

Nano-biosensors for cognitive point of care testing

Gerard L. Côté

Department of Biomedical Engineering, Texas A&M University

Abstract

Simultaneous detection of multiple biomarkers coupled with smart algorithms are needed at the point of care (POC) for the clinical decision making process in order to allow the healthcare provider to implement the appropriate treatment and significantly reduce the chance of complications or mortality. In this presentation, the development of functionalized nanoparticles, paper fluidics, and surface enhanced Raman spectroscopy (SERS) for creation of nano-biosensors will be discussed along with their potential to be used with a smart decision making process for POC monitoring.