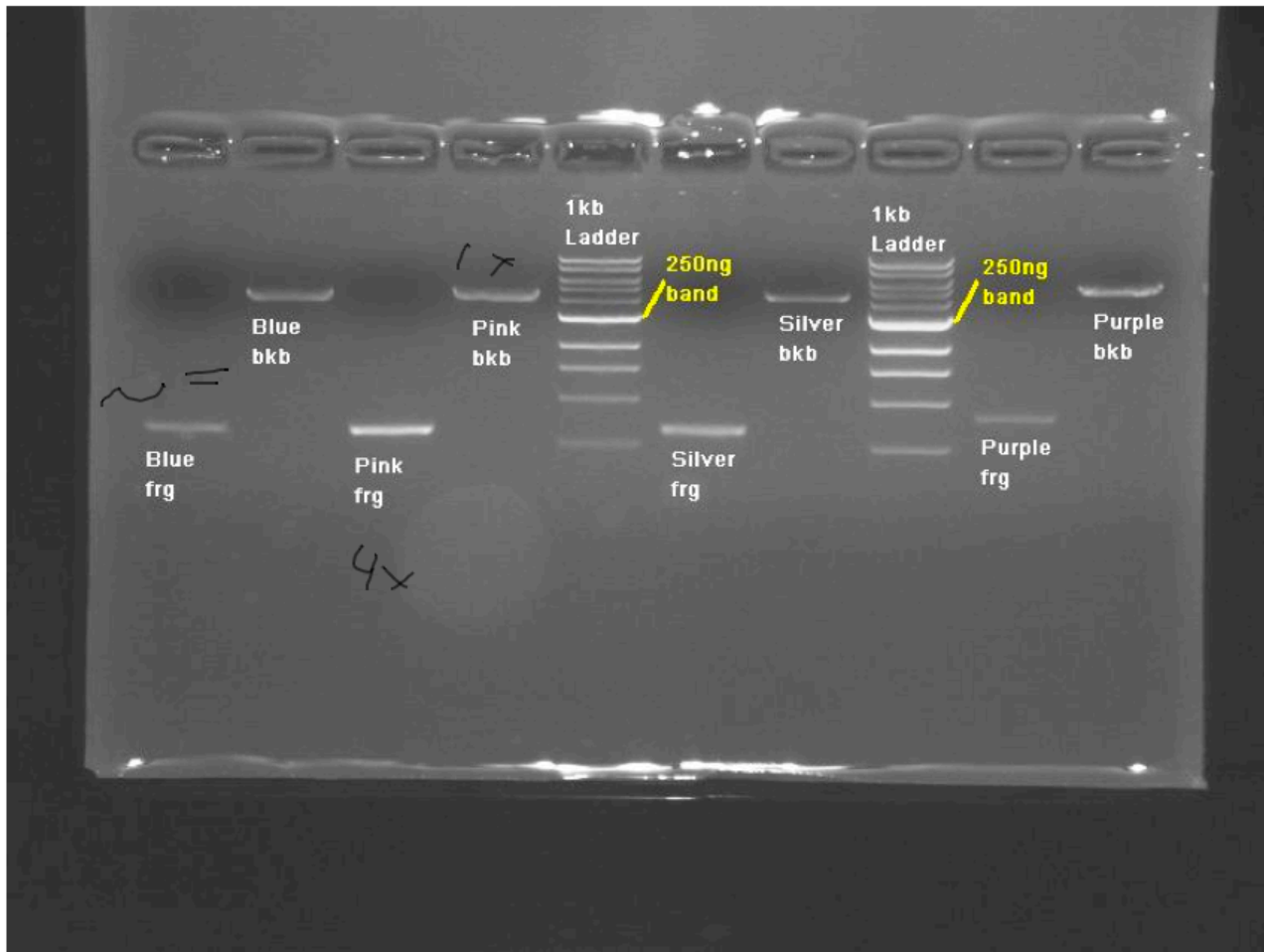


pCX-NNX bkb:



Today: ligation and transformation

# Your Data



# Ligation Reactions

Controls for: Uncut DNA (control on) cut plasmids Exp't

	bkb + insert, no ligase	bkb only, plus ligase	bkb + insert, plus ligase
pCX-NNX bkb	? $\mu$ l	? $\mu$ l	? $\mu$ l
PCR insert	? $\mu$ l	xxx	? $\mu$ l
10X Ligation Buffer <sup>^</sup>	1.5 $\mu$ l	1.5 $\mu$ l	1.5 $\mu$ l
T4 DNA Ligase	xxx	0.5 $\mu$ l	0.5 $\mu$ l
<u>Water</u>	<u>To 15 <math>\mu</math>l not including volume of enzyme</u>		

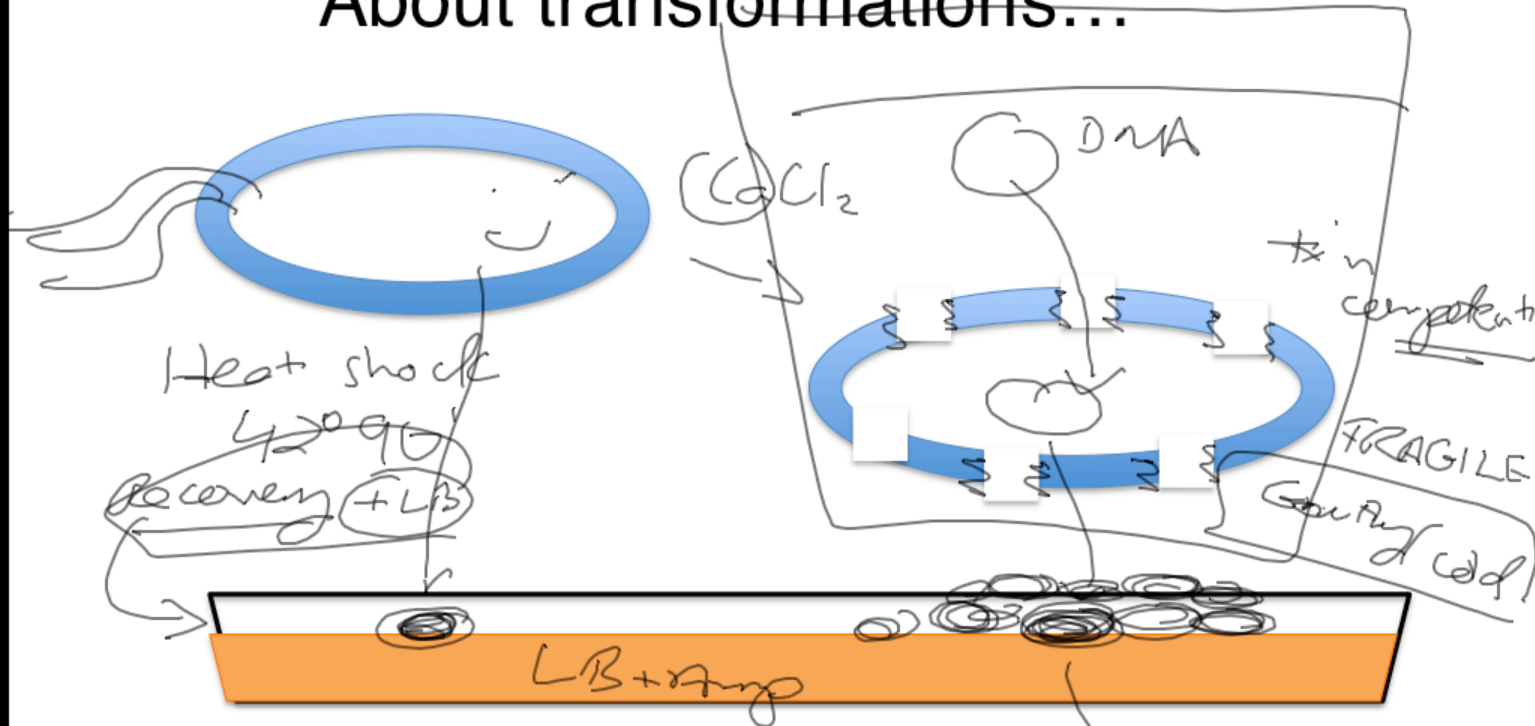
Exp't
   
cold

Room temp 10 minutes,  
then clean up again!

# Transformation Reactions mistake

Tube	Transformation	Expectation	What if...? <sup>back Amp</sup>
Not done	Nothing	<del>∅</del>	lots plates (no Amp) contamin. index
1	pCX-EGFP (5 ng)	plenty	No plates (can't see) then failed colony pick
2	Bkb+insert, no ligase	<del>∅</del>	lots CC DNA contamin. index
3	Bkb, + ligase	<del>∅</del>	some singly w/ bkb
4	Bkb + insert + ligase	lots lots ∅	some Don't free

# About transformations...



## Technical Notes:

- ✓ • Treat competent cells gently
- ✓ • Use sterile technique to plate