I have posted a Midterm exam today (3-22-20) to HuskyCT that you have a week to complete.
Labs:
Given the situation, the exam and all the subsequent work we do this semester will be done as individuals, not pairs. Use the same notebook as you have been using, just create a page for yourself for each exercise.
1. The following week, I will post an expanded version of my lecture on confocal microscopy and 3D imaging. This will be essentially self-learning but I will be happy to address questions either by email, Groupme or we can set up a group online chat.   I will include data and you will be expected to analyze that data as instructed and then write it up in your notebook.
2. Presuming that works out OK, we will do the same thing for Flow Cytometry the next week. I will post lecture and provide data to analyze.
3. Real Science: For the last part of the semester, I hope to involve all of you in analyzing data for several figures for a paper I hope to submit in the next 6 months for publication. This involves the same kind of mTrackJ analysis of cell movement data that you have already done. I will have each of you do blind analysis of some of the data I collected last week. I hope this will be a interesting real world challenge, not just a coursework exercise. Preview: my lab has been working on the question of Chemokinesis. It turns out that folic acid (like other chemotactic molecules) stimulates overall cell motility when it is everywhere (as opposed to a diffusional gradient). Not much is known about how this process works. You will be analyzing data in which cells are deprived of folic acid for a while, and then folic acid is added back (experimental) or not (control), trying to understand how long the response takes, how the concentration of folic acid affects the response, and the what is changed in motility that leads to increased speed.

Dr. David Knecht
Professor, Department of Molecular and Cell Biology
University of Connecticut
91 N. Eagleville Rd.
U-3125
Storrs, CT 06269-3125
860-486-2200