GDCB SEMINAR

4:10-5 p.m. Tuesday, March 9, 2021

"Bridging the gap: Connecting biology and engineering to develop strategies for brain rescue and repair"

Abstract: Brain injury and neurodegenerative conditions often lead to lifelong disability, reduced quality of life, and heavy socioeconomic burdens. As such, considerable effort has been directed toward the development of cell replacement strategies. Combining somatic stem cells with bioengineering approaches provides a means for manipulating microenvironmental signals to regulate cell proliferation and differentiation. Furthermore, with the advent of transdifferentiation techniques, it has become possible to implement rational strategies to generate specific cell types for tissue repair. In this presentation, I plan to discuss some of our recent studies using biomaterials-based scaffolds, electrical stimulation and microfluidic platforms to influence directed cell differentiation to improve cell-based strategies.

Don Sakaguchi
Iowa State University

Morrill Professor, Department of Genetics, Development and Cell Biology

Director, Biology and Genetics Undergraduate Programs

Join meeting:

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IOWA STATE UNIVERSITY
Department of Genetics, Development and Cell Biology