



Centre for Biosystems Science and Engineering Seminar

Towards next-generation Biomedical diagnostics and mobile healthcare technologies

18th August 2016,
11:00 AM, MRDG Seminar Hall, 1st Floor, Biological Sciences Building

Dr. Sandeep K. Vashist

Chief Scientific Officer, Vallo Med Health Care GmbH, Germany

Improvements to biomedical diagnostics have the potential to radically augment the present health care scenario. In this regard, the speaker will discuss some of the achievements of his group that include critically improved biomedical diagnostics by implementing novel assay formats; simplified chemistries for surface modification, bio-conjugation, and assays; signal enhancement strategies; fully integrated lab-on-a-chip platforms; prolonged reagent storage strategies; smartphone-based technologies; multiplex detection; clinical score based smart system technologies. These technologies have been successfully validated and transferred to the industrial and healthcare settings. The talk will entail a discussion on several smartphone-based next-generation point-of-care devices, assays, and smart applications for biomedical diagnostics and mobile healthcare. Finally the speaker would provide an overview of the advances made by their group along with the challenges involved and future directions.

About the speaker

Dr. Sandeep K. Vashist is the Chief Scientific Officer at Vallo Med Health Care GmbH, Germany. He completed his Ph.D. from Central Scientific Instruments Organisation, Chandigarh, India in 2006 and worked as a bio-analytical Scientist at Bristol-Myers Squibb Company, Ireland (2006–2009), Team Leader at NUS, Singapore (2009–2012), and Head of Immunodiagnostics at Hahn-Schickard, Germany (2012-2015). He has made significant contributions to biomedical diagnostics, bio analytical sciences, point-of-care testing, and mobile healthcare, which include numerous technology transfers, bio-analytical platforms/devices, patents, and publications.

