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## **NEW GENERATION SENSING DEVICES FOR POINT-OF-CARE DIAGNOSTICS**

Biomolecules are integral constituents of living beings which regulate numerous biochemical functions of the body. Detection of various biomolecules such as metabolites, vitamins, neurotransmitters, nucleic acids, proteins is of prime importance in modern time due to increasing disbalance in natural metabolism of human body. Irregularities and alteration in concentration of biomolecules lead to different kinds of genetic, metabolic and cancerous diseases which have created a great requirement of highly sensitive, accurate and stable detection systems for their quick and specific screening. Our research focusses on the development of advanced sensing devices based on different nanostructure and biomolecules for rapid screening of disease biomarkers and contaminants for point-of-care diagnostics, food safety and environmental protection. Advanced approaches for fabrication of portable integrated electrochemical devices have been emphasized.