



Axon-carrying Dendrites

Layer 2/3 Serial EM Volume

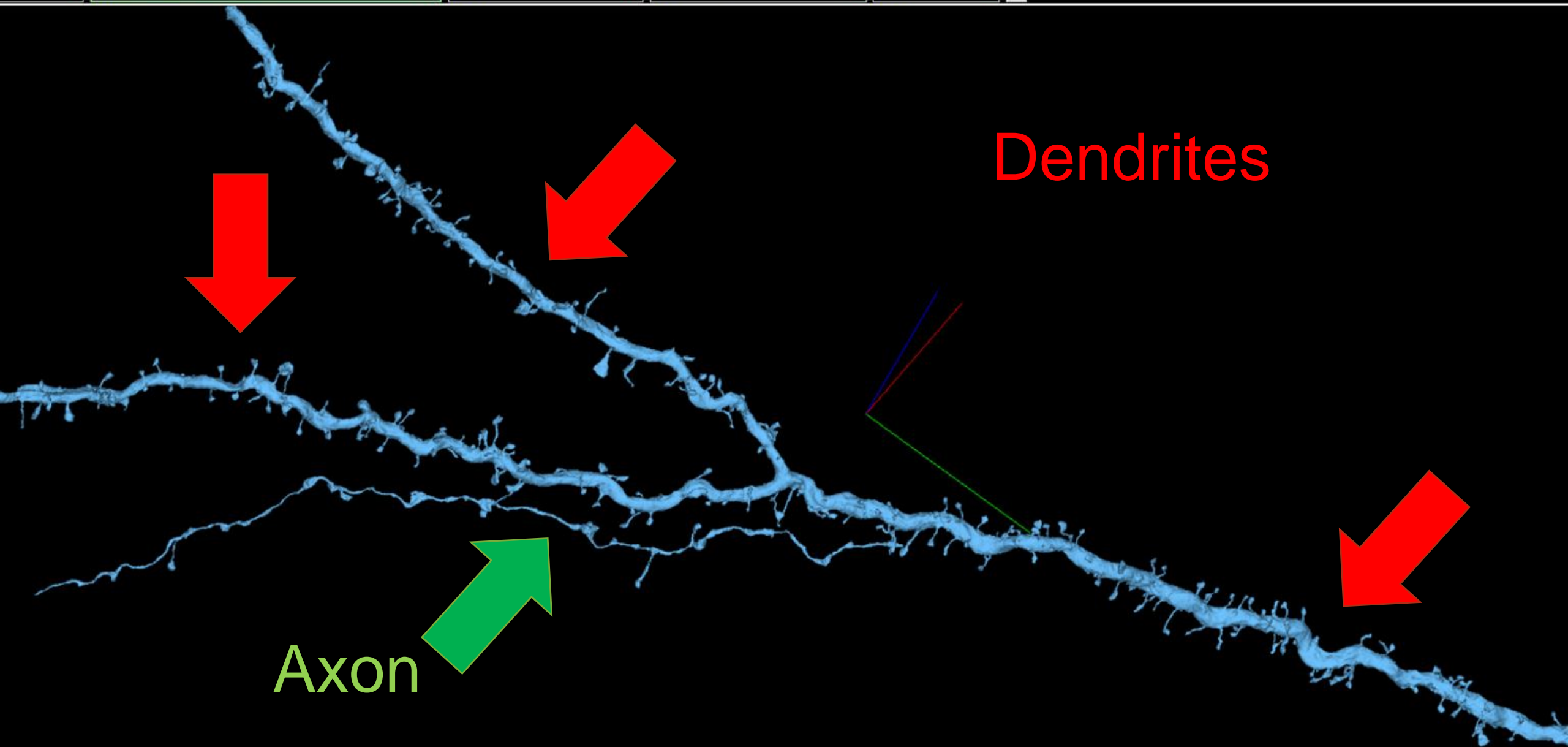
Axon-Carrying Dendrites

- + Somewhat common in rodents; 10-21% of pyramidal neurons of the cortex
- + See [Wahle et al eLife 2022](#): *Neocortical pyramidal neurons with axons emerging from dendrites are frequent in non-primates, but rare in monkey and human.*

Case 1

Partial excitatory neuron (no soma in volume)

Cell ID 648518346349536971

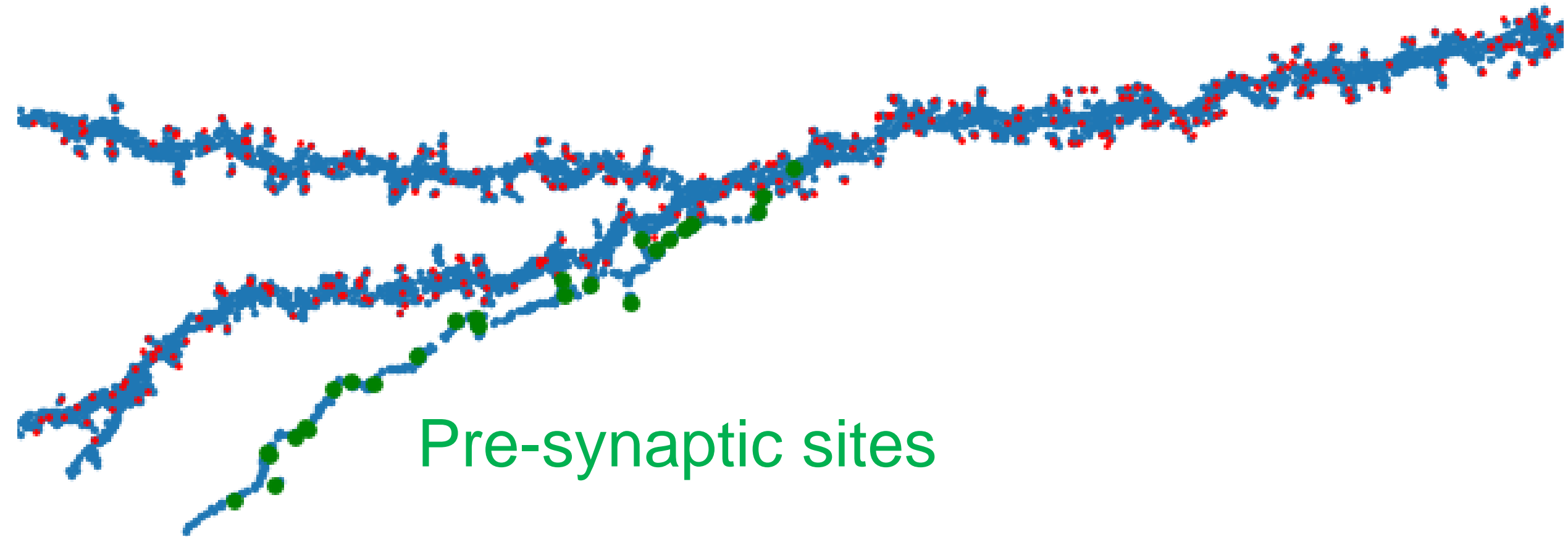


Dendrites

Axon

Post-synaptic sites

Pre-synaptic sites

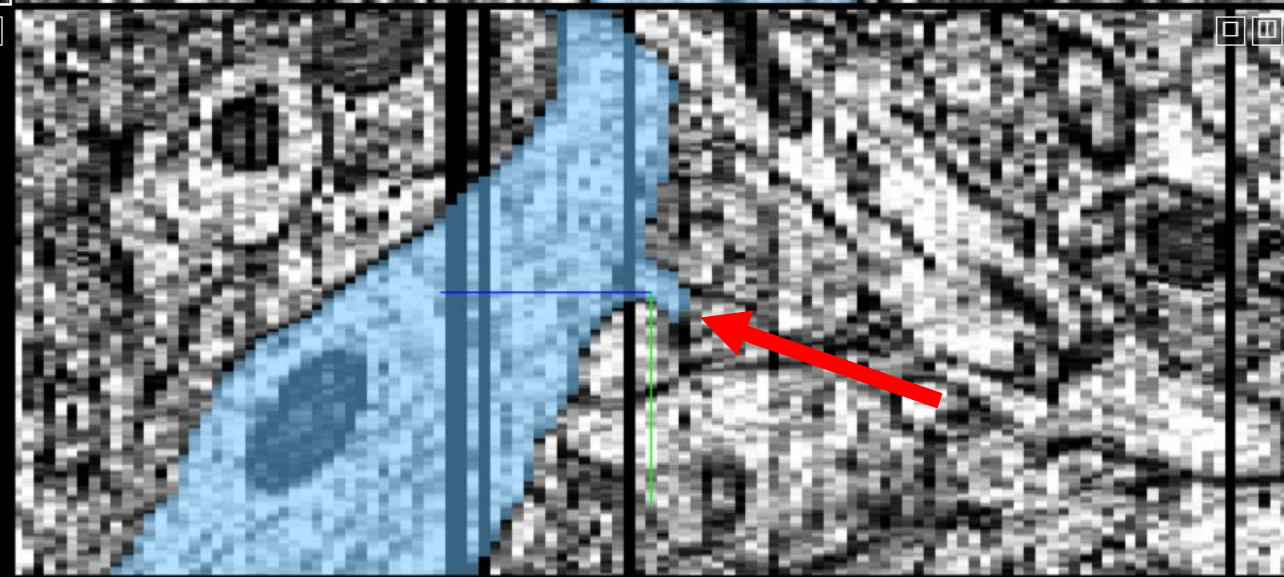
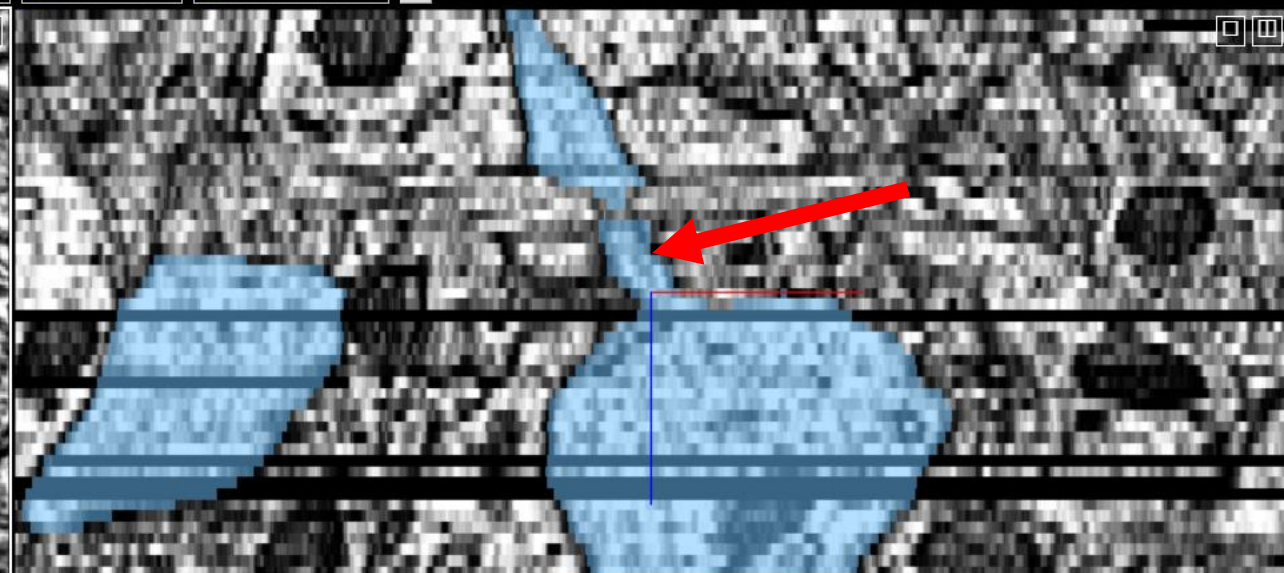
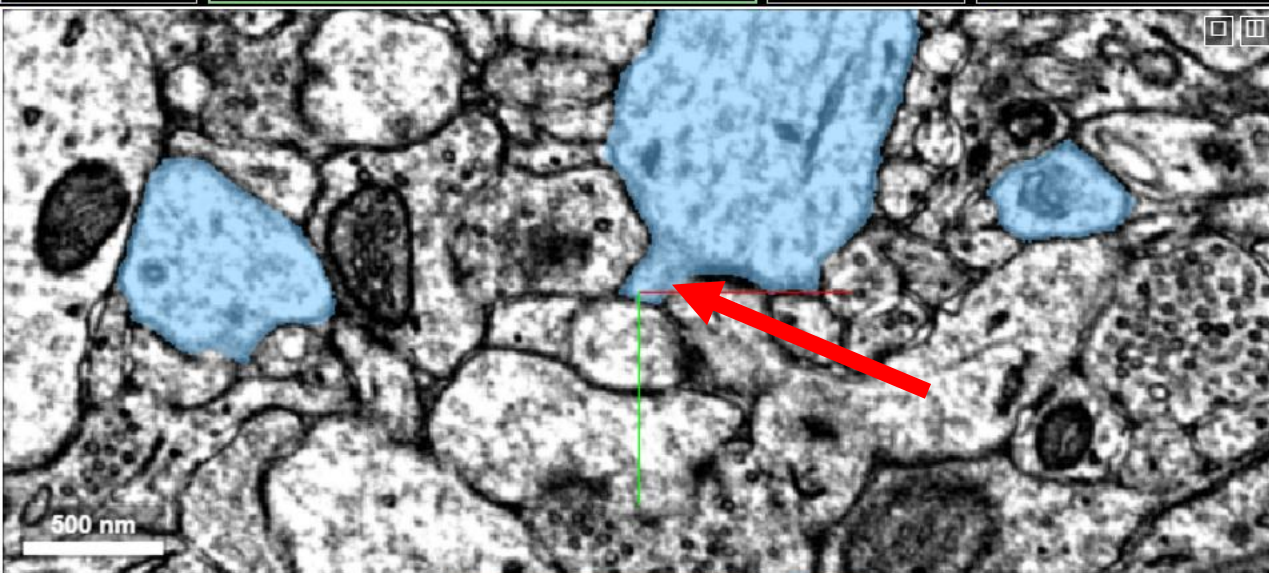


Not likely a segmentation error

4×4×40 nm³ x 70930, y 49418, z 603

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1EM x 2cell_segmentation_v185 x 3synapses x 4mitochondria x 5nuclei x 6annotation +



Case 2

Partial excitatory neuron (no soma in volume)

Likely a L5 or L6 pyramidal neuron from a deeper layer in the volume

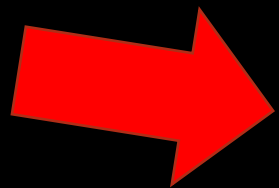
Cell ID 648518346342793912

4×4×40 nm³ x 98403, y 54917, z 1196

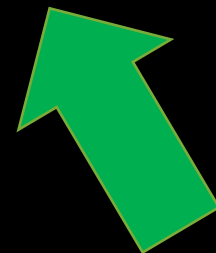
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1 EM x 2 cell_segmentation_v185 x 3 synapses x 4 mitochondria x 5 nuclei +

Dendrite



Axon

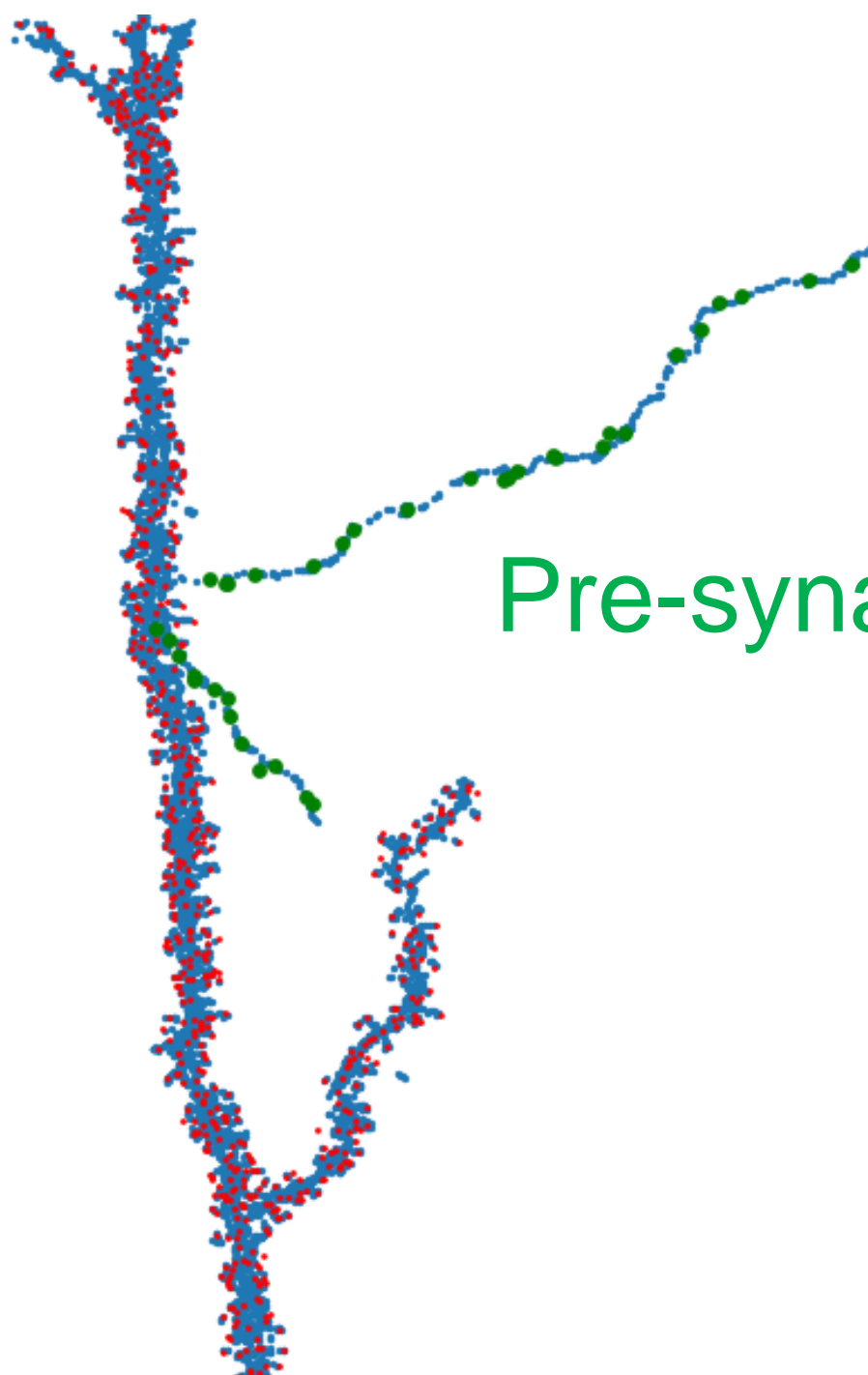


10 μm



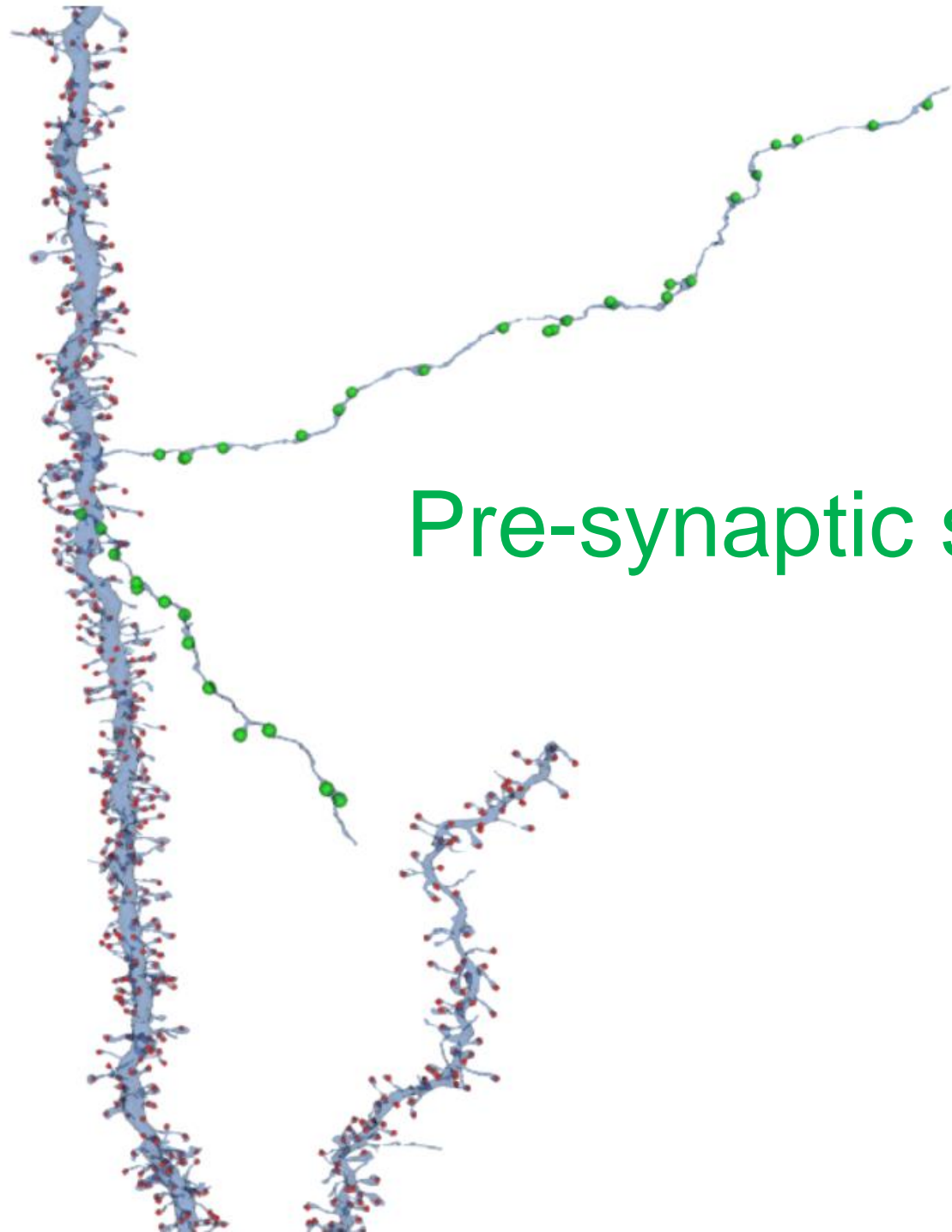
Post-synaptic sites

Pre-synaptic sites



Post-synaptic sites

Pre-synaptic sites



Not likely a segmentation error

