

Seizure Advisory

One of the most debilitating aspects of epilepsy is the uncertainty of when seizures are going to strike. For many people living with uncontrolled seizures, the cumulative time spent in seizure is less than one hour per year, yet these individuals are chronically impacted by the fear and uncertainty of their next seizure. It is the lack of warning preceding seizures that gives rise to physical injury and impairs participation in many activities.

NeuroVista is working to identify physiological signals that may make it possible to forewarn a person when a seizure is likely to occur. Highly sophisticated techniques in signal processing, machine learning, and time-series analysis are at the core of the Company's research and development. The Company has assembled one of the world's largest databases of intracranial Electrocorticography (ECoG) recordings and developed vast computational resources to assist in the identification and analysis of signals that may enable reliable seizure advisory.

With reliable seizure advisory algorithms, a practical system must then be developed that enables people to utilize this vital information in their daily lives. There are considerable engineering and human factors challenges to the development of such a system, but advances in technology are bringing the development of such a system within reach.

Resolving the uncertainty of seizure occurrence for people with epilepsy may significantly improve quality of life by reducing anxiety and helplessness, restoring a sense of control, reducing physical injuries and enabling many activities of daily living.