

CORPORATE WORKSHOP PROGRAM

Salt Palace Convention Center







Drug Target and Biomarker Discovery. Simplified.

YOUR INPUT

Cell or Animal Models Biological Samples









YOUR BRIDGE TO DISCOVERY

- CRISPR / RNAi Libraries & Genetic Screens
- **DriverMap™** Targeted RNA-Seq Expression Profiling
- **DriverMap** ™ Adaptive Immune Receptor Profiling
- CloneTracker™ Barcode Libraries

YOUR RESULTS

Functionally Important Genes & Biomarkers







Join us for

CORPORATE WORKSHOP Wednesday, November 15 from 2:00 – 2:50 pm in Room 255A

INNOVATION SPOTLIGHT Friday, November 17 from 9:30 – 10:00 am at Exhibit Hall Stage 2

TCR & BCR Repertoire Analysis and Other Approaches for the Discovery of Drug Targets, Resistance Mechanisms and Biomarkers

Paul Diehl, Ph.D.Chief Operating Officer
Cellecta, Inc

Alex Chenchik, Ph.D.

President & Chief Scientific Officer
Cellecta, Inc

See us at Booth 1809 and get more details at Cellecta.com/amp2023

Real expertise delivering superpowered results.

Who we are

Cellecta is a leading provider of genomic products and services. Our functional genomics portfolio includes loss-of-function and gain-of-function screening services, custom and off-the-shelf CRISPR libraries and transcriptome profiling products and services and much more.

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WELCOME TO AMP 2023 WORKSHOP DAY!

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Agilent Technologies*

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AstraZeneca*

Asuragen*

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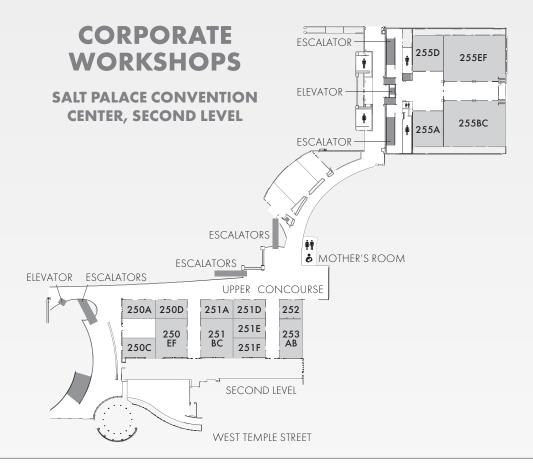
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Tick populations are increasing.
What can we do about it?



Speaker
Dr. Blake W. Buchan, PhD, D(ABMM)

Assistant professor, Department of Pathology and Associate Director, Clinical Microbiology and Molecular Diagnostics, Medical College of Wisconsin

Tickborne

infections, including Anaplasma sp., Ehrlichia spp., Babesia spp. and novel Borrelia species are on the rise due to climate change and increasing host range. Despite this "uptick" in cases, these infections are frequently misdiagnosed or undiagnosed due to under recognition of these pathogens by clinicians and a lack of access to high quality diagnostic tests.

Current serologic methods lack specificity, may not be positive in acute infections, and cannot differentiate past from current infection. Likewise, microscopic examination suffers from poor sensitivity and relies on

experienced laboratory technologists to recognize potential pathogens in a blood smear.

Molecular methods, including multiplexed nucleic acid amplification tests (NAATs) have the potential to provide sensitive and specific detection of an array of tickborne pathogens in a single blood specimen.

In this workshop **Dr. Blake W. Buchan, PhD, D(ABMM)** will review the changing epidemiology of tickborne infections and share data demonstrating the benefits of NAATs in accurately diagnosing tickborne infections, including co-infections, in adult and pediatric populations.

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START	END	TITLE	HOST	ROOM
8:00 AM				
8:00 AM	8:50 AM	Accelerate Your Molecular Laboratory Workflow with Revvity	Revvity	251D
8:00 AM	8:50 AM	Expanding Sensitivity and Precision of Oncology Assays with Roche Digital PCR and qPCR	Roche	250EF
8:00 AM	8:50 AM	Implementation of a Rapid CYP2C19 Assay to Support Care for Stroke and Cardiology Patients	Genomadix	255D
8:00 AM	8:50 AM	Improving Patient Access to Precision Oncology Through Centralized Services and Kitted Solutions to Empower Localized Testing	Labcorp	250D
8:00 AM	8:50 AM	Localized NGS-based Methylation Testing to Help Inform BioPharma Clinical Trials and Improve Patient Care in Oncology	Pillar Biosciences Inc.	251F
8:00 AM	8:50 AM	New Frontiers in Diagnostics: Simplifying High Purity Exosome Isolation with the ExoVerita™ Pro	Biological Dynamics	251BC
8:00 AM	8:50 AM	Staying Ahead of the Changing HPV Testing Landscape: A 360 Degree Review	Abbott Molecular	250C
9:00 AM				
9:00 AM	9:50 AM	A Look at Current and Future Molecular Biomarkers in Locally Advanced and Metastatic Breast Cancers	AstraZeneca	255EF
9:00 AM	9:50 AM	Comparison of Data from Two Commercially Available Tissue- Based Comprehensive Genomic Profiling (CGP) Solutions Using AMP/ASCO/CAP Guidelines and ESMO ESCAT	Roche	250EF
9:00 AM	9:50 AM	Considerations Surrounding the Implementation of a Complete Syndromic Molecular Workflow for the Identification of Infectious Gastroenteritis Causing Pathogens	Thermo Fisher Scientific	251E
9:00 AM	9:50 AM	Optimizing Biomarker Testing in Resectable and Metastatic NSCLC: A Multidisciplinary Approach	AstraZeneca	255A
9:00 AM	9:50 AM	dPCR Technologies Enable Treatment and Response Monitoring in Patients Affected by Solid Tumors	QIAGEN	255BC
9:00 AM	9:50 AM	From High-Throughput to Point-of-Care Oncology Testing: Cutting-Edge Genotyping Chemistries for Direct Analysis of Blood, FFPE Tissue, Urine and Stool	Meridian BioScience Inc.	250A





START	END	TITLE	HOST	ROOI
11:00 AM 11:00 AM	11:50 AM	Automating Your Lab Developed Testing (LDT) Workflow	Roche	250EF
11:00 AM	11:50 AM	Achieving High Sensitivity and Concordance for CGP from "Liquid Biopsy" Specimens	Illumina	255A
11:00 AM	11:50 AM	Demonstration of Next Generation Software for Molecular Testing Workflows from Sample Preparation to qPCR Analysis	Thermo Fisher Scientific	251E
11:00 AM	11:50 AM	Droplet Digital PCR (ddPCR) in Oncology Clinical Validation and Research—A Single Institutional Experience	Bio-Rad Laboratories, Inc.	251A
11:00 AM	11:50 AM	Fast and Accurate Molecular Results for Monitoring Different Types of Leukemia	Cepheid	2500
11:00 AM	11:50 AM	Biomarker Assessment Through Comprehensive Genomic Profiling	Thermo Fisher Scientific	253A
11:00 AM	11:50 AM	Kick-Start Your Oncology and Hereditary Cancer Testing Program: Velsera's Ready Solutions for Diverse Clinical Genomic Assays	Velsera	251B0
11:00 AM	11:50 AM	Rethinking Solid Tumor Profiling: How Utilizing Complementary Technologies Can Allow Laboratories to Guide Better Treatment Decisions	Agena Bioscience	250 <i>A</i>
11:00 AM	11:50 AM	Simple, Sensitive, and Scalable: QuantideX Suite of Assays for Targeted MRD Monitoring of Leukemic Fusions	Asuragen	251F
11:00 AM	11:50 AM	Tick Uptick! Tick Populations are Increasing— What Can We Do About It?	Seegene	255B0
11:00 AM	11:50 AM	Understanding Spatial Relationships in an Era of Digital Pathology	NeoGenomics Laboratories	252
12:00 PM				
12:00 PM	12:50 PM	AmplideX to the Rescue: One Easy-to-Implement Test Workflow Enabling Repeat Expansion Resolution, Copy Number Assessment, and Highly Multiplexed Variant Detection	Asuragen	251F
12:00 PM	12:50 PM	From Data to Decisions: Advocating for DPYD Testing to Advance Patient Safety Based on Insights from Clinical Evidence	Agena Bioscience	250 <i>A</i>







START	END	TITLE	HOST	ROOM
2:00 PM				
2:00 PM	2:50 PM	Advancing Research in Liquid Biopsy: Updates from University of Leicester, Leicester Cancer Research Center	Thermo Fisher Scientific	253AB
2:00 PM	2:50 PM	Intelligent Automated Microdissection: the Next Paradigm in Spatial Biology	Quantumcyte	251F
2:00 PM	2:50 PM	Pharmacogenomics Research Testing: Areas of Consideration for your Laboratory	Thermo Fisher Scientific	251E
2:00 PM	2:50 PM	Expedite Patient Management Decisions with RAPID Molecular Tests	Biocartis	251BC
2:00 PM	2:50 PM	Making the Most of Your Draw: A Workflow for the Isolation of PBMCs from Blood Stabilized in Streck BCTs using STEMCELL EasySep Direct Kits	STEMCELL Technologies Inc.	251D
2:00 PM	2:50 PM	TCR & BCR Repertoire Analysis and Other Approaches for the Discovery of Drug Targets, Resistance Mechanisms and Biomarkers	Cellecta, Inc.	255A
2:00 PM	2:50 PM	Test Validation, Operational and QC Considerations When Implementing NGS from Simple Variants to Complex Genomic Measures	LGC Clinical Diagnostics	255D
2:00 PM	2:50 PM	A Breakthrough in Therapy Selection and Resolution of Diagnostic Dilemmas in Solid & Heme Tumors using 3D Genomics	Arima Genomics	250A
2:00 PM	2:50 PM	Unraveling Tumor Profiles Using an HRD-Enabled CGP Assay and Exome Sequencing with Al-Driven Data Analysis	Agilent Technologies	255EF
:00 PM				
3:00 PM	3:50 PM	The BioFire FilmArray Meningitis / Encephalitis Panel: A Synopsis of Clinical Testing of 11,800 Specimens over 66 Months	bioMérieux	255BC
3:00 PM	3:50 PM	Integrating ATCC Reference Materials into your Molecular Diagnostics Workflows: The Nexus of Bioinformatics with Authenticated Cells, Microorganisms, and Derivatives	ATCC	252
3:00 PM	3:50 PM	Nanopore Sequencing: The Most Comprehensive View of Cancer Genomes	Oxford Nanopore Technologies Ltd.	250EF





8:00 AM - 8:50 AM

Accelerate Your Molecular Laboratory Workflow with Revvity

Room: 251D Time: 8:00 AM – 8:50 AM Hosted by: Revvity

At Revvity's corporate workshop discover unique workflow solutions that helps accelerate testing in your laboratory. Revvity's portfolio includes solutions in infectious diseases, autoimmunity and end to end workflow solutions in NGS (sample collection, extraction, library prep, enrichment). We augment your laboratory NGS capabilities with industry leading cell based molecular oncology reference material, backup CLIA, CAP level OMIC services and software such as our GARM LIMS* and ODIN Tertiary Analysis software*. We also offer Revvity lab in lab solution where a team of laboratory experts will setup and operate lab services. For research use only. Not for use in diagnostic procedures.

Expanding Sensitivity and Precision of Oncology Assays with Roche Digital PCR and qPCR

Room: 250EF Time: 8:00 AM – 8:50 AM Hosted by: Roche

During this workshop, our collaborator, GT Molecular, will explain how they took advantage of the Digital LightCycler System's 6 channels and higher sample volumes to develop sensitive and precise multiplexed oncology research assays. Data will highlight how the Digital LightCycler System enabled GT Molecular to clearly detect multiple targets without sacrificing sensitivity. During the second part of this presentation, learn about Roche's new dual-mode (RUO &IVD) real-time PCR system, the LightCycler PRO. This innovative, 7-channel instrument is designed to offer industry-leading multiplexing capabilities plus the high precision, scalability, usability, and analytic capabilities found in Roche qPCR instruments.

Implementation of a Rapid CYP2C19 Assay to Support Care for Stroke and Cardiology Patients

Room: 255D Time: 8:00 AM – 8:50 AM Hosted by: Genomadix

Improving Patient Access to Precision Oncology Through Centralized Services and Kitted Solutions to Empower Localized Testing

Room: 250D Time: 8:00 AM – 8:50 AM Hosted by: Labcorp

Clinical NGS has advanced precision oncology, enabling physicians to identify actionable biomarkers in patients to aid in therapy selection. However, access remains a challenge with only 20% of patients receiving molecular profiling. This workshop highlights the value of a scalable FDA-cleared tissue-based solid tumor profiling solution. With best-in-class bioinformatics and a path to reimbursement, this solution can help local laboratories implement in-house testing and increase access to a larger patient population. The workshop also covers liquid biopsy-based biomarker profiling solutions that assist with distinguishing somatic from CH variants and tissue-agnostic treatment response monitoring for patients with metastatic colorectal cancer.



Localized NGS-based Methylation Testing to Help Inform BioPharma Clinical Trials and Improve Patient Care in Oncology

Room: 251F Time: 8:00 AM – 8:50 AM Hosted by: Pillar Biosciences Inc.

DNA methylation testing can help provide clinicians and researchers with valuable insight into gene regulation and identify potential biomarkers for therapy selection and clinical trial enrollment. NGS testing has provided the ability to interrogate key biomarkers in a cost-effective and high-throughput manner. In this workshop we will explore and present data on the emerging role for highly accurate and sensitive kitted NGS methylation assays in oncology leveraging Pillar Biosciences SLIMamp technology. We will also be presenting new emerging data suggesting an important clinical role for methylation testing beyond HRD score to help to inform patients response to PARPi therapy.

New Frontiers in Diagnostics: Simplifying High Purity Exosome Isolation with the ExoVerita™ Pro

Room: 251BC Time: 8:00 AM – 8:50 AM Hosted by: Biological Dynamics

Extracellular vesicles, including exosomes, are cell-to-cell communication tools representing active tissues. Thus, exosomes offer the opportunity to intercept messages related to disease status. We will discuss how our automated platform, ExoVerita™ Pro, rapidly isolates highly purified exosomes from clinical samples, thereby enabling downstream analysis. The workshop will include discussion on recent results using ExoVerita Pro for early-stage cancer detection and how the system can be leveraged to empower other diagnostic applications. Attendees will have the opportunity to see and discuss the system with the developers and ask questions about how it can be used in their research.

Staying Ahead of the Changing HPV Testing Landscape: A 360 Degree Review

Room: 250C Time: 8:00 AM – 8:50 AM Hosted by: Abbott Molecular

In 2020, American Cancer Society released an updated cervical cancer screening guideline calling for primary human papillomavirus (HPV) screening as the preferred strategy. Utility of HPV primary screening enables risk stratification by genotyping which leads to more effective triage and personalized care for patients. This session will review the results from the Alinity m HR HPV* clinical trial and how this test may be utilized in clinical practice. We will also review the workflow efficiencies that can be achieved when introducing an automated pre-analytical system** to HPV testing.

^{*} Alinity m HR HPV assay is pending FDA review and not commercially available in the United States.

^{**} Alinity mp is under development and not commercially available.



9:00 AM - 9:50 AM

A Look at Current and Future Molecular Biomarkers in Locally Advanced and Metastatic Breast Cancers

Room: 255EF Time: 9:00 AM – 9:50 AM Hosted by: AstraZeneca

The importance of molecular Biomarkers in Breast Cancer, current molecular biomarkers in HR+/HER2- mBC, and emerging molecular biomarkers in HR+/HER2- mBC.

- Appreciate the science and clinical applications of using molecular biomarkers to manage patients with breast cancer
- Recognize the current and emerging biomarkers that may influence clinical decision-making for patients with advanced breast cancer based on their prognostic and/or predictive value
- Understand the PI3K/AKT/PTEN pathway and its importance in HR+/HER2- metastatic breast cancer

Comparison of Data from Two Commercially Available Tissue-Based Comprehensive Genomic Profiling (CGP) Solutions Using AMP/ASCO/CAP Guidelines and ESMO ESCAT

Room: 250EF Time: 9:00 AM – 9:50 AM Hosted by: Roche

We compared theoretical clinical significance data from two CGP solutions—the AVENIO Tumor Tissue CGP Kit (for Research Use Only) paired with navify Mutation Profiler (NMP), and TruSight Oncology 500 (TSO) assay paired with PierianDx Clinical Genomics Workspace. AVENIO and TSO assays were run on 145 FFPE solid tumour samples (prostate: n=28; breast: 27; colon: 26; lung: 25 [among others]). Variant calls were acquired using manufacturer-provided software. Key variant annotation outputs were variant tiers and ESCAT guideline inclusion per tumor type. AMP/ASCO/CAP tiers were obtained with NMP for AVENIO or PierianDx for TSO. ESCAT inclusion was determined manually.

Considerations Surrounding the Implementation of a Complete Syndromic Molecular Workflow for the Identification of Infectious Gastroenteritis Causing Pathogens

Room: 251E Time: 9:00 AM – 9:50 AM Hosted by: Thermo Fisher Scientific

Join us for a conversation with Amanda Hancock and Greg Behringer from Genesis Laboratory Management, LLC. They will discuss implementing syndromic testing for enteric pathogens, selecting clinically relevant targets like Clostridioides difficile, and incorporating genotypic antimicrobial resistance into panel workflows.



Optimizing Biomarker Testing in Resectable and Metastatic NSCLC: A Multidisciplinary Approach

Room: 255A Time: 9:00 AM – 9:50 AM Hosted by: AstraZeneca

This program will illustrate key best practices and new developments for biomarker testing in the care of patients with resectable and metastatic non-small cell lung cancer (NSCLC). The presentation will highlight the importance of multidisciplinary team (MDT) coordination and its crucial role toward implementing best practices in sample collection. Latest biomarker testing guidelines, evolving biomarkers, and recommendations for liquid biopsy integration in metastatic NSCLC will also be reviewed. Specifically, the speakers will discuss:

- Implications of quality tissue acquisition for precision medicine
- Best practices for specimen management and biomarker testing
- Best practices for maximizing efficient patient identification

dPCR Technologies Enable Treatment and Response Monitoring in Patients Affected by Solid Tumors

Room: 255BC Time: 9:00 AM – 9:50 AM Hosted by: QIAGEN

Advancements in molecular analysis technologies enhance understanding of tumor biology, optimizing cancer patient management. Cell-free DNA (cfDNA), found in plasma and body fluids, offers tumor-derived genetic material, an alternative to tissue samples. The detection of mutations in cfDNA from plasma has been demonstrated to be feasible and easily repeatable. Its implementation in clinical practice allows a better management of patients to select the appropriate treatment, and to monitor tumor dynamics during therapies. The introduction of highly sensitive techniques, including different digital PCR platforms, opened new scenarios in terms of comprehension of tumor heterogeneity and therapeutic strategies.

From High-Throughput to Point-of-Care Oncology Testing: Cutting-Edge Genotyping Chemistries for Direct Analysis of Blood, FFPE Tissue, Urine and Stool

Room: 250A Time: 9:00 AM – 9:50 AM Hosted by: Meridian BioScience Inc.

In this session, we will look at PCR genotyping technology and the latest chemistries that Meridian developed for the identification of mutations, including single nucleotide polymorphisms (SNPs). Lyo-Ready™ Genotyping Direct qPCR master mixes not only simplify the workflow while ensuring superior cluster resolution and allelic discrimination but are also compatible with lyophilization. We will demonstrate how these chemistries enable the detection of SNPs directly from blood, plasma, urine, stool or FFPE tissue, without obligatory nucleic acid extraction and purification and down to 1 copy per reaction. Meridian's latest development brings faster genotyping testing from high-throughput to point-of-care.



9:00 AM - 9:50 AM, CONTINUED

Highly Accurate and Automated NGS Assays for Efficient Localized LBx and TBx Clinical Testing in Oncology

Room: 251F Time: 9:00 AM – 9:50 AM Hosted by: Pillar Biosciences Inc.

Multiple clinical advantages exist by localizing NGS clinical testing. We will discuss how Pillar's oncoReveal™ NGS products, powered by SLIMamp® technology and automated workflows provide accurate and actionable results to allow clinicians to make timely and informed therapeutic decisions. The presentations from this workshop cover the rigorous evaluation and clinical validation of Pillar's solid tumor & liquid biopsy NGS products, automation solutions and how Pillar's Decision Medicine™ solutions, including FDA approved IVD can enable better, more informed outcomes for everyone, everywhere.

Improve Clinical Outcomes by Testing for All Actionable Biomarkers

Room: 251A Time: 9:00 AM – 9:50 AM Hosted by: Loxo@Lilly

Precision oncology may lead to an improvement in clinical outcomes for certain patients. There are several important factors when considering treatment options, such as efficacy and safety data, evidence-based guidelines, staging, comorbidities, patient preference, and a patient's biomarker status. This program reinforces that testing for all actionable biomarkers is an important factor to patient care and may improve clinical outcomes for some patients.

Improving Patient Access to Precision Oncology Through Centralized Services and Kitted Solutions to Empower Localized Testing

Room: 250D Time: 9:00 AM – 9:50 AM Hosted by: Labcorp

Clinical NGS has advanced precision oncology, enabling physicians to identify actionable biomarkers in patients to aid in therapy selection. However, access remains a challenge with only 20% of patients receiving molecular profiling. This workshop highlights the value of a scalable FDA-cleared tissue-based solid tumor profiling solution. With best-in-class bioinformatics and a path to reimbursement, this solution can help local laboratories implement in-house testing and increase access to a larger patient population. The workshop also covers liquid biopsy-based biomarker profiling solutions that assist with distinguishing somatic from CH variants and tissue-agnostic treatment response monitoring for patients with metastatic colorectal cancer.



New Paradigm Molecular Pathology: Early-Stage Non-Small Cell Lung Cancer (NSCLC) Biomarker-Informed Treatment and Longitudinal Minimal Residual Disease (MRD) Monitoring

Room: 252 Time: 9:00 AM – 9:50 AM Hosted by: NeoGenomics Laboratories

Recent studies indicate that biomarker-informed adjuvant therapy selection in early-stage NSCLC can extend disease-free survival. Genotype may indicate a benefit from targeted therapy; however, PD-L1 expression can be a negative predictive factor (e.g. EGFR+ NSCLC treated with a Tyrosine Kinase Inhibitor (TKI). Considering both stage and mutation/PD-L1 status is critical when choosing between targeted therapy, chemotherapy, or immunotherapy for adjuvant treatment. Real-world survival data indicates poor prognosis in patients with locoregional recurrence. There is a need for new diagnostic tools to detect molecular recurrence through minimal residual disease (MRD) monitoring, enabling earlier and potentially more efficacious treatment for NSCLC.

Rapid, Decentralized Genomic Profiling with Automated NGS

Room: 253AB Time: 9:00 AM – 9:50 AM Hosted by: Thermo Fisher Scientific

Recent years have seen advances in automation that have brought Next-Generation Sequencing (NGS) out of specialized reference laboratories and into local pathology departments. This innovation has allowed biomarker assessment to take place "in-house", facilitating shorter turnaround times and more efficient use of laboratory resources. During this workshop, hear how one lab with no previous NGS experience was able to adopt a rapid, amplicon-based NGS profiling assay via an automated semi-conductor sequencing system. Also, learn how other institutions are leveraging rapid, end-to-end NGS to augment existing laboratory workflows.

10:00 AM - 10:50 AM

Advancing Exosome Research: High-Throughput Capture and mRNA and miRNA Detection in Ovarian Cancer

Room: 251D Time: 10:00 AM – 10:50 AM Hosted by: Promega Corporaton

Join a groundbreaking workshop hosted by Promega and INOVIQ to explore cutting-edge techniques for high-throughput exosome capture and downstream RNA detection. Learn how we have automated pan-exosome capture and achieved successful downstream detection of exosome-associated RNA. Further, see how this technology was used to identify biomarkers associated with breast and ovarian cancer in our research. Don't miss this opportunity to stay at the forefront of exosome research and advance your understanding of their potential role in the earlier detection of cancer.



10:00 AM - 10:50 AM, CONTINUED

Automating and Scaling Sequencing Workflows

Room: 250C Time: 10:00 AM – 10:50 AM Hosted by: Tecan

As sequencing becomes an increasingly routine tool in laboratories facilitating research, the characterization of diseases and personalized healthcare, the need for efficiency and standardization through automation is increasing. In this workshop we shall look at examples from the oncology space featuring data from Oxford Nanopore Technologies coupled with Tecan automation. There will also be an overview of Tecan's DreamPrep and MagicPrep solutions for NGS library preparation.

Performance Comparison of the FLT3 ITD MRD RUO Assay on Two Different NGS Platforms

Room: 255D Time: 10:00 AM – 10:50 AM Hosted by: Complete Genomics

Speaker: Jeffrey Edward Miller, Ph.D., Founder, CSO & CEO at Invivoscribe, Inc.

Internal tandem duplications in fms-like tyrosine kinase 3 (FLT3 ITD) are present in about 25% of acute myeloid leukemia (AML) and are associated with poor prognosis. The use of FLT3 ITD as an MRD biomarker can provide useful research information to guide AML treatment and management. Here we present a highly sensitive Invivoscribe (IVS) developed FLT3 ITD MRD RUO assay and its performance on two NGS platforms: MiSeq® (Illumina, Inc., CA) and DNBSEQ-G99RS (Complete Genomics, CA).

Advancing Precision Medicine in Breast Cancer: Applying New Techniques and Approaches to Detect ESR1 Mutations and More

Room: 255EF Time: 10:00 AM – 10:50 AM Hosted by: AstraZeneca

The clinical relevance of ESR1 mutations and review of data supporting serial ctDNA monitoring to detect the emergence of ESR1 mutations (eg, from PADA-1). The comparison of different testing methods for ESR1 mutations and their benefits/drawbacks.

- Appreciate the science and clinical applications of using ESR1 mutations as the dynamic biomarker to manage patients with metastatic breast cancer
- Review data supporting ctDNA-mediated serial ESR1m monitoring, thereby identifying molecular progression before radiological progression of the disease, leading to a change in disease management
- Discuss current and upcoming technologies for testing molecular biomarkers in metastatic breast cancer, including ESR1 mutations



Exploring Molecular Diagnostics: Validating a Multiplex STI Panel with Non-Invasive Sample Types

Room: 251E Time: 10:00 AM – 10:50 AM Hosted by: Thermo Fisher Scientific

Join us at AMP 2023, where Dr.Vijay Singh, Vice President of HealthTrackRx, a leading molecular PCR-based infectious disease laboratory, will discuss the development and validation of a laboratory developed, multiplex real-time PCR test for the detection of Chlamydia trachomatis (CT), Neisseria gonorrhea (NG), Mycoplasma genitalium (MG), Trichomonas vaginalis (TV) on two separate PCR platforms. He will show how the test displayed high accuracy, sensitivity, and specificity for the tested pathogens in different patient sample types. In addition, Dr. Singh will discuss the viability of using urine, a non-invasive sample type, for testing STIs.

From Constraints to Solutions: Unraveling the Design Challenges in Molecular Diagnostics

Room: 250EF Time: 10:00 AM – 10:50 AM Hosted by: Roche

Key to balancing numerous, competing constraints, developers must carefully consider the raw materials used when developing an assay. For example, materials that are more tolerant to sample-borne inhibitors can alleviate strict sample purification requirements, and the reduction in sample handling can reduce turnaround times and lead to simplified workflows for end users. Choosing the right components to mitigate the challenges you are facing in your assay can be intimidating. Roche CustomBiotech has solutions to help you overcome these challenges. Join us for a discussion on our portfolio of reagents for use in development of centralized and point-of-care diagnostic assays.

High Quality, Automated Oncology 'Omics Reporting with Velsera's Knowledgebase

Room: 251BC Time: 10:00 AM – 10:50 AM Hosted by: Velsera

Velsera's end-to-end clinical NGS support across the wet and dry lab culminates in its clinical reporting automation, which identifies clinically important biomarkers in a patient specimen and conveys the medical meaning of those biomarkers to the reporting physician. In this session, we highlight how Velsera's Knowledgebase powers these insights based on our expert curation of current medical knowledge and clinical trial opportunities. We also overview how Velsera's platform focuses your effort on the key alterations and highest value therapeutic, prognostic, and diagnostic associations for reporting.



10:00 AM - 10:50 AM, CONTINUED

Rapid NGS for Genomic Profiling of Myeloid Malignancies

Room: 253AB Time: 10:00 AM – 10:50 AM Hosted by: Thermo Fisher Scientific

The future of molecular profiling requires fast turnaround time for an increasingly large number of genetic biomarkers. Rapid next-generation sequencing (NGS) is helping to accelerate these critical insights by enabling test results to be available in as little as a single day. During this workshop, see how rapid NGS is helping to facilitate swift patient enrollment into a clinical trial aiming to investigate the effectiveness of various therapeutic agents based on genetic testing results. Also, learn how NGS technology is advancing measurable residual disease (MRD) analysis by detecting low-frequency variants with high sensitivity across a broad number of genes simultaneously.

Supporting Precision Medicine with Advanced Sequencing Offerings for Solid Tumor and Hematologic Malignancies

Room: 252 Time: 10:00 AM – 10:50 AM Hosted by: NeoGenomics Laboratories

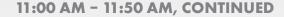
Precision medicine has become increasingly important for management of cancer patients including comprehensive genomic profiling (CGP) and molecular residual disease (MRD). Join us to learn more about NeoGenomics suite of advanced sequencing tests. NeoComprehensive™ − Solid Tumor and NeoComprehensive™ − Myeloid leverage both DNA and RNA sequencing analysis to detect multiple classes of genomic alterations that are relevant for diagnosis, therapy selection, prognosis, and clinical trials. RaDaR® is a personalized liquid biopsy test for the detection of MRD and recurrence, detecting the trace amounts of ctDNA that remain after surgery or other curative intent treatment, and early signs of relapse.

11:00 AM - 11:50 AM

Automating Your Lab Developed Testing (LDT) Workflow

Room: 250EF Time: 11:00 AM - 11:50 AM Hosted by: Roche

Lab developed testing (LDT) plays a vital role in helping healthcare institutions defend against outbreaks and manage disease proliferation. Learn how industry peers have used the cobas omni Utility Channel to automate their LDT workflows to deliver innovative, effective, and efficient testing solutions.



Achieving High Sensitivity and Concordance for CGP from "Liquid Biopsy" Specimens

Room: 255A Time: 11:00 AM – 11:50 AM Hosted by: Illumina

Comprehensive Genomic Profiling (CGP) of whole blood "liquid biopsy" specimens from cancer patients is being performed in increasing numbers when tumor tissue is inaccessible or unavailable. The accuracy and sensitivity of circulating tumor DNA (ctDNA) assays vary greatly. Consequently, a rigorous validation including comparisons with matched tissue is critical in establishing clinical utility. We will discuss important considerations when establishing a ctDNA CGP assay to ensure high sensitivity and concordance and share implementation challenges and proposed solutions experienced in a community-based, Integrated Network Cancer Program. We will also highlight the benefits of in-house CGP testing for both tissue and liquid.

Demonstration of Next Generation Software for Molecular Testing Workflows from Sample Preparation to qPCR Analysis

Room: 251E Time: 11:00 AM – 11:50 AM Hosted by: Thermo Fisher Scientific

Standardized molecular testing is critical for research laboratories to rapidly evaluate to evolving public health needs. Gain insights from an expert led demonstration of Thermo Fisher Scientific workflow integration using Diomni software, that provides value for every workflow in error reduction, shortened time to results, and infectious disease and pharmacogenomics test menu scalability. From sample preparation to qPCR analysis leverage with simplified data management, result tracking, and LIMS/LIS integration. As the world leader in serving science, Thermo Fisher Scientific is committed to provide innovative, and adaptable systems needed for laboratories to expand their molecular testing needs and prepare for the future.

Droplet Digital PCR (ddPCR) in Oncology Clinical Validation and Research—A Single Institutional Experience

Room: 251A Time: 11:00 AM – 11:50 AM Hosted by: Bio-Rad Laboratories, Inc.

This workshop will introduce the fundamentals of Droplet Digital PCR (ddPCR) and its applications in the clinical laboratory. Using a liquid biopsy test as an example, we will showcase the clinical assay validation process, highlighting ddPCR's potential to enhance molecular diagnostics with unparalleled accuracy and sensitivity. Join us to uncover how ddPCR is reshaping clinical diagnostics.



11:00 AM - 11:50 AM, CONTINUED

Fast and Accurate Molecular Results for Monitoring Different Types of Leukemia

Room: 250D Time: 11:00 AM - 11:50 AM Hosted by: Cepheid

Current testing options for monitoring leukemia patients are not only cumbersome, but can be expensive and time-consuming for the lab to implement. Join us to learn more about how Cepheid's advanced Lab in a Cartridge™ technology decreases workflow complexity and hands-on time by automating the entire testing process, delivering faster results.

Biomarker Assessment Through Comprehensive Genomic Profiling

Room: 253AB Time: 11:00 AM – 11:50 AM Hosted by: Thermo Fisher Scientific

As the number of relevant oncology biomarkers has increased over the last decade, so has the use of comprehensive genomic profiling (CGP) for molecular characterization of solid tumors. CGP allows for simultaneous assessment of thousands of variants across hundreds of genes, as well as evaluation of complex biomarkers such as homologous recombination deficiency (HRD), tumor mutation burden (TMB), and microsatellite instability (MSI). In this workshop, hear how one research laboratory is leveraging the Oncomine Comprehensive Assay Plus (OCA+) to perform CGP in-house. Additionally, see results from a multi-site study evaluating performance of OCA+ across several parameters.

Kick-Start Your Oncology and Hereditary Cancer Testing Program: Velsera's Ready Solutions for Diverse Clinical Genomic Assays

Room: 251BC Time: 11:00 AM – 11:50 AM Hosted by: Velsera

Powerful assay options are available for multiple cancer and inherited disease indications, but few offer out-of-the-box workflow management or clinical reporting solutions. Velsera solves this problem by integrating the best assays on the market with its suite of NGS wet lab orchestration tools, quality and evidence review interface, and interpretation and reporting automation. In this session, we describe Velsera's robust, turnkey offerings for rapid implementation of your assay of choice, highlighting our customers' experiences launching their clinical tests.



Rethinking Solid Tumor Profiling: How Utilizing Complementary Technologies Can Allow Laboratories to Guide Better Treatment Decisions

Room: 250A Time: 11:00 AM – 11:50 AM Hosted by: Agena Bioscience

Characterizing the genetic profile of lung adenocarcinomas upon initial diagnosis has become a critical step in guiding the management and treatment of patients. The need for detection of multiple biomarkers in a single, limited diagnostic sample has driven the adoption of two complementary technologies at Houston Methodist Hospital. Dr. Jessica S. Thomas, Assistant Professor of Clinical Pathology and Genomic Medicine, will share how Methodist delivers significantly accelerated results and a higher success rate for low cellularity samples by supplementing NGS with the MassARRAY platform. She will discuss how this testing paradigm has impacted patients and key considerations for implementation.

Simple, Sensitive, and Scalable: QuantideX Suite of Assays for Targeted MRD Monitoring of Leukemic Fusions

Room: 251F Time: 11:00 AM – 11:50 AM Hosted by: Asuragen

The QuantideX qPCR BCR-ABL IS (IVD) and Minor (RUO) Kits, as well as the upcoming qPCR PML-RARA Kit (RUO)**, provide highly sensitive and scalable methods for detection and quantification of MRD involving these fusions, allowing for molecular laboratories big and small to implement such tests using widely available qPCR equipment. In this corporate workshop, we will review the key features and attributes of these assays and will describe key performance data illustrating why QuantideX is the portfolio of choice for highly sensitive detection of leukemic fusions.

Tick Uptick! Tick Populations are Increasing—What Can We Do About It?

Room: 255BC Time: 11:00 AM – 11:50 AM Hosted by: Seegene

Tickborne infections are on the rise and are frequently misdiagnosed due to under recognition of these pathogens and lack of access to quality diagnostic tests. Current serologic methods lack specificity and cannot differentiate past from current infection. Microscopic examination suffers from poor sensitivity and relies on experienced laboratory technologists to recognize potential pathogens. Molecular methods have the potential to provide sensitive and specific detection of tickborne pathogens in a single blood specimen. In this workshop Dr. Blake W. Buchan, PhD, D(ABMM) will review the changing epidemiology of tickborne infections and share data demonstrating the benefits of NAATs for accurate diagnosis.



11:00 AM - 11:50 AM, CONTINUED

Understanding Spatial Relationships in an Era of Digital Pathology

Room: 252 Time: 11:00 AM – 11:50 AM Hosted by: NeoGenomics Laboratories

How cells are spatially organized and interact with one another to affect the tumor microenvironment (TME) is critical to improving novel biomarker drug development and advancing cancer research. Utility of MultiOmyx™, a proprietary multiplexed immunofluorescence (IF) technology enables visualization and characterization of multiple biomarkers on a single FFPE tissue section. By utilizing deep learning and advanced cell classification algorithms, our novel approach to spatial analysis uncovers the complex interplay between infiltrating immune cells and relevant immuno-oncology biomarkers, and provides a detailed analysis of specific cell phenotypes that may help in predicting clinical responses and mechanisms of resistance to therapy.

12:00 PM - 12:50 PM

AmplideX to the Rescue: One Easy-to-Implement Test Workflow Enabling Repeat Expansion Resolution, Copy Number Assessment, and Highly Multiplexed Variant Detection

Room: 251F Time: 12:00 PM – 12:50 PM Hosted by: Asuragen

AmplideX PCR/CE FMR1 kit has become the gold standard for FMR1 analysis. In the last few years, Asuragen has expanded the applications of AmplideX chemistry to other repeat disorder genes (e.g. C9orf72), copy number assays (SMN1/2), and highly multiplexed variant detection (CFTR). This workshop will highlight the experience of one clinical lab moving from assay validation through to routine testing using the AmplideX SMN1/2 Plus Kit. This kit provides the SMN1 and SMN2 copy numbers and detects variants associated with gene duplication and milder disease phenotype, all in one reaction with a simple, scalable, and streamlined workflow with analysis software.

From Data to Decisions: Advocating for DPYD Testing to Advance Patient Safety Based on Insights from Clinical Evidence

Room: 250A Time: 12:00 PM – 12:50 PM Hosted by: Agena Bioscience

Dr. Vicky Pratt, past president of AMP, and Prof. Ron van Schaik, past president of ESPT, have been at the forefront of the changing landscape of pharmacogenomic testing. There is increased visibility to the importance of DPYD in treatment decisions. Now, more than ever, it is imperative to understand the significance of DPYD testing in the clinical setting. In this workshop both experts will discuss the clinical evidence, recommendations and considerations supporting DPYD testing within the United States and Europe. Attendees will gain insights into evidence-based guidelines and other resources to consider when implementing DPYD testing panels.



HDPCR-Multiplex Multi-Analyte <24-Hour Turnaround Assays in Blood and FFPE Using Existing dPCR Instruments; Performance in Molecular Profiling, Monitoring and MRD

Room: 255EF Time: 12:00 PM – 12:50 PM Hosted by: ChromaCode

Despite technical progress, critical biomarker testing remains inaccessible due to complex workflows, high costs, and impractical turnaround times. HDPCR addresses this unmet need using amplitude modulation to increase information content, and multi-spectral encoding to increase the specificity of dPCR assays. This enables multiplexing of unprecedented numbers of targets at high throughput and low cost per sample. Cloud based automated dPCR signal decoding and processing removes the need for computer hardware or software installation. The technology also has broad regulatory compliance. In this workshop we will present data for oncology and genomic applications.

How Do You QC? When Good Enough is Not Enough

Room: 255D Time: 12:00 PM – 12:50 PM Hosted by: Streck

How do you know you can trust your results? With the rapid advancement in molecular technology, quality control practices are essential to ensure instrument and assay performance. Quality control is a partnership between the laboratorian and the clinician. When this partnership fails, patients suffer. Find out why internal quality control practices should be an essential part of your testing workflow to avoid potential complications and errors stemming from incorrect results. Learn what practices you can put in place to cover your assays and produce quality results to strengthen your lab's performance, reputation, and ultimately patient care.

Future-proof your Clinical Genomics Reporting, Institutional Data Integration, Analytics, and Clinical Care Pathways with GenomOncology

Room: 251D Time: 12:00 PM – 12:50 PM Hosted by: GenomOncology

Join us as GenomOncology introduces their software platforms, installed locally or in the cloud, that support clinical interpretation & reporting (Pathology Workbench), data integration, and analytics for all NGS assays. Discover how GenomOncology utilizes NLP, OCR, and pre-built apps to ingest and harmonize structured and unstructured clinical genomic reports, along with patient and lab data, to enable reporting and analytics. Learn how independent labs and diagnostic providers improve reporting through autonomous use of the GO knowledgebase with automated API workflows. Also see how GenomOncology is pioneering AI for variant interpretation, clinical trial matching, and the development of novel care pathways.



12:00 PM - 12:50 PM, CONTINUED

Implementing CGP+ HRD Testing In-House in a Large US Healthcare System

Homologous recombination repair deficiency (HRD) is associated with response to poly-ADP-ribose polymerase inhibition (PARPi) therapy in advanced ovarian cancer. In combination with comprehensive genomic profiling (CGP), these analyses allow clinicians to maximize clinical information so that patients with ovarian cancer are matched with approved therapies or enrolled in relevant clinical trials. A pathologist and laboratory director will discuss the impact of implementing a HRD assay at their institution. They will describe the details of implementing the assay, technical considerations for HRD testing, concordance with other HRD assays, and the added value of offering CGP and HRD testing in-house.

Structural Variant Insights from Adult and Pediatric CNS Tumors: Powered by Optical Genome Mapping

Room: 250C Time: 12:00 PM – 12:50 PM Hosted by: Bionano

According to ASCO's "Cancer.Net" website, CNS tumors account for >300,000 overall cancer diagnoses worldwide and are estimated to be the second most common type of childhood cancers. When it comes to investigating the molecular bases of CNS tumors, and in particular the role of structural variants (SV), multiple technologies have been used over the past decades. However, the underlying genetic alteration remains unresolved for many samples. Therefore, there is a clear need for the application of new technologies. In this enlightening symposium, three presenters unveil groundbreaking data from their clinical research on SVs in CNS tumors. The data was generated using Optical Genome Mapping (OGM), a method known for its comprehensive, high-resolution, and unbiased detection of SVs across the genome. As part of this session, a comparison of OGM performance to classical methods, such as microarrays, will also be presented.

1:00 PM - 1:50 PM

Accelerating Access to Precision Oncology Data with Decentralized MSK Genomic Solutions

Room: 250D Time: 1:00 PM – 1:50 PM Hosted by: Sophia Genetics

SOPHiA GENETICS is collaborating with Memorial Sloan Kettering Cancer Center (MSK) to decentralize their advanced precision oncology tools – MSK-ACCESS® for liquid biopsy and MSK-IMPACT® for comprehensive genomic profiling. By combining MSK's clinical expertise in cancer genomics, the predictive algorithms of SOPHiA DDM™, and the power of the global SOPHiA GENETICS network, experts hope to expand access to precision cancer analysis capabilities worldwide. Hear from Michael Berger, PhD (Co-director, Marie-Josée & Henry R. Kravis Center for Molecular Oncology, MSK) about how MSK-ACCESS® and MSK-IMPACT® powered with SOPHiA DDM™ will raise the bar for collective intelligence in cancer research.



Accelerating Research with Fast, Flexible, and Cost-Efficient Next-Generation Sequencing on the G4 Platform

Room: 255BC Time: 1:00 PM – 1:50 PM Hosted by: Singular Genomics

Next-generation sequencing (NGS) has become a foundational tool for both biological research and in-vitro diagnostics, particularly in oncology, immunology, and detection of genetic disorders. Despite its success, limitations of traditional NGS systems include long analysis times and high cost due to batching related inefficiencies. To address these issues Singular Genomics developed the G4 Platform, an innovative benchtop sequencer that leverages a novel 4-color Rapid sequencing by synthesis (SBS) chemistry with advanced optics and fluidics engineering to provide single-day turnaround times across all applications. By combining fast run times and the ability to run up to 4 flow cells, with 16 independently addressable lanes, the G4 Platform enables highly efficient laboratory operations. In this presentation Darius Fugere will describe the features of the G4 and showcase data from core NGS applications such as whole genome sequencing, targeted somatic variant detection, methyl-Seq, and bulk and single cell RNA-Seq.

Copy Number Analysis Using a Higher Content Chromosomal Microarray with an Accelerated Workflow

Room: 251E Time: 1:00 PM – 1:50 PM Hosted by: Thermo Fisher Scientific

Chromosomal Microarray is currently the first-tier test for identifying genomic copy number variants. To increase the power and speed of CMA, we have developed a new array with significantly increased content and highly accelerated workflow. The CytoScan HD Accel microarray has high-density genome-wide coverage, including increased coverage across >5070 relevant genes. The novel Reference Model built from six unique pre and postnatal tissue types produces sensitive CNV detection with up to 25% maternal cell contamination, and trisomy detection with up to 30% contamination. The highly accelerated workflow enables processing 24 gDNAs to hybridization in just one day.

Enhance Your Myeloid Malignancy Research with OGT's SureSeq™ NGS Panels, Including Mutation Identification, Fusion Gene Profiling and MRD Detection

Room: 251A Time: 1:00 PM – 1:50 PM Hosted by: OGT

Molecular profiling was conducted on post HCT AML specimens in duplicate to investigate the detection of myeloid defining genetic alterations (e.g., FLT3-ITD, FLT3-TKD, IDH2) down to 0.05% VAF. The SureSeq Myeloid Fusion panel is a sensitive and partner-agnostic RNA-based NGS method for comprehensive detection of fusions involved in myeloid malignancies, capable of detecting fusions down to 1.25% tumor cellular fraction.



1:00 PM - 1:50 PM, CONTINUED

How to Use Established and Novel Biomarkers to Enable Patient Benefit from Precision Medicine

Room: 252 Time: 1:00 PM – 1:50 PM Hosted by: Foundation Medicine, Inc.

Join Foundation Medicine to discuss how to effectively leverage treatment selection and ctDNA monitoring assays in trials and in clinical practice. Topics will include how to integrate tissue and liquid biopsy approaches, strategies for monitoring treatment response, and a preview of the emerging biomarkers that Foundation Medicine anticipates will support future therapeutic development and clinical impact.

Revolutionizing Cytogenomics with Optical Genome Mapping in Hematological Malignancies

Room: 250C Time: 1:00 PM – 1:50 PM Hosted by: Bionano

Optical Genome Mapping (OGM) is emerging as a leading new method to assess the cytogenomic profile of hematological malignancies, as shown by the mounting evidence presented in peer-reviewed publications worldwide. Not only has OGM been shown to be highly concordant with classical methods in the detection of structural and numerical variants, but it has also been demonstrated to reveal multiple incremental pathogenic variants. Additionally, it is transforming lab workflows by enabling consolidation of multiple assays into a single assay. This session will start with a brief introduction on OGM by Dr. Hastie, followed by Dr. Dubuc and Dr. Crocker presenting clinical research data generated using OGM across different types of hematological malignancies, including lymphomas, myelomas and leukemias. The session will end with Dr. Smith discussing an international working group initiative and proposed framework for standardized implementation of OGM across cytogenetic labs.

The Importance of Genomic Testing in Identifying Pathogenic Gene Fusions

Room: 250EF Time: 1:00 PM – 1:50 PM Hosted by: Merus

Presenters: Gabriela Chiorean, MD Division of Medical Oncology, University of Washington School of Medicine, Fred Hutch Cancer Center, Seattle, WA; George Jour, MD Clinical Associate Professor, Department of Pathology, NYU Langone Health, New York, NY

Join us as we discuss the importance of the collaboration between pathology and medical oncology.

Learning Objectives:

- The importance of genomic profiling in precision oncology
- The clinical relevance of NRG1+ fusions
- Genomic testing and the emerging role of RNA-based NGS

Refreshments provided.



Unlocking Efficiency and Accuracy: Solutions for High Throughput Sample Extraction and Digital PCR Testing

Room: 253AB Time: 1:00 PM – 1:50 PM Hosted by: Thermo Fisher Scientific

Efficient and accurate sample analysis plays a crucial role in advancing cancer research and optimizing workflows. This presentation emphasizes the importance of efficient and accurate sample analysis in cancer research and workflow optimization. We explore the benefits of leveraging streamlined, scalable workflows for sample processing and digital PCR analysis. Using a modular approach, researchers simplify sample extraction and integrate with high-throughput digital PCR solutions. Additionally, accurate digital PCR and unique assay design helps enable multiplexing of targets, providing more comprehensive information from limited materials. These advancements help contribute to the progress of liquid biopsy research.

2:00 PM - 2:50 PM

Advancing Research in Liquid Biopsy: Updates from University of Leicester, Leicester Cancer Research Center

Room: 253AB Time: 2:00 PM – 2:50 PM Hosted by: Thermo Fisher Scientific

With the continued growth in the field of liquid biopsies, this less-invasive sample type is revolutionizing the way we perceive cancer research, and progression monitoring. Join researchers from The University of Leicester, Leicester Cancer Research Center, sharing their experience in oncology research, including work using liquid biopsy with automation enablement and subsequent molecular analysis.

Intelligent Automated Microdissection: the Next Paradigm in Spatial Biology

Room: 251F Time: 2:00 PM – 2:50 PM Hosted by: Quantum cyte

Quantumcyte has developed a novel targeted spatial biology platform that employs digital pathology applications and integrates with any existing downstream molecular assay. This workshop will discuss the use of the platform to increase the cellular purity in solid tissue samples to improve clinical testing and biomarker discovery.



2:00 PM - 2:50 PM, CONTINUED

Pharmacogenomics Research Testing: Areas of Consideration for your Laboratory

Room: 251E Time: 2:00 PM – 2:50 PM Hosted by: Thermo Fisher Scientific

In this workshop, Pete Macchia of Thermo Fisher Scientific will discuss the importance of PGx research in testing as well as some of the key considerations of adopting PGx into your testing menu. This includes the importance of analytical validation as well as streamlining workflows to maximize your laboratory efficiencies. Additionally, this workshop will discuss potential areas of growth for the PGx space and how you can capitalize on this for your business.

Expedite Patient Management Decisions with RAPID Molecular Tests

Room: 251BC Time: 2:00 PM – 2:50 PM Hosted by: Biocartis

This workshop will reflect on how we, as a community, can expedite patient management decisions through personalized medicine and specially via a diversification of molecular tests within the clinical setting. Today's challenges in providing timely molecular results to enable fast decisions on diagnosis, therapeutic management will be discussed. Furthermore, the MSKCC Clinical Pathology Team will present an example where the implementation of a fully automated system to enable ultra-rapid assessment of IDH1/2 hotspot mutation status on various sample types without the need for prior DNA extraction enabled rapid and accurate identification of actionable biomarkers in hematologic malignancies and solid tumors.

Making the Most of Your Draw: A Workflow for the Isolation of PBMCs from Blood Stabilized in Streck BCTs using STEMCELL EasySep Direct Kits

Room: 251D Time: 2:00 PM – 2:50 PM Hosted by: STEMCELL Technologies Inc.

A common limitation for laboratories is the amount of time available post-draw for PBMC isolation. Unlike EDTA and other anticoagulants, Streck blood collection tubes are able to maintain cellular characteristics and cell counts for more than 24 hours and provide laboratories with the flexibility to store and/or ship samples for extended periods. When used with EasySep™ Direct, laboratories can obtain highly purified PBMCs without lysis or centrifugation. In this workshop, we will present data that demonstrates how PBMCs are effectively recovered from stabilized blood samples using the EasySep™ Direct Human PBMC Isolation Kit for downstream flow cytometric and genetic analysis.



TCR & BCR Repertoire Analysis and Other Approaches for the Discovery of Drug Targets, Resistance Mechanisms and Biomarkers

Room: 255A Time: 2:00 PM – 2:50 PM Hosted by: Cellecta, Inc.

We will describe a novel, comprehensive technique to profile all 7 TCR & BCR chains in a single, multiplex RT-PCR reaction as well as complementary methods for Targeted RNA-Seq and gene functional analysis using CRISPR and RNAi loss-of-function (CRISPR KO, CRISPRi, RNAi) and gain-of-function (cRISPRa) screening.

Test Validation, Operational and QC Considerations When Implementing NGS from Simple Variants to Complex Genomic Measures

Room: 255D Time: 2:00 PM – 2:50 PM Hosted by: LGC Clinical Diagnostics

Many pathology labs are evaluating their NGS workflows. Labs often initially implement smaller NGS panels to test for simple, actionable variants as a first foray into sequencing. With the cost of DNA sequencing rapidly decreasing, complex measurements that evaluate complex and/or aggregate mutations across a significant portion of the human genome can now be implemented as well. In this workshop we will discuss test validation, operations, and QC best practices for NGS in the pathology lab with emphasis on considerations when moving from single SNP based testing to testing of complex variants while ensuring the same test concordance.

A Breakthrough in Therapy Selection and Resolution of Diagnostic Dilemmas in Solid & Heme Tumors using 3D Genomics

Room: 250A Time: 2:00 PM – 2:50 PM Hosted by: Arima Genomics

Speakers: Anthony Schmitt, PhD, Arima Genomics; Matija Snuderl, MD, NYU Grossman School of Medicine; Russell Ryan, MD, University of Michigan School of Medicine.

Explore the exciting application of 3D genomics in tumor diagnostics and therapeutic selection. Learn how 3D genomics detects clinically actionable fusions and complex structural rearrangements that are missed by FISH and RNA-sequencing methods. Several sarcoma and lymphoma case studies will be presented. Want to bring this technology to your institution? This event is a must-attend for anyone interested in the latest advances in cancer diagnostics. The workshop will also spotlight a new clinical testing service for solid tumors—the Aventa FusionPlus test.



3:00 PM - 3:50 PM, CONTINUED

Unraveling Tumor Profiles Using an HRD-Enabled CGP Assay and Exome Sequencing with Al-Driven Data Analysis

Room: 255EF Time: 2:00 PM - 2:50 PM Hosted by: Agilent Technologies

Tumor molecular characterization is key for advancing precision oncology. Two Agilent collaborators present approaches to detect somatic variants from cancer samples for large-scale data analyses. First is a whole exome sequencing method based on Agilent SureSelect technology paired with Al-driven best-in-class analytics. Utilizing this Al-driven approach enables identification of SNVs, indels, CNAs, TMB, MSI, HRD, and translocations. Second is a cost-effective method to investigate the homologous recombinant deficiency (HRD) status of solid tumor samples using the Agilent SureSelect Cancer CGP assay (targeting 679 genes). HRD status, a potential predictive biomarker for PARPi sensitivity, is demonstrated with two commercial informatics solutions.

3:00 PM - 3:50 PM

The BioFire FilmArray Meningitis / Encephalitis Panel: A Synopsis of Clinical Testing of 11,800 Specimens over 66 Months

Room: 255BC Time: 3:00 PM – 3:50 PM Hosted by: bioMérieux

After FDA approval in 2015 and a prolonged validation in 2017 Northwell Health Laboratories (NY) implemented the BioFire FilmArray Meningitis / Encephalitis Panel (BioMérieux). Since then, over 11,800 specimens were tested over a 66-month period. A retrospective analysis was conducted, including positivity rates, classification of viral/bacterial cases, age- and gender distribution, seasonality, as well as in depth comparisons with other CSF-related tests, such as specific HSV PCR and serology tests. Selected case studies will provide insight of the sometimes very complex and unique interactions with other methodologies. Additional laboratory-specific measures are discussed, such as specimen preparation and retention, QA/QM.

Integrating ATCC Reference Materials into your Molecular Diagnostics Workflows: The Nexus of Bioinformatics with Authenticated Cells, Microorganisms, and Derivatives

Molecular diagnostic assays are powerful tools in clinical oncology and infectious disease. Development and validation of these assays rely on authenticated biological models and reference-quality genomics data to ensure accuracy and reliability of results. As your end-to-end partner for the development and control of diagnostic assays, ATCC supports each stage of your workflow with authenticated cell models, microbial strains, and derivatives that are backed by whole-genome sequencing data and bioinformatics analyses. Through targeted acquisitions and our own internal research and development efforts, we are able to provide the advanced models you need for evaluating limit of detection, inclusivity, and cross-reactivity.



Nanopore Sequencing: The Most Comprehensive View of Cancer Genomes

Room: 250EF Time: 3:00 PM – 3:50 PM Hosted by: Oxford Nanopore Technologies Ltd.

Join us on Corporate Workshop Day to learn how nanopore sequencing is transforming molecular pathology research. Hear about the latest developments in and unique advantages of nanopore sequencing, enabling you to simultaneously discover biomarkers like structural variants, copy number variants, and methylation, in addition to SNVs—all in a single, rapid sequencing assay, all on the same device, without the need for batching samples.

New Solutions for Fast and Sensitive Nucleic Acid Detection in Inhibitor-containing Conditions

Room: 253AB Time: 3:00 PM – 3:50 PM Hosted by: Thermo Fisher Scientific

During this session, we will present two new product offers from Thermo Fisher Scientific. First, a new direct RT-qPCR system that can be used to amplify nucleic acid from inhibitor-enriched samples. Our latest data demonstrates new reagents and workflow conditions that work best on saliva and serum samples. Second, the new Invitrogen Lyo-ready bst DNA Polymerase for (RT)-LAMP isothermal amplification. This best-inclass enzyme demonstrates the highest speed, sensitivity, and resistance to inhibitor performance in LAMP reactions. Together the lyo-ready SuperScript IV reverse transcriptase and lyo-ready RNaseOUT Rnase Inhibitors offer the fastest solution for pathogen diagnostics using RT-LAMP.

Reagents for Molecular Diagnostics Workflows: Removing Barriers for Assay Developers

Room: 250D Time: 3:00 PM – 3:50 PM Hosted by: New England Biolabs

Nucleic acid enzymes have long powered the chemistries of molecular diagnostics, and as the field moves to rapid POC and field settings, new demands are placed on DNA polymerases, reverse transcriptases, and other key enzymes. Through protein engineering, discovery, and novel mechanisms for control of enzymatic activities, New England Biolabs is enabling this new generation of diagnostic applications. Methods and reagents for isothermal amplification and RT-qPCR in particular can benefit from enzyme innovation, robust development, and lyophilization and we will present how our approaches to building better tools and services has benefited both core and developing applications of molecular diagnostics.



3:00 PM - 3:50 PM, CONTINUED

OncoSIGNal Platform for Analysis of Cell Signaling Pathway Activity Unlocking the Power of Personalized Targeted Therapies

Room: 251A Time: 3:00 PM – 3:50 PM Hosted by: InnoSIGN

NGS often does not identify actionable mutations. We present the OncoSIGNal platform that enables functional tumor profiling measuring the activity of critical cell signaling pathways. Results are actionable across tumors, creating new opportunities for personalized targeted treatment. The activity of 7 pathways (ER, AR, PI3K, MAPK, TGFb, HH, Notch) are measured in FFPE tissue using the OncoSIGNal RT-qPCR test or RNA-seq full transcriptome data as input. In this workshop Dr. M. Snuderl (Head Pathology, NYU-Langone) will discuss application of OncoSIGNal in breast cancer and Dr. F.C. de Jong (Erasmus Medical Center, NL) for response prediction to BCG in bladder cancer.

The Evolving Role of NGS and Measurable Residual Disease in CLL/SLL and AML

Room: 250C Time: 3:00 PM – 3:50 PM Hosted by: Invivoscribe

While diagnostic test procedures are well defined for hematologic malignances, despite the scientific communities' recognition of its importance, guidelines for IGHV somatic hypermutation (SHM) status and MRD remain ambiguous. Recent advancements in next-generation sequencing (NGS) have led to improved classifications for inclusion in clinical trials, determination of prognosis, and improved treatments. A growing body of research suggests that the presence of any MRD, particularly in AML, provides important information regarding risk for subsequent relapse. Lastly, we will discuss best practices for the detection of specific genetic mutations, such as mutated IGHV in CLL/SLL.

4:00 PM - 4:50 PM

ACMG/AMP/CAP/ClinGen DRAFT Standards for Sequence Variant Classification v4.0

Room: 255D Time: 4:00 PM – 4:50 PM Hosted by: Illumina • ClinGen

Steven Harrison and Heidi Rehm will provide an overview of the draft Standards for Sequence Variant Classification version 4.0, set forth by a joint committee of ACMG, AMP, CAP and ClinGen. The session will include an overview of changes between versions 3.0 and 4.0. Presenters will speak to reasoning for updates, review draft specifications and supporting materials, and discuss implications for clinical laboratories that classify sequence variants to transition to version 4.0. Attendees will be able to provide feedback and volunteer to test standards. The discussion will include a review of a publication assessing rates of variants of uncertain significance in NGS-based testing.



Automated Interpretation and Customized Clinical Reporting—Intelliseq's Easy-To-Access Solution for Molecular Pathologists New to NGS Testing

Room: 250A Time: 4:00 PM – 4:50 PM Hosted by: Intelliseq

Intelliseq will introduce its iFlow™ Engine for automated analysis of raw genomic data. From this Engine we are launching a portfolio of GeneSpect™ Reports for interpretation in different fields of genome-based medicine, including somatic cancer, inherited diseases, pharmacogenomics and more. Using Intelliseq's Customica™ tool, full control of how the data gets analysed and reported is now in the hands of the user. GeneSpect™ reporting applications will be demonstrated by active users. OGT will showcase the synergy between its SureSeq™ NGS portfolio and our GeneSpect™ Somatic Reporter for Myeloid Cancer, resulting in a comprehensive sample-to-report cycle. Frontage Laboratories will present their validation of Customica™ cell-free DNA workflow and its reporting capabilities.

MI tumor Seek Hybrid™, a Novel Combined WES and WTS Molecular Profiling Assay with a Single Extraction and Sequencing Workflow

Room: 255A Time: 4:00 PM – 4:50 PM Hosted by: Caris Life Sciences

Join Dr. Matthew Oberley as he presents Caris Life Sciences' innovative simul-capture approach for combining whole exome and whole transcriptome sequencing into one assay. By simultaneously capturing DNA and RNA, MI Tumor Seek Hybrid™ provides a comprehensive molecular blueprint that saves tissue without compromising results and delivers transformative value across the healthcare ecosystem. Join us to learn about MI tumor Seek Hybrid™ and how it can help guide treatment decisions and improve patient outcomes.

Discover Tumor Heterogeneity with Integrated Single-Cell Genomics and Transcriptomics

Room: 251F Time: 4:00 PM – 4:50 PM Hosted by: BioSkryb Genomics

While bulk sequencing has transformed cancer research and therapy, we are rapidly approaching the limits of discovery with bulk sequencing of tumors. Decreasing sequencing costs, increasing throughput, and improvements in methodology are enabling researchers to move from bulk to single-cell sequencing approaches. Furthermore, new chemistries are enabling multiomic analysis in single cells. In this workshop, learn how ResolveOME, an integrated single-cell genomic and transcriptomic workflow, was used to characterize intratumoral heterogeneity in ductal carcinoma in situ cells.



4:00 PM - 4:50 PM, CONTINUED

Molecular Cytogenomic Testing in AML: What You Might Be Missing

Room: 255EF Time: 4:00 PM – 4:50 PM Hosted by: Element Biosciences

Cytogenetics encompasses a collection of methodologies which seek to identify large-scale (>100kb) structural alterations in the genome. With molecular advances, results from multiple different technologies are used together to diagnose and stratify patient risk for hematological malignancies. In many cases, two or more assays are required to make an accurate assessment of structural alterations because of limitations and strengths of each, slowing time to diagnosis. Here we show the utility of OncoTerra, an NGS-based cytogenomics assay with the Element Biosciences AVITI sequencing platform to improve the identification of known and novel structural genomic variants in de novo acute myeloid leukemia samples.

Enabling 5-minute PCR: Innovations in Point-of-Care Testing

Room: 251BC Time: 4:00 PM – 4:50 PM Hosted by: LGC Biosearch Technologies

LEX Diagnostics have built upon core reagent systems provided by LGC Biosearch Technologies to develop an inhibitor tolerant reagent system. LEX believes point of care testing should provide high sensitivity tests that are easy to use and deliver clinically actionable results within a single visit to a health care provider. They have developed a rapid thermal cycling technology allowing gold standard sensitivity and specificity achievable through hydrolysis probe RT-PCR in a swab to result workflow. Learn how this technology eliminates the need for complex sample preparation and can efficiently amplify at groundbreaking speeds towards the realization of 5-minute PCR diagnostics.

Novel Enzymatic Solutions for DNA NGS library prep: 5mC and 5hmC Detection and FFPE Samples

Room: 250D Time: 4:00 PM – 4:50 PM Hosted by: New England Biolabs

Identification of 5mC and 5hmC in DNA provides insight into epigenome dynamics. Bisulfite sequencing has commonly been used to detect these modifications, but the chemical-based conversion damages and degrades DNA, introducing bias into the data. To overcome this, we developed an enzymatic approach termed NEBNext® Enzymatic Methyl-seq (EM-seq™). EM-seq outperforms bisulfite converted libraries in all metrics examined including coverage, duplication, sensitivity, and nucleotide composition. Additional optimizations have also been incorporated into an upcoming EM-seq v2 kit that will streamline the workflow, minimize hands on time, and enable robust methylation profiling on inputs as low as 100 pg.



Optimizing the Management of Patients with Solid Tumors Using a Tumor-Informed Approach for Molecular Residual Disease Assessment and Monitoring

Room: 251D Time: 4:00 PM – 4:50 PM Hosted by: Natera Inc.

Join us as we explore the expanding role of ctDNA testing for molecular residual disease (MRD) assessment and its various applications in patients with solid tumors. Our presenter will explore the evidence and performance characteristics of a tumor-informed approach to help stratify high-risk patients and inform adjuvant treatment decisions to optimize patient care.





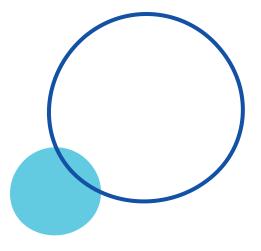
Join our workshops

ROOM 250D

Wednesday, November 15

8:00 AM to 8:50 AM and 9:00 AM to 9:50 AM

Improving patient access to precision oncology through centralized services and kitted solutions to empower localized testing



Visit **booth #1235** to learn more about how we are closing the precision oncology gap.



