Title: Mass Spectrometry-Based Proteomics in Biomedical Research

Abstract: Rapid progress in sample preparation, high resolution MS instrumentation and related bioinformatics have enabled the application shotgun of proteomics at the forefront of biomedical research. I will give a brief overview of the field and use several examples from our research to explain how shotgun proteomics is combined with genomics to identify new genes and gene variants, detect kinase substrates and monitor protein synthesis in dormant and resuscitating bacterial cells.