

18TH ANNUAL SYMPOSIUM  
**Clinical & Pharmaceutical Solutions through Analysis**

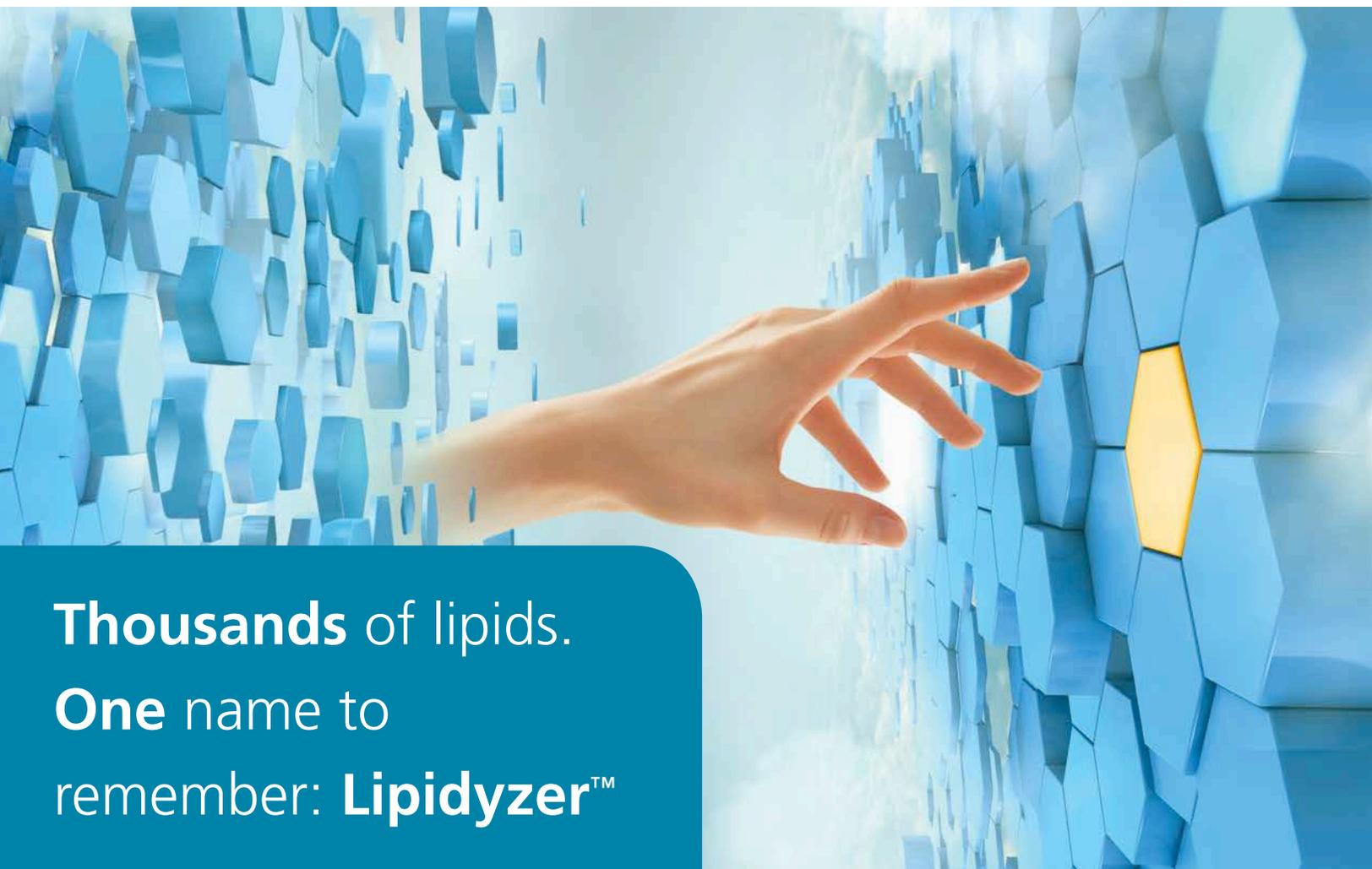


*Where Technology and Solutions Meet*

**Getting Medicines to Patients Faster by Eliminating  
the Bottlenecks in Drug Discovery and Development**

**MEETING PROGRAM**

October 5 - 8, 2015  
Sheraton Bucks County  
Langhorne, PA



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## WELCOME

October 5, 2015

Dear Colleagues:

**Inspiration. Collaboration.**

On behalf of the organizing committee and our sponsors, it is our pleasure to welcome you to the 18th annual Symposium on Clinical and Pharmaceutical Solutions through Analysis (CPSA USA 2015). The meeting and related events feature lively discussions, memorable interactions, and the sharing of real-world experiences that focus on the unique challenges facing the modern analytical laboratory and the risks – and reality – of personalized healthcare.

The goal of CPSA is to provide timely, in-depth reviews of innovative technology and emerging practices through open discussion of industry related issues and needs. Our program chairs, Chad Briscoe and Naidong Weng, have followed Paul Corcoran and Gary Valaskovic's vision from last year's annual meeting and developed the theme for CPSA USA 2015: Getting Medicines to Patients Faster by Eliminating the Bottlenecks in Drug Discovery and Development

Our intent is to feature scientific leaders within diversified symposia, colloquia, and sponsored events that are specially designed to be highly interactive where professionals can openly share their experiences and visions in a collegial setting – where technology and solutions meet!

We are extremely delighted to feature a provocative line up of courses, symposia, colloquia, sponsored events, and distinguished guests. On Monday, Douglas Lewis, President and Scientific Director, United States Drug Testing Laboratories, Inc. will deliver the Distinguished Lecture on "Fetal Alcohol Exposure - A 30 Year Search for a Reliable Biomarker." Our Plenary Lecture on Tuesday will feature David Evans, Vice President Pharmacokinetics, Dynamics & Metabolism at Janssen, on "Mechanism Based Drug Disposition – Building Quality into Our Product Pipeline." Don Chace, Pediatrix Analytical, will deliver the Keynote Lecture on Wednesday, "Kicking it Up a Notch" with New Spices in Clinical Chemistry: Multiple Metabolite, Micro Sampling and LC/MS.

The short courses at CPSA continue to focus on specialized training with a unique workshop-style format that promotes open discussion on current industry practices, emerging applications and first-hand experiences with innovative analytical technologies. Symposia sessions provide a unique forum for opinion leaders to openly share and benchmark industry issues and needs as well as early experiences with new technology and methods. Colloquia sessions provide focus on industrial activities related to regulatory issues and emerging laboratory workflows. These sessions further enhance the specialized training from our CPSA Short Courses.

Communications and media have grown with CPSA and the dynamic use of video and interactive surveys are now ready to be fully integrated into CPSA events – worldwide – Brazil, China, Europe, and USA! Also, our Graduate Student Session will now be formally recognized as the Steven A. Hofstadler Graduate Student Session. Finally, we are excited to share our significant progress with our CPSA Charitable Giving and CPSA Institute initiatives during the Sponsors Dinner event.

We encourage you to actively participate, interact, and share ideas during the event. Creativity and imagination have been key ingredients to making CPSA meetings a memorable experience all over the world. In this way, a genuine passion for the analytical sciences can lead to personal growth as well as opportunities to significantly impact the field through participation and leadership.

Special thanks go to the sponsors of this unique event. All CPSA sponsors share the passion and commitment for both innovative technologies and the acceleration of product development. CPSA sponsors and participants are dedicated to the spirit of cooperation. Imagination needed!  
Sincerely,

Handwritten signature of Mike S. Lee in black ink.

Mike S. Lee

Handwritten signature of Chad Briscoe in black ink.

Chad Briscoe

Handwritten signature of Naidong Weng in black ink.

Naidong Weng

# 2015 ORGANIZING COMMITTEE

## PROGRAM CO-CHAIRS

**Chad Briscoe**  
PRA Health Science

**Naidong Weng**  
Janssen Research & Development

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Thermo Scientific

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**Nathan Yates**  
University of Pittsburgh

**Anthony Yeung**  
Fox Chase Cancer Center

**Ismael Zamora**  
Molecular Discovery

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*Communications & Media*

**Carla Marshall-Waggett**  
New Objective

**Martin Steel**  
McKinley Scientific

*Management & Correspondence*

**Mike Lee**  
Milestone Development Services

## SPONSORS

Thank You!

The CPSA annual symposium is made possible by the broad-based support of industry sponsors. The passion for the analytical sciences and the accelerated discovery and development of pharmaceuticals is shared by each sponsor. As a result, the event is dedicated to promoting awareness and understanding of the issues and needs associated with research and development in the hopes of inspiring significant advances in the field.



# EXHIBITION

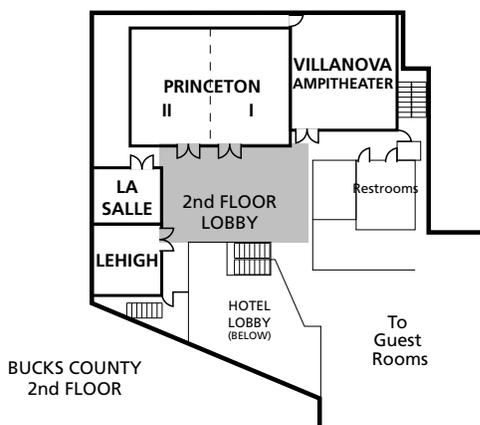
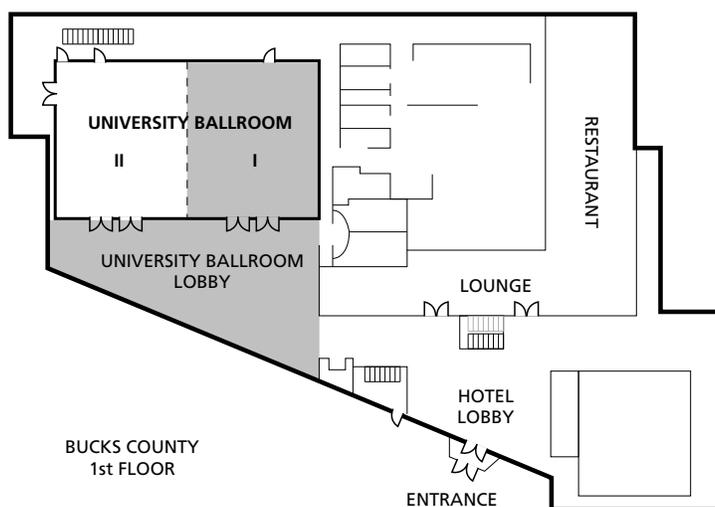
**Wednesday** October 7

EXHIBITORS	BOOTH
Agilent Technologies	27
Alturas Analytics	1
Biotage	5
Cambridge Isotope Labs	15
Charles River Laboratories	29
Covance	18
Denator	7
Drummond Scientific	4
ES Industries	17
Frontage Laboratories	34
GenTech Scientific	21
InfoClinika	33
InterTek	20
IonSense	11
MAC-MOD Analytical	32
McKinley Scientific	3
Merrill Lynch	23
Molecular Discovery	31
MS Mass Spec Consultants	35
mSpec Group	6
New Objective	2
Novatia	9
Novilytic	25
OpAns	10
PharmaCadence Analytical Services	13
Phytronix Technologies	14
PRA Health Sciences	8
Prosolia	12
QPS	36
Scientific Systems, Inc.	30
SCIEX	16
Shimadzu Scientific	26
Thermo Scientific	37
Titan Software	29
Waters Corporation	19
Wiley & Sons	22

## EXHIBIT LOCATIONS

Exhibit booths are located in University I Ballroom, University Ballroom Lobby, and in the 2nd Floor Lobby

- Booths 1 - 14      University Ballroom I
- Booths 15 - 27    University Ballroom Lobby
- Booths 28 - 37    2nd Floor Foyer



# SHORT COURSES & EVENTS

Monday October 5

7:30 AM - 8:30 AM

**REGISTRATION & CONTINENTAL BREAKFAST**

2nd Floor Lobby

8:30 AM - 4:00 PM

**SHORT COURSES**

Princeton I

**Protein ID and Biomarker Analysis by Mass Spectrometry: Challenges and Solutions for Quantification and Differential Analysis**  
*Instructors: Nalini Sadagopan, Agilent Technologies, Gary Valaskovic, New Objective, Nathan Yates, University of Pittsburgh*

Princeton II

**How to Teach an Old Dog New Tricks: The Use of Traditional and Novel Methods, Practices, Technologies to Quantify Protein Therapeutics in a Regulated Environment**  
*Instructors: Shane Needham, Alturas Analytics, Jim Shen, Bristol-Myers Squibb and Dave Abramowitz, SCIEX*

Lehigh

**Building a Better Clinical Mass Spectrometry Lab**  
*Instructors: Timothy Garrett, University of Florida; Mark Hayward, Active Ingredient Technologies; and Kenneth Lewis, OpAns*

TBA

**Human Pharmacokinetic Prediction and Approaches to Identify Rate Determining Step of Drug Absorption and Elimination: Industrial Perspective**  
*Instructor: Ayman El-Kattan, Pfizer and Yurong Lai, Bristol-Myers Squibb*

7:30 AM - 9:30 AM

**NEW CPSA CHARITY 5K EVENT CPSA Charitable Foundation**

Tyler State Park, Newtown, PA

*Organizers: Nicole Matz, PRA Health Science; Guowen Liu, Bristol-Myers Squibb; Naidong Weng, Janssen Research & Development; Helen Weng, Frontage Laboratories*

10:00 AM - 4:00 PM

**CPSA CHARITY OPEN GOLF EVENT CPSA Charitable Foundation**

Makefield Highlands Golf Course, Yardley, PA

*Organizers: Brad Coopersmith, Waters Corporation; John Butler, Agilent Technologies, and Paul Corcoran, McKinley Scientific*

12:00 PM - 4:00 PM

**MOLECULAR DISCOVERY USERS MEETING**

Villanova Amphitheater

- ▶ **Automated Soft-Spot Identification: Success Rate, Limitations, Code Logic and Functionality**  
*John Janiszewski, Pfizer*
- ▶ **To be announced**  
*Christopher Kochansky, Merck*
- ▶ **What is Molecular Discovery Working on Now in Order to Get More Knowledge from the Same Data**  
*Ismael Zamora, Molecular Discovery*

MONDAY, OCTOBER 5

# MEETINGS & EVENTS

**Monday** October 5

**4:30 PM - 5:30 PM**

*University I & II*

**EXECUTIVE ROUNDTABLE: WHERE TECHNOLOGY AND SOLUTIONS MEET BUSINESS**

*Hosted by McKinley Scientific*

*Discussion Leaders: Lucinda Cohen, Merck; Shane Needham, Alturas Analytics*

**6:00 PM - 9:00 PM**

*University I & II*

**RECEPTION & SPONSOR'S DINNER**

*Hosted by SCIEX*

**Opening Remarks - Disease is the Enemy!**

*Chad Briscoe, PRA Health Science; Naidong Weng, Janssen Research & Development; Mike Lee, Milestone Development Services*

**CPSA Charitable Foundation**

*Paul Corcoran, McKinley Scientific; Emily Ehrenfeld, Mozaic Solutions; Joe Fox, SCIEX; Shane Needham, Alturas Analytics; Robyn Rourick, Genentech; Tony Yeung, Fox Chase Cancer Center*

**Distinguished Lecture Series**

**Fetal Alcohol Exposure - A 30 Year Search for a Reliable Biomarker**  
*Douglas Lewis, United States Drug Testing Laboratories, Inc.*

MONDAY, OCTOBER 5



Program Chair  
Timothy Garrett  
University of Florida

[www.cpsa-metabolomics.com](http://www.cpsa-metabolomics.com)

2nd Annual Metabolomics Symposium on

## Clinical & Pharmaceutical Solutions through Analysis

Industry Issues & Needs • Analysis Strategies • Performance Benchmarks

Make plans now to attend CPSA Metabolomics 2016! This annual meeting is quickly becoming the premier industry-led event dedicated to promoting awareness of issues and needs associated with translational science and rare diseases.

Commercial Technology • Mainstream Applications • Analysis Trends

March 21 - 22, 2016

Hosted by The University of Florida  
Gainesville, FL

*Where Technology and Solutions Meet. Where Discovery Meets the Clinic.*

# PROGRAM AGENDA

Tuesday October 6

7:30 AM - 8:30 AM

**REGISTRATION & CONTINENTAL BREAKFAST**

*University Ballroom Lobby*

7:30 AM - 8:30 AM

**GRADUATE STUDENT / MENTOR BREAKFAST**

*University I & II*

8:30 AM – 9:00 AM

**WELCOME & OPENING REMARKS - DISEASE IS THE ENEMY!**

*University I & II*

**Welcome**

*Mike Lee, Milestone Development Services*

**Objectives, Format, and Opening Remarks**

*Chad Briscoe, PRA Health Sciences and Naidong Weng, Janssen Research & Development*

9:00 AM - 9:45 AM

**PLENARY LECTURE**

*University I & II*

**Mechanism Based Drug Disposition – Building Quality into Our Product Pipeline**

*David Evans, Janssen Research & Development*

10:00 AM - 11:45 AM

**PARALLEL SESSIONS**

Track I <b>Symposium Session</b> <i>Villanova Amphitheater</i>	Track II <b>Colloquium Session</b> <i>Princeton I &amp; II</i>
<p><b>Future Needs of Mass Spectrometry in Clinical Sciences</b> <i>Discussion Leaders: Timothy Garrett, University of Florida and Kenneth Lewis, OpAns</i></p> <ul style="list-style-type: none"> <li>▶ <b>Achieving Widespread Adoption of MS in the Clinical Laboratory: What Will It Really Take?</b> <i>Lori Bachmann, Virginia Commonwealth University</i></li> <li>▶ <b>Using MS to Screen Multiple Metabolites: How to Design Your Assay for the Clinic</b> <i>Don Chace, Pediatrix Analytical</i></li> <li>▶ <b>Digitized LC-MS as an Enabling Tool on the Path to Precision Healthcare</b> <i>Gary Valaskovic, New Objective</i></li> <li>▶ <b>Understanding Complex Lipid Metabolism through Quantitative Lipidomics</b> <i>Yi Zhang, SCIEX</i></li> </ul>	<p><b>PBPK Modeling</b> <i>Discussion Leader: Avijit Ghosh, Janssen Pharmaceuticals and Tristan Maurer, Pfizer</i></p> <ul style="list-style-type: none"> <li>▶ <b>PBPK Model Guided Drug Development and Labeling Optimization</b> <i>Alice Ke, Certara / Symcyp</i></li> <li>▶ <b>A systems Platform to Predict Pharmacokinetics of Liver Transporter Substrates</b> <i>Rui Li, Pfizer</i></li> <li>▶ <b>Minimal Physiologically-Based Pharmacokinetic (mPBPK) Model for a Monoclonal Antibody against Interleukin-6 in Mice with Collagen-Induced Arthritis</b> <i>Xiling Jiang, Janssen Research &amp; Development</i></li> </ul>

TUESDAY, OCTOBER 6

# PROGRAM AGENDA

**Tuesday** October 6

**12:00 PM – 1:00 PM**

*University I & II*

**SPONSORED LUNCH & ROUNDTABLE DISCUSSION**

*Sponsored by Shimadzu Scientific Instruments*

- ▶ **LCMS-8060: Changes Everything**  
*David Colquhoun, Shimadzu Scientific Instruments*
- ▶ **Quantitative Determination of Opioids in Whole Blood using Fully Automated Dried Blood Spot Desorption Coupled to On-line SPE-LC-MS/MS**  
*Ruth Verplaetse, Q2 Solutions*

**1:00 PM – 3:00 PM**

*University Lobby*

**POSTER SESSION & ROUNDTABLE DISCUSSION**

*Discussion Leaders: Mark Cancilla, Merck; Helene Cardasis, Thermo Fisher Scientific; Matthew Szapacs, GlaxoSmithKline; Tracie Williams, CDC*

**3:15 PM - 4:45 PM**

**PARALLEL SESSIONS**

Track III <b>Symposium Session</b> <i>University I</i>	Track IV-a <b>Colloquium Session</b> <i>University II</i>	Track IV-b <b>Colloquium Session</b> <i>Lehigh</i>
<p><b>A Tough Nut to Crack: Bringing New Analytical Approaches to the Clinic Successfully</b> <i>Discussion Leader: Don Chace, Pediatric Analytical</i></p> <ul style="list-style-type: none"> <li>▶ <b>Translating Global Metabolomics to Clinical Diagnostics</b> <i>Timothy Garrett, University of Florida</i></li> <li>▶ <b>Simplifying Complex Proteomic Workflows for Larger Scale and Speed</b> <i>Nathan Yates, University of Pittsburgh</i></li> <li>▶ <b>From Discovery to Patient – A Case Study</b> <i>Roy Vaz, Sanofi</i></li> </ul>	<p><b>Tiered Approach/Scientific Validation in Bioanalysis – Reaching out our Stakeholders in QA, Clinical and Preclinical PK</b> <i>Discussion Leaders: Eric Woolf, Merck; Philip Timmerman, EBF/Janssen R&amp;D</i></p> <ul style="list-style-type: none"> <li>▶ <b>Principles and Status Update of Scientific Validation/Tiered Approach in Bioanalysis</b> <i>Philip Timmerman, EBF/Janssen R&amp;D</i></li> <li>▶ <b>Contribution Related to a QA perspective on Scientific Validation/Tiered Approach</b> <i>Karen Hencken, Merck</i></li> <li>▶ <b>Fit-for-Purpose Bioanalytical Data in Preclinical Phase</b> <i>Debra R Luffer-Atlas, Eli Lilly and Company</i></li> <li>▶ <b>Contribution Related to a Clinical PK Perspective on Scientific Validation/Tiered Approach</b> <i>Jan de Jong, Janssen R&amp;D</i></li> </ul>	<p><b>Structure Identification</b> <i>Discussion Leaders: David Detlefsen, Novatia and Mark Hail, Novatia</i></p> <ul style="list-style-type: none"> <li>▶ <b>Isolation and Structure Elucidation in the Development Environment within Pharma</b> <i>Brian Marquez, Mestrelab Research</i></li> <li>▶ <b>Challenges in Impurity Isolation and Identification at a Contract Research Lab</b> <i>Ken Ray and Dan Petrillo, Novatia</i></li> </ul>

TUESDAY, OCTOBER 6

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EXPERIENCE THE NEW AGILENT 6470  
TRIPLE QUADRUPOLE LC/MS SYSTEM



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Whether you're doing food or environmental analyses, drug development or clinical research, you face daunting challenges—heavy workloads, complex samples, time-intensive workflows. We get that, and we can help. Consider the new **Agilent 6470 Triple Quadrupole LC/MS system**, engineered to be our most robust triple quadrupole ever.

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Incorporating Shimadzu's proprietary ultrafast technologies (UF Technologies), the new triple quadrupole LCMS-8050 dramatically improves analytical throughput with the ultimate in high-speed performance. In addition, the newly designed ion source and collision cell, Heated-ESI and UFsweeper® III collision cell technology, ensure the highest levels of sensitivity and quantitative performance. Combine with Shimadzu's world-leading UHPLC systems for an unmatched level of performance.

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- Ultrafast polarity switching (5 msec) – maintains constant quality and sensitivity with no loss of quantitative accuracy
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ANTIBODY DRUG RATIOS

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CYCLIC PEPTIDES

FUSION PROTEINS

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# PROGRAM AGENDA

Tuesday October 6

**4:45 PM – 5:15 PM**

*2nd Floor Lobby*

**LET THEM EAT CAKE!**

*Don Chace, Pediatrix Analytical*

**5:00 PM – 6:00 PM**

*Princeton I*

**SOCIAL HOUR & SPONSORED WORKSHOPS**

Options and Considerations in Biologics Bioanalysis – When to Try Something Different

*Sponsored by SCIEX*

- ▶ Large Molecule Bioanalysis: LC-MS or ELISA? A Case Study  
*Zamas Lam, QPS*
- ▶ Improving Sensitivity in Bio-Analysis using microLC  
*Remco Van Soest, SCIEX*

*Princeton II*

High Performance Meets Personalized Healthcare: Daily Performance Monitoring

*Sponsored by McKinley Scientific*

- ▶ Daily Performance Monitoring  
*Martin Steel, McKinley Scientific and Mike Lee, Mozaic Solutions*
- ▶ Differential Mass Spectrometry Platform for Personalized Healthcare  
*Nathan Yates, University of Pittsburgh*
- ▶ Infinite Speed and LC/MS Throughput with Digital LC Technologies  
*Gary Valaskovic, Mozaic Solutions*
- ▶ Informatics for Personalized Healthcare  
*Andrew Bondarenko, InfoClinika*

*Villanova Amphitheater*

Multimodal Omics Workflows for Translational Research

*Sponsored by Waters Corporation*

*David Heywood, Waters Corporation*

*Lehigh Ballroom*

Improved Workflows for Protein Digestion

*Sponsored by PharmaCadence Analytical Services*

- ▶ IAC and Digestion with a Single Reagent  
*Carmen Fernandez-Metzler, PharmaCadence Analytical Services, LLC*
- ▶ A Controlled Flow 96 Well Plate for Full Automation of Antibody Capture and Protein Digestion Workflow  
*John Laycock, SPEware Corporation*

TUESDAY, OCTOBER 6

# PROGRAM AGENDA

Tuesday October 6

6:30 PM - 9:30 PM

## SPONSOR HOSPITALITY & EVENING WORKSHOPS

University I

### HIGH RESOLUTION ACCURATE MASS QUANTITATION SUMMIT

*Sponsored by Thermo Scientific*

*Discussion Leaders: Jack Henion, Q2 Solutions and Jonathan Josephs, Thermo Scientific*

- ▶ Past Present and Future of Interrogating Biological Samples: How HRAM has Become an Essential and Integral Component of the Analytical Arsenal  
*Jack Henion, Q2 Solutions*
- ▶ Panel Discussion  
*Chaired by Jack Henion, Q2 Solutions and Jonathan Josephs, Thermo Scientific*

University II

### MICROSAMPLING SUMMIT

*Sponsored by Drummond Scientific and McKinley Scientific*

*Discussion Leaders: Qin Ji, Bristol-Myers Squibb and Olga Kavetskaia, Pfizer*

- ▶ An Integrated Strategy for Implementation of Dried Blood Spots in Clinical Development Programs  
*Yang Xu, Merck*
  - ▶ To be announced  
*Chris Evans, GlaxoSmithKline*
  - ▶ Comparative Studies for Dried Blood Spot Sampling: Design, Conduct and Statistical Data Analysis  
*Qin Ji, Bristol-Myers Squibb and Carol Gleason, Bristol-Myers Squibb*
- Discussion Panel:*
- Donald Chace, Pediatrix Analytical*  
*Chris Evans, GlaxoSmithKline*  
*Kenneth Lewis, OpAns*  
*Wenkui Li, Novartis*  
*Timothy Olah, Bristol-Myers Squibb*  
*Fred Regnier, Purdue University*  
*Enaksha Wickremsinhe, Eli Lilly & Company*  
*Yang Xu, Merck*

# PROGRAM AGENDA

Wednesday October 7

7:30 AM – 8:30 AM

## REGISTRATION & CONTINENTAL BREAKFAST

University Ballroom Lobby

8:30 AM – 10:00 AM

## SYMPOSIA & ROUNDTABLE DISCUSSION

University I & II

### The Future of Mass Spectrometry for Clinical Protein Biomarker Determination (20/20 Vision)

Discussion Leader: Randall Nelson, Arizona State University

- ▶ Next Horizon of Immunoaffinity LC-MS/MS for Protein Biomarkers  
*Hendrick Neubert, Pfizer*
- ▶ The Future is Now - Monitoring Insulin Levels for Diabetes Clinical Care With High Precision Using Mass Spectrometry  
*Mary Lopez, Nuclea Biotechnologies*
- ▶ Mass Spectrometric Immunoassays for Discovery, Verification, and Validation of Proteoform Biomarkers  
*Dobrin Nedelkov, Arizona State University*

10:15 AM – 11:45 PM

## PARALLEL SESSIONS

Track V <b>Symposium Session</b> <i>Villanova Amphitheater</i>	Track VI-a <b>Colloquium Session</b> <i>Princeton I &amp; II</i>	Track VI-b <b>Colloquium Session</b> <i>Lehigh Ballroom</i>
<b>Rare Diseases</b> <i>Discussion Leaders: Michelle Clasquin, Agios Pharmaceuticals and Roy Vaz, Sanofi</i> <ul style="list-style-type: none"> <li>▶ Gaucher Disease and Parkinsonism: Insights from a Rare Disease <i>Ellen Sidransky, Nat'l Institutes of Health</i></li> <li>▶ Analytical Aspects of Phenotypic Screening in Drug Discovery for Rare Diseases <i>Alexei Belenky, Genzyme</i></li> <li>▶ A Pediatrician's Perspective: Insight into the Diagnosis and Treatment of Metabolic Diseases - Amino Acids &amp; Organic Acids as Biomarkers <i>Holmes Morton, Clinic for Special Children</i></li> </ul>	<b>Innovation Bootcamp</b> <i>Discussion Leader: Lucinda Cohen, Merck</i> <p><i>Timothy Olah, Bristol-Myers Squibb</i></p> <p><i>Jim Yergey, Yergey Consulting</i></p>	<b>Metabolite Identification and Databases: Industrial Workflows and Emerging Trends</b> <i>Discussion Leader: Ismael Zamora, Molecular Discovery</i> <ul style="list-style-type: none"> <li>▶ Optimized Workflow for a Metabolic Soft Spot Identification Assay <i>Wilson Shou, Bristol-Myers Squibb</i></li> <li>▶ How to Fit the DMS Dimension into Fluxomic Workflows <i>Richard Kibbey, Yale University</i></li> <li>▶ To be announced <i>Gary Martin, Merck</i></li> </ul>

WEDNESDAY, OCTOBER 7

# PROGRAM AGENDA

**Wednesday** October 7

**12:00 PM - 1:00 PM**

*University I & II*

**SPONSORED LUNCH & ROUNDTABLE**

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*Sponsored by Agilent Technologies*

Stereospecific Drug Metabolite Analysis Using 2D LC/MS Q-TOF and SFC/QQQ  
*Smriti Khera, Agilent Technologies*

**1:15 PM – 2:15 PM**

*Princeton I*

**SOCIAL HOUR & SPONSORED WORKSHOPS**

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Differential Ion Mobility – Pushing the Boundaries of Selectivity in Biotherapeutics

*Sponsored by SCIEX*

- ▶ Detect More Selectively with SelexION® Technology  
*Yves LeBlanc, SCIEX*

*Princeton II*

Six Minutes of Science:

Success from Qual to Quan with High-Performance Nanospray and LC-MS

*Sponsored by New Objective*

*Nathan A. Yates, University of Pittsburgh*  
*Shane Needham, Alturas Analytics*  
*Tim Garrett, University of Florida*

*Villanova Amphitheater*

Using Ion Mobility Separation to Enhance Drug Metabolism Studies -  
New Approaches for Data Analysis

*Sponsored by Waters Corporation*

- ▶ Advances in IMS-enabled Workflows For Qualitative and Quantitative DMPK Studies  
*Mark Wrona, Senior Science Manager, Pharmaceutical Business, Waters Corporation*
- ▶ Processing HDMS(e) Data in Mass-Metasite  
*Ismael Zamora, Molecular Discovery and Paul Rainville, Waters Corporation*

WEDNESDAY, OCTOBER 7



Program Chair  
Nathan A. Yates  
University of Pittsburgh  
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# PROGRAM AGENDA

Wednesday October 7

2:30 PM – 3:30 PM

## PARALLEL SESSIONS

<p>Track VII</p> <p><b>Innovator Award Session</b></p> <p><i>University II</i></p>	<p>Track VIII</p> <p><b>Steven A. Hofstadler Graduate Student Session</b></p> <p><i>Villanova Amphitheater</i></p>
<p><i>Discussion Leader: Kevin Bateman, Merck</i></p> <p>The CPSA Innovator Award provides formal recognition for innovative technologies, products and services presented at the CPSA USA annual meeting.</p> <p>The Innovator Award is open to all participants in the CPSA Exhibition. Applicants can apply for consideration either with an abstract for poster session or a stand-alone abstract without participating in the poster session</p> <p>Applications are formally reviewed by the Innovator Award Committee. Awards will be presented during the Awards Presentation Session.</p>	<p><b>Inspiring Career Paths in the Sciences for Young Scientists</b></p> <p><i>Sponsored by McKinley Scientific, New Objective and OpAns</i></p> <p><i>Mentors: Susan Abbatiello, Thermo Fisher Scientific; Brad Ackermann, Eli Lilly &amp; Company; Hong Cai, GlaxoSmithKline; Lucinda Cohen, Merck; Paul Corcoran, McKinley Scientific; Patrick Fromal, Shimadzu; Jonathan Josephs, Thermo Fisher Scientific; Frank Kero, Biotage; Alla Kloss, Genzyme; Kenneth Lewis, OpAns; Eric Milgram, PepsiCo; Shane Needham, Alturas Analytics; Timothy Olah, Bristol-Myers Squibb; Joanna Pols, Merck; Robyn Rourick, Genentech; Petia Shipkova, Bristol-Myers Squibb; James Small, Merck; Gary Valaskovic, New Objective; Anthony Yeung, Fox Chase Cancer Center</i></p> <ul style="list-style-type: none"> <li>▶ <b>Direct Sampling of Adherent Cells Using Laser Ablation Electrospray Ionization Mass Spectrometry</b> <i>Rachelle Jacobson, The George Washington University</i></li> <li>▶ <b>Identification of Sirtuin 5 Modulators by Droplet Microchip Electrophoresis</b> <i>Erik Guetschow, University of Michigan</i></li> <li>▶ <b>Lipidomics of Liver Disease</b> <i>Rainey Patterson, University of Florida</i></li> <li>▶ <b>Higher Insight in Cellular Senescence: Defining a New Mass Window for Top Down Quantitative Proteomics</b> <i>Peter Doubleday, Northwestern University</i></li> </ul>

WEDNESDAY, OCTOBER 7

3:45 PM – 4:15 PM

## CPSA AWARD PRESENTATIONS

*Princeton I & II*

*Sponsored by McKinley Scientific and New Objective*

- ▶ **Innovator Award Presentation**  
*Kevin Bateman, Merck*
- ▶ **Steven A. Hofstadler Graduate Student Award/Recognition**  
*Presented by the Mentors*
- ▶ **Program Chair Recognition**  
*Mike Lee, Milestone Development Services*

# PROGRAM AGENDA

Wednesday October 7

4:45 PM – 5:45 PM

**KEYNOTE LECTURE  
PRESENTATION OF THE DISTINGUISHED ANALYTICAL SCIENTIST AWARD**

**Keynote Lecture**

“Kicking it up a Notch” with New Spices in Clinical Chemistry:  
Multiple Metabolite, Micro Sampling and LC/MS  
*Don Chace, Pediatrix Analytical*

**Distinguished Analytical Scientist Award Presentation**

*Presented by Russell Grant, LabCorp*

Pigs ‘n Blankets: Mass Spectrometry and the Continuum of Human Health  
*Andy Hoofnagle, University of Washington*

5:45 PM – 6:45 PM

**EXHIBITION & SOCIAL HOUR - WHERE TECHNOLOGY AND SOLUTIONS MEET!**

*University I, University Ballroom Lobby, 2nd Floor Lobby,*

6:45 PM – 9:00 PM

**VENDOR SESSION - “5 MINUTES OF FAME”**

*University II*

*Hosted by Bernard Hirsh, Merrill Lynch*

*Session Leaders: Mark Hayward, ITSP Solutions, Inc.; Matt Szapacs, GlaxoSmithKline;  
Nicole Donnelly, PharmaCadence*

WEDNESDAY, OCTOBER 7



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# PROGRAM AGENDA

Thursday October 8

7:30 AM – 8:30 AM

## REGISTRATION & CONTINENTAL BREAKFAST

2nd Floor Lobby

8:30 AM – 10:00 AM

## COLLOQUIA & ROUNDTABLES

Princeton I & II

### ADC / PDC

Discussion Leaders: Wenying Jian, Janssen Research & Development and Jim Shen, Bristol-Myers Squibb

- ▶ The Role of Mass Spectrometry in Supporting the Development of Therapeutic Antibodies and Antibody-Drug Conjugates (ADCs)  
*Michael Peddicord, Bristol-Myers Squibb*
- ▶ ADC Bioanalysis by Immuno-Capture LC-MS/MS Hybrid Assays  
*Ang Liu, Bristol-Myers Squibb*
- ▶ Next-Generation Drug Conjugates Using the Centyrin Alternative Scaffold  
*Shalom Goldberg, Janssen Research & Development*

10:15 AM - 11:45 AM

## PARALLEL SESSIONS

Track VIII <b>Symposium Session</b> <i>Villanova Amphitheater</i>	Track IX <b>Colloquium Session</b> <i>Lehigh</i>
<p><b>Biomarkers from Start to Finish</b> <i>Discussion Leader: All Kloss, Genzyme</i></p> <ul style="list-style-type: none"> <li>▶ <b>Metabolomic Applications for Discovery of New Targets in Sickle Cell Anemia</b> <i>Annie Evans, Metabolon</i></li> <li>▶ <b>X-Linked Adrenoleukodystrophy: Biomarkers for Newborn Screening and Development of New Therapies</b> <i>Ann Moser, Kennedy Krieger Institute</i></li> <li>▶ <b>Isotopic Labeling Strategies for Biomarker Discovery in Metabolomics</b> <i>Tim Garrett, University of Florida</i></li> <li>▶ <b>PD Biomarker Measurement by LC/MS/MS – Technological Advancements to Address Sensitivity and Throughput Challenges</b> <i>Barry Jones, Quintiles</i></li> </ul>	<p><b>Traditional and Non-Traditional Strategies to Generate Drug Metabolites for Analytical Characterization</b> <i>Discussion Leader: James Small, Merck</i></p> <ul style="list-style-type: none"> <li>▶ <b>Traditional Drug Metabolite Generation Schemes</b> <i>Kerry Fillgrove, Merck</i></li> <li>▶ <b>Non-Traditional Drug Metabolite Generation Schemes</b> <i>Yong Liu, Merck</i></li> <li>▶ <b>Role of Drug Metabolite Identification in Drug Discovery and Development</b> <i>Tom Rushmore, University of the Sciences</i></li> </ul>

THURSDAY, OCTOBER 8

# PROGRAM AGENDA

Thursday October 8

12:00 PM – 1:15 PM

Princeton I & II

## SPONSORED LUNCH & ROUNDTABLE DISCUSSION

*Sponsored by New Objective and The University of Florida*

*Discussion Leaders: Tim Garrett, University of Florida and Petia Shipkova, Bristol-Myers Squibb*

- ▶ LC-MS and Prenatal Metabolism from Population to Bench  
*Nathaniel Snyder, Drexel University*
- ▶ Improving Metabolomics Separations with Ion Mobility Mass Spectrometry  
*Chris Chouinard, University of Florida*

1:30 PM – 3:00 PM

Villanova Amphitheater

## SYMPOSIA & ROUNDTABLE DISCUSSION

New Alternative Instrumentation

*Discussion Leaders: Kevin Bateman, Merck and Rick King, PharmaCadence Analytical Services*

3:00 PM

ADJOURN

THURSDAY, OCTOBER 8



Program Chair  
Carlos Kiffer  
GC2

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