



Centre for Biosystems Science and Engineering

SEMINAR

Microfluidics in Medical Diagnostics

Dr. Dhananjaya Dendukuri

Co-Founder and Chief Executive Officer, Achira Labs

4:00 PM, Monday, 17th October 2016,
Seminar Hall, MRDG, Biological Sciences Building

Microfluidics technologies are poised to revolutionize point-of-care medical diagnostic testing. They provide multiple benefits such as sample and reagent volume reduction, multi-parameter analysis, automated and rapid workflow and low footprint. In India, small pathology labs and doctor's offices could benefit from these technologies, as it can help reduce errors due to degradation or mis-labeling of samples and improve diagnosis rates by providing doctors with immediate test results about the patient. Further, point-of-care instruments allow for testing in many remote settings which are not covered by the current centralized model, thus improving the overall health of our communities. Achira Labs has pioneered the development of an immunoassay platform using the many advantages of microfluidics. The first test panels developed include thyroid and fertility panels and have been validated against gold-standard commercial technologies. The talk will cover advances in microfluidics and use Achira's technology as a case-study.

About the Speaker

Dr. Dhananjaya Dendukuri is the Co-Founder and Chief Executive Officer of Achira Labs, a pioneering Indian start-up working in the area of point of care medical diagnostics. Dr. Dendukuri and his team have been awarded six patents in the area of medical diagnostic platforms. In 2010 he was a recipient of MIT Technology Review's prestigious TR35 award, which recognizes the game-changing achievements of young Indian inventors. A B.Tech in Chemical Engineering from IIT Madras, he went on to complete his MASC from the University of Toronto and received his PhD in Chemical Engineering from Massachusetts Institute of Technology.

