Future of blood plasma profiling for medical diagnostics – a review of current trends

Laszlo Takacs
University of Debrecen, Hungary
Biosystems International Kft., Hungary

Emerging research data indicates that circulating cell free nucleic acids, profiling of proteins and its variants and metabolites all carry significant diagnostics value. Here, current trends and the potentials in the integration of multiplatform data will be presented. As a specific example, protein epitope profiling technology with QuantiPlasma™ biochips developed together with Randox Ltd. will be described. Variability of the proteome impacts epitopes, thus studying epitome dynamic is expected to open new avenues in protein biomarker research. To illustrate the value results of asymptomatic lung cancer detection will be shown. Integrated with imaging and established cancer biomarkers an epitomic blood test will be highly accurate in detecting asymptomatic lung cancer and reduce the number of imaging tests (Spiral CT) and unnecessary biopsies with 50%.

Biography

Laszlo Takacs is the CEO/CSO for Biosystems International. Leading the management team, his responsibilities include formulating and implementing the science based business strategy of Biosystems International. He has funded Biosystems International in France and Hungary. Prior to Biosystems, he worked at Pfizer and Amgen in various management roles in biotech and drug R&D and translational medicine. Before his industrial experience, he was the Head of the Special Unit of NIAAA, National Institute of Health. He continues his academic activities by teaching Medical Genome Biology at the University of Debrecen in Hungary. He holds a MD degree in General Medicine and a PhD in Molecular Sciences from Semmelweis University and the Academy of Sciences in Hungary.

laszlo.takacs@biosys-intl.com