

Christopher M. Shuford

Ph.D. Candidate, W.M. Keck FT-ICR Mass Spectrometry Laboratory

Education

2007 – present North Carolina State University, Ph.D., Bioanalytical Chemistry
2003 – 2007 Longwood University, B.S., Chemistry & Physics

Honors and Awards

2008 – 2010 NCSU/NIH Molecular Biotechnology Training Fellowship
2007 – 2008 North Carolina State University Alumni Association Fellowship
2006 Division I Independent Men's Golf All-Academic Team
2006 ESPN The Magazine Academic All-District III At-Large Second-Team
2005 ESPN THE MAGAZINE Academic All-District III At-Large First Team
2004 – 2005 Longwood University's Outstanding Achievement in Chemical Research Award

Publications

1. Improving Limits of Detection for B-type Natriuretic Peptide Using PC-IDMS: An Application of the ALiPHAT Strategy
C. M. Shuford, D. L. Comins, J. L. Whitten, J. C. Burnett Jr., D. C. Muddiman
Analyst, **2010**, 135, 36-41.
2. Coupling of a Vented Column with Splitless nanoRPLC-ESI-MS for the Improved Separation and Detection of Brain Natriuretic Peptide-32 and its Proteolytic Peptides
G. L. Andrews, C. M. Shuford, J. C. Burnett Jr., A. M. Hawkrige, D. C. Muddiman
Journal of Chromatography B, **2009**, 877, 948-954

Presentations

1. Development of Improved Bottom-up Proteomic Methodologies for Absolute Quantification of Protein Biomarkers by Protein Cleavage Isotope Dilution Mass Spectrometry
C. M. Shuford, D. C. Muddiman
Longwood University, Farmville, VA 2009

Posters

1. Utilizing Hydrophobic Chemical Tagging to Improve Detection Limits for Quantification of B-type Natriuretic Peptide by Protein Cleavage Isotope Dilution Mass Spectrometry
C. M. Shuford, D. L. Comins, J. L. Whitten, J. C. Burnett Jr., D. C. Muddiman
Triangle Mass Spectrometry Discussion Group Meeting, Raleigh, NC, 2009
2. Evaluation of Novel Front-End Technologies to Facilitate the Study of Brain Natriuretic Peptide-32 by nanoLC-MS
C. M. Shuford, G. L. Andrews, D. K. Williams Jr., J. C. Burnett Jr., A. M. Hawkrige, D. C. Muddiman
57th American Society for Mass Spectrometry Conference, Philadelphia, PA, 2009
3. Method Development for the Improved Detection of B-type Natriuretic Peptide by Mass Spectrometry
C. M. Shuford, G. L. Andrews, J. C. Burnett Jr., A. M. Hawkrige, D. C. Muddiman
Triangle Chromatography Discussion Group Symposium, Raleigh, NC, 2009
4. Evaluation and Optimization of a Vented Column Configuration for the Analysis of Brain (B-type) Natriuretic Peptide and its Digest by Splitless nanoLC-MS
C. M. Shuford, G. L. Andrews, A. M. Hawkrige, D. C. Muddiman
Annual Molecular Biotechnology Research Symposium, Raleigh, NC, 2008.