October 7 - 10, 2013 Sheraton Bucks County Hotel Langhorne, PA

ShortCourse



Monday
October 7, 2013
9:00 AM - 4:00 PM
Sheraton Bucks County Hotel

Instructors:



Nalini Sadagopan Agilent Technologies



Gary Valaskovic
New Objective



Nathan Yates
University of
Pittsburgh

Analysis of Peptides and Proteins: Sample Preparation to Identification and Quantitation

This year's CPSA program highlights a key trend within the pharmaceutical industry: The rapidly growing demand for the quantitative analysis of proteins and peptides by LC-MS/MS. From the opening plenary lecture on Tuesday morning, the Wednesday biologics session, through to the Thursday biomarkers session, this short course will help conference participants deeply appreciate specific challenges associated with highly successful outcomes in LC-MS based protein analysis. In line with these sessions at the conference program, this preprogram short course will provide an indepth view of the practical aspects involved in protein/peptide analysis by LC-MS/MS.

The use of nanospray enabled MS has developed from a qualitative tool for (global) proteomics to a quantitative method suitable for peptide/protein biomarker validation. Key to success has been the combination of highly specific sample preparation methods, high sensitivity nanospray ionization, and high performance tandem mass spectrometry. Critical parameters involved in robust sample preparation, nanobore LC and nanospray, sensitive and selective MS detection along with their analytical benefits will be emphasized. The transition of the traditionally qualitative nLC-MS/MS technology to those suitable for absolute quantification will be discussed. Real world examples from the literature will be presented. The target audience includes analysts that have been engaged in qualitative proteomics wishing to transition to quantitative methods or analysts that have specialized in small molecule quantification wishing to transition to peptide/protein quantification.

CPSA

Over the past 16 years, the CPSA event has attracted sponsors, thought leaders, and participants who are dedicated to the spirit of cooperation to achieve common goals. The event is dedicated to promoting the analytical sciences in an interactive and educational environment.