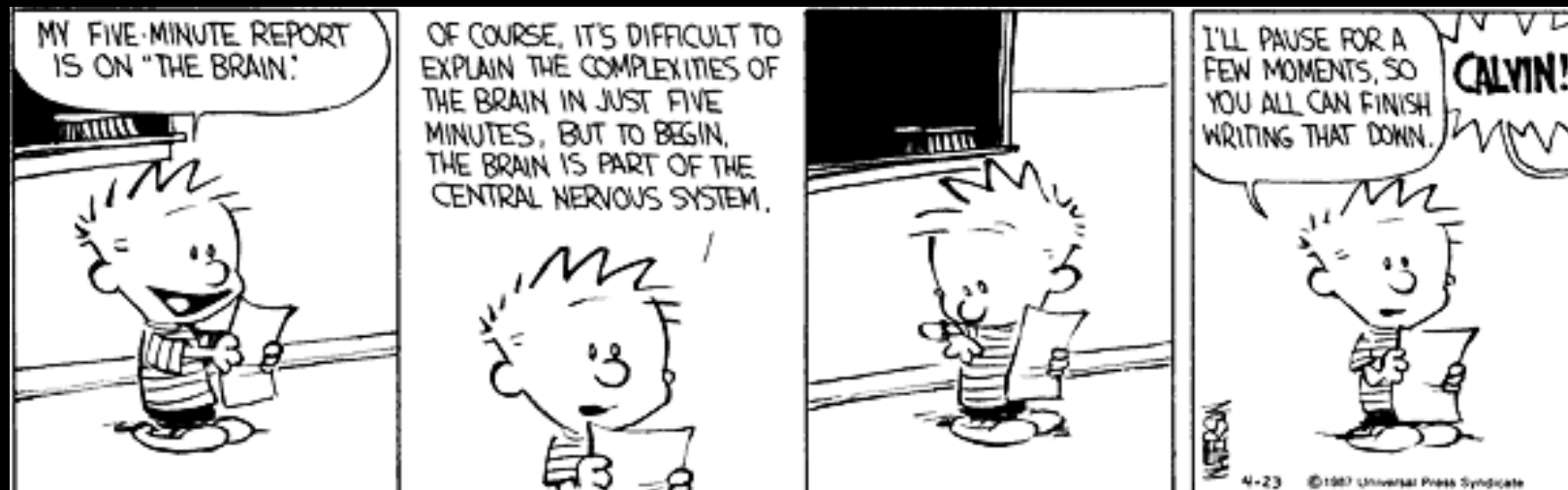


Exploring your brain!



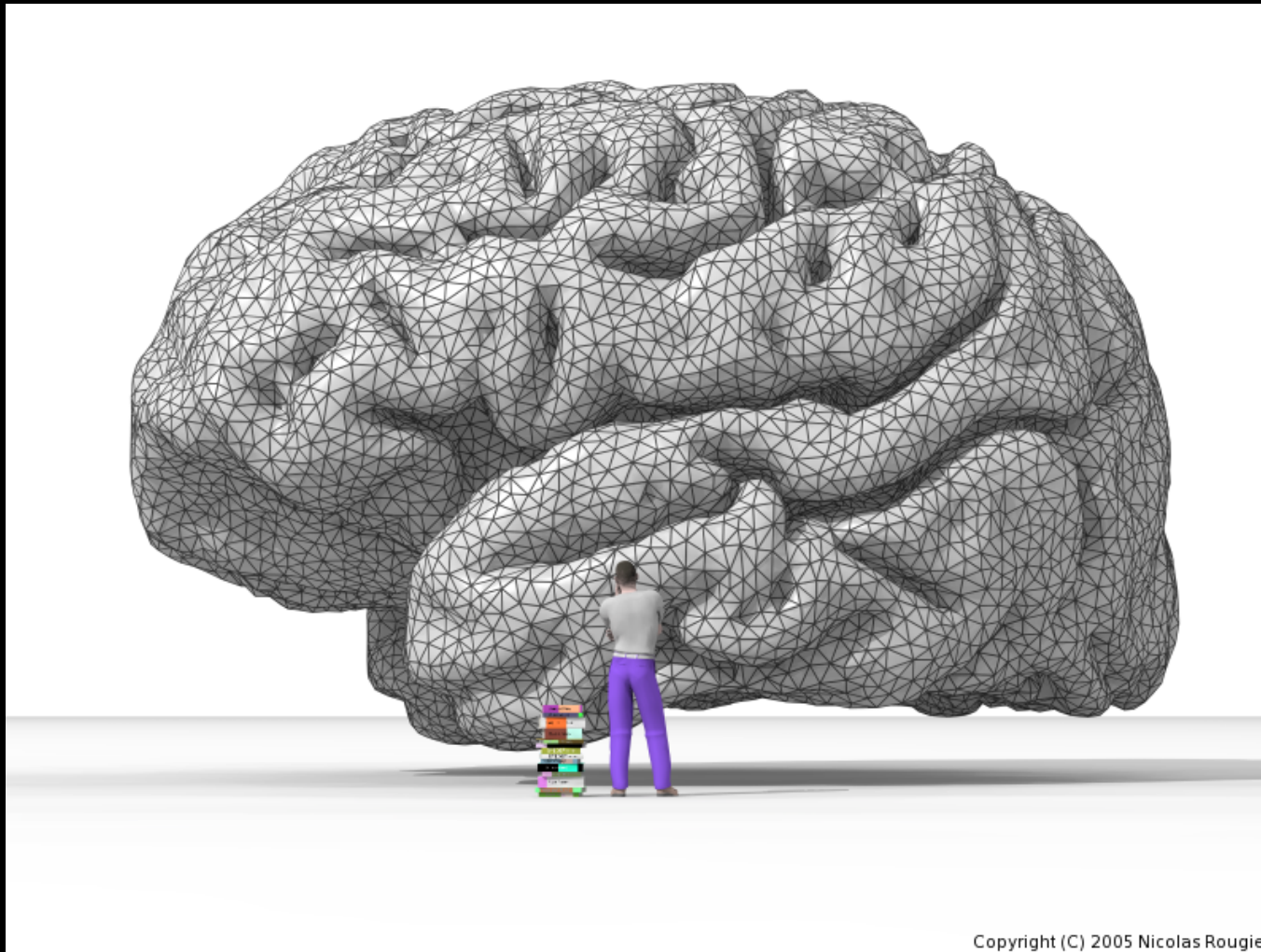
Splash!
April 22, 2012

What are we doing today?

- Who are we?
- Brainstorming
- Introducing your brain
- Cool things we like about the brain
 - Sensation
 - Memory
 - Attention
- Real human and animal brains!

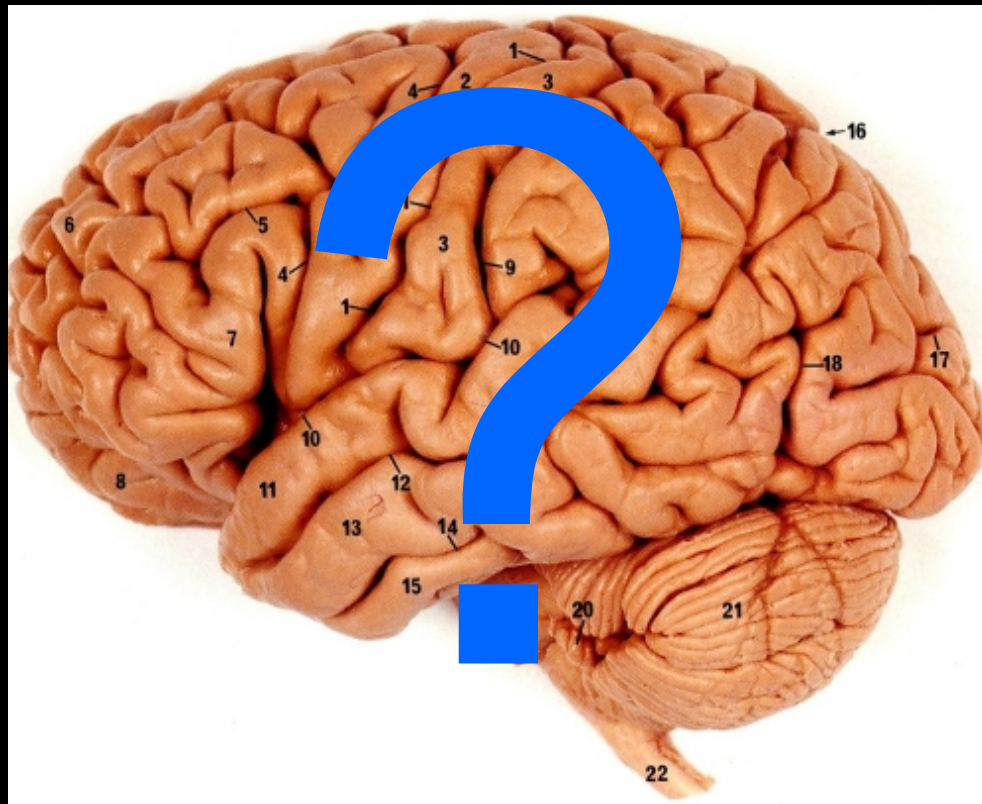


Introducing Your Brain

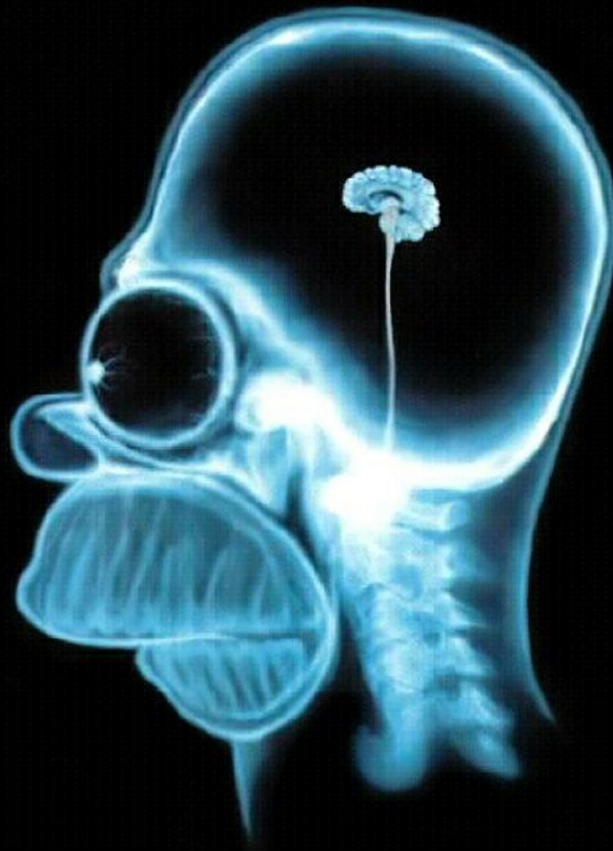


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What does your brain do?

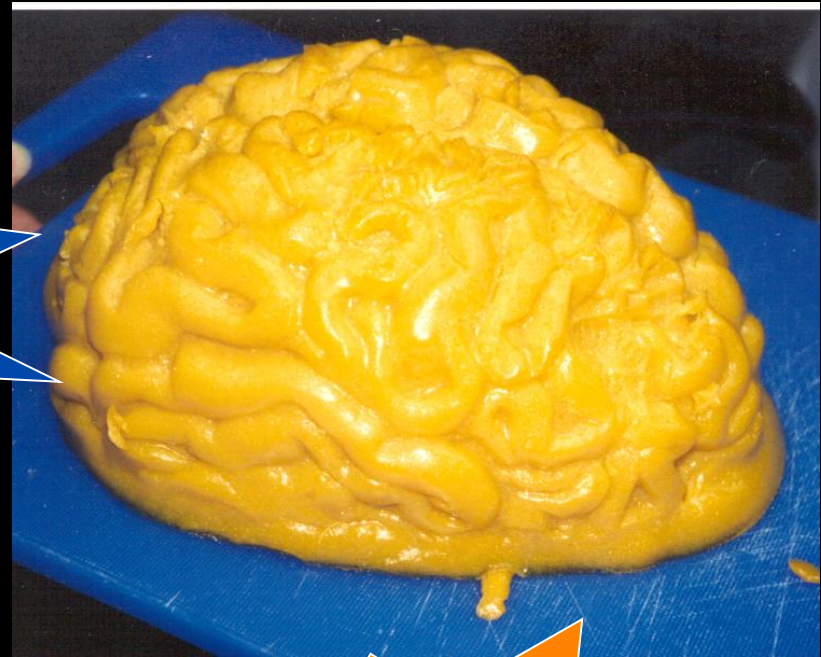


What can go wrong?



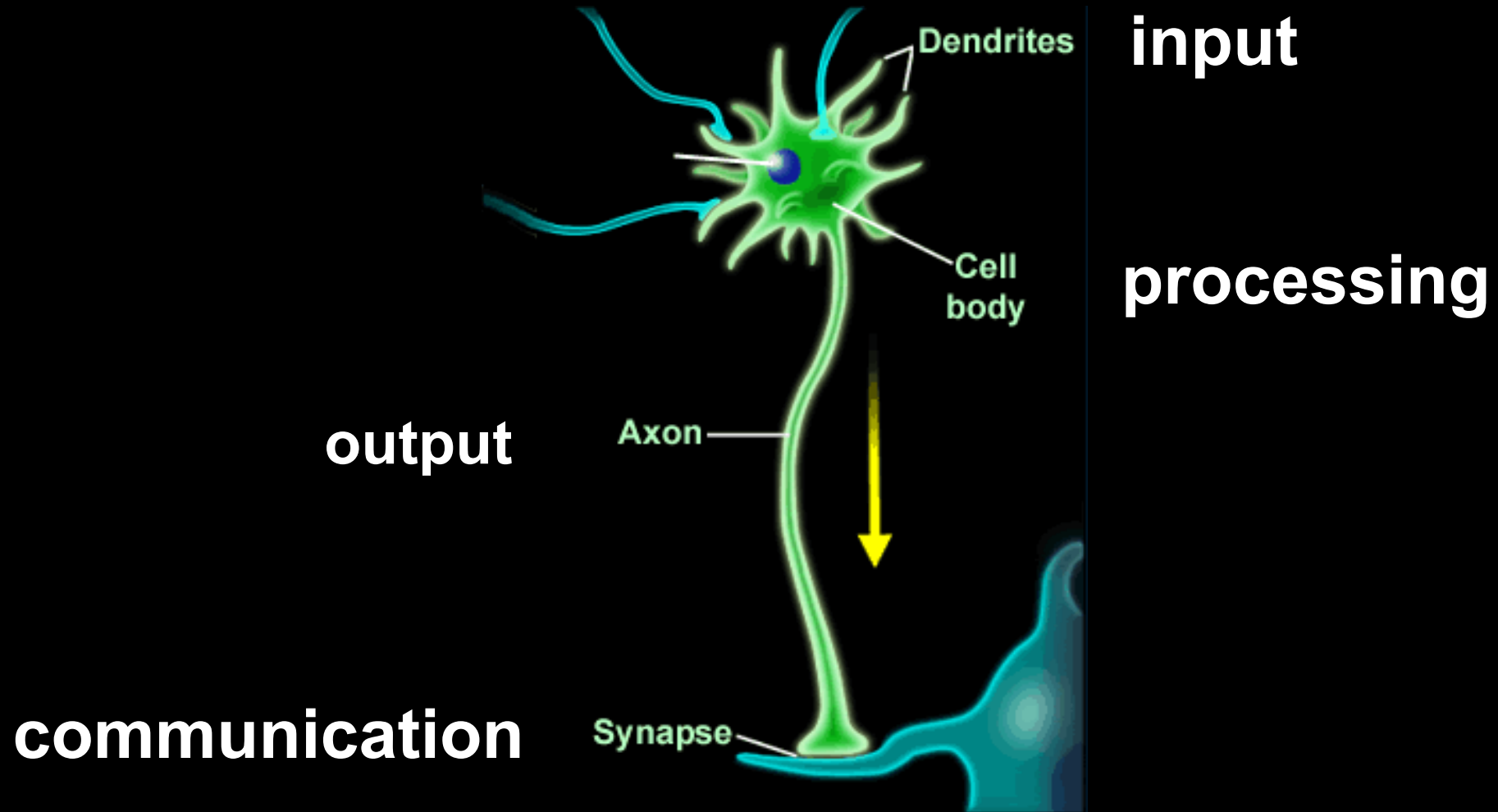
What's a Brain Made Of?

100 billion neurons!

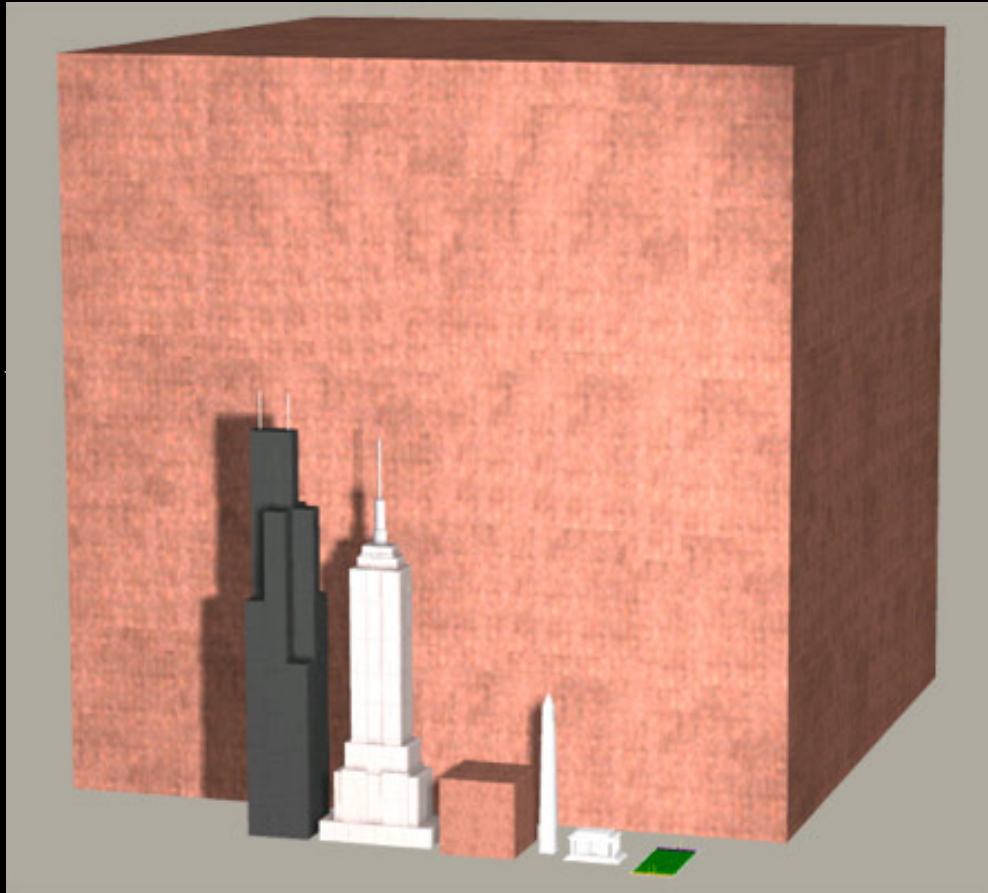


Even MORE glia

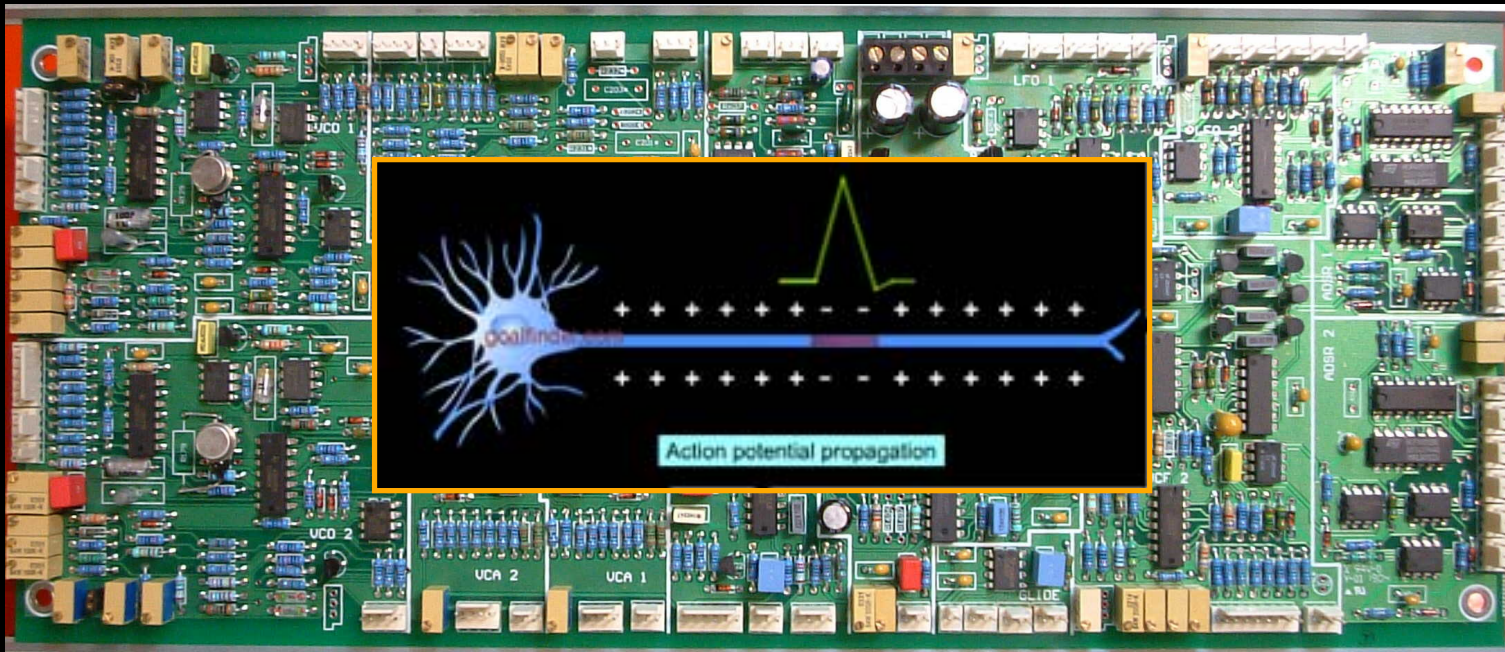
The Neuron



How Does the Brain Work?



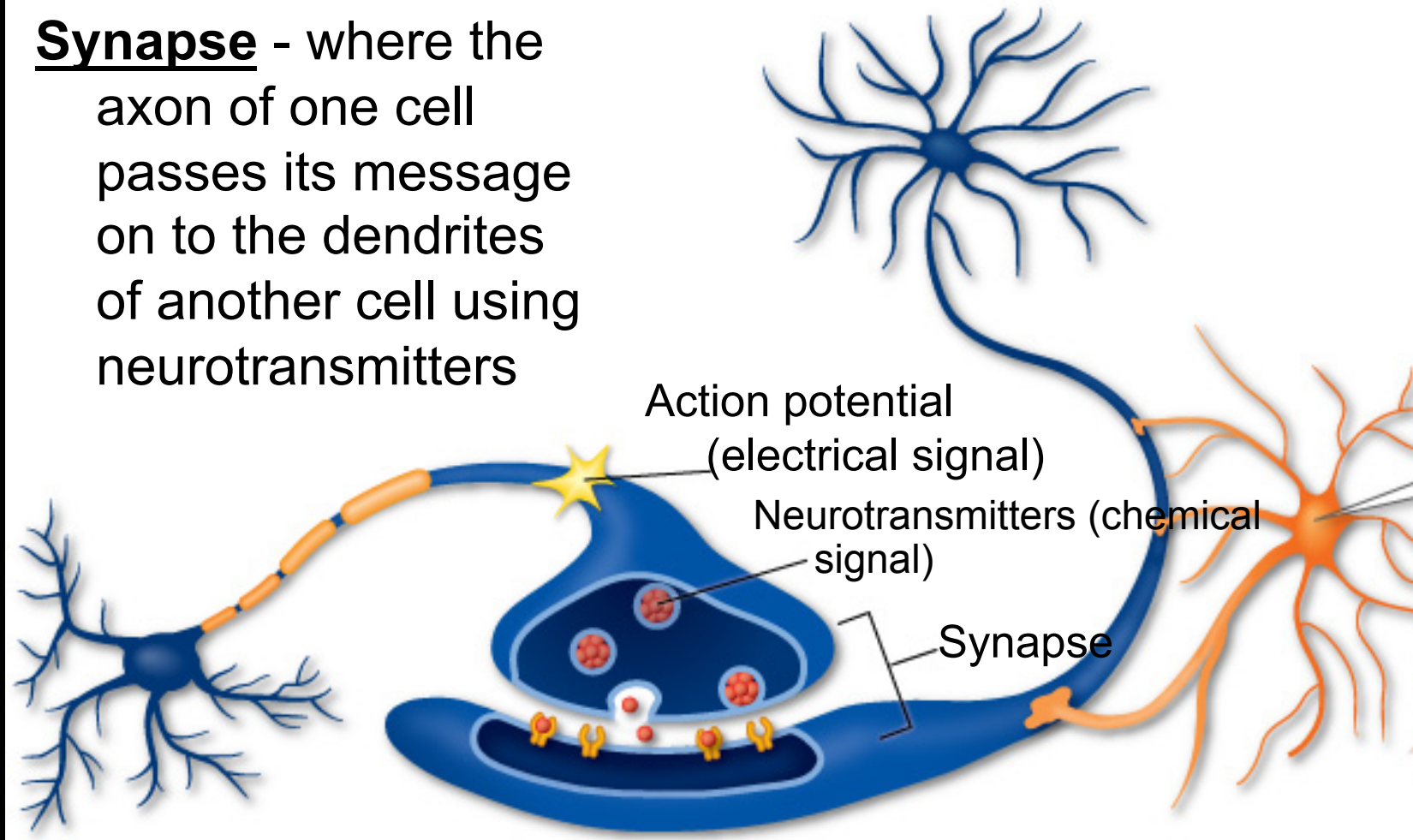
Electrical Signals: Digital



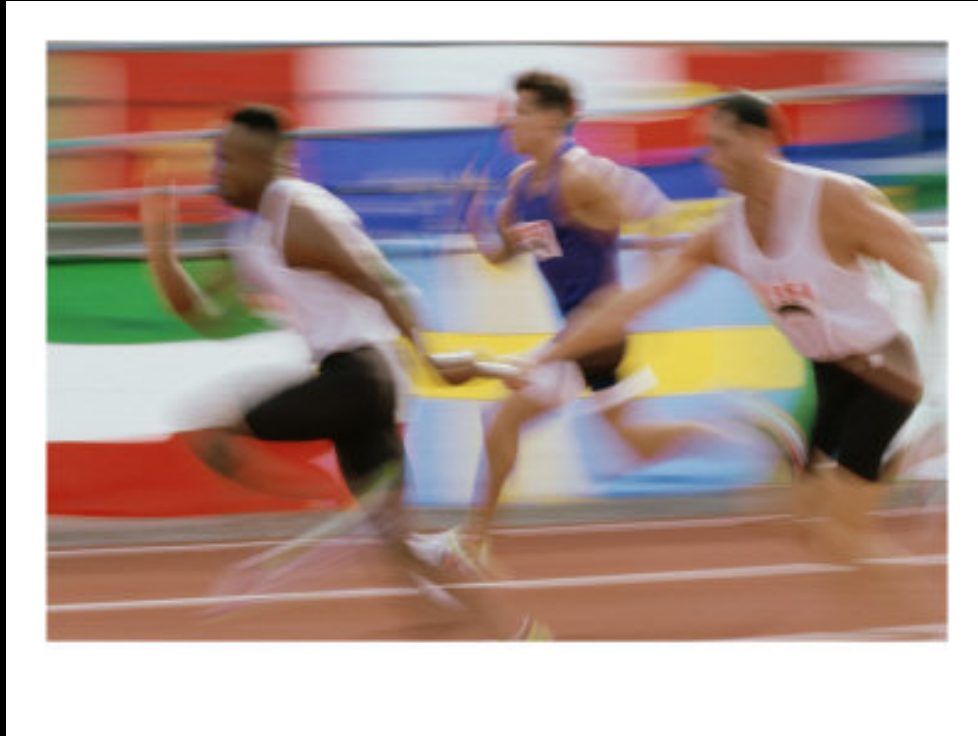
The Action Potential - how a message gets passed *inside a cell* from the dendrites to the axon; all or nothing - there either IS a message or there IS NOT

Chemical Signals: Analog

Synapse - where the axon of one cell passes its message on to the dendrites of another cell using neurotransmitters

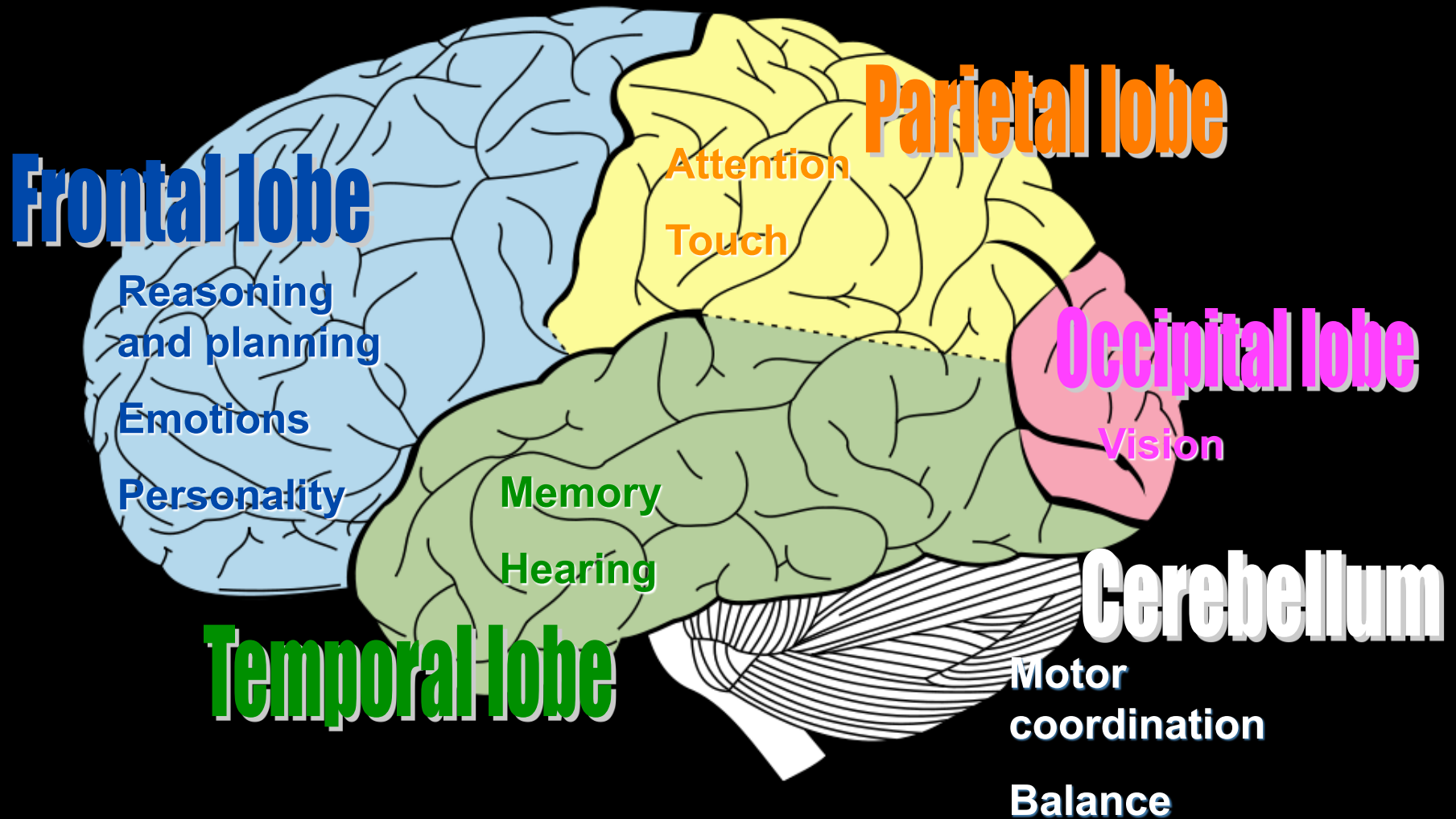


From Sensation to Action



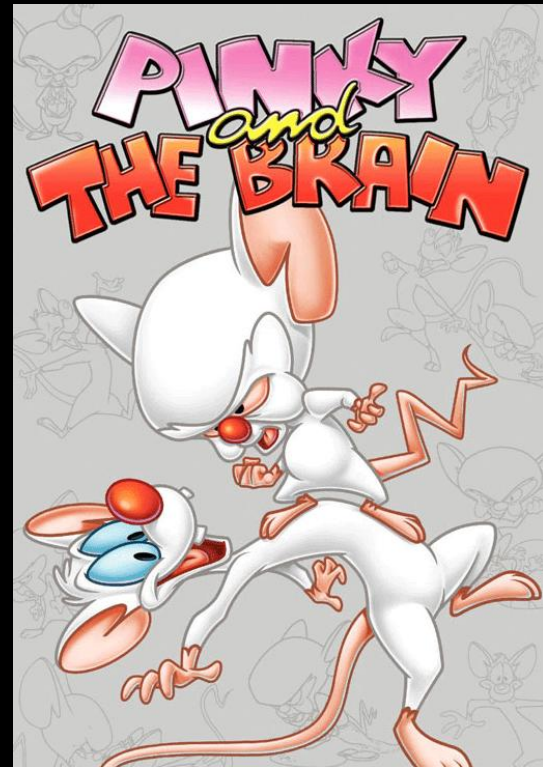
Your nervous system is like a relay race - passing on messages from one neuron to another, going from sensation to action

Your Brain is Specialized



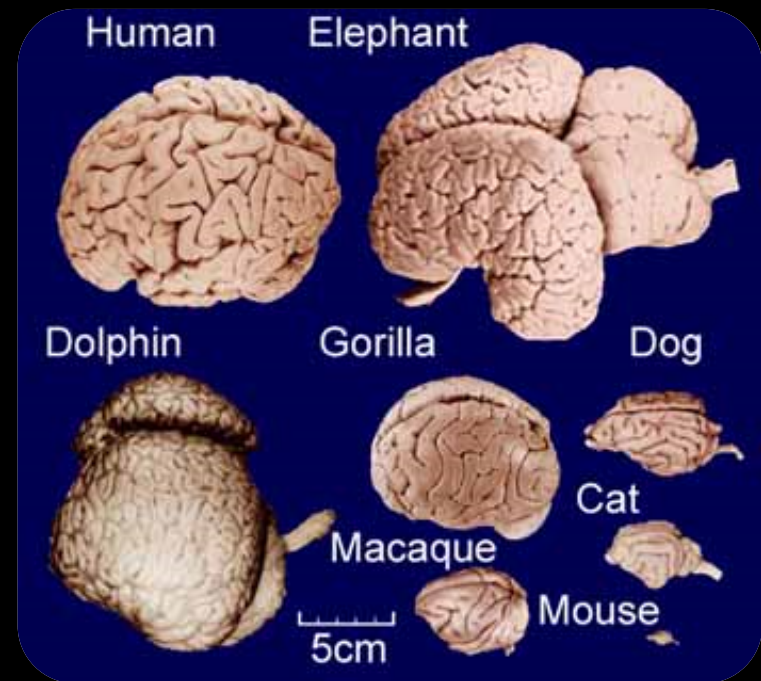
On to more cool brain stuff!

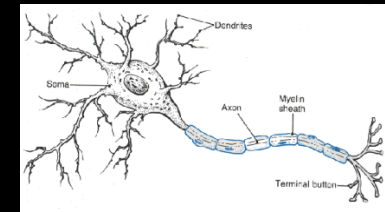
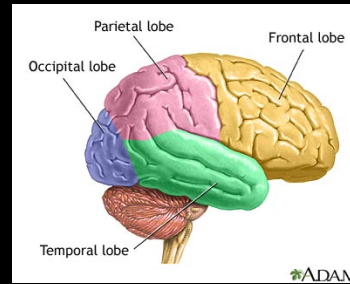
- Interactive Demos
 1. Sensation
 2. Memory
 3. Attention



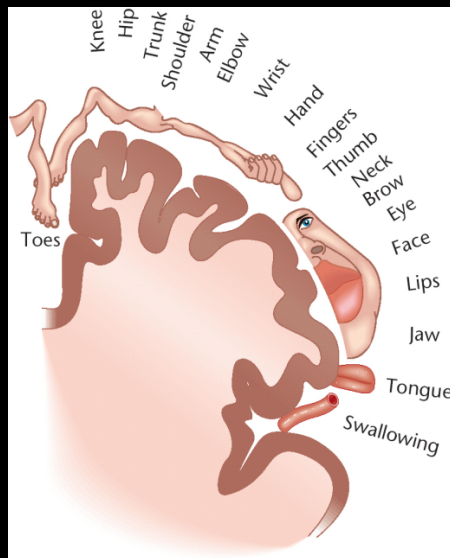
And now the best part!

- Brain stations
 1. Whole human brains
 2. Human brain slices
 3. Animal brains





What is one cool new thing about the brain that you learned today?



Thanks!

