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“Neurotechnologies for Combining Optical and Electrical Approaches in Vivo ”

Abstract:

Intracortical electrodes are the gold standard for studying the neurophysiological basis of animal behavior and cognition. Complimenting this electrical approach are optical techniques, such as optogenetics and calcium imaging, that are powerful techniques for dissecting neural circuits with genetically-targeted precision. Unfortunately, conventional intracortical electrodes are largely fabricated from opaque materials, making their integration with light-based methods challenging. Here, I’ll discuss how we leverage transparent, flexible materials for optically compatible interfaces that enable studying neural circuits with unprecedented precision.

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