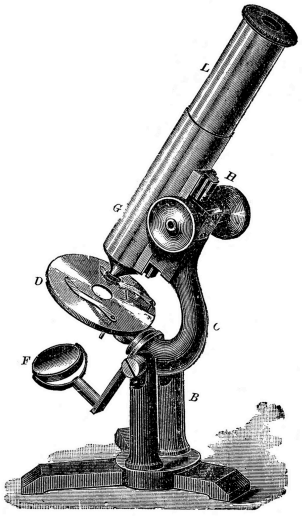
THE GOLDSTEIN LAB MEMBERS' FAVORITE MICROSCOPES

For live fluorescence imaging:

Our first spinning disk confocal
•Where: in the lab, our scope room
•Owned by: us
•What's cool about it: for live imaging of single or multiple fluorophores including GFP, YFP, mCherry, etc. Lasers have plenty of power and filters are well optimized for bright imaging.

Our newer spinning disk confocal
•Where: In the room across from the 6th floor Fordham conference room
•Owned by: us
•What's cool about it: like the one above, but it has a more sensitive camera, more even illumination across the imaging field, and FRAP and TIRF, including circular TIRF. Has lasers for Green, Yellow, Red, Far-Red.



Yet another spinning disk confocal
•Where: 301 Fordham Hall
•Owned by: Shared equally by six labs including us (us, Peifer, Bautch, Duronio, Crews, Rogers)
•What's cool about it: an extra spinning disk scope when ones in the lab are booked up. Often in disrepair, sadly.

Visitech VT-HAWK multi-beam live confocal scanning scope
•Where: 423 Fordham Hall
•Owned by: Shared equally by 4 labs including us (Peifer, Goldstein, Slep, Rogers)
•What's cool about it: set up for live imaging of GFP and mCherry. This is the one of the best scopes nearby for most FRAP experiments.

Fluorescence dissecting scope
•Where: in our main scope room
•Owned by: us
•What's cool about it: can see fluorescence (if bright) quickly, can pick worms under it

Other scopes:

Zeiss LSM-510 & LSM-710 Confocals
•Where: Biology Microscopy Facility in 1st floor of GSB
•Owned by: Biology Department
•What's cool about it: Tony Perdue, who runs the facility, is terrific at training people. Sometimes his beard is very long. These are the go-to scopes for confocal imaging of fixed material. They can also be used on live material, and should be especially useful if you want to photoactivate or photobleach a small region.

The left scope
•Where: in the lab, our scope room
•Owned by: us
•What's cool about it: multiplane Nomarski (DIC) imaging, has epifluorescence too. Especially cool: there's a laser on it, for ablating cells or subcellular structures, or to pop holes in eggshells to let drugs in. Ask Bob NOW if you've never tried it. It's fun.

The right scope
•Where: in the lab, our scope room
•Owned by: us
•What's cool about it: multiplane Nomarski (DIC) imaging, has epifluorescence too. Like the left scope but without the laser.

Microinjection scope
•Where: in the lab, 617 Fordham
•Owned by: us
•What's cool about it: can inject dsRNAs for more penetrant RNAi than feeding usually gives, can inject DNA constructs into germlines, can even inject tardigrades!

Nikon SIM/STORM Superres scope
•Where: Biology Microscopy Facility in 1st floor of GSB
•Owned by: Biology Department
•What's cool about it: Superresolution, using structured illumination or PALM/STORM. Training by Tony Perdue.

Want more?
Piggy. There are other scopes that we access in med school department labs and facilities, the Salmon lab, etc. Kiehart lab at Duke has a UV laser cutting scope that we use. CISMM in Physics has force microscopy set-ups. Med School facilities have other light & electron microscopy facilities staffed with people to help.