**3/30 Friday**

Introduction to Mammalian cells as Model system (Pat)

1. learn cell culture (Nate). Go to TC lab ~ 4 people at a time so you can get hands on experience. Goals: how to **split**, how to **plate** on a coverslip and on mat-tek dish.

Need: three flasks of cells to split. Cell density not critical, this exercise is an “example”.

2. Learn about mitosis using the microscope (Pat).

A. live cell imaging. Have GFP-tubulin expressing cells for viewing.

Need: Live cells 1/group GFP tubulin-myosin in Mat-tak (Nate plate 6 dishes on Wed).

B. Fixed cell imaging. Bring tubulin stained slides to class (Pat).

Students: gather data for project on model systems.

**4/4 Wednesday**

1. learn to fix and stain cells.

2. continue with fixed cell imaging. Learn to do mitotic index

3. do siRNA in TC room (Pat can get them started and then Nate takes over); from each reaction, plate two mat-tek dishes and two coverslips

Need: three flasks that were split and plated with 1 X 10^6 plated on TUESDAY. Also need 6 coverslips with live cells for fixing (also plated on tues).

Pat will bring the siRNA; brief background on siRNA, mitotic targets

Student task: write protocol on cell splitting, siRNA

**4/6 Friday**

1. fix the si treated cells; stain with anti-tubulin

2. look at si treated cells in the mat-tak dish

Need: no live cells needed.

Students: learn to make a figure

**4/11 Wednesday**

1. look at the si Treated and control cells that were fixed and stained on Friday.

Students: collect data to quantify phenotypes

**4/13 Friday**

Pat: background on small molecule inhibitors; screening for drugs. Using inhibitors: dose, time course etc

1. treat live cells with inhibitors, fix and stain for tubulin.

Need: live cells on coverslips for treating (~12 dishes), plated on Wednesday.

each group fixes a control (no treatment- or vehicle, Pat bring); and an inhibitor, choose time or concentration as variable.

Students: collect data on phenotypes

**4/18 Wednesday**

1. Look at fixed cells and start to quantify (finish stain if needed)

2. perform live cell + inhibitor experiment.

Need: Cells in mattek dishes, plated on Monday.

**4/20 Friday**

Wrap up. Continue to collect data. Make a presentation