



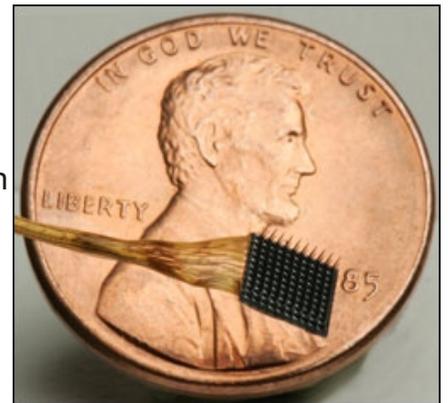
### Platform Technology

Neurons are cells that use a language of electrical impulses to communicate messages from the brain to the rest of the body. At Cyberkinetics, we have the technology to sense, transmit, analyze and apply the language of neurons. We are developing products to restore function, as well as to monitor, detect, and respond to a variety of neurological diseases and disorders.

Cyberkinetics offers a systems approach with a core technology to sense, transmit, analyze and apply the language of neurons in both short and long-term settings. Our platform technology is based on the results of several years of research and development at premier academic institutions such as Brown University, the Massachusetts Institute of Technology, Emory University, and the University of Utah.

### Sense

Cyberkinetics' unique technology is able to simultaneously sense the electrical activity of many individual neurons. Our sensor consists of a silicon array about the size of a baby aspirin that contains one hundred electrodes, each thinner than a human hair. The array is implanted on the surface of the brain. In the BrainGate™ Neural Interface System, the array is implanted in the area of the brain responsible for limb movement. In other applications the array may be implanted in areas of the brain responsible for other body processes.



### Transmit and Analyze

The human brain is a super computer with the ability to instantaneously process vast amounts of information. Cyberkinetics' technology allows for an extensive amount of electrical activity data to be transmitted from neurons in the brain to computers for analysis. In the current BrainGate™ System, a bundle consisting of one hundred gold wires connects the array to a pedestal which extends through the scalp. The pedestal is connected by an external cable to a set of computers in which the data can be stored for off-line analysis or analyzed in real-time. Signal processing software algorithms analyze the electrical activity of neurons and translate it into control signals for use in various computer-based applications.

### Apply

Cyberkinetics' ability to generate control signals and develop computer application interfaces provides us with a platform to develop multiple clinical products. For example, using the BrainGate™ Neural Interface System, a person may be able to use his thoughts to control cursor motion and/or replicate keystrokes on a computer screen. In another example, a doctor may study patterns of brain electrical activity in patients with epilepsy before, during and after seizures.

At Cyberkinetics, we are leveraging our core technology to sense, transmit and analyze the language of neurons to developing products to restore function, as well as to monitor, detect, and respond to a variety of neurological diseases and disorders.