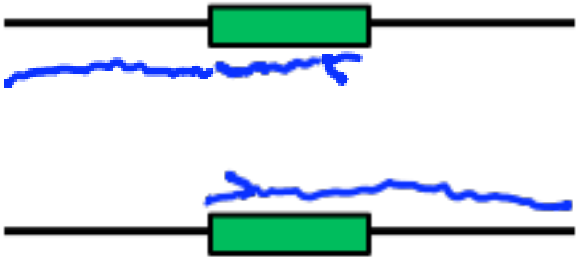
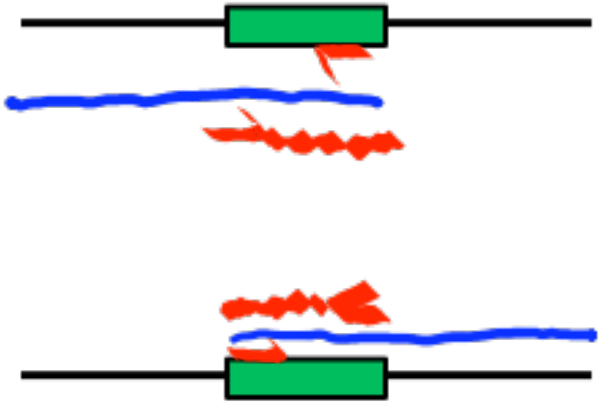
- Announcements
- Quiz (re: M1D1)
- Pre-lab Lecture
  - DNA Amplification: PCR, SDM
  - Restriction Enzymes Recap
  - Today in Lab

PCR Process: exponential

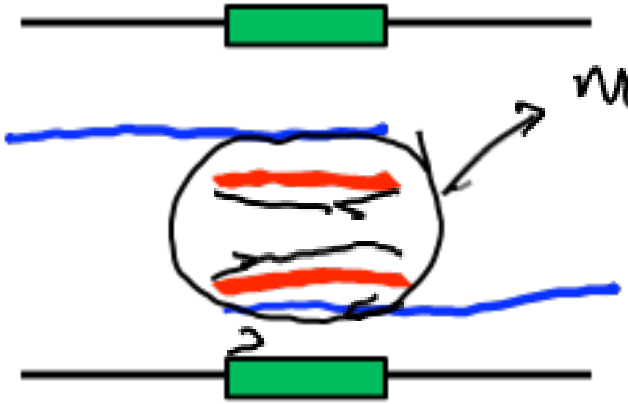
Round 1



Round 2



Round 3



major product

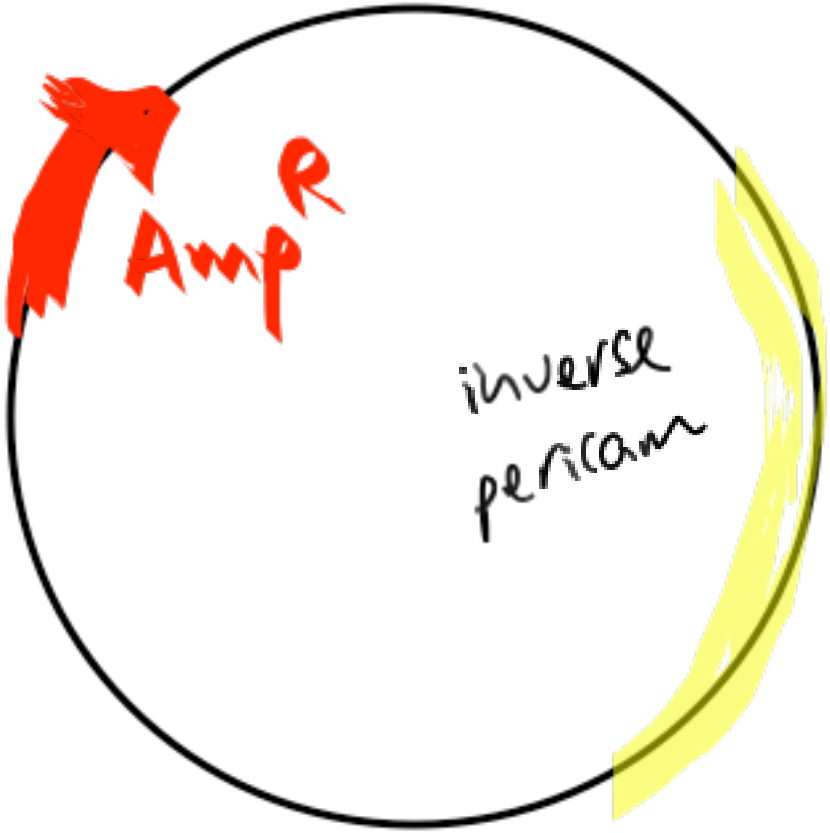
* copies of copies

PCReaction

Component	Function
DNA polymerase	catalyze DNA extension
buffer ; Mg^{++} co-factor	right chem. environment
dNTPs	material to make copies
primers	Select DNA, initiate new
template	providing desired sequence

Plasmid Overview

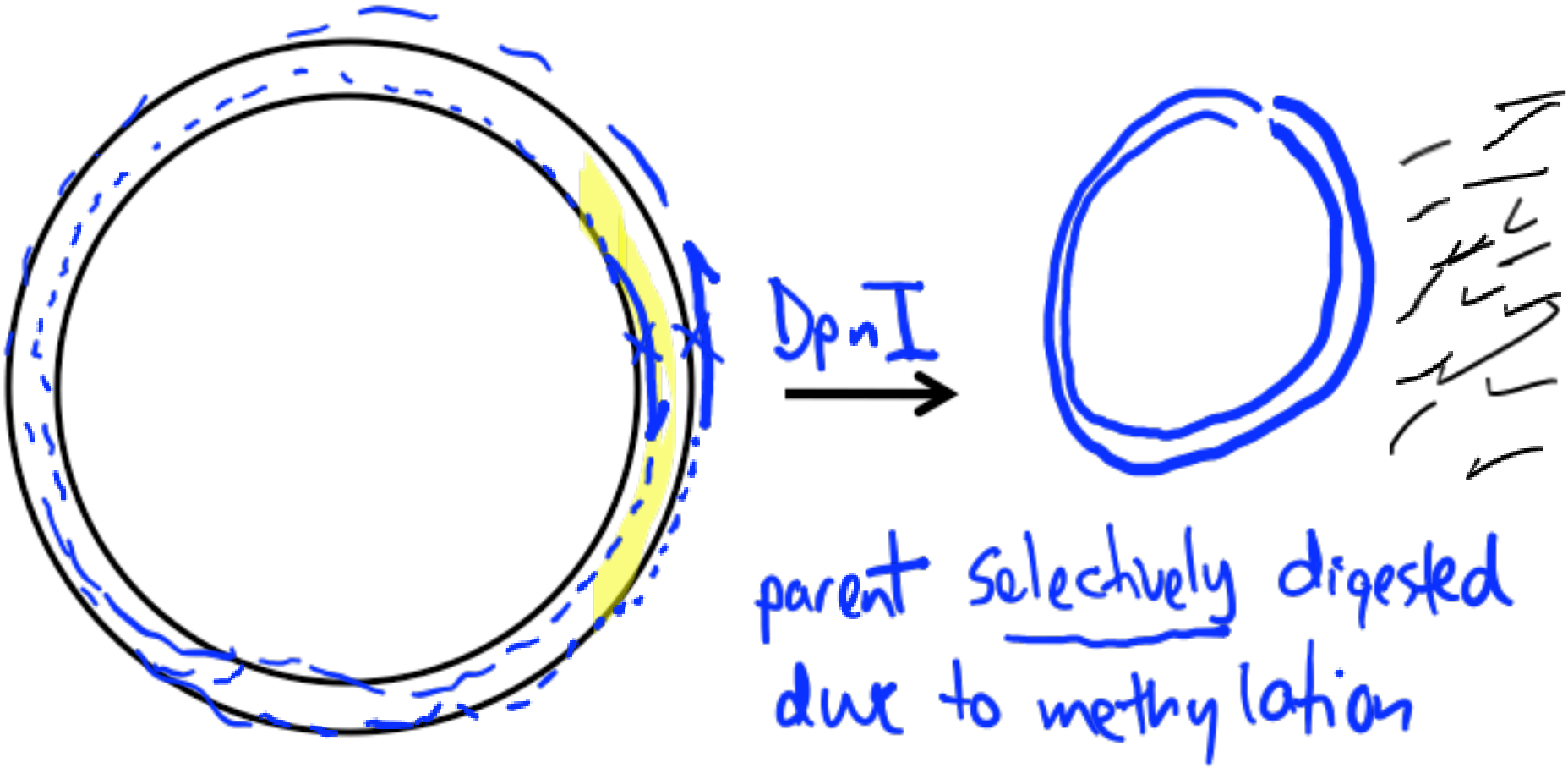
— circular, double-stranded extrachromosomal DNA



why? introduce foreign gene

ampicillin resistance → select bacteria that have plasmid

SDM Process

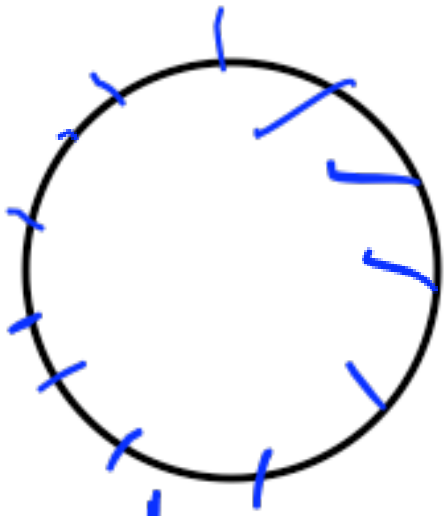


Restriction Enzyme Recap

- Allow selective cutting of DNA
- Some are more common than others

  e.g., DpnI is v. common
- Often, but not always palindromic
- Some are less selective

  XcmI CCANnTGG N=A,T,C,G



PpuMI RG/GWCCY R=A,G Y=C,T W=A,T

Today in Lab

- Centrifuge: make sure lid is on!
- Be careful not to contaminate shared stocks.
- Keep PCR tubes cold.
- Write small *directly* on the PCR tubes – do not put sticky labels in the PCR machine.

- For next times:
  - This R/F, short HW questions
  - Next R/F, longer HW – calculations, writing, self-evaluation