ABSTRACT:

The expectations of point-of-care technologies (POCT) are being increasingly shaped by the patient-centric narrative of P5 (predictive, preventive, personalized, participatory, and population-based) medicine. Shifting the focus of our healthcare system to a personalized and preemptive approach will depend partly on the availability of field-deployable measurement technologies that provide rapid biometric information to providers and patients. In order to respond to the changing healthcare paradigm and hasten the integration of emerging sensor materials into clinically useful point-of-care (POC) approaches, it is essential that the sensor materials community understand and appreciate the clinical context, expectations, and aspirations of the healthcare consumers. After reviewing the drivers of the P5 medicine initiative, the talk will review the context within which the POCT will be used and amplify, using case studies, ways in which collaborations between biomedical engineers and clinicians can realize personalized healthcare.

BIOGRAPHY:

Vivek Shetty is a Professor of Oral & Maxillofacial Surgery at UCLA. A clinician-scientist at the intersection of technology, basic science, and clinical care, his translational research program is defined by the significant burden of health disparities in vulnerable populations. He focuses on developing and applying remote sensing technologies to improve health outcomes and promote sustainability. Funded continuously by NIH since 1993, several of his research programs have developed into productive collaborative relationships with industry. Professor Shetty has served the University at various levels including Academic Senate Chair, Assistant Vice Chancellor for Research and member of the HSSEAS strategic planning committee.