

Università degli Studi di Padova



Giovedì 23 maggio 2024 alle ore 11:30 presso l'aula F

il Prof. James F. Rusling

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terrà il seminario dal titolo:

Multiplexed Biomarker Detection for Disease Diagnostics

Abstract.

Medical diagnostic tests measuring disease biomarkers like proteins and miRNAs can provide automated, high throughput operation, yet must be sensitive and have low detection limits and costs. This presentation will discuss point of care (POC) systems for protein biomarker detection including microfluidic devices using electrochemiluminescence (ECL), electrochemistry, and chemiluminescence for detection, CRISRP-based device for detection of miRNAs, and a rapid isotope labeling method for detection of short peptides in human metabolic cycles. Highlights include protein and miRNA detection at unprecedented sub-fg/mL levels in human serum, a focus on detecting aggressive forms of prostate cancer, a test for whether a prostate cancer patient needs a biopsy, protein assays in a pipette tip, promising peptide biomarkers for breast and prostate cancer bone metastasis, a simple multiplexed approach for miRNA detection using CRISPR, and an LC-MS deuterium-labeling method used to find peptide biomarkers for COVID-19 severity.

La presenza della S. V. sarà molto gradita

Il Direttore del Dipartimento Prof. Stefano Mammi

Prof.ssa Sabrina Antonello