University of Southern California
Department of Quantitative and Computational Biology
Colloquium

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"Bacterial brains: How bacteria use electrochemical potentials to solve complex problems ."

Abstract:Despite their unassuming simplicity, bacteria are capable of performing highly complex functions. Following our discovery of bacterial action potentials in biofilm communities, we have shown that bacteria use electrochemical potential to orchestrate various stress responses in space and time, at both the single cell and community levels. These findings have revealed a surprising similarity between bacteria and neurons. In my talk, I will present our most recent discovery suggesting that dead-like cells can perform computations. Specifically, I will describe how dormant bacterial spores count and integrate environmental inputs over time to decide if they should return to life.

Thursday, February 9, 2023
2:00 pm
RRI 101 and Zoom
https://usc.zoom.us/j/92202560901?pwd=UnFRK042MThsSEhYcjJkTlpwY0dhQT09

Meeting ID: 922 0256 0901

Passcode: 413673
Host: Ivy Xiong