Stage of Development

- Fabrication of two types of electrodes for measuring ECoG and individual neurons
- Characterization of electrochemical impedance
- Enhanced performance during in vivo testing

Intellectual Property

1. US Provisional Patent Application
   Filed Sept. 2017

Desired partnership

1. License
2. Co-development

Reference Media


Advantages

- Significant suppression of electrical interference and electronic noise in the electrode.
- Better electrical conductivity, strength, flexibility and volumetric capacitance.
- Better optical properties than metals including tunable optical transparency (>90%)
- Unique ability to record single unit neuron activity.

Applications

- $1,054 million (2015) Global Medical Electrodes Market, reaching $1,328 million by 2022
- Clinical applications in neurodegenerative disease; epilepsy and cardiovascular disorders including as Pacemaker electrodes (Cardiovascular), DBS electrodes (ie. Parkinson’s Disease), BMI electrodes, intracranial EEG electrodes, and penetrating intracortical electrode arrays.
- Transparent biological sensors for imaging and intracellular recordings.