AACC/MSSS:
Mass Spectrometry and Separation Sciences for Laboratory Medicine
5th Annual Conference

October 1-2, 2015 * Doubletree Hotel * Chicago, IL

Organizing Committee: Steven W. Cotten, PhD (Ohio State University Wexner Medical Center); R. Brent Dixon, PhD (Physician’s Choice Laboratory Services); Saeed A. Jortani, PhD (University of Louisville); Steven H. Wong, PhD (Conference Chair, Wake Forest University School of Medicine); Victoria Y. Zhang, PhD (University of Rochester Medical Center); Yusheng Zhu, PhD (Medical University of South Carolina)

Developed in cooperation with AACC’s Mass Spectrometry and Separation Sciences Division

DAY 1
Thursday, October 1

7:30-8:30 am
REGISTRATION AND BREAKFAST
State Ballroom/Foyer

GENERAL SESSION
LaSalle Ballroom I

8:30 am
SESSION I
SCOPE OF MASS SPEC TESTING FOR LABORATORY MEDICINE/PATHOLOGY

Welcome and Program Open
AACC President David D. Koch, PhD
Emory University School of Medicine (Atlanta, GA)

Conference Overview
Steven H. Wong, PhD
Wake Forest University School of Medicine (Winston-Salem, NC)
Chair, Conference Organizing Committee

KEYNOTE ADDRESS
High Resolution Mass Spectrometry for Laboratory Medicine – Current Status and Perspectives in TDM-Tox
Professor Dr. Hans Maurer
Saarland University (Homburg, Germany)

Q&A w/ Prof. Maurer
Panel Discussion: Navigating Development and Implementation of Mass Spec-based LDTs
Saeed A. Jortani, PhD – Moderator
University of Louisville (Louisville, KY)

Henry Rodriguez, PhD, MBA
National Institutes of Health/National Cancer Institute (Bethesda, MD)

Alberto Gutierrez, PhD
U.S. Food and Drug Administration (Silver Spring, MD)

Steven J. Soldin, PhD
National Institutes of Health Clinical Center (Bethesda, MD)

Charles Root, PhD
CodeMap, LLC ( Schaumberg, IL)

* Discovery/Funding
* Development/Translation to Clinical Setting
* Regulatory/CLIA/Roll of Lab Director
* New Guidance/FDA Expectations for Lab
* Reimbursement
* Recommendations

Q&A w/ Panelists

10:25-10:35 am
COFFEE BREAK
State Ballroom

10:35 am
SESSION II
ESSENTIAL CONCEPTS IN CLINICAL MASS SPEC

Common Mistakes in LC-MS/MS Assay Development – What They Are and How to Avoid Them
Daniel T. Holmes, MD
St. Paul’s Hospital Providence Health Care (Vancouver, British Columbia)

Sample Preparation – A Practical Approach for Robust Analyses
R. Brent Dixon, PhD
Physicians’ Choice Laboratory Services (Rock Hill, SC)

 Bringing Mass Spectrometry to Clinical Practices: Finance, Personnel and Interface Considerations
Victoria Y. Zhang, PhD
University of Rochester Medical Center (Rochester, NY)
Q&A w/ Holmes, Dixon, Zhang

12:10-1:10 pm
CONFERENCE LUNCHEON (included in registration)
LaSalle Ballroom II

1:10 pm
Method Development and Validation for Certification in Accordance with CLSI C62-A and CAP Guidelines
Steven W. Cotten, PhD
The Ohio State University Wexner Medical Center (Columbus, OH)

Antifungals, TDM, and DAU Chiral Analysis by LC-MS/MS
Steven H. Wong, PhD
Wake Forest University School of Medicine (Winston-Salem, NC)

Complementary Role of GC/MS in the Clinical Laboratory and Beyond
Uttam Garg, PhD
Children's Mercy Hospitals and Clinics (Kansas City, MO)

Q&A w/ Cotten, Wong, Garg

2:40-2:55 pm
COFFEE BREAK
State Ballroom

2:55 pm
SESSION III
INDUSTRY PERSPECTIVES

LC-MS/MS Development for the Clinical Lab – The SCIEX Perspective
Matthew Clabaugh
SCIEX Diagnostics (Framingham, MA)

Agilent Mass Spectrometry: Go Faster
Mike Scott
Agilent Technologies (Santa Clara, CA)

Title TBD
Randall Julian, PhD
Indigo BioAutomation (Indianapolis, IN)

Opportunities in Clinical Mass Spec
Sherry Gregory
Thermo Fisher Scientific (West Palm Beach, FL)
SESSION IV
Open Forum: “Clinics in Mass Spec Analyses”
* Tips for practical day-to-day operation of mass spec tools
* Audience Q&A

5:00-6:30 pm
NETWORKING RECEPTION (Included in registration)
State Ballroom

End of Day 1

DAY 2
Friday, October 2

7:30-8:30 am
REGISTRATION AND BREAKFAST
State Ballroom/Foyer

GENERAL SESSION
LaSalle Ballroom 1

8:30 am
SESSION V – Translating Mass Spectrometry Tools to Clinical Practice

PLENARY LECTURE
The Role of Assay Specificity in Improving Diagnosis and Treatment of Endocrine Disorders
Steven J. Soldin, PhD
National Institutes of Health Clinical Center (Bethesda, MD)

Measurement of Water Soluble Vitamins by UPLC-MS/MS
Yusheng Zhu, PhD
Medical University of South Carolina (Charleston, SC)

Q&A w/ Soldin and Zhu

9:55-10:05 am
COFFEE BREAK
State Ballroom
PLENARY LECTURE
Metabolomic Analysis for Newborn Screening and Diagnosis of Metabolic Disorders
Michael J. Bennett, PhD
Children’s Hospital of Philadelphia (Philadelphia, PA)

Advanced Pain Management – Pharmacogenomics Data to Complement Oral Fluid Compliance Testing
R. Brent Dixon, PhD
Physicians’ Choice Laboratory Services (Rock Hill, SC)

The Future of Reimbursement for Mass Spec-based LDTs
Charles Root, PhD
CodeMap, LLC (Schaumberg, IL)

Q&A w/ Bennett, Dixon, Root

12:00-1:15 pm
LUNCH ON OWN

1:15 pm
SESSION VI
“NEXT GENERATION” MASS SPEC ANALYSES FOR 2020

SPECIAL LECTURE
Emerging Mass Spec Applications in Anatomic Pathology: Tissue Imaging
Richard M. Caprioli, PhD
Vanderbilt University (Nashville, TN)

Translating “-Omic” Biomarkers from Bench to Bedside
Victoria Y. Zhang, PhD
University of Rochester Medical Center (Rochester, NY)

Linking Massive DNA Sequencing with Mass Spec Proteomics for Advancing Cancer Research and Precision Medicine
Henry Rodriguez, PhD, MBA
National Institutes of Health/National Cancer Institute (Bethesda, MD)

Q&A w/ Caprioli, Zhang, Rodriguez

3:00-3:10 pm
COFFEE BREAK
State Ballroom
3:10 pm

**Mass Spectrometry-based Single Cell Measurement**

Sean C. Bendall, PhD  
Stanford University School of Medicine (Stanford, CA)

**Panel Discussion**

**Envisioning “Next Generation” Clinical Mass Spec-based Diagnostics in 2020**

Steven H. Wong, PhD– Moderator  
Wake Forest University School of Medicine (Winston-Salem, NC)

Richard M. Caprioli, PhD  
Vanderbilt University (Nashville, TN)

Saeed A. Jortani, PhD  
University of Louisville (Louisville, KY)

Angella Charnot-Katsikas, MD  
The University of Chicago (Chicago, IL)

Henry Rodriguez, PhD, MBA  
National Institutes of Health/National Cancer Institute (Bethesda, MD)

4:45 pm

**Closing Remarks and Program Ends**