Microplatforms for Optogenetics – William C. Tang

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Projects we are working on in the upcoming year

Project/research summary

• Develop the hardware platform with DLP projection for optical stimulation integrated with multi-electrode array (MEA) for electrophysiology

• Develop the control, data collection, and illumination pattern generation software to integrate with hardware platform

• Demonstrate the optogenetic functions of the integrated platform with neuronal tissues from transgenic mice
Possible areas of collaboration with other groups

• Hardware / software co-development and integration
• Matlab algorithms in sorting and analyzing spikes and spike trains
• Neuronal culture and genotyping