



Robert D. Voyksner



Adjunct Professor TPP
President of LCMS Limited

Ph.D. Analytical Chemistry
focused in the area of mass
spectrometry, University of NC
at Chapel Hill

Address:
LCMS Limited
1502 West Hwy NC-54
Suite 504
Durham, NC 27707

Phone: 919-201-0047

Email:
robert_voyksner@lcmslimited.com
rdvoyksn@ncsu.edu

www.lcmslimited.com

Biomarker discovery and quantitation using LC/MS/MS

Research emphasis:

Dr. Voyksner research interests centers on technological advancements in LC/MS and its application to biomarker discovery, quantification of the markers and the correlation of these markers to a disease states. He is researching novel ways to detect and quantitate food allergens based on *in-vitro* stomach like digestion and marker peptide detection that represents known food allergen proteins. He works with collaborators in the area of protein marker discovery, protein characterization from exosomes and protein quantitation. Additionally, he has developed novel procedures to detect food allergens and pharmaceutical products in manufacturing facilities to insure minimal cross contamination in consumer products.

Selected publications:

Discovery of Highly Conserved Unique Nut and Tree Nut Peptides by LC/MS/MS for Multi-Allergen Detection," Sealey-Voyksner, JA, Zweigenbaum, J, and Voyksner, RD, " *Food Chemistry*, 194, 201-211, 2016.

Evaluation of Qualitative and Quantitative Immunoassays To Detect Barley Contamination in Gluten-Free Beer with Confirmation Using LC/MS/MS, Allred, LK.; Sealey Voyksner, JA.; Voyksner, RD., *Journal of AOAC International*, 97, 1615-1625 (2014).

Novel Aspects of quantitation of immunogenic wheat gluten peptides by LC/MS/MS Jennifer A. Sealey-Voyksner, Chaitan Khosla, Robert D. Voyksner, James W. Jorgenson *Journal of Chromatography A*, 1217 167-4183, 2010.

A gel Free MS based quantitative –proteomic approach that accurately measures cytochrome P450 protein concentrations in human liver microsomes Michael Zhuo Wang, Judy Qiju Wu, Jennifer B. Dennison, Arlene S. Bridges, Stephen D. Hall, Sally Kornbluth, Richard R. Tidwell, Philip Smith, Robert D. Voyksner, Mary F. Paine, James Edwin Hall, *Proteomics*.. 2008, Oct;8(20): 4186-96.

Application:

- LC/MS/MS measurements
- Drug metabolism
- Discovery of peptide markers for food allergens
- Proteomics measurements of exosomes

Collaboration potential:

- Metabolite and impurity identification
- Biomarker discovery
- Protein identification and discovery of peptide markers for the proteins
- Quantitative measurements