

## Poster Listing

**Even numbered posters** will be attended by their authors on Friday, November 8, 2:45pm-3:45pm.

**Odd numbered posters** will be attended by their authors on Saturday, November 9, 9:45am-10:45am.

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### GENETICS

**G001. Utilization of Rapid Whole Genomic Sequencing (rWGS) Demonstrates Significant Improvement in Clinical Utility and Cost Effectiveness in Neonatal and Pediatric Hospital Intensive Care Units**

*S. Nahas*

**G002. Relative Information Content of Comprehensive High-Throughput Single Nucleotide Analyses in *PTEN***

*A. Moon*

**G003. Characterization of Reference Materials for Genetic Testing of Rare *CYP2D6* Alleles: A GeT-RM Collaborative Project**

*A. Gaedigk*

**G004. Correlational Study on Altered Epicardial Adipose Tissue as a Stratification Risk Factor for Valve Disease Progression through IL-13 Signaling**

*M.M. Corsi Romanelli*

**G005. Prenatal Testing for Hereditary Cancer Risk Variants: Where Are We Now?**

*L.S. Rosenblum*

**G006. An Unusual Cause for Coffin-Lowry Syndrome in Three Siblings with a Novel Microduplication in the *RPS6KA3* Gene Affecting mRNA Expression Levels: Implication for Diagnosis**

*F. Vetrini*

**G007. Building an Integrated Clinical Noninvasive Prenatal Screening Program in a Large Reference Laboratory Setting: Lessons Learned Using a Single Nucleotide Polymorphism-Based Method**

*Y. Ji*

**G008. Germline *RAD51B* Loss-of-Function Variants Confer Susceptibility to Hereditary Breast and Ovarian Cancers and Result in Homologous Recombination Deficient Tumors**

*D. Mandelker*

**G009. Use of Synthetic Internal Standards to Measure Very Low Frequency *TP53*, *PIK3CA*, and *BRAF* Somatic Mutations in Normal Airway Epithelial Field of Injury Associated with Lung Cancer Risk**

*J. Willey*

**G010. A Method to Missense Madness: Improving Clinical Variant Interpretation with a Pathway-Focused Functional Assay**

*S.E. Brnich*

**G011. Clinical and Molecular Profile of *IDH1*-Mutant Cutaneous Melanoma**

*J.S. Ross*

**G012. Performance of AmplideX SMN1/2 Assay from Asuragen**

*L. Mazur*

**G013. Mitochondrial Genome Sequencing Uncovers a Novel Alteration in MT-TL2 in a Patient with MELAS-Like Phenotype**

*J.L. Lopes*

**G014. A Framework of Critical Considerations in Interpretation of NGS-Based Tests for Germline Disorders: On Behalf of CLSI Document Development Committee (DDC) on Nucleic Acid Sequencing (MM09)**

*J. Buchan*

**G015. Accurate and Efficient Chimerism Determination Using a SNP-Based Chimeric ID Panel**

*K.E. Jackson*

**G016. North Carolina Newborn Exome Sequencing for Universal Screening (NC NEXUS) Detects Molecular Etiologies Underlying Inborn Errors of Metabolism and Hearing Loss**

*T.S. Roman*

**G017. Clinical Significance of Reinterpreting Previously Reported Immunologic Disease Genomic Tests**

*J.A. SoRelle*

**G018. Alpha-1 Antitrypsin Deficiency Genotype-Phenotype Correlations: Clinical Experience Testing S, Z, F, and I Alleles**

*K.S. Dhillon*

**G019. The VeriDose CYP2D6 CNV Panel: A One-Well Solution for Copy Number and Hybrid Allele Detection of CYP2D6**

*R.E. Everts*

**G020. The VeriDose Core Panel: Strong Performance When Analyzing Challenging Pharmacogenetic Samples**

*A. Lois*

**G021. Target Selector DNA EGFR Kit for Tissue Demonstrates High Sensitivity without the Need for Macro-dissection**

*V. Alexiadis*

**G022. A Multiplex PCR/CE CFTR Assay Resolves Zygosity of the 23 ACMG/ACOG-Recommended CFTR Variants and Sizes Poly-T and TG Repeats in a Single Tube**

*P. Rao*

**G023. Integrated Germline and Somatic Analysis Identifies Actionable Cancer Predisposing Germline Mutations in 9,734 Patients with Advanced Cancers**

*G. Jayakumaran*

**G024. Assessment of Long IVT mRNA Fragments with the Fragment Analyzer System**

*C. Pocerich*

**G025. Validation and Diagnostic Utility of Targeted Next-Generation Sequencing Panel in Korean Patients with Retinitis Pigmentosa**

*C. Seol*

**G026. CHLA Ocular Disease Focused Exome: Precision Molecular Diagnosis Enabling Precision Therapies for Retinal Dystrophies**

*R.J. Schmidt*

**G027. Genetic Characterization of Spinocerebellar Ataxia 12 Patients in an Indian Cohort: KDAH Experience**

*J.C. Vyas*

**G028. Clinical Exome Sequencing, an Effective Tool for Detecting Causative Mutations for Rare Diseases: Retrospective Study of the Past Seven Years**

*C.C. Eno*

**G029. Therapy-Related Clonal Hematopoiesis and the Risk of Secondary Hematological Malignancies in Patients with Prior Radiation Therapy**

*H. Jin*

**G030. Findings from the Global External Quality Assessment of Lung Cancer Liquid Biopsy Testing**

*J. Fairley*

**G031. Implementing Physician-Mediated Consumer-Driven Clinical Elective Genome Sequencing: One Laboratory's Experience**

*M. Leduc*

**G032. Chromosomal Microarray Complements Traditional Cytogenetics in Acute Myeloid Leukemia**

*J. Giffin*

**G033. Expansion of Clinical Carrier Screening in Spinal Muscular Atrophy through DNA Fragment Analysis by Capillary Electrophoresis**

*S. Turner*

**G034. HLA Diversity Score as a Predictor of Checkpoint Blockage Immunotherapy Survival**

*B. Zhang*

**G035. Development and Validation of an NGS Assay to Detect UGT1A1 and ABCG2 Polymorphisms Associated with Drug Metabolism**

*M. Fitarelli-Kiehl*

**G036. Significance Associated with Phenotype (SAP) Score: A Method for Ranking Genes and Genomic Regions Based on Sample Phenotype**

*J. Ji*

**G037. ddPCR-Based Differentiation between Constitutional and Acquired *inv(11)(q21q23)* Rearrangements in Acute Leukemia**

*C.J. Zepeda Mendoza*

**G038. Identity Testing of Paired Neoplastic and Non-neoplastic Samples Using a Custom Single-Nucleotide- Polymorphism-Based Next-Generation Sequencing Assay**

*K.J. Jensen*

**G039. Analytical Validation of a Circulating Tumor DNA (ctDNA) Genomic Profiling Assay for the Detection of Somatic Sequencing and Structural Variants**

*R. Snyder*

**G040. Clinical Relevance of Liquid Biopsies in Metastatic Adenocarcinoma of Non-small Cell Lung Cancer (NSCLC)**

*A. Chougule*

**G041. Analysis of Next-Generation Sequencing Data for Disorders of Somatic Mosaicism Reveals the Importance of Reanalysis in the Clinical Setting**

*M.J. Evenson*

**G042. Characterization of Complex *Mixed Lineage Leukemia 1 (MLL1)* Gene Rearrangements in Leukemia**

*G. Velagaleti*

**G043. Likely Pathogenic or Likely Benign: Analysis of Deletions of the *MBD5* Gene**

*J. Schleede*

**G044. A Rapid Diagnostic and Screening System for Spinal Muscular Atrophy That Reports Copy Number Changes, Single Nucleotide Variants, and Small Indels**

*H. Zhu*

**G045. Genomic Characterization of Pediatric Acute Megakaryoblastic Leukemia and the Clinical Impact**

*E. Lalonde*

**G046. Expanded Tumor Spectrum in Individuals with Large Germline Deletions Including *CDKN2A* and Additional Genes Including the Interferon Gene Cluster**

*P.R. Blackburn*

**G047. Standardization, Optimization, and Quality Management of FFPE Solid Tumor Diagnostic Samples in Next-Generation Sequencing: An Experience in Our Tata Memorial Centre India**

*A. Chougule*

**G048. RapiDxFire Thermostable Reverse Transcriptase: A Novel Reverse Transcriptase for Improved High-Temperature RNA Synthesis and Extended Stability**

*J. Kramer*

**G049. Using Isotachophoresis as a Novel Method to Improve the Yield and Quality of Nucleic Acid Purification from FFPE Samples**

*L.A. Marshall*

**G050. Challenges of Interpreting *DMD* Gene Duplication Variants**

*M.L. Fulmer*

**G051. A Multi-Platform Approach to Friedreich Ataxia Molecular Diagnostics**

*R. Majumdar*

**G052. Feasibility of a Synthetic Dried Blood Spot Mimic for Use as an External Control for Newborn Screening of Genetic Disorders**

*A. Parsons*

**G053. A Multiplexed SNP Panel Using Oligonucleotide Ligation Assays Run on the N-PLEX Platform for the Allelic Assignment of Genetic Risk Factors of Lung Cancer Development**

*S.B. Harkins*

**G054. Incidental Cases of NIPT-Associated Maternal Constitutional Aberrations**

*K.K. Phillips*

**G055. Methylation-Based NIPT Test on MALDI -TOF for Down's Syndrome Screening**

*H.H. Tao*

**HEMATOPATHOLOGY**

**H001. Integrative Genomic Testing Improves Clinical Management of Hematological Neoplasms: A Focus on Structural Variations**

*L. Boiocchi*

**H002. Clinical Validation of an NGS-Based IGHV Somatic Hypermutation Assay**

*C.C. Ho*

**H003. Performance of NGS in Evaluating *TP53* Aberrations in Lymphoid Neoplasm**

*A. Alsuwaidan*

**H004. The Result of 122 Consecutive NGS-Based Analysis of T-Lymphoblastic Leukemia/Lymphoma and Early T-cell Precursor Leukemia (ETP)**

*W. Xie*

**H005. Frequency of *JAK2* Mutations in Patients with Suspected Myeloproliferative Neoplasms**

*A. Judd*

**H006. *WT1* Mutation Is an Independent Poor Prognostic Factor in Intermediate Risk Acute Myeloid Leukemia (AML): A Case of Relapsed AML with Leukostasis**

*N. Hakim*

**H007. Rapid Next-Generation Karyotyping for Clinical Evaluation of Hematologic Malignancies**

*E. J. Duncavage*

**H008. Multidisciplinary Quality Improvement Involving the Molecular Pathology Laboratory Expedites Diagnosis of Acute Promyelocytic Leukemia**

*S.N. Asadbeigi*

**H009. Feasibility of an RNAseq Assay for Detection of Translocations and Immunoglobulin Clonality in Aggressive B-Cell Lymphomas**

*X. Wang*

**H010. Evaluation of Intraclonal Heterogeneity in Diffuse Large B-Cell Lymphoma by Next-Generation Sequencing of Immunoglobulin Heavy Chain (IGH) Gene**

*M. Zhu*

**H011. Utility of Next-Generation Sequencing in the Workup and Diagnosis of Patients with Myelodysplastic Syndromes and Unexplained Cytopenias: A Single Institution Experience**

*D. Carr*

**H012. Cytogenetic Analysis of Adult T-Cell Leukemia/Lymphoma in a Caribbean Cohort: Correlation with Next-Generation Sequencing (NGS) Data, Clinical Features and Survival**

*X. Zhang*

**H013. Validation and Implementation of a Comprehensive Genomics Profiling (CGP) Assay for Hematologic Malignancies**

*S. Turner*

**H014. Clinically Significant *CUX1* Mutations Detected by a Targeted Next-Generation Sequencing Panel Are Common in Myeloid Disorders with a High Number of Co-mutated Genes and Dysplastic Features**

*J.K. Dermawan*

**H015. Mutant-p53 Antibody Stains Cytokeratin-Negative CTCs Enriched and Detected with a “Pan-CTC” Antibody Cocktail**

*S.H. Hsiao*

**H016. Non-coding *NOTCH1* Mutations in Chronic Lymphocytic Leukemia**

*F. Jelloul*

**H017. Development of Full-Process Quality-Control Material *BCR-ABL1* Panel Traceable to WHO International Standard**

*L. Liu*

**H018. Evaluation of Efficiency-Driven Adjustments to the Abbott RealTime *IDH1* and *IDH2* Assays**

*A.M. Carlin*

**H019. *GATA2* Variants Detected by Next-Generation Sequencing with Myeloid Comprehensive Panel: Pathogenic or Benign Polymorphism?**

*D. Morlote*

**H020. *IDH1* p.S280F Mutation Is Potentially a Novel Mechanism of Resistance to Ivosidenib Therapy in an *IDH1*-Positive Acute Myeloid Leukemia**

*Z.N. Oltvai*

**H021. *IGH* Locus Assessment Using Hybrid-Capture: A Proof-of-Concept Study**

*E. Mahe*

**H022. Benchmarking High-Resolution Optical Mapping to FISH, Karyotyping and Chromosomal Microarray**

*T. Mantere*

**H023. A Rapid, Capture-Based Enrichment NGS Panel for Assessing Myeloid Malignancies**

*A. Barry*

**H024. *JAK2* Exons 12, 13, 14, and 15 Mutation Analysis**

*L. Cai*

**H025. When Do FISH and Next-Generation Sequencing Add Diagnostic or Prognostic Value in the Initial Marrow Evaluation of MDS?**

*P.C. Tsang*

**H026. Single-Step, Multiplex and Automated Droplet Digital PCR of p190 *BCR-ABL1* Fusion Transcript for Minimal Residual Disease Quantification in B Lymphoblastic Leukemia**

*R.J. Martinez*

**H027. Convergence on Genomic Abrogation of the DNA Damage Response Pathway in CLL Is Observed in Patients with Loss of 18p**

*W. Wong*

**H028. *CEBPA* Mutation Phasing Using Pacific Biosciences Circular Consensus Sequencing**

*L. Cai*

**H029. Nanopore "Flongle" Sequencing for Fusion Detection as a Rapid, Single Specimen Clinical Test**

*W. Jeck*

**H030. A Comparative Study of *FLT3*-ITD Allelic Ratio Evaluation Using Peak Height versus Peak Area Measurements**

*M. Mai*

**H031. Newly Discovered 74-Base Pair Insertion in *CALR* Exon 9 in a Myeloproliferative Neoplasm Patient**

*P.L. Ollila*

**H032. Exploring Driver Mutations and Tumor Mutational Burden Load in Enteropathy-Associated T-Cell Lymphoma by Next-Generation Exome Sequencing**

*J. Kim*

**H033. Long-Term Monitoring of Hematopathology, Cytogenetic, and Genetic Abnormalities in a Patient with MIRAGE Syndrome**

*S. Rentas*

**H034. Identification of Neoplastic Clonal T-Cell Sequences in Unrelated Healthy Individuals: Limitations of High-Throughput TRG Sequencing for Minimal Residual Disease (MRD) Analysis**

*S. Sen*

**H035. New Subtype of AML with a Very Poor Prognosis**

*C.A. Schandl*

**H036. Comprehensive Genomic Characterization of *ASXL1* and *SRSF2* Co-mutated Acute Myeloid Leukemia**

*L. Ramkissoon*

**H037. WITHDRAWN**

**H038. Performance Characteristics of the First FDA-Cleared Droplet Digital PCR (ddPCR) IVD Assay, the QXD BCR-ABL %IS Kit on the QXD ddPCR System for Monitoring Chronic Myelogenous Leukemia (CML)**

*N. Sepulveda*

**H039. Measurable Residual Disease Monitoring for Patients with Acute Myeloid Leukemia Following Hematopoietic Cell Transplantation Using Error-Corrected Hybrid-Capture Next-Generation Sequencing**

*V. Balagopal*

**H040. Characterization of a Cryptic *PML/RARA* Fusion by Next-Generation Sequencing in a Newly Diagnosed Case of Acute Promyelocytic Leukemia with Normal FISH and Chromosome Studies**

*M.J. Schultz*

**H041. Development and Characterization an NGS Myeloid Panel: A Single-Tube, Multiplex-PCR-Based NGS Assay with 739 Tiled Amplicons**

*N.J. Lodato*

**H042. Antigen Receptor Stereotypy in Chronic Lymphocytic Leukemia**

*F. Jelloul*

**H043. Utility and Validation of a Comprehensive DNA Panel (523 Genes-TruSight Oncology 500) for Determination of SNVs, Indels, CNVs, TMB, and MSI on an NGS for Hematological**

## **Malignancies**

*R. Kolhe*

### **H044. Copy Number Variant Detection by Targeted Gene Next-Generation Sequencing**

*C.E. Myers*

### **H045. Clinical Utility of Chromosome Genomic Array Testing in Assessing TP53 Abnormalities in CLL**

*M. Fang*

### **H046. Rapid Detection of TP53 Mutations in Hematopoietic Neoplasms**

*X. Xu*

### **H047. Exploring Whole Exome Sequencing Data for Predisposing Germline Variants in Pediatric Myeloid Neoplasia**

*C. Soderquist*

### **H048. Monitoring Haematopoietic Stem Cell Transplant Using Whole Blood and Lineage-Specific Chimerism**

*O. Shetty*

## **INFECTIOUS DISEASES**

### **ID001. Evaluation of the ELITechGroup MGB Alert CRE RUO Kit on the ELITE InGenius at the Indiana State Department of Health**

*C. Campion*

### **ID002. Validation and Utility of HIV Drug Resistance Mutation (DRM) Analysis by NGS Platform**

*R. Kolhe*

### **ID003. Microbial Cell-Free DNA Sequencing for Multiplexed Detection and Quantitation of Cytomegalovirus, Epstein-Barr Virus, and BK Virus**

*T.A. Blauwkamp*

### **ID004. Next-Generation Sequencing-Based Approach to Detect Integration of HPV16 Following Exposure to Chronic Oxidative Stress**

*Y. Chen Wongworawat*

### **ID005. Can Real-Time PCR Help in Diagnosis of Neglected Tropical Diseases?**

*V. Gupta*

### **ID006. Development and Evaluation of a Novel, Sample-to-Answer Molecular Assay for the Detection of *Pneumocystis jirovecii* from Bronchoalveolar Lavage Fluid**

*B. Liu*

### **ID007. Performance of Aptima HIV Quant Assay on Hologic Panther**

*B.G. Baltagjjeva*

### **ID008. Developing a Clinical 16s rRNA Multi-amplicon-Based Metagenomic Sequencing Test for Bacterial Pathogen Detection in Body Fluid and Tissue Specimens**

*S. Realegeno*

### **ID009. Performance Verification of the COBAS HEV Nucleic Acid Test on the COBAS 6800**



**Platform for Hepatitis E Virus Screening**

*C. Chai*

**ID010. Diagnostic Stewardship: Framework for Development of Best Practices Algorithm for Hepatitis C Testing**

*M. Andrade*

**ID011. Performance of Aptima *M. genitalium* IVD Assay on Hologic Panther**

*L.J. Mazur*

**ID012. Institutional Positivity Rates and Implications for the Treatment of Group A *Streptococcus* Pharyngitis with Conventional versus Molecular Alere i Strep A2 Nucleic Acid Amplification Testing**

*E.C. Calvaresi*

**ID013. Analytical Performance and Estimated Clinical Outcomes of a Molecular Multiplexed Bacterial Identification Blood Culture Panel**

*S.L. Mitchell*

**ID014. Evaluation of GeneXpert MTB/RIF Assay for Rapid Diagnosis of Extrapulmonary Tuberculosis in a Low-Prevalence Setting**

*P.M. Thwe*

**ID015. Quantification of Viral Load in AcroMetrix HPV 16, 18, and 68 Genotype Controls Using Bio-Rad Droplet Digital PCR System**

*H. Wang*

**ID016. Validation of Altona Real-Star Analyte-Specific Reagents for the Quantitative Detection of Epstein-Barr Virus and Human Herpesvirus 6 in Cerebrospinal Fluid**

*G. Patricia*

**ID017. Clinical Evaluation of a Robust Custom-Designed Multiplexed qPCR Microarray-Based Assay for Urinary Tract Infection**

*M. Shanmugam*

**ID018. Cell-Free RNA Is More Sensitive Than DNA for the Detection of Pediatric Bacterial Sepsis via Shotgun Metagenomic Sequencing**

*C.E. Dougherty*

**ID019. *Mycoplasma genitalium* Assay Results from High- and Low-Risk Populations: Implications for Sexually Transmitted Infection Panel Menu**

*M. Andrade*

**ID020. Clinical and Histologic Features of Patients Tested Using the BioFire FilmArray Gastrointestinal Panel**

*J.C. Mowers*

**ID021. High-Throughput, Cost-Effective Screening for Multi-drug Resistance Markers and Toxigenic *C. difficile* with ChromaCode's HDPCR Multi-drug Resistance Panel RUO**

*S. Powell*

**ID022. Performance Validation of PCR/Sequencing Assays for Upper Respiratory Pathogens**

*A. Pham*

**ID023. Performance Characterization of a Respiratory Pathogen Panel with an Automated High-Throughput System**

*C. Knoth*

**ID024. Clinical Assessment of the Applied BioCode Respiratory Pathogen Panel**

*X. Zhang*

**ID025. Arbovirus Surveillance in a Private Brazilian Hospital: A Four-Year Retrospective Study**

*R. Petroni*

**ID026. Validation of the QuanDx MeltPro High Risk and Low Risk HPV Genotyping Assays in FFPE Tissue**

*L.M. Petersen*

**ID027. Increased Prevalence of Vabomere and Plazomicin Resistance among Carbapenem-Resistant Enterobacteriaceae from a Cancer Center**

*X. Zhang*

**ID028. Development of a Multiplex Qualitative Real-Time PCR Panel for Identification of Tick-Borne Pathogens from Whole Blood**

*L.M. Petersen*

**ID029. Profiling of Microbe Co-existence in Respiratory Tract Infections**

*J. Li*

**ID030. Detection and Monitoring of Adenovirus Infection in Post-HSCT Recipients by PCR with Patient Outcomes**

*R. Walia*

**ID031. Performance Evaluation of the Comprehensive Respiratory Tract Microbiota (RTM) Panel Using Clinical Repository Specimen and QCMD Controls**

*K. Li*

**ID032. Performance of a Rapid Multiplex Strep Assay on the Fully Automated NeuMoDx Molecular Systems**

*B. Keusch*

**ID033. A Novel Highly Sensitive Assay for Quantitative Detection of Human Immunodeficiency Virus-1 in Human Plasma**

*H. Lee*

**ID034. Performance Characteristics of a Fully Automated High-Throughput MDx Assay for the Detection of *Bordetella pertussis* and *Bordetella parapertussis***

*B. Eaton*

**ID035. Development of Synthetic Multiplexed External Controls for Monitoring the Performance of Qualitative Laboratory Nucleic Acid Testing Panels Used for Identification of Lower Respiratory Pathogens**

*T. Spenlinhauer*

**ID036. Evaluation of an Automated Coronavirus Assay to Supplement Respiratory Pathogen Panel Testing on Board the Panther Fusion System using the Open Access Functionality**

*J.H. Moberly*

**ID037. Verification of the Roche COBAS HIV-1, HCV and HBV Tests on the COBAS 6800 System and Correlation to the COBAS Ampliprep/COBAS TaqMan System**

*M. Sabato*

**ID038. Comparative Yield of Culture and a Molecular Panel in the Diagnosis of Meningitis at a Tertiary Care Cancer Center**

*T. McMillen*

**ID039. Sensitive Hybridization Capture and Detection of Urine Cell-Free DNA for Tuberculosis Diagnosis**

*A. Oreskovic*

**ID040. Direct Detection of Bacterial and Fungal Pathogens Using Next-Generation Sequencing of Lower Respiratory Specimens**

*L.A. Cooper*

**ID041. Local Foodborne Disease and Outbreak Detection for *Salmonella javiana* and *Salmonella newport* Patient Samples in South Carolina Using Whole Genome Sequencing: Details of 192 *Salmonella* Cases**

*L.M. Lane*

**ID042. WITHDRAWN**

**ID043. Investigation of Amplicon Sequencing Technology in Diagnosis of Drug-Resistant Tuberculosis by Testing FFPE Specimens**

*N. Che*

## **INFORMATICS**

**I001. Development and Validation of a Melanoma Genomic Index (MGI) Focused on CNVs and AOH from Whole-Genome SNP Aiding in Histological Assessments Complex Melanocytic Lesions**

*V. Agarwal*

**I002. Validation and Adoption of Somatic Gene-Level CNV Detection from Tumor-Only NGS Panels Identifies Clinically Significant Alterations in Childhood Tumors**

*R. Chandramohan*

**I003. Evaluation of Tertiary Analysis Software for Solid Tumor Next-Generation Sequencing**

*T.R. Sundin*

**I004. Impact of Next-Generation Sequencing Panel Composition on Tumor Mutation Burden Calculation: *In Silico* Comparison of Frequently Utilized Panels**

*N. Bevins*

**I005. Evaluation of the NAVIFY Mutation Profiler for Next-Generation Sequencing Variant Interpretation and Reporting**

*L. Bonomi*

**I006. Performance Analysis of Three Bioinformatic Variant Callers Using a Somatic Reference Standard**

*B. Porath*

**I007. Tracking of Index Hopping Percent as a Quality Control Metric for Illumina Sequencers with Patterned Flow Cell Technology**

*Y. Sakai*

**I008. WITHDRAWN**

**I009. Amplicon-Based Targeted Sequencing of Single Circulating Tumor Cells**

*N. Ericson*

**I010. Using RNA Expression Analysis to Find Non-fusion Translocations**

*J.R. Gagan*

**I011. Discovering SNVs and Indels from RNA-Seq: Comparison of Results of Whole Transcriptome Sequencing to Those of Whole Genome Sequencing**

*J. Lee*

**I012. Integrated Networks Dissect the Molecular Biology of Estrogen Receptor-Positive Breast Cancers**

*I. Katsyv*

**I013. Benchmarks for Difficult-to-Sequence Genes and Structural Variants**

*J.M. Zook*

**I014. Variant Detection and Tumor Mutational Burden (TMB) Concordance in Blood and Tumor Tissue Using Next-Generation Sequencing (NGS) in Patients with Non-small Cell Lung Cancer (NSCLC)**

*J. Baden*

**I015. Curation of Pediatric Cancer Variants within the Clinical Genome Resource (ClinGen)**

*A. Roy*

**I016. Large-Scale Cytogenetic Profiling of Acute Myeloid Leukemia (AML) from the Mitelman Database Using CytoGenetic Pattern Sleuth (CytoGPS)**

*Z.B. Abrams*

**I017. Improve PPV without Sacrificing Sensitivity for Germline NGS Tests Using Lithium Software Package**

*L. Yang*

**I018. Oncogenic *EGFR* Kinase Domain Duplications Detected through Aberrant Splice Recognition in RNA-Seq**

*A. Garcia*

**I019. Assessment of SureSeq Interpret Software on Low-Frequency Variants Using Reference Standards**

*J. Reid*

**I020. Mixed Reality for a Precision Medicine Laboratory: The Future Is Now!**

*A. Sigaras*

**I021. Datanorm: A User Friendly Tool That Assists in the Validation of Next-Generation Sequencing Assays**

*V.S. Williamson*

**I022. Validation of a Novel Tumor Mutation Burden Assay Using a 130 Gene Tumor Only Targeted Sequencing Panel Covering Less Than 0.25 Megabases**

*R.P. Joshi*

**I023. Genomic Database for Assessing Specificity of Primers with Mismatches and Single-Base Bulges**

*Z.L. Dwight*

**I024. A Deep-Learning Method for High-Throughput *FMR1* Triplet Repeat Screening**

*L. Ringel*

**I025. Ultra-rapid and Accurate Data Analysis Solution for TSO500 ctDNA: Enabling Comprehensive Genomic Profiling with a Plasma-Based Assay**

*T. Jiang*

**I026. Targeted Informatics for Optimal FLT3-ITD Detection, Characterization, and Quantification across Multiple NGS Platforms**

*H. Tsai*

**I027. Identification of Low-Frequency Variants in AML Populations**

*S. Johnson*

**I028. Development of a Convolutional Neural Network Algorithm for Detection of Copy Number Loss in Exome Sequencing Data**

*S. Muthusamy*

**I029. InferCNV.org: Inferring Regional Copy Number Changes from Discrete Gene-Level Amplification Signals in Clinical Cancer Genomics Reports for Prioritization of Therapeutic Targets**

*P.A. Kenny*

**I030. Practical Informatic Solutions for Molecular Diagnostics Quality Management**

*L.M. Scicchitano*

**I031. Platform-Agnostic Deployment of Bioinformatics Pipelines for Clinical NGS Assays Using Containers, Infrastructure Orchestration, and Workflow Manager**

*S. Kadri*

**I032. Evaluation of Nanopore Sequencing and Associated Bioinformatics Pipelines for Accurate Pathogen Identification and Antimicrobial Resistance Prediction**

*L.M. Petersen*

**I033. A Next-Generation Sequencing-Based Analysis of Clonality across 39 Subjects Treated for Lymphoproliferative Disorders Reveals Matching Clones in the Diverse IGH Locus**

*A.M. Zlotnicki*

**I034. Detection of Internal Tandem Duplications in the *FLT3* Gene Using PiVAT Software**

*S.M. Polvino*

**I035. Clinical Bioinformatics Pipelines in the Cloud: Considerations and Deployment**

*S. Kadri*

**I036. High-Throughput Genetic Variant Classification for Inherited Cancer Gene Panels through an Artificial Intelligence Inference Engine**

*S. Nohzadeh-Malakshah*

**I037. Clinical Validation and Informatic Implementation of Targeted NGS for Low-Input and Degraded Specimens**

*A. Chitturi*

**I038. Calculation of Tumor Mutational Burden (TMB) Using a Small, Targeted Next-Generation Sequencing (NGS) Panel for Solid Tumor Samples Absent Matched Normal Samples**

*P.D. Velu*

**I039. Downstream Third-Party NGS Pipelines in Comparison to In-House Semi-Automated Variant Processing May Demonstrate Limitations on Some Platforms**

*K. Ikemura*

**I040. Machine Learning Applications for Patient Testing: Computational Assessment of MSI by NGS in the Clinical Laboratory**

*G. Omerza*

**Other (e.g., Education)**

**OTH001. HLA Typing: Do We Need Secondary Typing Methods in the Era of NGS?**

*L. Kumer*

**OTH002. Alignment of Fellowship Training and Job Needs in Molecular Genetic Pathology**

*K.L. Kaul*

**OTH003. Development of Tumor-Specific NGS Gene Subpanels Based on a Medium-Sized NGS Panel (TST170) in a Small Hospital-Based Molecular Diagnostics Laboratory**

*K.C. Behling*

**OTH004. Single Cell Genomics and Spatial Transcriptomics Enable Novel Approaches to Dissect Tumor Heterogeneity**

*L.D. Gibbs*

**OTH005. Reporting Indeterminate Variants from Massively Parallel Sequencing Assays**

*J.J. Roth*

**OTH006. Standardized Process for Molecular Laboratory Engagement and Quality Improvement**

*K. Halverson*

**OTH007. Laboratory Standards for Interpretation and Reporting of Acquired Copy Number Abnormalities and Copy-Neutral Loss of Heterozygosity in Neoplastic Disorders: A Consensus ACMG/CGC Document**

*G. Raca*

**OTH008. Real-Time Outbreak Investigation Informed by Whole Genome Sequencing and Data Mining: Expecting the Unexpected**

*M.M. Hernandez*

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**TT066. Variants Reported by Tumor-Only Clinical Oncology NGS Testing Are Frequently Found in the Germline of Pediatric Patients**

*A. Saeed*

**TT067. Improving Quantification of DNA in the Presence of Both Double- and Single-Stranded Forms**

*F. Ye*

**TT068. Assessment of Pooled Plasma as Reference Material for Quality Assurance of ctDNA Assays**

*J. Doshi*

**TT069. Analytical Performance of TruSight Oncology 500: Detection of Small Nucleotide Variants, Gene Amplifications, Fusions and Splice Variants from Highly Multiplexed Libraries Sequenced on the NovaSeq**

*D.M. Chou*

**TT070. Polymerase Chain Reaction Directly from Whole Blood and Dry Blood Spots after NaOH Treatment**

*F. Ye*

**TT071. EXaCT-2: Augmented Whole Exome Sequencing Optimized for Clinical Testing in Oncology**

*D.C. Hassane*

**TT072. Dissimilarity Score (DisScore): Identifying Potential Discordance between Anatomic Pathology and Mutation Landscape in the Evaluation of Clinical Sequencing as Part of a Molecular Tumor Board**

*G.T. Gurda*