

Christof Koch

Title:

Big Science, Team Science, Open Science, In the Service of Neuroscience

Abstract:

The *Allen Institute for Brain Science*, a non-profit medical research organization, is executing an ambitious 10-year initiative to understand the structure and function of the neocortex within a team setting. We have set up high through-put pipelines to exhaustively characterize the morphology, electrophysiology and single-cell transcriptome of cell types (www.brain-map.org) as well as their synaptic interconnections in the laboratory mouse and in neurosurgical resected human neocortical tissue. We are building brain observatories to image the activities of 10,000s of neurons throughout visual cortex in behaving mice, to record their electrical activities, to analyze their connectivity at the ultra-structural level, and to construct computer simulations of these networks. Anybody can access this data without any restriction. I will highlight some of these achievements and this experiment in the sociology of brain science.