

## **Protocol for Counting Cell Profiles**

Posted on April 4, 2014 by Doug Altshuler

Begin with the first slide of a series. Title the first picture:

Specimen#\_Stain\_Slide#\_Row#\_Slice#\_Pic#. For example NA8A\_DF\_s1\_r1\_sl1\_1.

The first picture should be zoomed out enough that you can see the entire slice. If there appears to be anything that could be a labeled neuron, take a higher magnification picture of it. If an object is ambiguous take a zoomed in picture anyway. If slides are difficult to resolve, sometimes panning through the fine focus can help, or after taking a photo, you can go to the editing tab and adjust the brightness and contrast levels. If you have time, modifications like this will make it much easier to score later.

Record your score in the neuroanatomy notebook. Create columns for picture title, cell count, drawing and notes. Only score once per slice (off either all the zoomed in pics or the one zoomed out pic). Count all labeled cells. Some cells will appear very distinct and dark; some will be gray and grainy. Familiarize yourself with the appearance of cells from previous photos. Next to your count make a small outline of the entire slice and the relative position of the neurons therein. The drawing should not be overly detailed. Lastly, in the notes column record any information that might help people interpret the photo later on (i.e.: slide is dirty, slice is incomplete, slices skipped in sequence (will need to check processing notes for this information)).

If you are a second counter, be sure to make you count independent of previous scores. Never cross out any score or information written by another person.