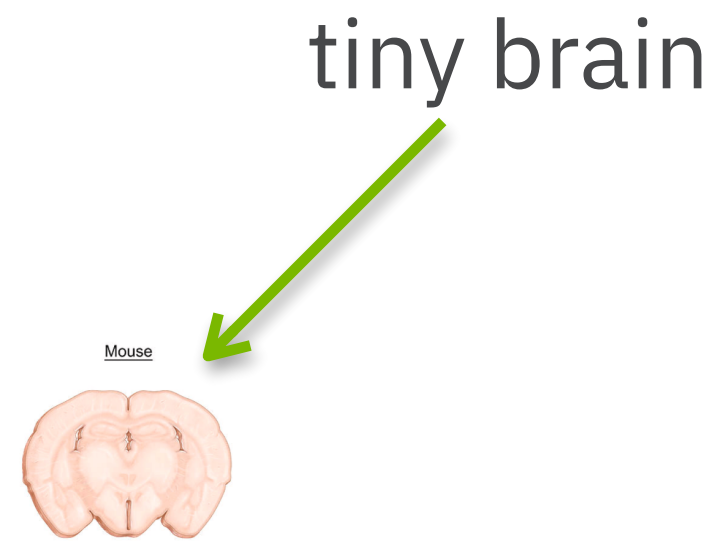


Data Challenges in Connectomics



Mouse brain: 70M neurons



~1cm³

How much image data
is 1cm³ ? ~**1EB**

Human brain: 80B neurons



~1000cm³

How much image data is
1000cm³ ? ~**1000 EB**
(6nm x 6nm x 40nm)

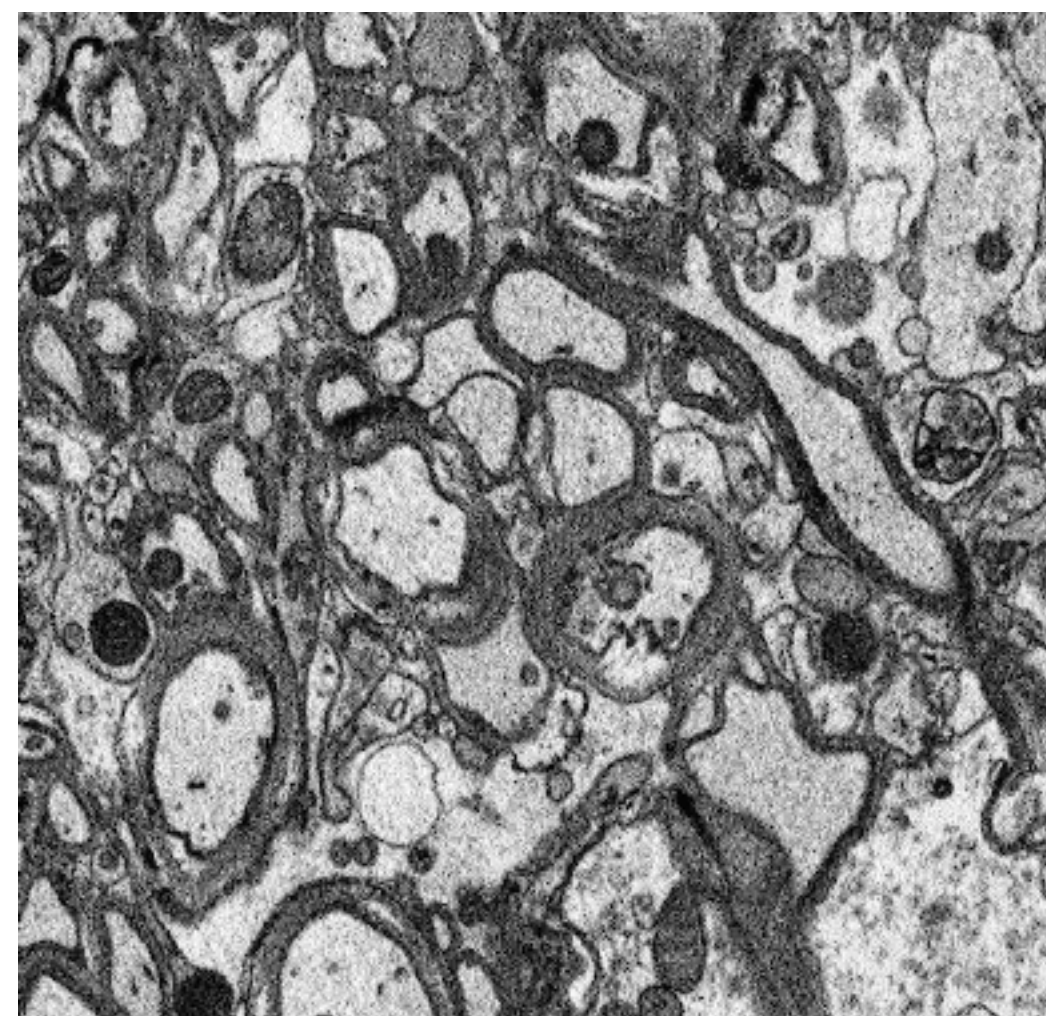
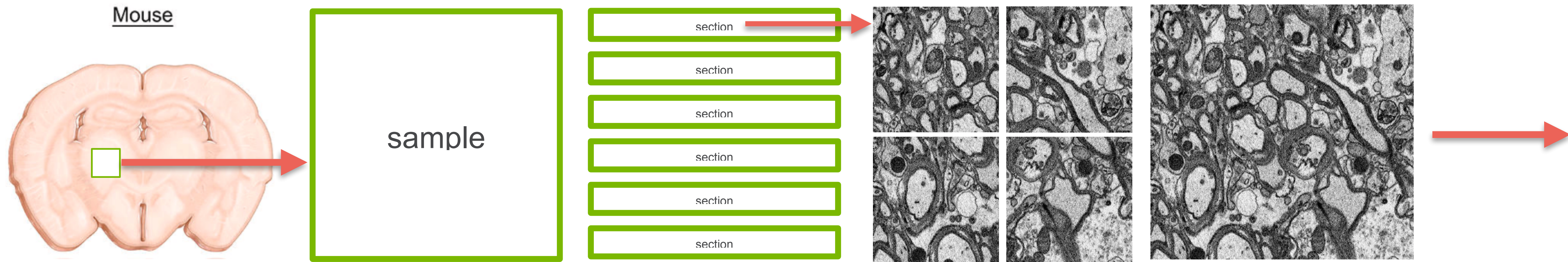
**Reconstructed data
will be much larger:**

- Segmentation labels for each voxel
 - 4x voxel data
- 3D Mesh
- Skeleton

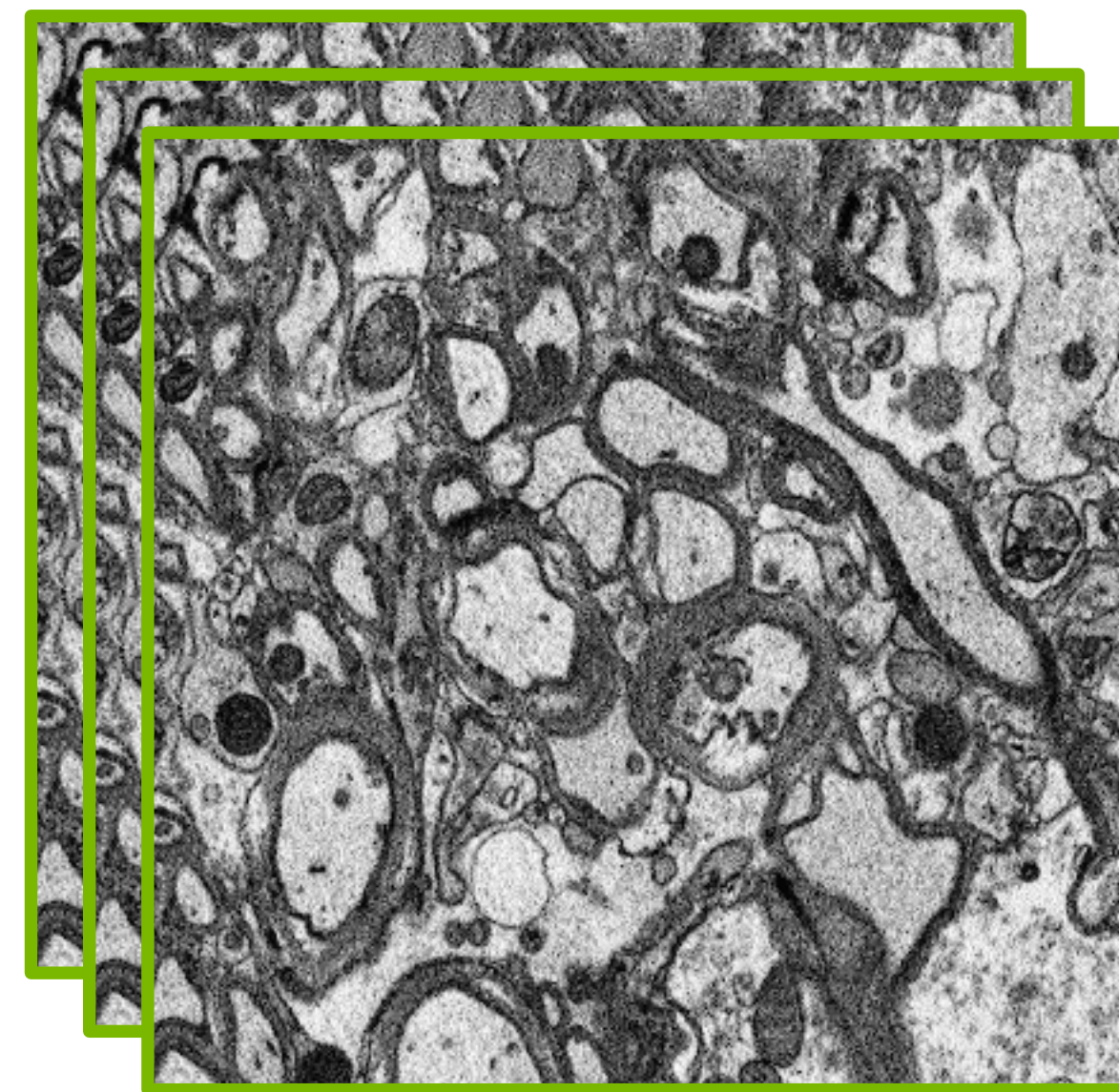
The structures are expected to be used to seed simulations to study flow in neurotransmitters, in better modeling the brain, among others.

Connectomics Processing

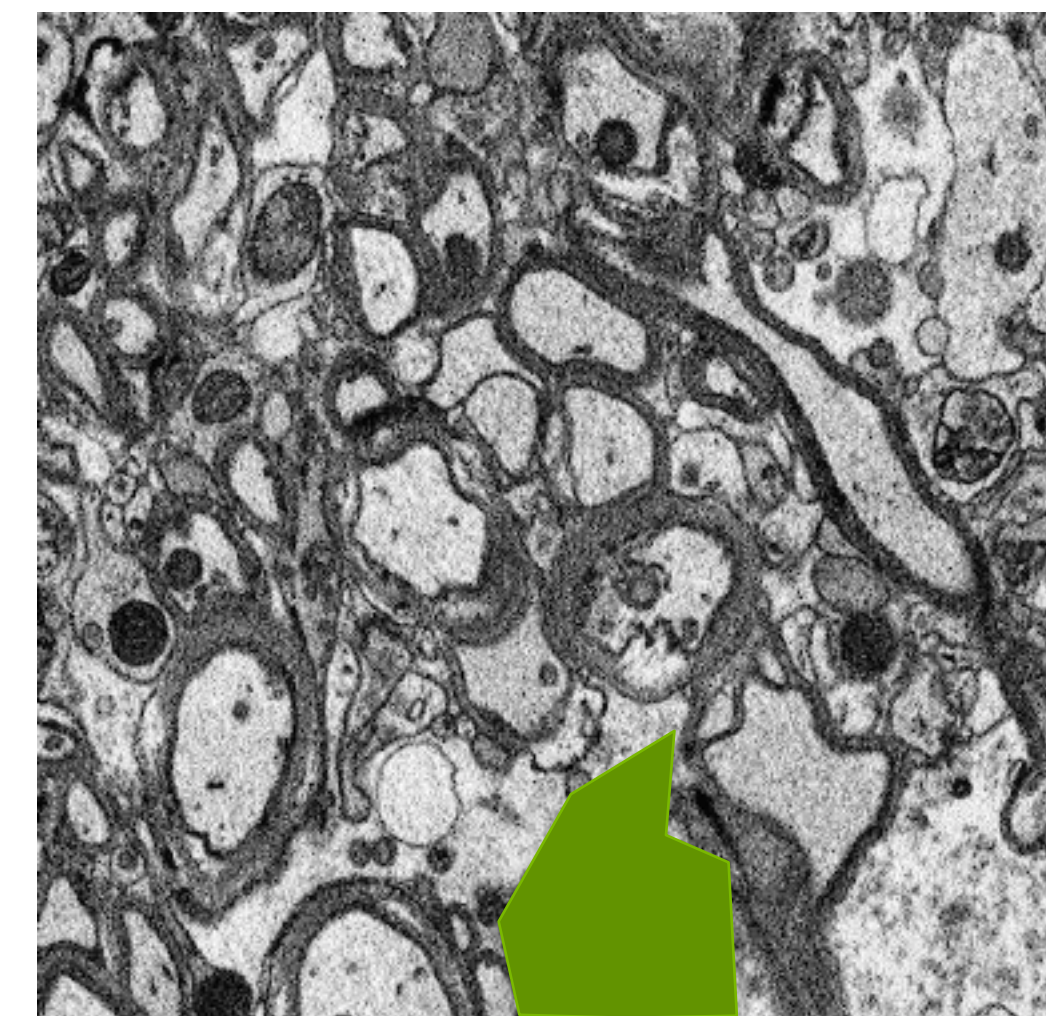
Data from Gregg Wildenberg, Kasthuri Lab, UChicago



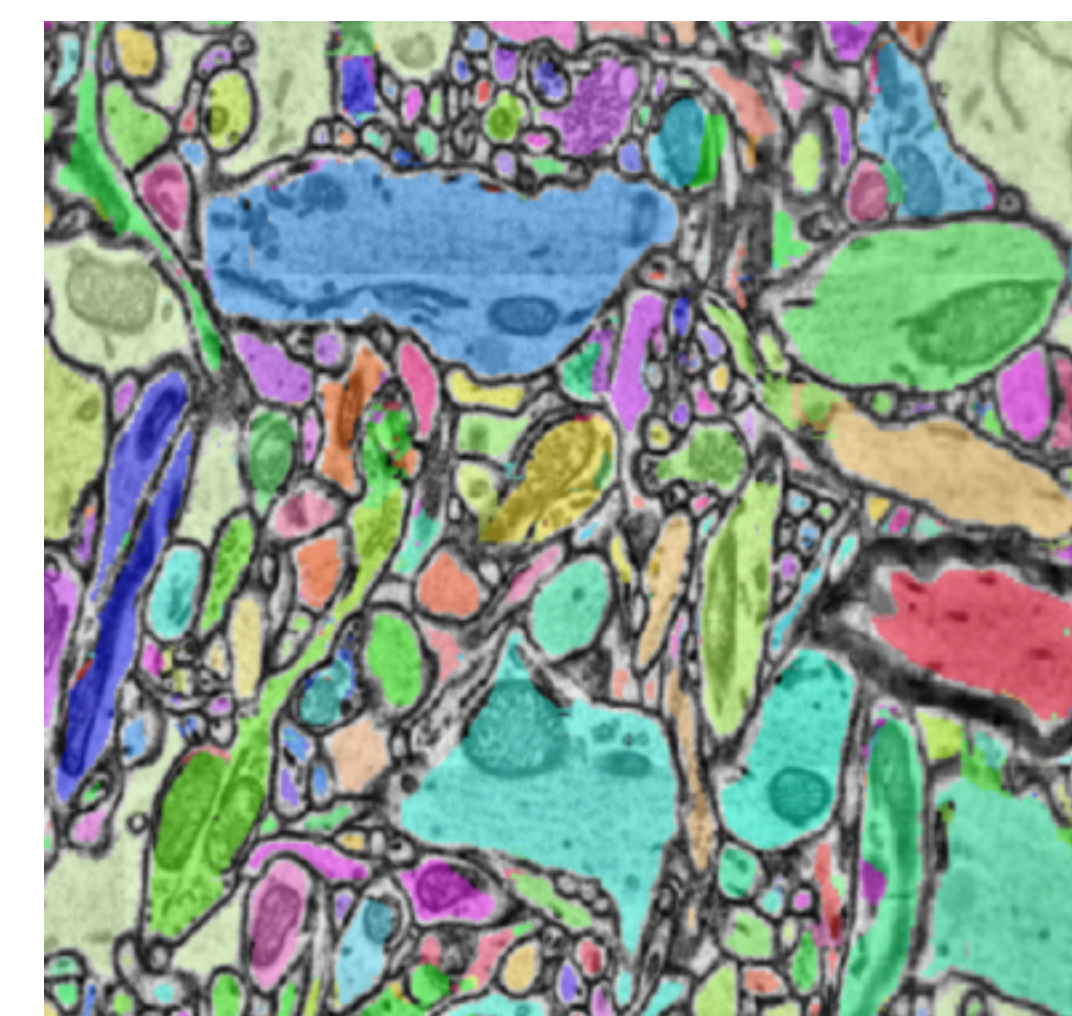
Sections stitched together



Align sections



Mask out non-target objects



Segment target objects