

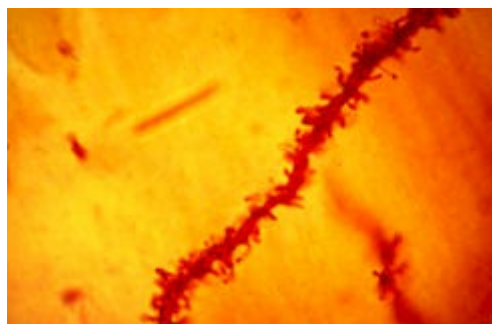
**Welcome to our website.**

NeuroStructural Research Laboratories was founded as an independent non-profit organization and contract research facility. We are dedicated to conduct neuroscience research in order to promote the understanding, prevention, and treatment of human neurological diseases and neurodegeneration.

- **We specialize in Golgi-impregnation staining and analysis of neurons using formalin fixed brain tissue that is sent to our lab. Golgi impregnation allows microscopic visualization of the soma and entire dendritic arbor in exquisite detail.**
- **Our in depth morphometric analyses of Golgi stained neurons permit quantification of dendritic branching and spines...those structures essential to synaptic transfer of information and the basis of neuronal circuitry. Assessment of these dendritic parameters reflects both the health of the neurons and integrity of the circuitry in a specific brain region.**



**Appearance of normal Golgi stained cortical pyramidal cell. The dendritic arbor comprises about 95% of the volume of the neuron.**

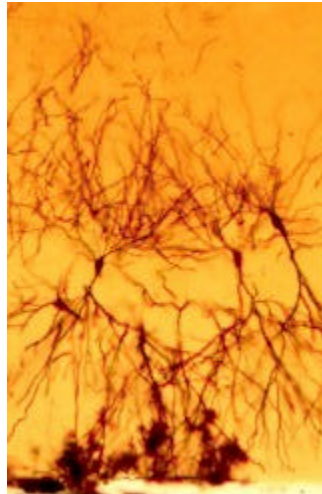


**Appearance of normal dendritic spines in a Golgi-stained cortical neuron. Spines represent the loci for the vast majority of synaptic input to the neuron.**

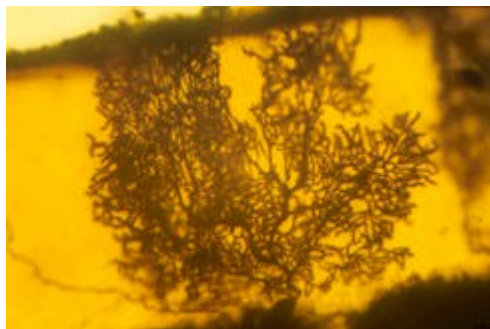
**Typical neuronal populations which have been selected for evaluation of branching and spines in our studies have included:**

- **Granule cells of the dentate gyrus**
- **Cortical pyramidal neurons**

- CA1 and CA3 pyramids of the hippocampus
- Purkinje cells of the cerebellum
- Spiny neurons in the caudate nucleus



**CA1 pyramidal neurons in rat hippocampus**



**Appearance of a Normal Cerebellar Purkinje Cell**

At NeuroStructural Research Labs, basic biomedical research is being carried out that can lead to the prevention and improved treatment of a wide range of parameters affecting cognitive function including: Alzheimer's disease, aging, brain development, genetic manipulations, various forms of mental retardation, AIDS dementia, neurotrauma, and stroke. ([click here to see Applications](#))

Please visit the other areas of our website to gain a greater appreciation of the extent of our expertise and to see examples of the application of Golgi staining with respect to various scenarios. ([click here to see Abstracts](#))

Thank you for taking the time to view our website. We would welcome your comments, and, of course, the opportunity to engage in a productive and exciting research collaboration. Please feel free to [contact me](#).

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