



## Colloquium

# New perspectives on disease diagnosis: From mobile phones to molecular engineering

**Daniel A. Fletcher**

University of California, Berkeley

Host: Martin Loose

Understanding and detecting diseases is a central challenge for basic biological sciences and a major goal of healthcare. Recent advances in technologies for manipulating biomolecules in cells and collecting data electronically have opened new possibilities for identifying and addressing signs of disease. This talk will describe two different efforts to address infectious diseases, one focused on understanding and manipulating molecular mechanisms involved in immune cell target recognition and the other based on converting mobile phones into image-based diagnostic platforms. These projects point to new opportunities for linking biology and engineering with medicine.

Dr. Dan Fletcher is the Chatterjee Professor of Engineering Biological Systems at UC Berkeley, where he also serves as Chair of the Bioengineering Department and Chief Technologist of the Blum Center for Developing Economies. Dr. Fletcher received a B.S. from Princeton University, a D.Phil. from Oxford University where he was a Rhodes Scholar, and a Ph.D. from Stanford University as an NSF Graduate Research Fellow. His bioengineering and biophysics research has been recognized with an NSF CAREER Award, a Tech Award from the San Jose Tech Museum, and a "Best of What's New" citation by Popular Science magazine. He served as a White House Fellow in the Office of Science and Technology Policy, is an elected Fellow of the American Institute for Medical and Biological Engineering, and is a Chan-Zuckerberg Biohub Investigator.

**Monday, April 3, 2017 04:00pm - 05:15pm**

Raiffeisen Lecture Hall, Central Building



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