

1ST ANNUAL SYMPOSIUM

# Clinical & Pharmaceutical Solutions through Analysis



*Where Technology and Personalized Medicine Meet*



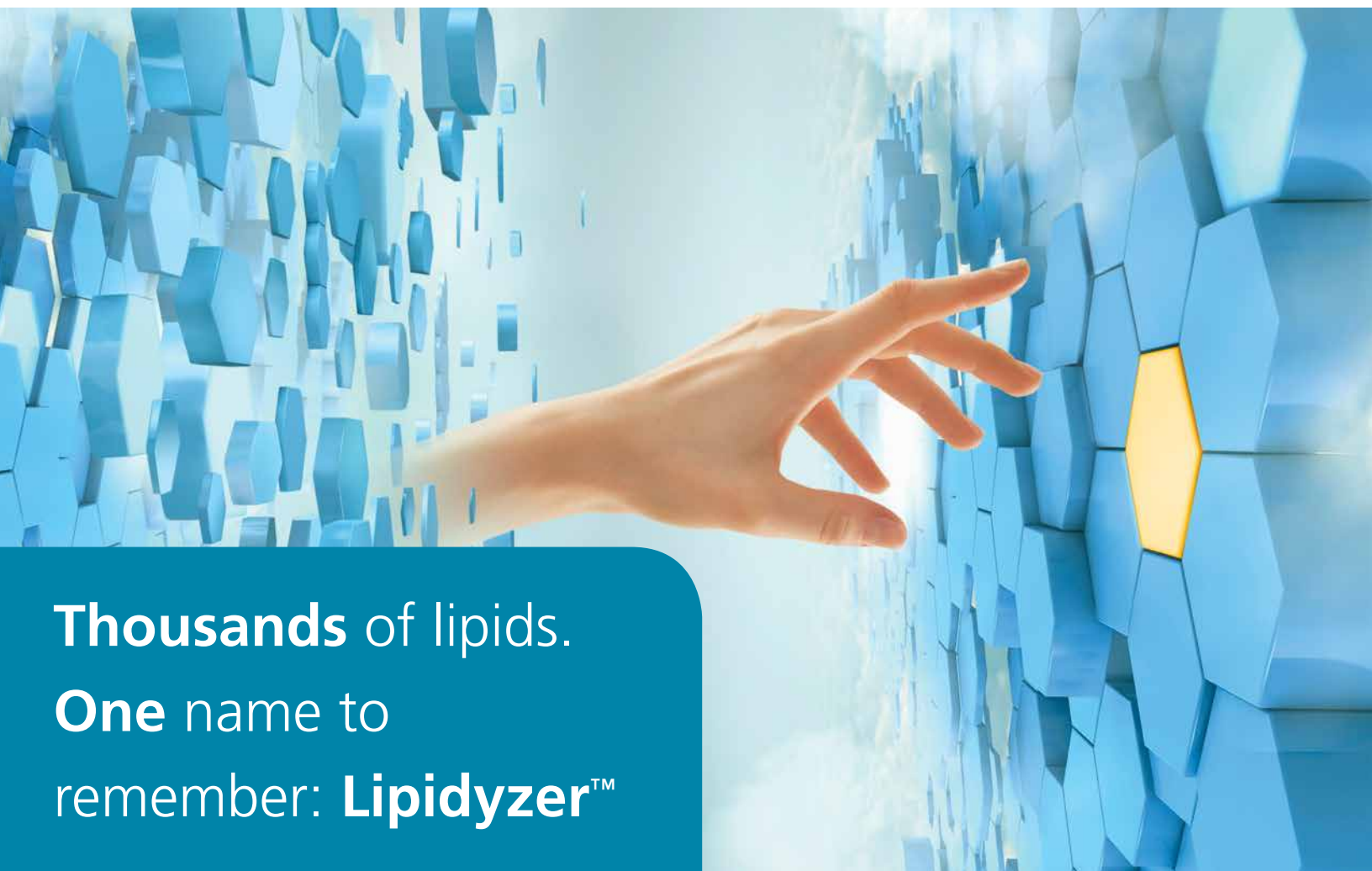
Hosted by

University of Pittsburgh

## Cloud Platforms for Scientific Analysis

### MEETING PROGRAM

May 19 - 20, 2016  
The University Club  
University of Pittsburgh  
Pittsburgh, PA



**Thousands** of lipids.  
**One** name to  
remember: **Lipidyzer™**

LIPIDYZER™ PLATFORM FOR LIPID ANALYSIS

**Finally all-in-one lipid analysis is within your reach**

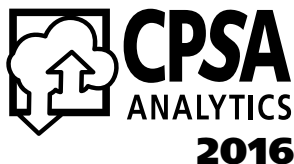
**The new Lipidyzer™ Platform enables you to rapidly and accurately differentiate and quantitate over a thousand lipid species, and translates your data into knowledge with ease and efficiency.**

The Lipidyzer Platform is the only all-in-one, comprehensive solution that empowers you to perform next generation lipid analysis—without any specialized mass spec experience.

Unlike current methodologies with cumbersome sample preparation and fragmented procedures, the Lipidyzer Platform streamlines and simplifies the workflow. Developed by SCIEX and powered by Metabolon®, the Lipidyzer Platform provides comprehensive data analysis and expert scientific interpretation so you can derive biological significance and research disease relevance with confidence.

Next generation lipidomics at your fingertips. **Learn more at [sciex.com/lipidyzer](http://sciex.com/lipidyzer)**





## WELCOME

May 19, 2016

Dear Colleagues:

On behalf of the organizing committee and our sponsors, it is our pleasure to welcome you to the inaugural Analytics Symposium on Clinical and Pharmaceutical Solutions through Analysis (CPSA Analytics). The meeting, along with related events, promises to be both exciting and timely as well as feature lively discussions, memorable interactions, and the sharing of real-world experiences.

The goal of CPSA Analytics is to provide in-depth reviews of innovative technology and emerging practices through open discussion of industry related issues and needs. Our aim is to feature scientific leaders within diversified symposia and sponsored events 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 most distinguished plenary speaker, Andrey Bondarenko of InfoClinika. His plenary lecture on “Next Generation IT Solutions for Life Sciences and Healthcare Using Modern Cloud-Based Technologies” reflects an emerging theme in healthcare – innovation, analytical technology, patient needs, and personalized medicine. The combination of such diverse interests, issues, and needs will provide unique perspectives, and certainly, continue to inspire significant advances.

The symposium sessions provide a wonderful opportunity to interact with industry leaders as well as openly share experiences – from the laboratory to the patient. Specific issues and needs from previous CPSA annual meetings in the USA, China and Brazil will help drive the agenda at CPSA Analytics to feature: 1) focus on patient and patient needs; 2) leadership from the CPSA Charitable Foundation; 3) innovation from the Mozaic Solutions Scientific Advisory Board; 4) integration from the CPSA Four Corners Initiative team; 5) clinical issues/needs from the CPSA Metabolomics Organizing Committee; and 6) pharmaceutical issues/needs from the CPSA USA Organizing Committee.

Our hope is that you will actively participate, interact, and share ideas during the event. Creativity and imagination have been key ingredients to make 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, leadership, and global citizenship.

The hallmark of CPSA Analytics will be identical to other CPSA events – belief in a notion that simple actions, simple gestures, along with relationships can bring people together to cooperate in a most transparent and inclusive manner – which when sustained in a coordinated fashion can result in spectacular dreams that are destined to come true. And so, at CPSA Analytics, we dare to attempt to do something great. Together.

Special thanks go to the sponsors of CPSA Analytics. In particular, we wish to thank McKinley Scientific, Mozaic Solutions, New Objective, SCIEX, and the University of Pittsburgh for giving this meeting life. Thank you! All CPSA sponsors share the passion and commitment for both innovative technologies and the advancement of personalized healthcare.

Enjoy the inaugural meeting – where technology and personalized healthcare meet!

Sincerely,

A handwritten signature in black ink, appearing to read "N. Yates", with a long horizontal flourish extending to the right.

Nathan A. Yates, Ph.D.  
CPSA Analytics Program Chair

A handwritten signature in black ink, appearing to read "Mike Lee", with a stylized, cursive script.

Mike S. Lee, Ph.D.  
CPSA Founder

# 2016 ORGANIZING COMMITTEE

## PROGRAM CHAIR

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**Nathan A. Yates**  
University of Pittsburgh

## SYMPOSIA & SESSIONS

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**Mark Arnold**  
Bristol-Myer Squibb

**Lori Bachmann**  
Virginia Commonwealth University

**Andrey Bondarenko**  
InfoClinika

**Chad Briscoe**  
PRA Health Sciences

**Donald Chace**  
Pediatrix Analytical

**Michelle Clasquin**  
Pfizer

**Lucinda Cohen**  
Merck

**Paul Corcoran**  
McKinley Scientific

**Binodh DeSilva**  
Bristol-Myers Squibb

**Emily Ehrenfeld**  
Mozaic Solutions

**Saul Fink**  
Bristol-Myers Squibb

**Joe Fox**  
SCIEX

**Timothy Garrett**  
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**Robert Kennedy**  
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**Steve Klohr**  
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**Lisa Lorence**  
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Janssen Pharmaceuticals

**Eric Yang**  
GlaxoSmithKline

**Anthony Yeung**  
Fox Chase Cancer Center

**Ismael Zamora**  
Molecular Discovery

## LOGISTICS & MANAGEMENT

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*Communications & Media*

**Carla Marshall-Waggett**  
New Objective

*Logistics & Media*

**Martin Steel**  
McKinley Scientific

*Management & Correspondence*

**Mike Lee**  
Milestone Development Services

## SPONSORS

Thank You!

The CPSA Analytics 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.



# PRE-CONFERENCE

**Wednesday** May 18

**8:00 AM - 2:30 PM**

*University Club  
3rd Floor  
Conference Room B*

**SEGMENTED FLOW TECHNOLOGY FOR LIFE SCIENCE RESEARCH**

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*Hosted by Mozaic Solutions*

*Presenters: Lorin Bachmann, Virginia Commonwealth University; Don Chace, Pediatrix Analytical; Lucinda Cohen, Merck & Co.; Paul Corcoran, McKinley Scientific; Emily Ehrenfeld, Mozaic Solutions; Robert Kennedy, University of Michigan; Mike Lee, Mozaic Solutions; Margaret McDonald, University of Pittsburgh; Martin Steel, McKinley Scientific; Gary Valaskovic, Mozaic Solutions; Nathan Yates, University of Pittsburgh*

**3:00 PM - 4:30 PM**

**OPEN HOUSE**

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**Tour of Yates Lab - University of Pittsburgh**

**5:00 PM - 7:00 PM**

*Location TBA*

**RECEPTION**

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Meet and greet colleagues and friends to celebrate the beginning a new tradition of collaboration and sharing in The Steel City.

WEDNESDAY, MAY 18

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3rd Annual Symposium on Clinical & Pharmaceutical Solutions through Analysis



**Pharmaceutical Innovation:  
Collaborating from Bench to Bedside**

August 3 - 5, 2015 • São Paulo, Brazil

Plenary Speaker  
**Peter van Amsterdam**  
*Abbot Healthcare Products B.V.*

Program Chair  
**Carlos Kiffer**  
*GC2*

Plenary Speaker  
**Thiago Mares Guia**  
*Bionovis*

CPSA BRASIL FEATURES

Symposia • Roundtables • Colloquia Session  
Regulatory Issues • Pre-Conference Workshops • Social Events

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

*Where Technology and Solutions Meet. Where Together We Progress.*

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# PROGRAM

Thursday May 19

7:30 AM - 8:30 AM

## REGISTRATION & CONTINENTAL BREAKFAST

8:30 AM – 8:45 AM

## WELCOME & OPENING REMARKS

University Club  
1st Floor  
Ballroom A

### Welcome

*Mike Lee, Milestone Development Services*

### Objectives, Format, and Opening Remarks

*Nathan Yates, University of Pittsburgh*

8:45 AM - 9:30 AM

## PLENARY LECTURE

Next Generation IT Solutions for Life Sciences and Healthcare  
Using Modern Cloud-Based Technologies

*Andrey Bondarenko, InfoClinika*

9:30 AM - 9:45 AM

## BREAK / ROUNDTABLES

9:45 AM - 11:15 AM

## SYMPOSIUM SESSION

### Rare Diseases/Metabolism/Lipidomics/Statistics

*Chair: Roy Vaz, Sanofi*

► Identifying and Characterizing Potential Location Biomarkers for Cancer

*Robert Murphy, Carnegie Mellon University*

► Metabolomics in Pharmaceutical Research: How Fast is Fast Enough?

*Harvey Lieberman, Sanofi-Genzyme*

► Strategic Needs in (Bio)Pharma, Faster Cycle Times, and Digital LC-MS: What Are We Going To Do With All This Data?

*Gary Valaskovic, New Objective*

11:30 AM - 1:30 PM

## SYMPOSIUM SESSION / LUNCH ROUNDTABLE

*Hosted by the CPSA Charitable Foundation*

### Rare Genetic Diseases: From Diagnosis to Treatment

*Chairs: Michelle Clasquin, Pfizer and Emily Ehrenfeld, Mozaic Solutions*

► Amino Acids and Organic Acids as Biomarkers for Gaining Insight into Disease  
Natural History and Novel Therapies: MTHFR & Cobalamin-C Deficiencies

*Holmes Morton, Clinic for Special Children*

THURSDAY, MAY 18



# PROGRAM

Thursday May 19

1:45 PM - 3:00 PM

## SYMPOSIUM SESSION

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### Innovative Technologies for Personalized Healthcare

*Chairs: Robert Kennedy, University of Michigan and Gary Valaskovic, New Objective*

- ▶ **Adventures in Chemical Proteomics**  
*Jarrold Marto, Dana-Farber Cancer Institute*
- ▶ **Proteoform-Based Analytics for Biomarker Discovery by Top-Down Mass Spectrometry**  
*Steve Patrie, University of Texas Southwestern*

3:30 PM - 5:00 PM

## SYMPOSIUM SESSION

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### Innovative Analytical Approaches to Meet Emerging Patient Needs

*Chairs: Erik Hansen, New Objective and Mike Lee, Milestone Development Services*

- ▶ **A Jar of Jelly Beans and Clinical Information: A Real Experiment with Tasty Results You Can Count On**  
*Don Chace, Pediatrix Analytical*

6:00 PM

## SOCIAL EVENT – PLAY BALL!

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**"Let's Go Bucs!"**

Pittsburgh Pirates vs. Atlanta Braves  
PNC Park  
First pitch at 7:05 pm

THURSDAY, MAY 19



# PROGRAM

Friday May 20

**7:30 AM - 8:30 AM**

**REGISTRATION & CONTINENTAL BREAKFAST**

**8:30 AM – 10:00 AM**

*University Club  
1st Floor  
Ballroom A*

**SYMPOSIUM SESSION**  
.....

**Upcoming Opportunities in Personalized Healthcare: Integration of New Methodologies and Techniques**

*Chairs: Lori Bachmann, Virginia Commonwealth University and Mark Arnold, Bristol-Myers Squib*

**10:15 AM - 11:45 AM**

**SYMPOSIUM SESSION**  
.....

**High Performance Meets Personalized Healthcare: The Prospects for Daily Performance Monitoring**

*Chair: Martin Steel, McKinley Scientific*

- ▶ Digital Chromatography: An Enabling Technology on the Path to Precision Healthcare  
*Gary Valaskovic, Mozaic Solutions*
- ▶ High-Resolution Mass Spectrometry - Discovering Molecular Profiles in Previously Un-Analyzed Data  
*Nathan Yates, University Of Pittsburgh*
- ▶ Informatics in Personalized Healthcare  
*Andrey Bondarenko, InfoClinika*

**12:00 PM - 2:00 PM**

**SYMPOSIUM SESSION LUNCH ROUNDTABLE**  
.....

**Provocative Healthcare Question**

*Sponsored by SCIEX*

**2:15 PM**

**CLOSING REMARKS**

*Nathan Yates, University of Pittsburgh and Mike Lee, Milestone Development Services*

FRIDAY, MAY 20

# PICTURE YOURSELF AT CPSA!

## CPSA Selfies

CPSA Selfies are a great way to share the excitement and fun of this unique event with colleagues, friends and family!

Want to see yourself at CPSA? Here's how...

- Take photos... lots of photos on your phone, tablet, or camera
- Email your photos to [CPSAselfies@gmail.com](mailto:CPSAselfies@gmail.com)
- Be sure to include a caption and/or the names of everyone in the photos
- Visit the Image Gallery at [cpsa-analytics.com](http://cpsa-analytics.com) to see and share your photos with friends, family and colleagues



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19th Annual Symposium on Clinical & Pharmaceutical Solutions through Analysis



**Analytical Chemistry at a Crossroad:  
Making Data Relevant to the Patient**

September 26 - 29, 2016 • Langhorne, PA USA

Program Co-Chair  
**Timothy Garrett**  
*University of Florida*

Plenary Speaker  
**Scott Biller**  
*Agios Pharmaceuticals*

Program Co-Chair  
**Jim Shen**  
*Bristol-Myers Squibb*

CPSA USA FEATURES

Short Courses • Symposia • Parallel Sessions • Roundtables  
Poster Session • Vendor Session • Exhibition • Workshops • Colloquium Series

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

*Where Technology and Solutions Meet*

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Discover the *missing cog* in your global instrumentation and services strategy.

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S C I E N T I F I C

McKinley Scientific transforms the business of **global outsourcing** in the pharmaceutical and clinical life sciences by providing both standard and customized leasing options as a tool to efficient equipment management.

We use a unique strategy that uses traditional leasing as a vehicle to create access to **cutting edge** instrumentation such as LC/MS/MS, UPLC, HPLC used in research and development, clinical diagnostics and a multitude of industries where high sensitivity, resolution or separation is required for quantitation and equalization.

We have over **35 years of experience** in providing solutions in LC/MS/MS through this asset management approach. Our pre-owned instrumentation is refurbished, tested and recalibrated, delivered and installed to manufacturer specifications and carries a comprehensive warranty.



**McKinley**  
S C I E N T I F I C

# WHAT'S YOUR SPRAY DNA?™

We need this to be **easy to use...**  
But we don't want to give up  
**any performance."**

**Nathan Yates**  
University of Pittsburgh



**PicoCHIP®**  
NANOSPRAY COLUMNS



**High-performance**  
**IS ease-of-use."**

**Shane Needham**  
Alturas Analytics

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Several key performance attributes are required for essential overall performance. While each may be independent of the other, the coordinated control of these parameters is essential to improving your overall analysis.

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Proven PicoFrit® technology is at the core, producing sharp peaks and optimal chromatography.

#### **Voltage**

Factory installed, tested, and verified, to ensure leak-free optimal voltage contact.

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