Emerging Methods in Neuroscience Research

February 26, 2021

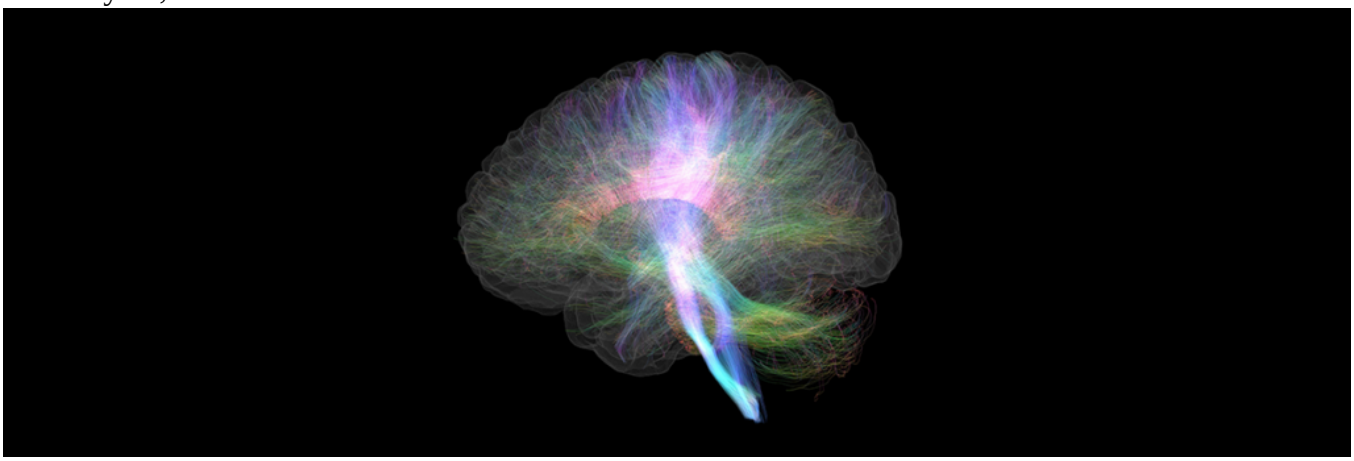
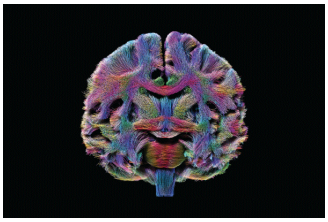


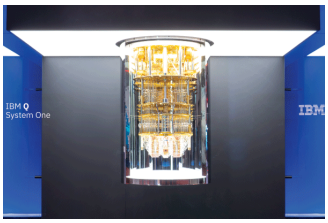
Image: Side view of brain tracts mapped using diffusion tractography. Colors indicate the tracts' direction; as they turn to go up and down they are more blue, forward-back is green, left-right is red. In the center, the corpus callosum is the main bundle of tracts connecting the left and right hemispheres in red. Photo courtesy of USC Mark and Mary Stevens Neuroimaging and Informatics Institute (ini.usc.edu).

The human brain contains more than 100 billion neurons and trillions of connections. In these six articles, we explore how psychological scientists are unpacking its mysteries in research labs all over the world.



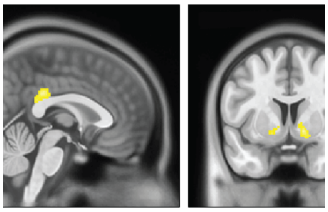
Totally Wired: The connectome—a map of the human brain—is revolutionizing what we know about the brain's structure and function.

Secrets of the Senses: The split-second distinctions made possible by neuroscience challenge common understandings of how we see and hear.



Quantum Leap: Could the sci-fi-esque concept of quantum computing transform our understanding of human cognition?

Capstone of a Quest: A collaborative initiative is bringing training for EEG and the measure of ERPs to the undergraduate masses.



Up-and-Coming Voices: Previews of emerging research using diverse neuroscience methods.

The Second Brain: Researchers are identifying the mechanisms involved in the brain-gut axis.