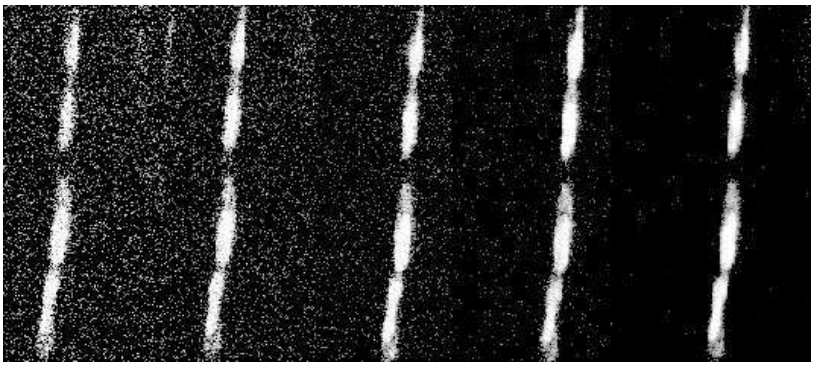
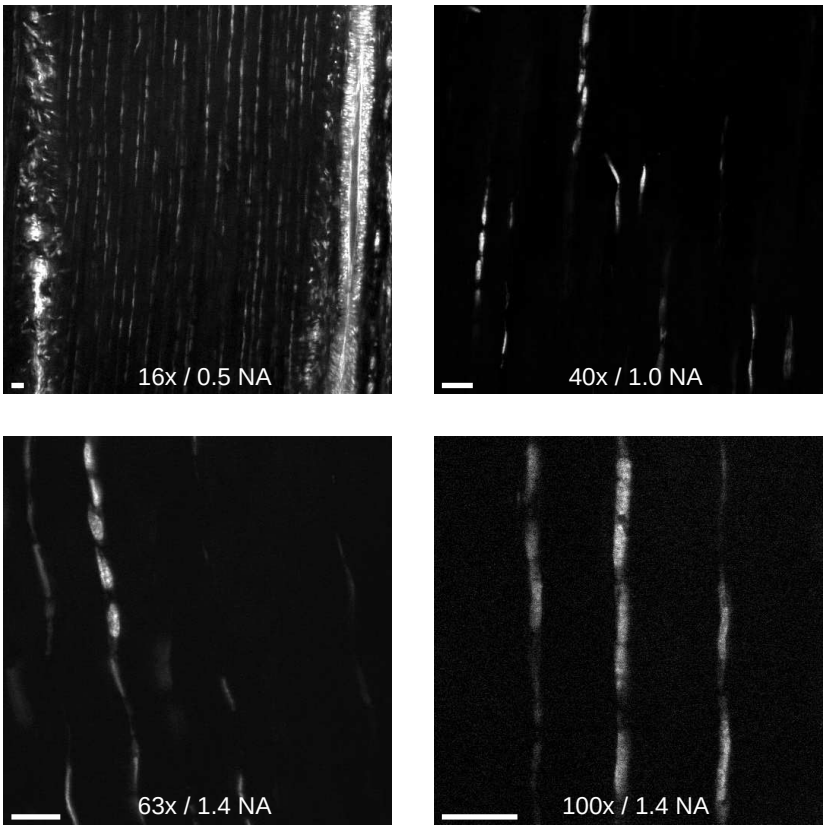


Off 2 4 8 16

A. Averaging Setting



B. Lens Selection. Bar = 20 µm

Single optical slices of equine SDFT demonstrating development of optimal microscope settings. A. Averaging the same confocal slice from 'off' to 16 times demonstrates a decrease in noise over the range of settings. Averaging of 8 was chosen for experimental sampling as a compromise between image clarity and scanning expedience. B. Lens selection was determined by a) the resolution (a function of numerical aperture, NA) and b) the number of nuclei imaged per stack (a function of magnification, x). The 63x lens imaged more nuclei per stack at the same resolution as the 100x lens, and at greater resolution than the 40x lens, therefore 63x / 1.4 NA was used for experimental sampling.

Figure 2.2 CLSM Settings