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## Root causes of LC/MS data variability

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In a past decade in a literature were addressed different methodological questions, related to data variability between immunoassays and LC/MS methods (during clinical assay standardizations studies). However, reasons of inter-lab proficiency testing variability, performed only on LC/MS instruments typically are not discussed. While a pipetations inaccuracy limit is typically within 3% interval, reported proficiency testing results produced by well validated LC/MS methods, could be exceeding 20% bias or  $\pm 3S$  consensus interval, even if the same method and same instrument brand were used in other laboratories. I present case studies demonstrating impact of calibration curve design, instrument settings, LC and MS instrumental conditions and analyte source chemistry on test results of specimens, blanks and quality controls.

## Biography

Prof. Rogatsky serves as the Editor-in-Chief for the Journal of Chromatography and Separation Techniques (OMICS publishing group). During the last 10 years (from 2005) he has published over 30 scientific papers in peer-reviewed journals (mostly as the first author) and has presented over 50 posters and lectures. Overall, he has made more than a hundred scientific presentations and publications. Eduard completed his M.Sc. in physical chemistry at Belarus State University (former USSR) in 1990. He completed his PhD in bioanalytical chemistry (Bar-Ilan University, Israel) in 1998. At the end of 1999, he started his post-doctorate at Albert Einstein College of Medicine and became a faculty member since 2001 and was a mass spectrometry director at the Biomarker Analytical Resource Core. From October 2015 Dr. Rogatsky is a supervisor of the Chemical Threat Laboratory in the Division of Environmental Health Sciences at Wadsworth Center, Albany NY, USA and continue to be an Adjunct Professor at Albert Einstein College of Medicine:

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