

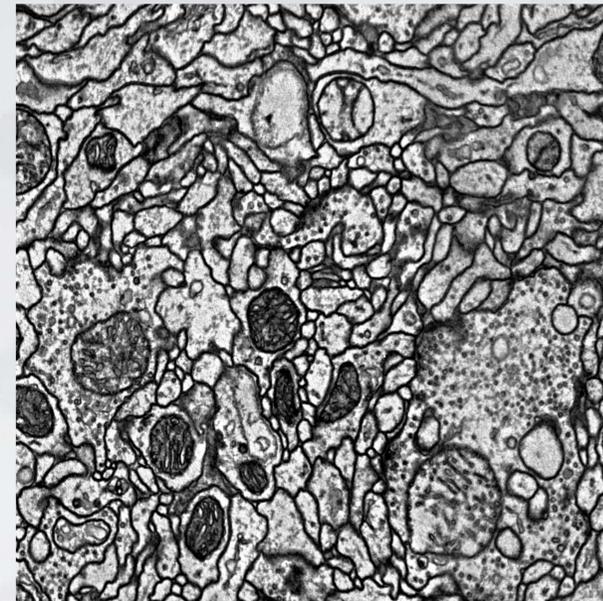
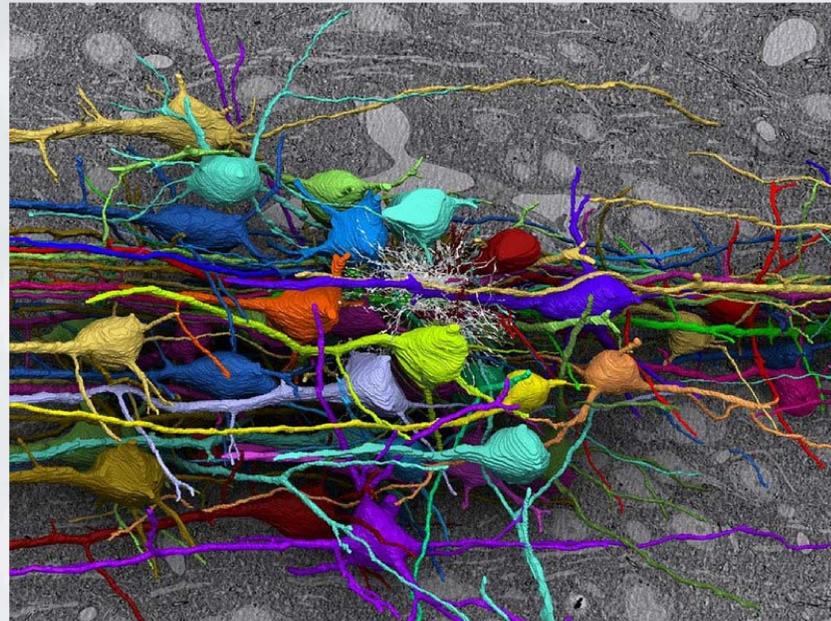
Connectomics Empowered By Deep Learning

Mehran Javanmardi, Mehdi Sajjadi, Tolga Tasdizen

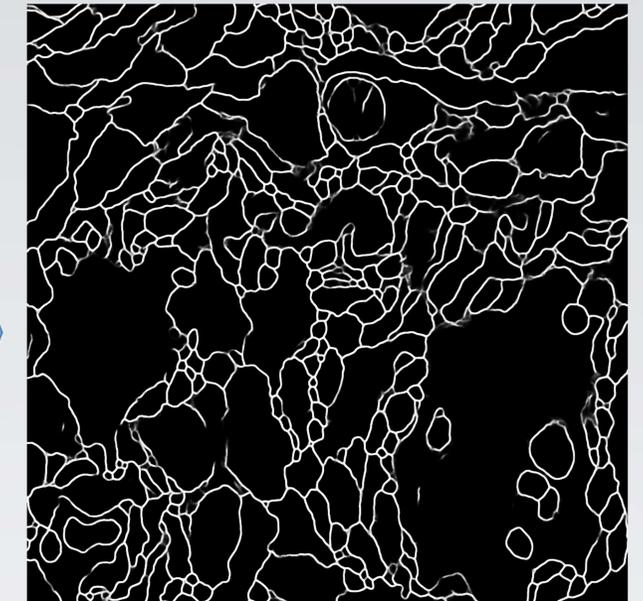


Connectomics:

- Connectomics is the process of reconstructing the wiring of the mammalian nervous system. This comprehensive mapping of an organ's nervous system – typically brain or eye can provide neuroscientists with information of the whole-brain dynamics

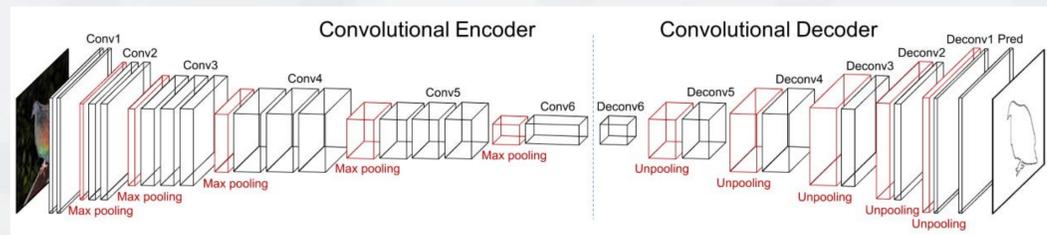


Convolutional
Neural
Network

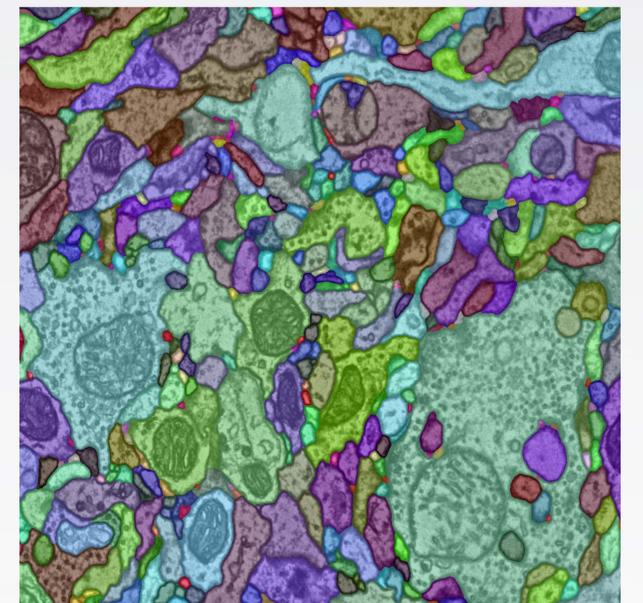


Watershed
Segmentation

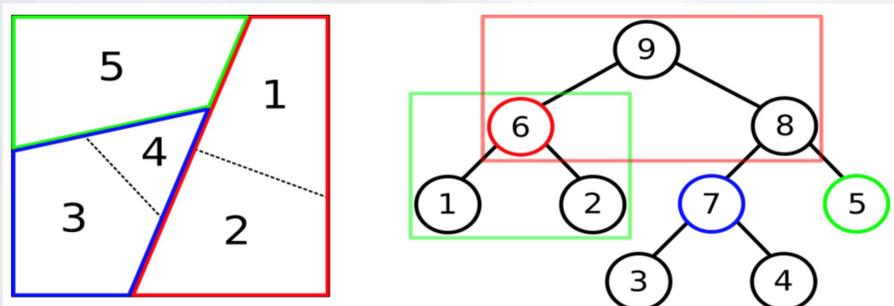
Membrane Detection via Convolutional Neural Networks:



Hierarchical
Merging



Segmentation and Hierarchical Merging:



Acknowledgement: This work was supported by NIH 1R01NS075314-01 (TT,MHE) and NSF IIS-1149299(TT).