

25<sup>th</sup> World Congress on**CANCER SCIENCE AND THERAPY &**10<sup>th</sup> World Congress on**BIOMARKERS & CLINICAL RESEARCH**

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Baltimore, USA

***Srinivas Pentyala****Stony Brook Medical Center, USA***Translational approach to detect biomarkers bedside**

**B**iomarkers are important tools for disease detection and monitoring. A highly effective, clinically useful biomarker for a specific disease should be measurable in a readily accessible body fluid, such as serum, urine or saliva. Translational approach based applications are now being widely utilized in the field of point-of-care diagnostics. The search for biomarkers in early disease detection has included proteins, metabolites and other biological molecules that are altered and secreted as a consequence of the disease process and are shed into body fluids. After collecting these body fluids, the next step was to isolate and identify the marker that would give an indication of the disease process. Unfortunately, this approach is laborious and time-consuming, as specific candidate biomarker (s) must be identified from among the thousands of intact and altered molecules in the collected body fluids. In many disease manifestations, a marker can occur in trace amounts, yet large volumes of fluids are collected. Dipsticks and lateral flow devices that are available at present are limited for their ability to detect markers beyond a specific concentration and also the collection and application of sample to these existing diagnostic strips and devices have many limitations. We identified unique biomarkers for cerebrospinal fluid leaks, prostate cancer, diabetic nephropathy and other diseases and symptoms. We also designed and tested several point-of-care diagnostic detection methods and devices that can detect trace biomarkers in large volumes of samples. The translational approach to identify biomarkers and develop point-of care diagnostic methods and devices will be presented.

**Biography**

Srinivas Pentyala is working as the Director of Translational Research and also as Associate Professor of Anesthesiology at Stony Brook University Medical Center, NY, USA. He has joint appointments in the Departments of Urology, Health Sciences, Physiology and Biophysics at SBUMC. He has 80 publications and several patents to his credit. He has received several honors and awards not only for his role as a Researcher but also as an Educator. He is the Founding Director of several biotech and health care companies. He serves on the Advisory Board of several national and international biotech and health care companies and research institutes.

Srinivas.Pentyala@stonybrookmedicine.edu

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