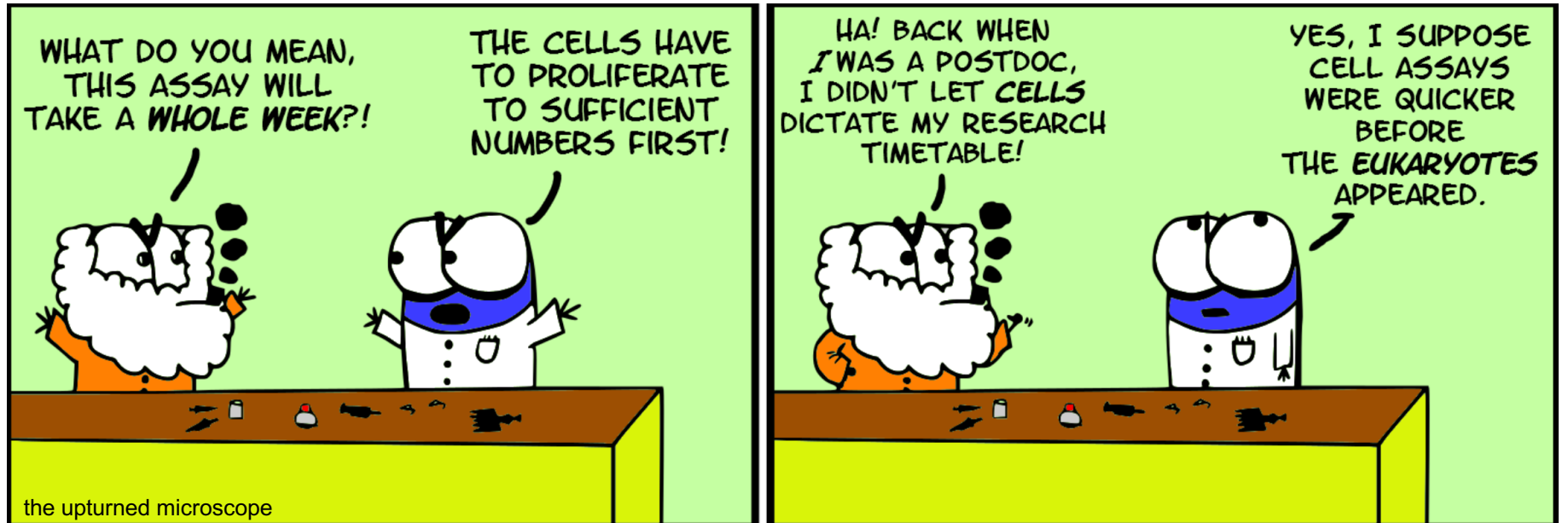


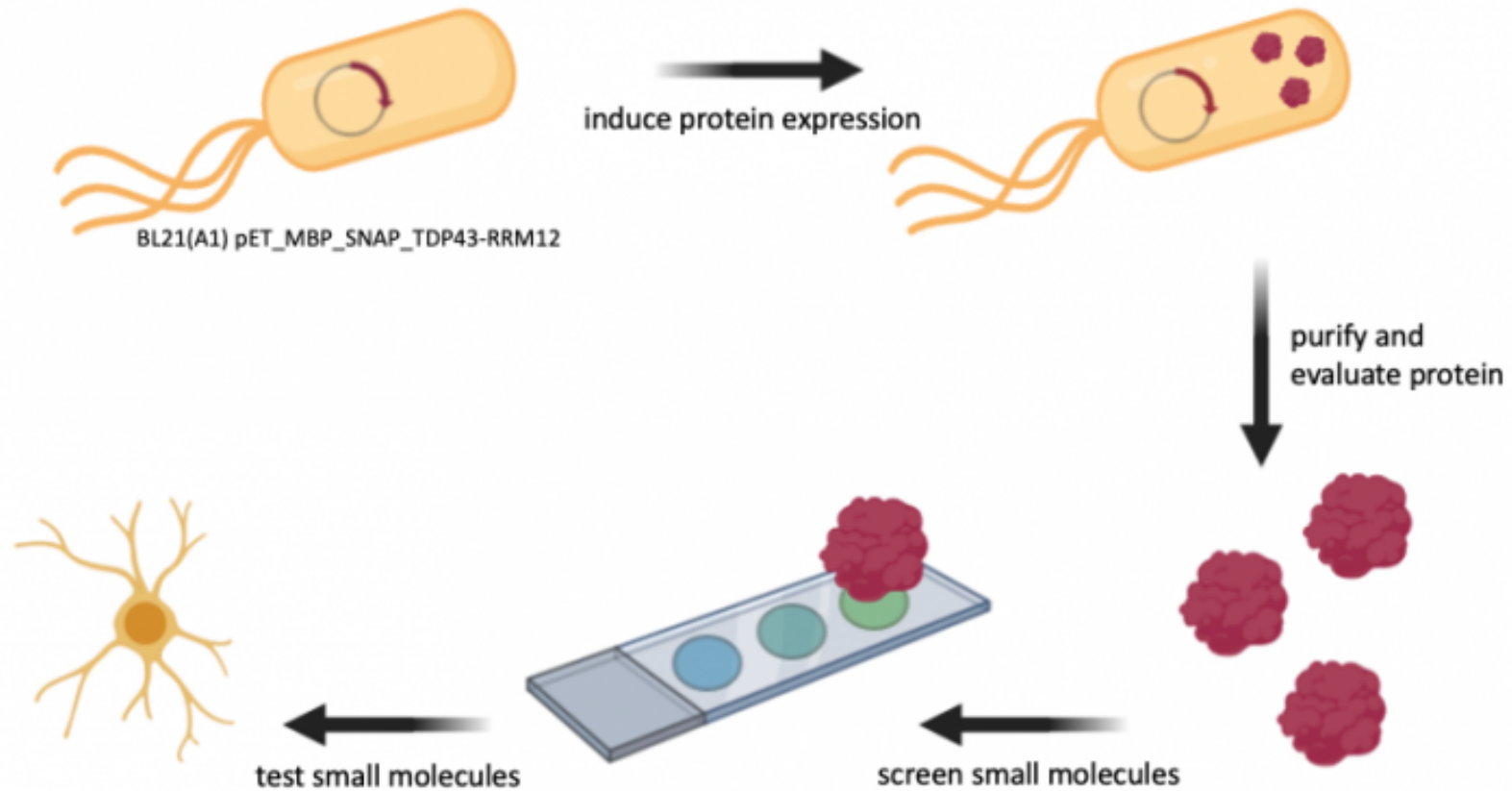
# M2D5: Learn best practices for mammalian cell culture

1. Comm lab
2. Prelab discussion
3. Learn about cell culture in the lab



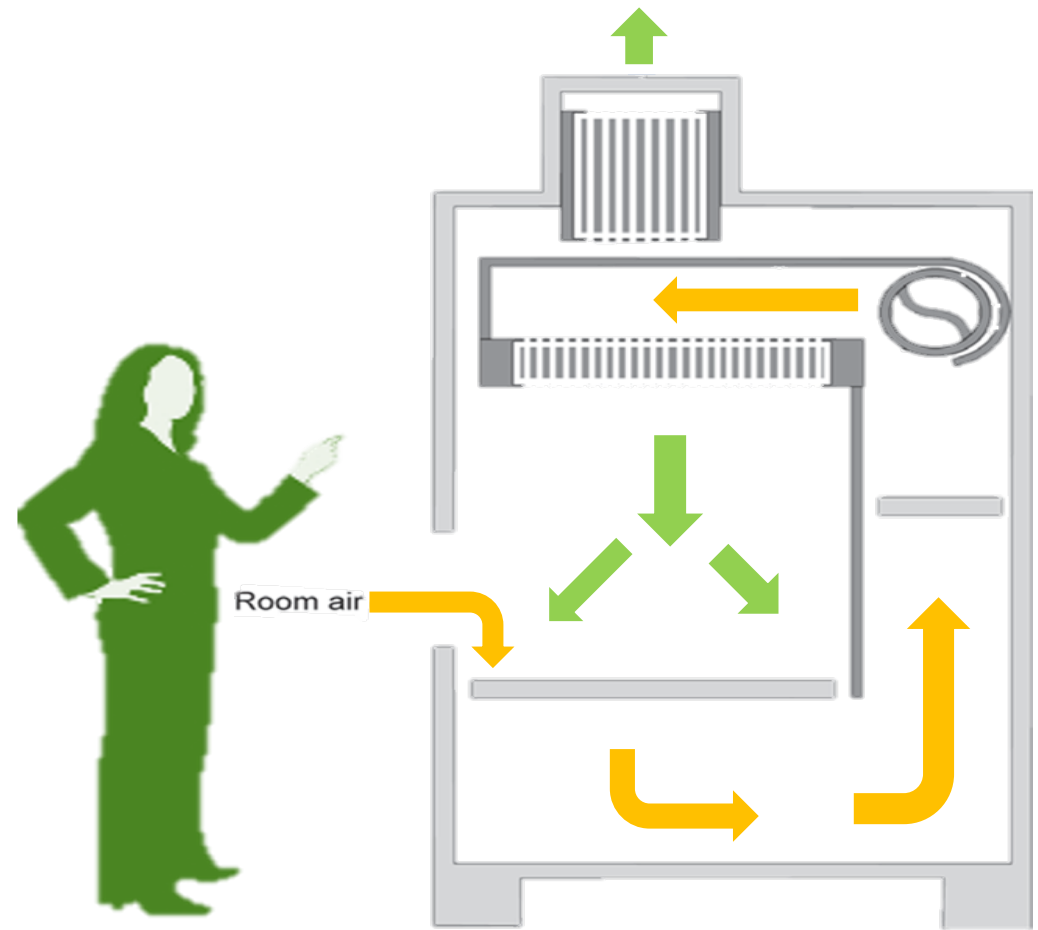
# Mod2 Experimental Overview:

**Research goal: Identify and characterize small molecule binders to a protein drug target**



# Tissue culture sterile technique

- **70% ethanol** everything:
  - Wipe cabinet before and after use
  - Wipe everything that enters the cabinet
  - Do not spray cells with EtOH
- **Do not disturb air flow:**
  - Do not block grille or slots
  - Minimize side-to-side arm movements
  - Work > 6" away from sash
  - Leave blower *on always*
- Do not talk into incubator!
- Only open sterile media in hood



# Mammalian Cell Culture Medium

We are using \_\_\_\_\_ cells

## Food:



- DMEM/ F12 (Dulbecco's Modified Eagle Medium/Nutrient Mixture F-12)
  - Defined



- FBS (fetal bovine serum)
  - Undefined



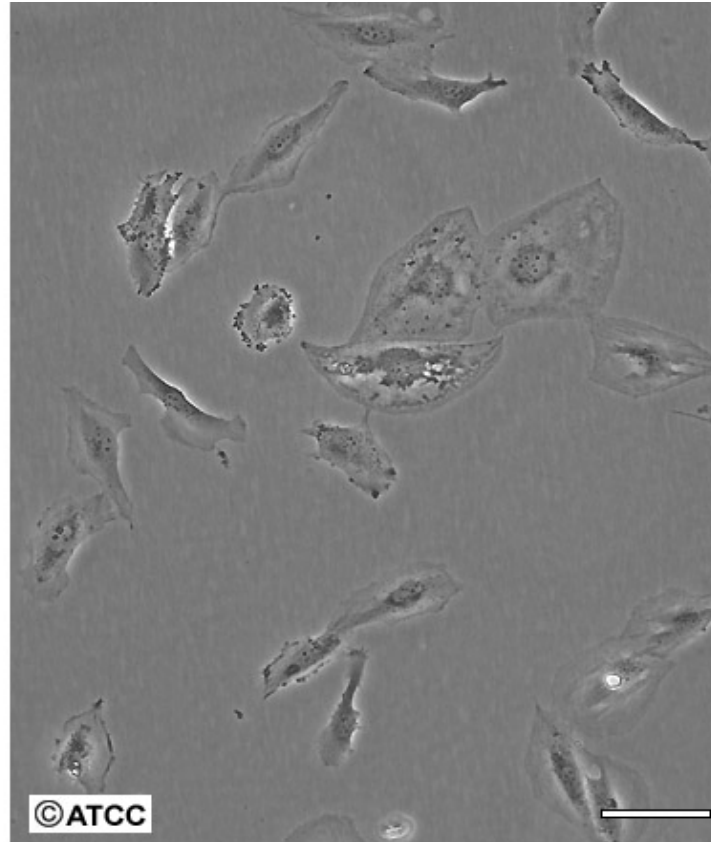
## Non-food:

- antibiotics:
  - penicillin
  - streptomycin

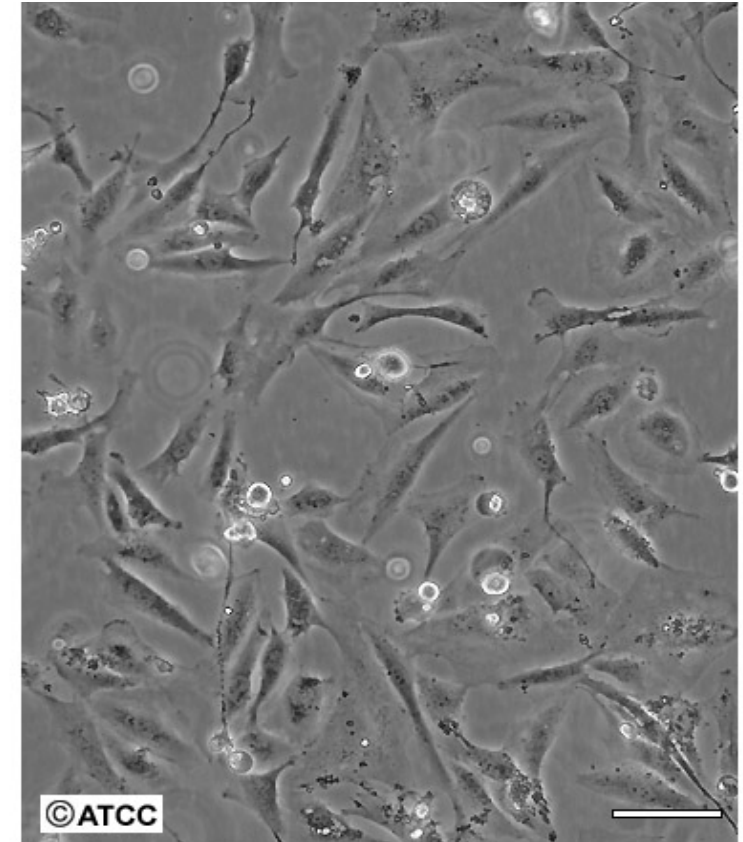
# Mammalian Cell Culture Terminology

- Confluence
- Splitting
- Seeding

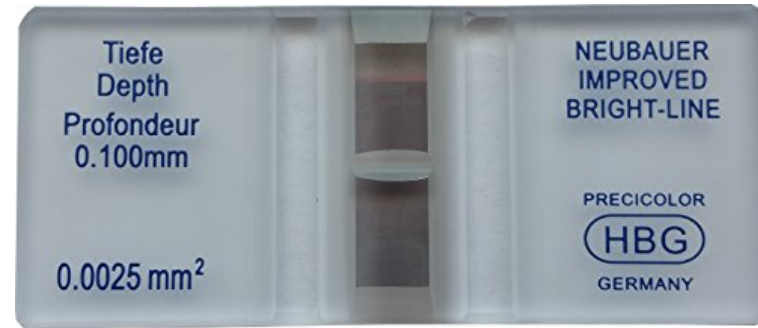
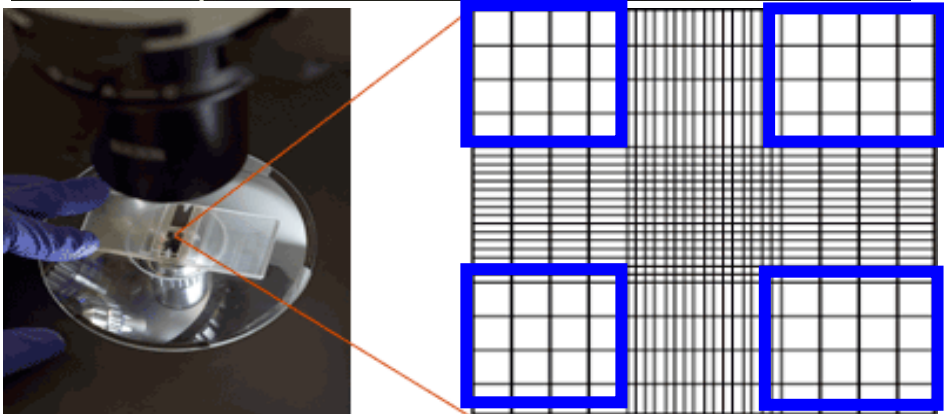
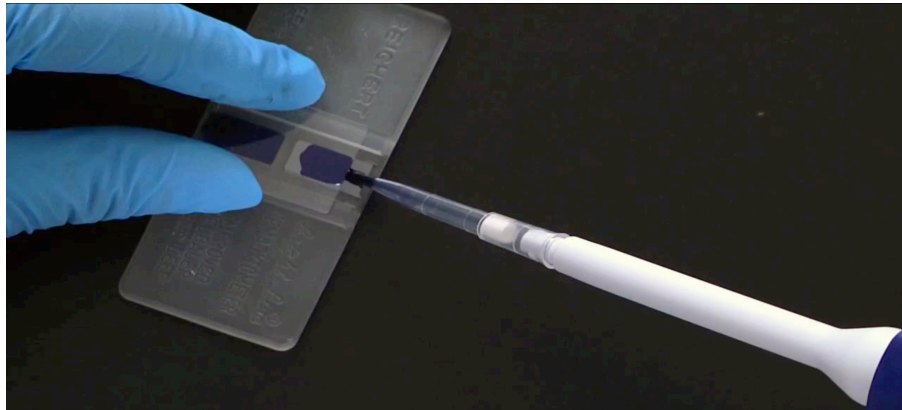
Low Density



High Density



# Counting cells



- Hemocytometer
- Trypan blue

# cells / mL = 10,000 x  
average of 4 corners

## For today:

1. Complete the wiki on cell culture
2. Finish up any SMM work/ think about data for the research article  
\*\* If you can't get the jupyter notebook to work and you are over it, talk to me  
**AND/OR**
3. Take off early and remind yourself what happiness feels like (or study)

## For M2D6:

Peer review of methods

\*\* If you did not turn in methods homework, talk to me

Redacted methods will be emailed to you. Please review according to the wiki and turn in your comments on Stellar.