STEM Pathways Summer 2022 Seminar Series

Assessing Long Term Biocompatibility in the CMU Microelectrode Array

Presented By

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Biomedical Engineering, Carnegie Mellon University (2022)
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Schedule

Friday, June 3, 2022
12:00 pm - 1:00 pm
CILSE 106C

Abstract

The CMU Microelectrode Array is a novel, 3D printed neural implantation device. Current electrodes demonstrate significant limitations in coverage, fragility, and expense. Using a new 3D nanoparticle printing approach that overcomes these limitations, we demonstrate the first in vivo recordings from electrodes that make use of the flexibility of the 3D printing process. This unique 3D printing process makes way for a long-term biocompatible neural implantation device for use within a neuroprosthetic that elicits minimal local and systemic immune responses over time.

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