

# Your Amazing Brain

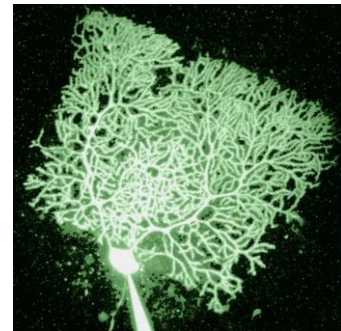
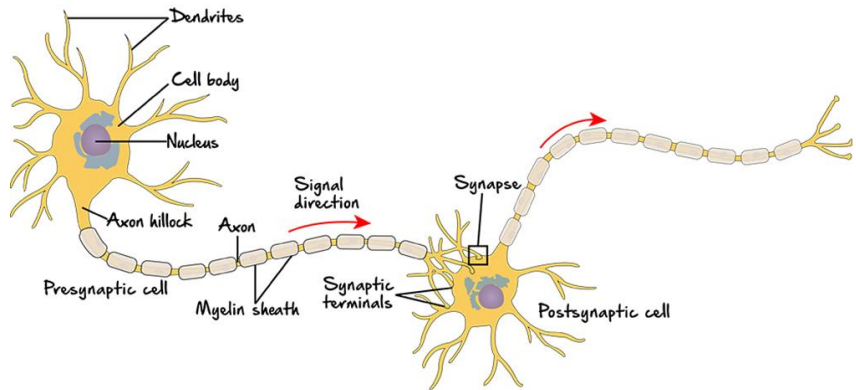
## RENEWING YOUR MIND

Neuroscience is a relatively new field of research. Only in the past thirty years have technological advances allowed visualization of our brain in action and at the cellular level.

A Neuron is the basic component of the brain and they are the source of our thoughts and actions. Neurons network together to form our unique personalities, our wills, and our Minds.

Neuroscientists have explored the chemical and electrical mechanisms of neurons and developed theories about how they communicate. But *why* neurons communicate, and *how* they form networks that learn, remember, and reason, are still only known to their Creator.

The drawing of two Neurons shown above is very simplified. The photomicrograph on the right is part of an actual neuron that has had fluorescent dye injected into the cell body. The dendrite tree is extremely complex, and, although not shown, neurons have an axon with a synaptic connections to the dendrites of other neurons. In the brain, neurons are arranged into a three-dimensional space. The picture only shows a thin horizontal slice of the whole dendrite tree.



An adult brain contains about 1,200 cubic centimeters of brain tissue. This box is the size of one cubic centimeter. A sample of brain tissue this size contains fifty million neurons, hundreds of miles of dendrites and axon fibers, and about one trillion synaptic connections.

King David was right when he praised our Creator for His wonderful creation.

*You formed my inward parts; You knitted me together in my mother's womb.*

*I praise You, for I am fearfully and wonderfully made.*

*Wonderful are Your works; my soul knows it very well.*

*My frame was not hidden from You, when I was being made in secret,  
intricately woven in the depths of the earth.*

*Your eyes saw my unformed substance; in Your book were written, every one of them,  
the days that were formed for me, when as yet there was none of them.*

*How precious to me are Your thoughts, O God! How vast is the sum of them!*

*If I would count them, they are more than the sand.*

*Psalms 139:13-18*

Do not conform to the pattern of this world, but be transformed by the renewing of your mind.

*Romans 12:2*