

## ■ Announcements

- ❖ Discuss mid-term feedback

- ❖ Lab etiquette

- ❖ FNT extra credit

- ❖ OH: T<sub>1</sub>W 12:45-4P ; Sun 1:30-3P  
(Sat? : -instead)

## ■ Pre-lab Lecture

- ❖ SDS-PAGE Part 1

- ❖ Affinity purification recap

- ❖ Today in Lab (M2D6)

# SDS-PAGE preparation

acrylamide = toxic

- You will make whole cell extracts with equal cell #s

- Based on  $OD_{600}$  reading, normalize

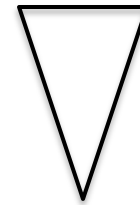
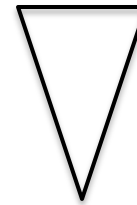
①  $OD = 1.0$

②  $OD = 0.5$

$V_{max} = 15 \mu L$

①  $7.5 \mu L + 7.5 \mu L H_2O$

②  $15 \mu L$



- Gel separates proteins based on size, ~~shape~~, ~~charge~~

- Sample preparation (finish next time)

- SDS: coat proteins w/  $-$ charge

↑ ↑  
make uniform

- $\beta$ -Me: breaks S-S bonds

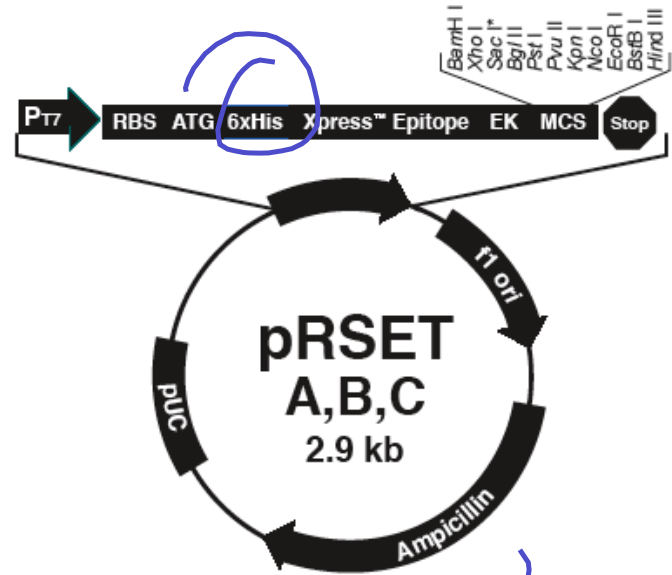
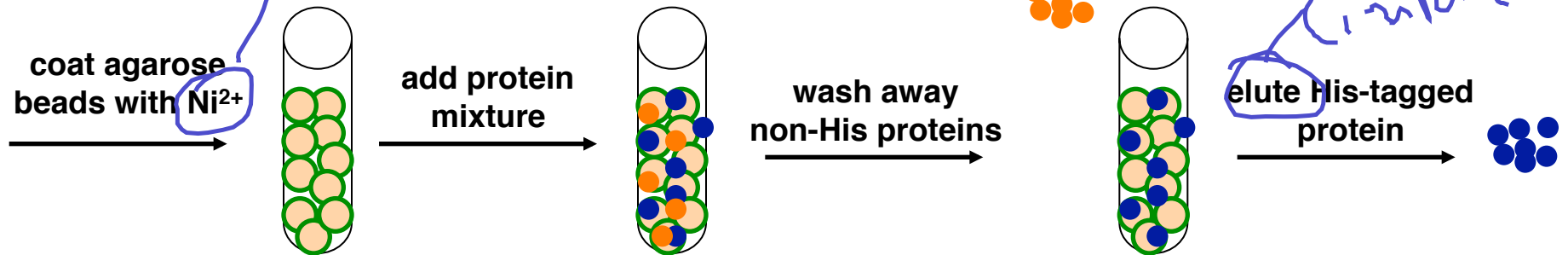
- Boiling: denature higher-order structures

- Sample Buffer has SDS,  $\beta$ -Me, plus glycerol, BPB

in hood  
tips  
pipets

# Affinity purification

- Basis: His tag (6x)  
bind to metals



high imidazole

# Today in Lab (M2D6)

- Lyse cell pellets in BPER
  - BSA “carrier,” protease inhibitors
  - Add lysis enzymes
- Prep an aliquot for SDS-PAGE
- Purify IPC protein from the rest (long!)
  - Two steps: affinity purification, desalting
  - Immediately take 10  $\mu$ L aliquot and measure concentration
  - The rest is stabilized w/BSA, to be titrated against calcium next time

