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Abstract

A central goal of the proposed plan is to produce multifunctional soft and flexible polymer microfiber probes that can be used to deliver chemical cues for stimulation of the neurons and simultaneously read electrical signals for constant monitoring of the effects of the different inputs. Using the proposed polymer microfibers eliminates the possibility of damaging nearby tissues, as they are physiologically relevant in terms of both size and material.

More info about the Exploratory Research Project (ERP)

“The goal of this grant program is to make resources available to initiate the development of high- risk, high-impact, novel ideas for new research projects. The expectation is that the program will enable a new research area to be sufficiently vetted (enough preliminary data collected or theoretical calculations/simulations made) such that it can be credibly submitted to an external funding agency.”

<http://www.engineering.iastate.edu/research/files/2013/10/FY17-ERP-Exploratory-Research.pdf>