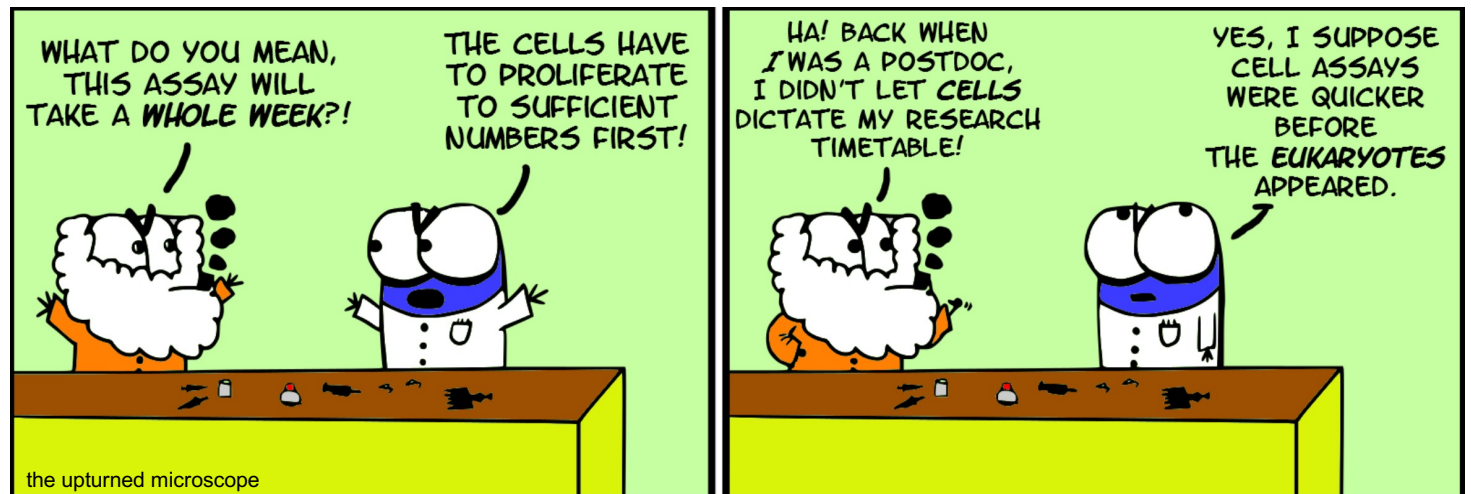


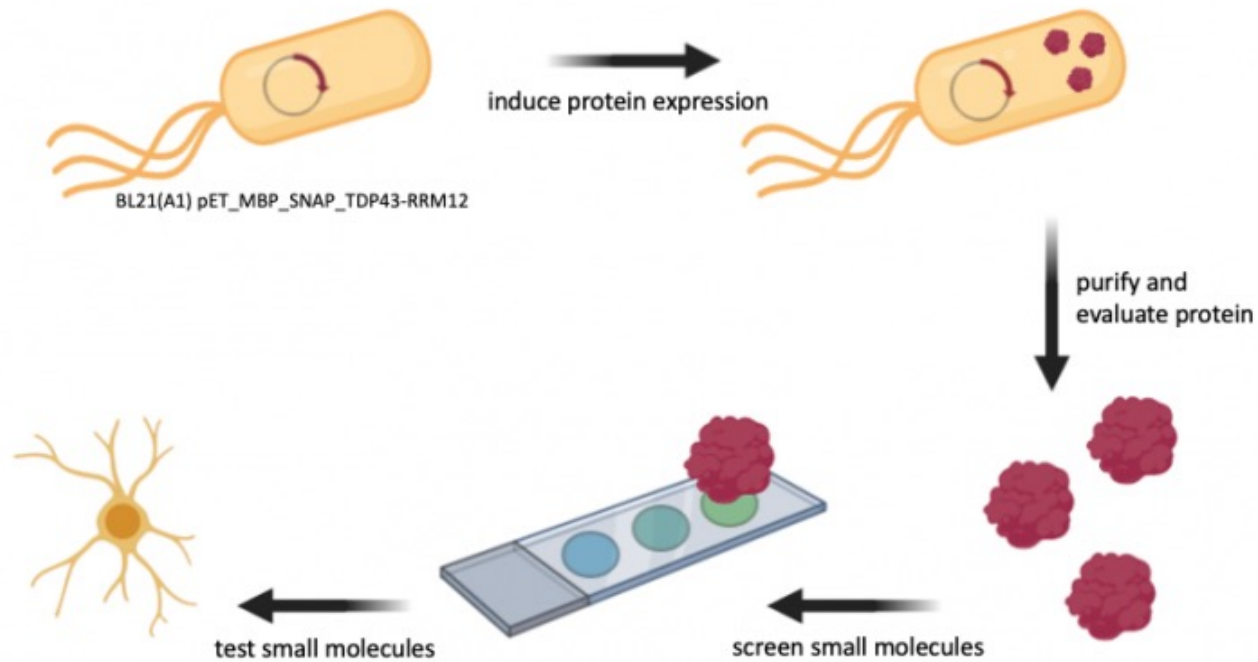
M2D5: Learn best practices for mammalian cell culture

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



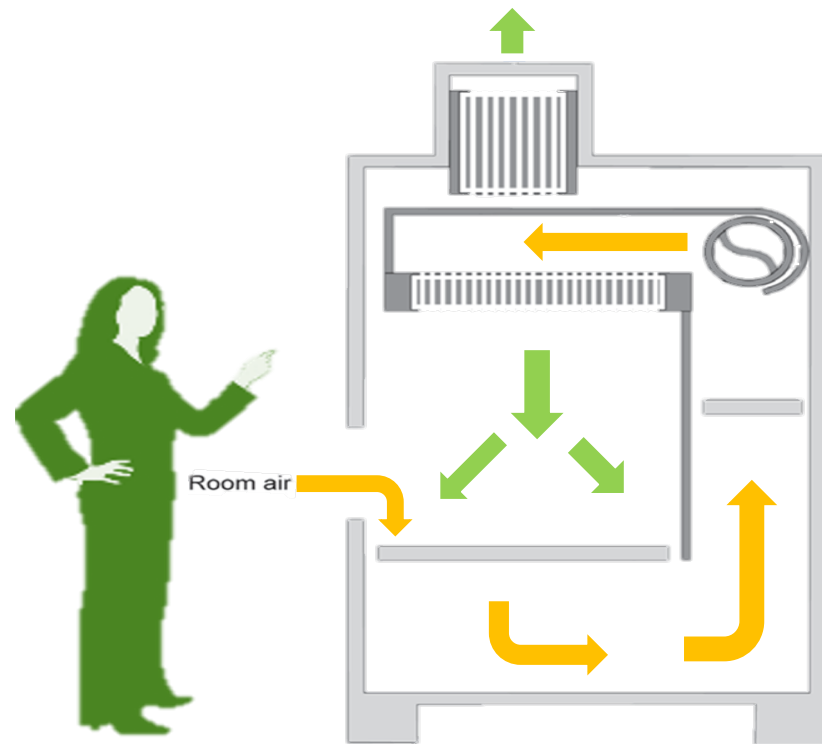
Mod2 Experimental Overview:

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



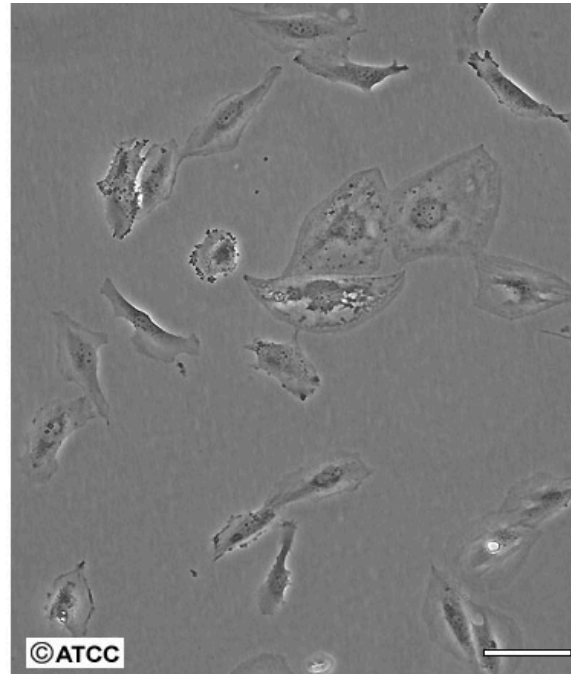
Non-food:

- antibiotics:
 - penicillin
 - streptomycin

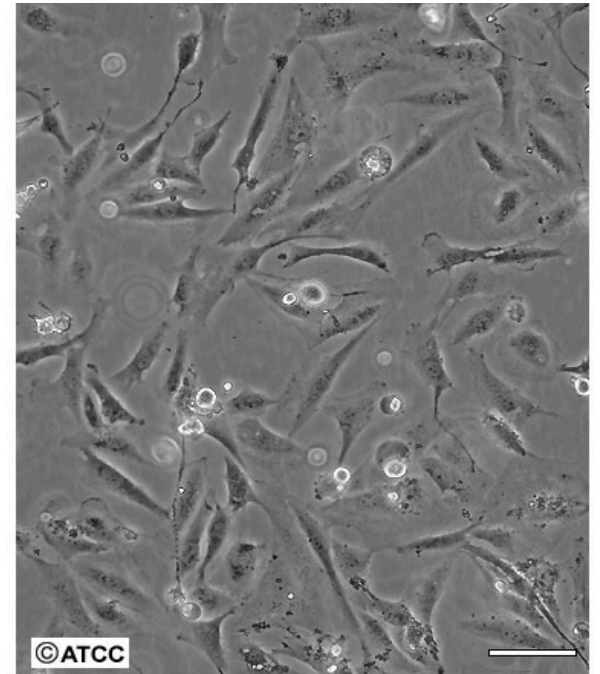
Mammalian Cell Culture Terminology

- Confluence
- Splitting
- Seeding

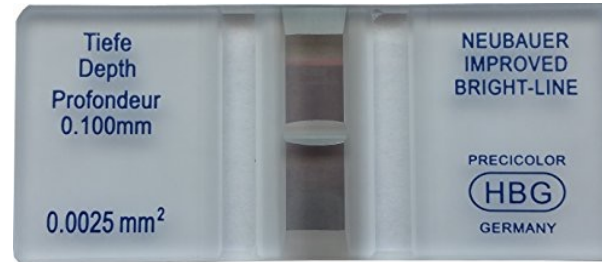
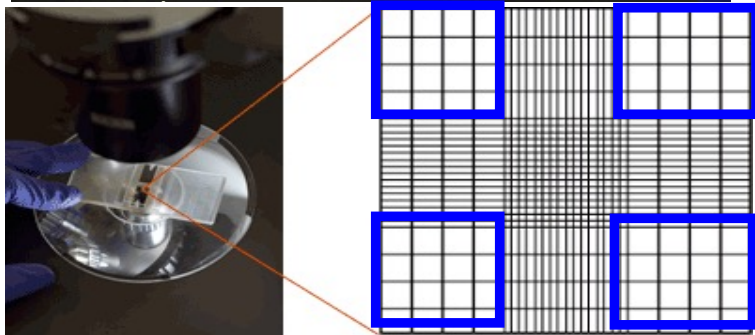
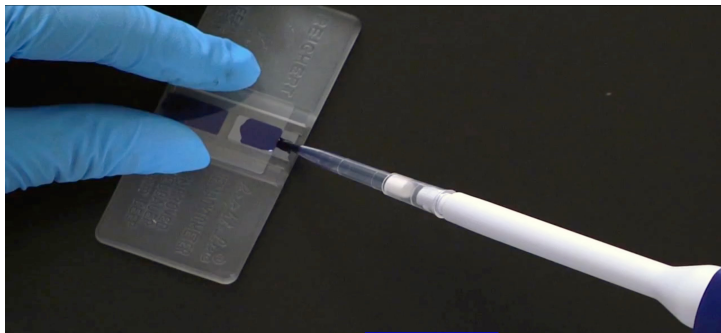
Low Density



High Density



Counting cells



- Hemocytometer
- Trypan blue

$$\# \text{ cells / mL} = 10,000 \times \text{average of 4 corners}$$

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.