Why is neuroscience worth studying?

One motivation is that we are ignorant about basic algorithms in sensation and motor control.
In the 1960s, neuroscientist Jerry Lettvin suggested that people have neurons that respond to a single concept such as, for example, their grandmother. The notion ... was quickly rejected by psychologists as laughably simplistic. But Rodrigo Quiroga ... and his colleagues have found some very grandmother-like cells. Anna Gosline (New Scientist 2005).
The nervous system encodes high-level sensory features … . Before … these can be used to guide behavior, they must first be transformed into a form that is appropriate for the motor system. How is such a sensorimotor transformation achieved by the nervous system? *Stephen Huston & Holger Krapp (PLoS Biology 2008)*
Steve Smith’s 0.1 μm view of cortex (Neuron 2010)