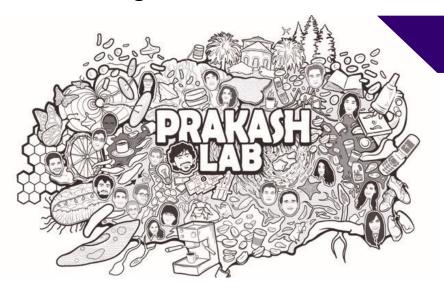
## **Biology Seminar**



By: Dr. Manu Prakash

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Neuroscience without neurons: Bodies without brains and other musings in science



Monday, May 24, 2021 12:00 PM GMT-7

We use interdisciplinary approaches including theory and experiments to understand how computation is embodied in biological matter. Examples include cognition in single cell

protists and morphological computing in animals with no neurons and origins of complex behavior in multi-cellular systems. We will also share new tools to enable "virtual reality arena" for single cells - enabling never before seen behavior of single cells over multiple spatial and temporal scales. Broadly, these new tools for studying non-model organisms have significant implications for studying life in the ocean - addressing fundamental questions such as how do cells sense ecological parameters or "cell biology of climate change". Finally, we are dedicated towards inventing and distributing "frugal science" tools to democratize access to science (previous inventions used worldwide: Foldscope, Abuzz), diagnostics of deadly diseases like malaria and convening global citizen science communities to tackle planetary scale environmental challenges such as mosquito surveillance or plankton surveillance by citizen sailors mapping the ocean in the age of Anthropocene.

Seminar Speaker Host: Clemens Cabernard