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February 19-20, 2019 | San Diego, CA
www.lbx-summit.com



PRECISION LBx

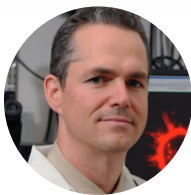
Translating Next Generation Liquid Biopsies into Clinical Reality

**Enhancing the Sensitivity, Reliability
& Standardization of Liquid Biopsies
to Advance Clinical Utility & Industry
Applications for Improved Patient
Diagnosis & Monitoring**

Expert speakers include:



Robert McCormack
Precision Medicine
Consultant &
"Former" Head,
Biomarker Strategy &
Disease Interception
Accelerator Janssen



Stuart Martin
Professor of Physiology
**University of Maryland
School of Medicine,
Greenebaum
Comprehensive
Cancer Center**



Razelle Kurzrock
Murray Professor of Medicine,
Senior Deputy Center Director,
Clinical Science, Director, Center
for Personalized Therapy & Clinical
Trial Office, Chief, Division of
Hematology & Oncology
**University of California San
Diego**



Dennis Merkle
Head, Market Enabling
Technologies &
Companion Diagnostics
EMD Serono



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www.lbx-summit.com @WorldCDx Precision LBx - Liquid Biopsy Diagnostics



Welcome to Precision LBx 2019

Translating Next Generation Liquid Biopsies into Clinical Reality

With the precision medicine focus rapidly shifting to the development of accessible, biofluid-based biomarkers, the 3rd Annual Precision LBx Summit will unite liquid biopsy trailblazers to tackle challenges in sensitivity and reliability to advance the clinical utility of liquid biopsies.

Exploring a multitude of biomarkers from CTCs and ctDNA to RNA and exosomes, this summit will advance the industry applications of liquid biopsies for oncology and chronic disease through a multitude of CSF, urine and plasma-derived biomarkers.

Join this industry leading liquid biopsy networking forum to get up to speed with the latest innovations in the space and radically improve the analysis and clinical utility of liquid biopsies to deploy them as clinical monitoring tools for your precision medicine endeavors.

What previous Precision LBx attendees have said about the meeting

Very well organized, with speakers covering a variety of expertise

Stavros Rafail,
Senior Scientist,
Adaptimmune

Excellent, informative, interactive

Dave Hoon, Director,
John Wayne Cancer
Institute

A very good conference. The speed networking activity was a great start

Mike Gorman, Director,
US & Europe, Sysmex

Why Attend Precision LBx in 2019?

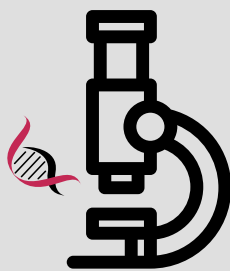
1.

Understand how the likes of **EMD Serono** and **UCSD** are demonstrating clinical utility through predictive biomarkers to improve patient treatment decisions



2.

Explore the latest advances in technology with **Keck School of Medicine, University of Maryland** and **FDA's National Center for Toxicological Research** to improve sensitivity for biomarker detection and monitoring



3.

Hear **Sutter Health** discuss the key challenges clinicians are facing in liquid biopsy use, and the developments that are vital for increased confidence in the clinic



4.

Enhance analytical validation to maximize reliability through case-study based discussions with **University of Maryland, Mayo Clinic** and **University of Southern California**



5.

Hear how **TGen, Mayo Clinic** and more are utilizing a range of biofluids, from urine to CSF, for predictive biomarkers in neurology and oncology



YOUR PRECISION LBx EXPERT SPEAKERS



Jonathan Buckley
Professor & Director,
Bioinformatics
**Keck School
of Medicine,
University of
Southern California
& Children's
Hospital Los
Angeles**



**Pierre-Yves
Desprez**
Senior Scientist
California Pacific
Medical Center
Research Institute
Sutter Health



**Kendall Van
Keuren-Jensen**
Professor,
Neurogenomics
Division & Co-
Director, Center
for Noninvasive
Diagnostics
**Translational
Genomics Research
Institute**



Razelle Kurzrock
Murray Professor of
Medicine, Senior Deputy
Center Director, Clinical
Science, Director,
Center for Personalized
Therapy & Clinical Trial
Office, Chief, Division
of Hematology &
Oncology
**University of
California San Diego**



Xuefeng Liu
Professor, Pathology,
Director of Cell
Immortalization
**Georgetown
University**



Stuart Martin
Professor, Physiology
**University of
Maryland School
of Medicine,
Greenebaum
Comprehensive
Cancer Center**



Robert McCormack
Precision Medicine
Consultant & Former
Head of Biomarker
Strategy & Disease
Interception
Accelerator
Janssen



Dennis Merkle
Head, Market
Enabling
Technologies
& Companion
Diagnostics
EMD Serono



Danielle Murphy
Associate Director,
Translational
Oncology
Pfizer



Javad Nazarian
Associate Professor of
Pediatrics, Genomics
& Precision Medicine
& Scientific Director &
Principal Investigator &
Scientific Co-Chair
**George Washington
University & Children's
National Health
System & Children's
Brain Tumor Tissue
Consortium**



Jo Vandesompele
CSO & Professor
**Biogazelle & Ghent
University**



Joshua Xu
Principal
Investigator,
National Center
for Toxicological
Research (NNCTR)
FDA



Speaker Confirming
Guardant Health



Speaker Confirming
ANGLE



Speaker Confirming
Sysmex

CONFERENCE DAY ONE

Tuesday, February 19, 2019

	8.00 Registration & Breakfast
Robert McCormack Precision Medicine Consultant & Former Head of Biomarker Strategy & Disease Interception Accelerator Janssen	8.50 Chair's Opening Remarks
Demonstrating Reliability to Advance the Clinical Utility of Liquid Biopsies	
Dennis Merkle Head, Market Enabling Technologies & Companion Diagnostics EMD Serono	9.00 From Concept to Reality: Proving the Clinical Potential of Liquid Biopsies - How LBx can be leveraged as a tool to expedite clinical development of therapeutics with an eye on market access for patient testing - Showcasing how successful liquid biopsies are demonstrating clinical utility and effectiveness in treatment decision making - Presenting important considerations for liquid biopsy reproducibility to advance the space forward as a collective
Razelle Kurzrock Murray Professor of Medicine, Senior Deputy Center Director, Clinical Science, Director, Center for Personalized Therapy & Clinical Trial Office, Chief, Division of Hematology & Oncology University of California San Diego	9.30 Precision Cancer Medicine: Cutting Edge Technology - Discussing how cutting edge liquid biopsy technology is transforming the way patients are selected for treatment - Explore prognosis factors with CTCs and ctDNA and the application of this knowledge to accurately determine the correct treatment plan
	10.00 Speed Networking
	10.20 Morning Refreshments
Speaker confirming: Guardant Health	10.45 Emerging Data in Clinical and Pre-Clinical Liquid Biopsy Indications - Clinical utility of commercial ctDNA assays today - Opportunities in late stage drug development - The path from here: Future opportunities
Panelists Confirming Shortly	11.15 Panel Discussion: Translating Liquid Biopsies into an International Clinical Reality - Advancing the standard of care: What role will liquid biopsy play in the future of truly personalized therapy? - How do we translate differences in pre-analytical protocols into common best practice that can be rolled out to provide universally robust reliability of testing? - How do we overcome the "black box" of secrecy surrounding individual labs' and companies' liquid biopsy protocols and approaches?
12.00 Lunch & Networking	

Overcoming Sensitivity and Specificity Challenges to Advance the Clinical Applicability of Liquid Biopsy Diagnostics

 Stuart Martin Professor, Physiology University of Maryland School of Medicine, Greenebaum Comprehensive Cancer Center	13.00 Microfluidic Cell Tethering to Rapidly Analyze Patient Tumor Cell Drug Response - Targeting metastatic phenotypes aside from growth - Isolation of live CTCs for phenotype analysis - Rapid determination of CTC drug responses within 1 hour
 Jonathan Buckley Professor & Director, Bioinformatics Keck School of Medicine, University of Southern California & Children's Hospital Los Angeles	13.30 Developing Algorithmic Approaches to Rationalize NGS Results - Thinking post analysis: Strategies for improving bioinformatics standardization challenges for NGS technology - Targeting liquid biopsy on actionable mutations: Discussing the impact of the development of panels and the number of genes interrogated on the impactfulness of clinical decision making - Overcoming challenges on biomarker detection for low-concentrated samples
 Pierre-Yves Desprez Senior Scientist California Pacific Medical Center Research Institute Sutter Health	14.00 Circulating Tumor DNA Sequencing as Part of the Cancer Avatar Project at California Pacific Medical Center: Clinical Challenges in Liquid Biopsy Testing - What are the key developments required for designing treatment strategies in patients with recurrent or progressive disease? - Uncovering at least one common driver mutation through DNA sequencing of over 150 matched tissue and ctDNA samples from the same patient's blood with analysis of 48-gene sequences - Advances to confidently utilize mutational analysis of longitudinal liquid biopsies in the clinic for monitoring patient treatment response and/or evolution toward resistance in real-time and in a non-invasive manner

14.30 Afternoon Refreshments & Networking

 Joshua Xu Principal Investigator, National Center for Toxicological Research (NNCTR) FDA	15.00 Deep Sequencing QC: A Component Study of the FDA-led Sequencing Quality Control Project Phase 2 (SEQC2) - A set of benchmarking samples is designed to empower a cross-lab evaluation of about a dozen pan-cancer panels and liquid biopsy kits - Comprehensive QC assessments of reproducibility and detection sensitivity show various factors impacting analytical performance. - Quality metrics are developed to inform the confidence of each mutation call
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15.30 Session Q+A

- Technologies need to become more sensitive, but to what degree in order to meet requirements for clinical decision making?
- Evaluating a variety of application situations and the requirements for sensitivity to deliver clinically meaningful decision making
- How can AI be applied in patient monitoring and prognosis?
- Targeting liquid biopsy on actionable mutations: discussing the impact of the development of panels and the number of genes interrogated on the impactfulness of clinical decision making

 **Stuart Martin**
Professor, Physiology
University of Maryland School of Medicine, Greenebaum Comprehensive Cancer Center

 **Jonathan Buckley**
Professor & Director, Bioinformatics
Keck School of Medicine, University of Southern California & Children's Hospital Los Angeles

 **Joshua Xu**
Principal Investigator, National Center for Toxicological Research (NNCTR)
FDA

 **Robert McCormack**
Precision Medicine Consultant & Former Head of Biomarker Strategy & Disease Interception Accelerator
Janssen

16.30 Chair's Closing Remarks

16.45 End of Day One

17.00 Precision LBx Summit 2019 Networking Reception, Hosted by ANGLE



CONFERENCE DAY TWO

Wednesday, February 20, 2019

	8.00 Breakfast & Networking
 Robert McCormack Precision Medicine Consultant & Former Head of Biomarker Strategy & Disease Interception Accelerator Janssen	8.50 Chair's Opening Remarks
Uncovering the Therapeutic Potential of Liquid Biopsies through Consideration of Biomarker Choice and Disease Application	
 Kendall Van Keuren-Jensen Professor, Neurogenomics Division & Co-Director, Center for Noninvasive Diagnostics Translational Genomics Research Institute	9.00 The Evolving Application of Liquid Biopsies in Neurology - Understanding how a range of bio-fluids, from CSF to urine, are being applied to monitor neurological damage from stroke, Alzheimer's Disease and more - The clinical applications of liquid biopsy in early neurodegenerative identification and the steps required to deliver reliable tests - What are the next steps forward for liquid biopsies in neurology?
 Jo Vandesompele CSO & Professor Biogazelle & Ghent University	9.30 Streamlining RNA Utility as an Effective Circulating Biomarker - Best practices for sample handling to maximize RNA biomarker signal - Discussing the utilization of RNA as an exploratory biomarker for patient monitoring - Prioritizing RNA-based biomarkers to explore predictive potentials and advance therapeutic development
 Xuefeng Liu Professor, Pathology, Director of Cell Immortalization Georgetown University	10.00 A Living Biomarker from Urine to Predict Drug Efficacy and Recurrence of Bladder Cancer - Culturing cancer cells from urine samples - Non-invasive liquid biopsies to monitor therapy - Identifying therapy for the patients with recurrent bladder cancer
10.30 Networking & Morning Refreshments	
 Javad Nazarian Associate Professor of Pediatrics, Genomics & Precision Medicine & Scientific Director & Principal Investigator & Scientific Co-Chair George Washington University & Children's National Health System & Children's Brain Tumor Tissue Consortium	11.15 No Tissue Left Behind: Utilizing Technology to Advance Management of Childhood Cancers - Overcoming the blood-brain barrier: Approaches to access desired biomarkers - Understanding how to maximize CTC and ctDNA capture from CSF - Discussing the disparities and challenges in CSF analysis compared to other biofluid options and the decisions being made in current trials to overcome these



Danielle Murphy
Associate Director,
Translational
Oncology
Pfizer

11.45 Retrospective Biomarker Analysis of Patients with MET Exon 14-Altered NSCLC Treated with Crizotinib

- Exploring the ability to detect MET Exon 14 alterations by ctDNA
- Investigating correlations between clinical endpoints and MET Exon 14 status in ctDNA
- Facing the roadblock of background noise in blood-based liquid biopsies, and discussing the necessary steps required to overcome this industry-wide challenge

12.15 Lunch & Networking

Precision LBx Breakout Roundtable Sessions

13.15 Building Successful Collaborations in the Liquid Biopsy Space

- What do diagnostic companies, pharma and healthcare look for when making partnership decisions?
- Building proactive, forward-thinking timelines to ensure maximal success in a timely manner: What are the common pitfalls and bottlenecks in development?

13.15 The Importance of Data Sharing to the Advancement of Liquid Biopsy

- Understand how data sharing will play a vital part in the progression of liquid biopsies
- The effect of data consortiums on demonstrating clinical utility
- Breaking down the barriers to data access: How consortiums are providing an alternative path
- Discussing critical issues with current methods of data storing



Robert McCormack
Precision Medicine
Consultant & Former
Head of Biomarker
Strategy & Disease
Interception
Accelerator
Janssen

14.15 Chair's Closing Remarks

14.20 End of Day Two & Close of 3rd Precision LBx Summit 2019

Insipring, thought
provoking, exciting

**Kristiyana Kaneva, Children's
Hospital Los Angeles**

PARTNERS



Lead Partner

ANGLE's Parsortix technology enables the capture and harvest of circulating tumor cells from patient blood. The resulting liquid biopsy (simple blood test) provides a powerful tool to deliver personalized cancer care. ANGLE is currently developing its first diagnostic product in the area of ovarian cancer. The Parsortix system has CE Mark regulatory approval in Europe and an FDA approval process is underway in the US.

www.angleplc.com

GUARDANT HEALTH®

Program Partner

Guardant Health is a pioneer in non-invasive cancer diagnostics, addressing challenges across the cancer care continuum. The company

has raised more than \$200 million from leading venture capital firms and in 2014 launched Guardant360, the first comprehensive liquid biopsy for clinical use. Guardant Health is improving therapy selection for advanced cancer patients across the globe using its proprietary cell-free circulating tumor DNA NGS platform. Guardant Health is partnered with biopharmaceutical companies to prospectively screen patients for trial enrollment, develop companion diagnostics to support clinical adoption, and use retrospective analysis for early insights into patient response and tumor evolution, as well as accelerate the development of new therapies.

www.guardanthealth.com



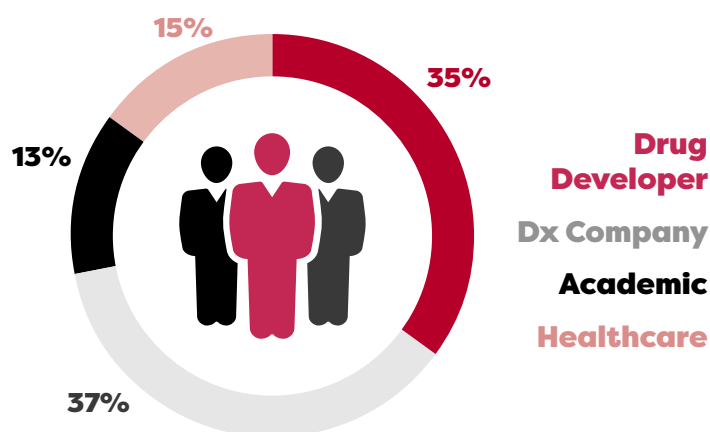
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Sysmex Inostics, a subsidiary of Sysmex Corporation, is a leader in blood-based molecular diagnostics testing in

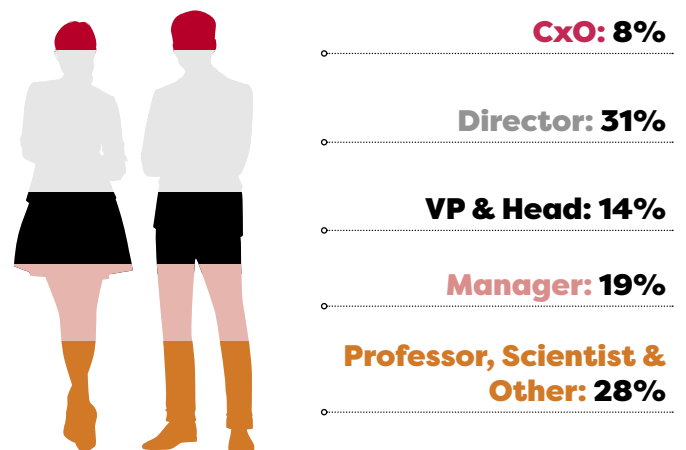
oncology. Our highly sensitive OncoBEAM™ kits and tests offer a minimally-invasive alternative for the detection of cancer gene mutations, clinical trials testing and companion diagnostics development.

www.sysmex-inostics.com

ATTENDANCE BY SECTOR*



ATTENDANCE BY SENIORITY*



*Based on market research and previous events' statistics

*Based on market research and previous events' statistics

GET INVOLVED



Sam Sarwar

Commercial Director, Biomarkers & Diagnostics Event Series

Tel: +44 (0)20 3141 8716

Email: sam.sarwar@hansonwade.com



READY TO REGISTER?

3 EASY WAYS TO BOOK

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-  Email: info@hansonwade.com

- 1** Improve clinical utility demonstration for a range of biofluid-derived biomarkers
- 2** Understand the developments required in the liquid biopsy space to allow for confident clinical practice
- 3** Overcome challenges in sensitivity and specificity to maximise reliability and clinical applicability

Team Discounts*

- 10% discount – 3 delegates
- 15% discount – 4 delegates
- 20% discount – 5 or more delegates

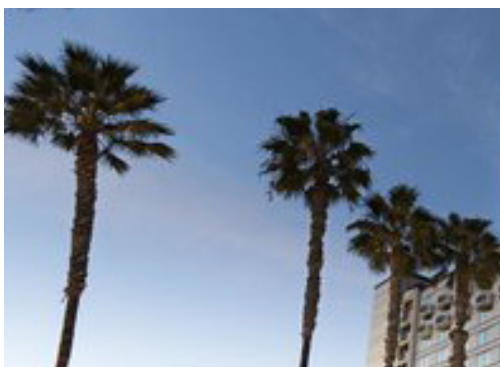
Please note that discounts are only valid when three or more delegates from one company book and pay at the same time.

SECURE YOUR PLACE

	Register and Pay Before 11/16/18	Pre-Event Registration	On The Door
Academic, Hospital & Drug Developer (Conference Only)	\$799 (Save \$500)	\$1,099	\$1,299
Technology & Service Provider (Conference Only)	\$2,399 (Save \$900)	\$2,999	\$3,299

“A very engaging environment to discuss very hot topics and for thinking as a group as it relates to the challenges and the opportunities of liquid biopsies”

Jean-Francois Martini, Pfizer



VENUE

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San Diego, California, 92108, USA

For further information or assistance, please visit
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Full payment is due on registration. Cancellation and Substitution Policy: Cancellations must be received in writing. If the cancellation is received more than 14 days before the conference attendees will receive a full credit to a future conference. Cancellations received 14 days or less (including the fourteenth day) prior to the conference will be liable for the full fee. A substitution from the same organization can be made at any time.

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