Advances in Liquid Biopsies

January 13-16, 2020 | Miami, FL

AACR American Association for Cancer Research

Poster Session A

Tuesday, January 14

4:15-6:45 p.m.

A01, PR01 ctDNA shedding dynamics dictate early lung cancer detection potential. Johannes Reiter, Stanford University, Stanford, CA.

A02 Detection of circulating cell-free DNA in renal cancer using renal cancer-specific DNA mutations and methylation changes. Martyna Adamowicz, University of Edinburgh, Edinburgh, UK.

A03 Evaluation of the Oncomine Pan-Cancer Cell-Free Assay for liquid biopsy profiling. John Bartlett, Ontario Institute for Cancer Research, Toronto, Ontario, Canada.

A05 Development and clinical performance of an accurate cell-free DNA (cfDNA) methylation assay for early detection of colorectal cancer. Kristi Kruusmaa, Universal Diagnostics S.L., Sevilla, Spain.

A06 Multiplatform analysis of early-stage cancer signatures in blood. Bingsi Li, Burning Rock Dx, Shanghai, China.

A07 Sequential ctDNA analysis detected preclinical relapse in patients with metastatic colorectal cancer from the Exactis trial (NCT00984048). Suzan McNamara, Exactis Innovation, Montreal, Quebec, Canada.

A08, PR02 Epigenetic biomarkers in cell-free DNA for early detection of high grade serous ovarian carcinoma. Ben Yi Tew, University of Southern California, Los Angeles, CA.

A09 Cerebrospinal fluid (CSF) as a source of ctDNA for diagnosis and monitoring of pediatric patients with midline diffuse gliomas. Liana Nobre, The Hospital for Sick Children, Toronto, ON, Canada.

A10 Glioma cell-free DNA methylation marker for diagnosis and monitoring. Houtan Noushmehr, Henry Ford Health System, Detroit, MI.

A11 Serum cell-free dna methylome-based signatures distinguish pituitary tumor from other neoplasias and by clinicopathological features. Houtan Noushmehr, Henry Ford Health System, Detroit, MI.

A12 DNA methylation-based liquid biopsy detects primary and recurrent meningioma. Houtan Noushmehr, Henry Ford Health System, Detroit, MI.

A13 DNA methylation of SOX1 and HOXA9 as a biomarker for early detection of ovarian cancer in cell free DNA. Alka Singh, Motilal Nehru National Institute of Technology, Allahabad, Prayagraj, Uttar Pradesh, India.

A14 Detection of a biomarker for B-cell non-Hodgkin lymphomas or leukemias using circulating tumor DNA without the use of PCR or Next-Gen sequencing. Jessica Stewart, Wayne State University, Detroit, MI.

A15 Detection of genome-wide copy number alterations in tumor tissue and cell-free DNA of pancreatic cancer patients. Greet Wieme, Center for Medical Genetics, Ghent University and Ghent University Hospital, Ghent, Belgium.

A16 The potential of circulating cell-free tumor DNA as a diagnostic marker of ovarian cancer. Misa Yamamoto, Osaka University, Suita-city, Osaka, Japan.

A17 Pan-solid tumor comparison of variant detection in paired liquid and tissue biopsies. Zoe June Assaf, Genentech, South San Francisco, CA.

A18 Plasma circulating tumor DNA is scarce and confounded by clonal hematopoiesis in metastatic renal cell carcinoma. Jack Bacon, Vancouver Prostate Centre, Vancouver, British Columbia, Canada.

A19 Detection of ESR1 mutations in plasma cell-free DNA from metastatic ER-positive breast cancer patients resistant to hormone therapy. Fabiana Bettoni, Hospital Sírio-Libanês, Sao Paulo, SP, Brazil.

A20, PR08 Validation and clinical implementation of MSK-ACCESS, an ultra-deep sequencing assay for non-invasive somatic mutation profiling. A. Rose Brannon, Memorial Sloan Kettering Cancer Center, New York, NY.

A21 Longitudinal analysis of cell-free DNA for therapy monitoring of ALK-positive non-small cell lung cancer. Steffen Dietz, German Cancer Research Center (DKFZ), Heidelberg, Germany.

A22 Simultaneous multi-parametric profiling of cell-free RNA (cfRNA) and cell-free tumor DNA (ctDNA) in advanced-stage colorectal cancer. Zheng Feng, EMD Serono Research and Development Institute, Billerica, MA.

A23 Ultrasensitive mutation detection in FFPE tissues and circulating tumor DNA using SiMSen-Seq. Stefan Filges, Department of Laboratory Medicine, Sahlgrenska Cancer Center, Institute of Biomedicine, Sahlgrenska Academy at University of Gothenburg, Gothenburg, Sweden.

A24 Identifying the genomic and clinical features of AKT1 / PIK3CA mutant metastatic prostate cancer using circulating tumor DNA. Cameron Herberts, Vancouver Prostate Centre, Vancouver, British Columbia, Canada.

A25 Cell-free DNA for noninvasive molecular profiling and response monitoring in pediatric cancers. Prachi Kothari, MSKCC, New York, NY.

A26 Defining VALUE: Routine liquid biopsy in NSCLC diagnosis - a Canadian trial in progress. Jennifer Law, Princess Margaret Cancer Centre, Toronto, ON, Canada.

A27, PR06 Clonal evolution over narrow time frames via circulating tumor DNA in metastatic breast cancer. Daniel Stover, Ohio State University Comprehensive Cancer Center, Columbus, OH.

A28 SPACEWALK: Plasma NGS for remote evaluation of ALK drug resistance in advanced NSCLC. Marissa Lawrence, Dana-Farber Cancer Institute, Boston, MA.

A29 Next generation sequencing of circulating tumor DNA to monitor treatment response to CDK4/6 inhibitors in breast cancer. Siew-Kee Low, Cancer Precision Medicine Center, Japanese Foundation for Cancer Research, Koto-ku, Tokyo, Japan.

A30 Dynamics of ctDNA may serve as an early predictor of response to non-targeted chemotherapy of advanced lung cancer patients. Marek Minarik, Elphogene, Prague, CZ, Czech Republic.

A31 Tracking the evolution of soft tissue sarcoma and GIST using liquid biopsies. Heidi Maria Namløs, Oslo University Hospital, Oslo, Norway.

A32 Clinical significance of liquid biopsy in glioblastoma patients through tissue analysis. Rashmi Rana, Department of Research, Sir Ganga Ram Hospital, Delhi, New Delhi, India.

A33 Impact of tumor-derived exosomes on CD28 expression in T cells. Ashley Schulte, University of Minnesota, Minneapolis, MN.

A34 Longitudinal analysis of personal DNA methylome patterns in metastatic prostate cancer. Romina Silva, University College Dublin, Dublin, Ireland.

A35 Cell-free tumor DNA profiling of colon cancer patients: searching for mechanisms of chemoresistance. Veronika Vymetalkova, Institute of Experimental Medicine, Academy of Sciences of the Czech Republic, Prague, Czech Republic.

A36, PR09 Frequency and etiology of ctDNA-positive metastatic prostate cancer with BRCA2, ATM, or CDK12 mutations. Evan Warner, Vancouver Prostate Centre, Vancouver, BC, Canada.

A37 Early change in circulating tumor DNA as a potential predictor of response to chemotherapy in patients with metastatic colorectal cancer. Hitoshi Zembutusu, Cancer Precision Medicine Center, Research Institute, Japanese Foundation for Cancer Research, Tokyo, Japan.

A38 A Novel Clinical-Grade Liquid Biopsy Platform for Multiple Myeloma. Mark Bustoros, Dana-Farber Cancer Institute, Boston, MA.

A39 Concordance of 5-hydroxymethylcytosine-modified genes from circulating cell-free DNA and positron emission tomography in multiple myeloma. Brian Chiu, University of Chicago, Chicago, IL.

A40, PR03 Genome-wide 5-hydroxymethylcytosine profiles in circulating cell-free DNA and survival in patients with multiple myeloma. Brian Chiu, University of Chicago, Chicago, IL.

A41 Ultrasensitive detection of diverse genomic alterations in hematological malignancies using a targeted amplicon-based sequencing approach. Yukti Choudhury, Lucence Diagnostics, Singapore, Singapore, Singapore.

A42 Development and validation of diagnostic biomarkers for B-cell lymphoma using EpiSwitchTM profiling of whole blood: from humans to canines. Lauren Mills, University of Minnesota, Minneapolis, MN.

A43 Plasma-derived circulating tumor DNA (ctDNA) as a surrogate biomarker for treatment response with the polo-like kinase 1 (PLK1) inhibitor, onvansertib, in combination with LDAC or decitabine in acute myeloid leukemia (AML). Errin Samuelsz, Trovagene, Inc., San Diego, CA.

A44, PR05 Radiation-assisted Amplification Sequencing (RAMP-Seq): Evaluating the use of stereotactic body radiation therapy (SBRT) for enriching circulating tumor DNA in liquid biopsies. Christopher Boniface, Oregon Health & Science University, Portland, Oregon.

A45 HPV sequencing facilitates ultrasensitive detection of HPV circulating tumor DNA. Scott Bratman, Princess Margaret Cancer Centre, Toronto, Ontario, Canada.

A46 Next generation sequencing of circulating tumor DNA for detecting minimal residual disease and predicting recurrence in colorectal cancer patients. Hiu Ting Chan, Cancer Precision Medicine Center, Japanese Foundation for Cancer Research, Tokyo, Japan.

A47 Circulating Tumor Cell-Defined Minimal Residual Disease In Locally Advanced Rectal Cancer Treated With Multimodality Therapy. Lucas Lee, UTMDACC, Houston, TX.

A48, PR04 Clonal Landscapes of Hematologic Malignancies Redefined by Ultra-Sensitive Duplex Sequencing. Jake Higgins, TwinStrand Biosciences, Seattle, WA.

A49 Viable circulating ensembles of tumor associated cells persist in pre-treated patients with solid organ cancers showing no radiologically detectable disease. Sewanti Limaye, Kokilaben Dhirubai Ambani Hospital, Mumbai, Maharashtra, India.

A50 Circulating tumor DNA (ctDNA) and magnetic resonance imaging (MRI) for monitoring and predicting response to neoadjuvant therapy (NAT) in high-risk early breast cancer patients in the I-SPY 2 TRIAL. Mark Jesus M. Magbanua, University of California San Francisco, San Francisco, CA.

A51 Personalized Monitoring of Treatment Reponse using Targeted Digital Sequencing of Circulating Tumor DNA. Bradon McDonald, Translational Genomics Research Institute, Phoenix, AZ.

A52 Role of circulating tumor DNA (ctDNA) from liquid biopsy in early stage NSCLC resected lung tumor investigation (LIBERTI). Jennifer King, Washington University School of Medicine in St. Louis, St. Louis, MO.

A53 Hypermethylated RASSF1A as circulating tumor marker in pediatric and adolescent solid tumors. Lieke van Zogchel, Princess Máxima Center for Pediatric Oncology, Utrecht, Netherlands.

A54, PR07 MSI detection in plasma cfDNA: MSI as a marker of disease burden. Preethi Srinivasan, Memorial Sloan Kettering Cancer Center, New York, NY.

A55 CIRCULATING TUMOR DNA IN NEWLY DIAGNOSED INTERMEDIATE RISK RHABDOMYOSARCOMA. samuel abbou, Dana Farber Cancer Institute, Boston, MA.

A56 Identification of circulating miRNA signatures in rectal cancer. Klara Cervena, Institute of Experimental Medicine of the Czech Academy of Sciences, Prague, the Czech Republic.

A57 Uncovering instrument errors in next generation sequencing by CleanDeepSeq2. Eric Davis, St. Jude Children's Research Hospital, Memphis, TN.

A58 Advancing blood biopsy through the canine comparative model. Kate Megquier, Broad Institute, Cambridge, MA.

A59 Biological rationale for radiation-induced release of circulating tumor DNA. Ariana Rostami, Princess Margaret Cancer Center, Toronto, Ontario, Canada.

A60 Evaluation of pre-analytic variables in liquid biopsy tests for prostate cancer: Specimen acquisition and patient context factors that impact results. Howard Scher, Memorial Sloan Kettering Cancer Center, New York, NY.

A61 Evaluation of ctDNA in children with relapsed or refractory neuroblastoma treated with 131I-MIBG. David Shulman, Dana-Farber/Boston Children's Cancer and Blood Disorders Center, Boston, MA.

A62 Clinical translation of liquid biopsy DNA methylation biomarkers: Lessons from two systematic reviews. Kim Smits, Department of Pathology, GROW—School for Oncology and Developmental Biology, Maastricht University Medical Center, Maastricht, the Netherlands.

A63 Examination of ctDNA false positive variants reported from commercial vendors by ultra-sensitive orthogonal testing. Daniel Stetson, AstraZeneca, Waltham, MA.

A64 Exosomal miRNA as a non-invasive prediction marker of normal tissue toxicity after radiotherapy for prostate cancer. Vasily Yakovlev, Virginia Commonwealth University, Richmond, VA.

A65 Longitudinal detection of TERT-mutant plasma cell-free circulating tumor DNA in newly diagnosed glioblastoma patients. Mahrukh M Syeda, NYU Langone Health, New York, New York.

A66 Analytical validation of 7 droplet digital PCR assays detecting TERT, BRAF and NRAS hotspot mutations in plasma-derived circulating tumor DNA (ctDNA). Mahrukh M Syeda, NYU Langone Health, New York, NY.

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Poster Session B

Wednesday, January 15

12:30-3:00 p.m.

B01, PR15 Charting extracellular transcriptomes in The Human Biofluid RNA Atlas. Eva Hulstaert, Center for Medical Genetics, Department of Biomolecular Medicine, Ghent University, Ghent, NA, Belgium.

B02 Genomic and transcriptomic profiling of urine in prostate cancer. John MS Bartlett, Ontario Institute for Cancer Research, Toronto, Ontario, Canada.

B03 Urine cell-free DNA (cfDNA) concentration and stability test for future clinical use. Jillian WP Bracht, Pangaea Oncology, Universitat Autònoma de Barcelona (UAB), Barcelona, Spain.

B04 Using PSA Dynamics to Forecast Individual Responses to Intermittent Androgen Deprivation. Renee Brady, H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL.

B06 Proteomic biomarker for detection of ovarian cancer using gynecological liquid biopsy. Keren Levanon, Sheba Medical Center, Ramat Gan, Israel.

B07 Potential clinical value of methylated microRNAs in saliva-liquid biopsy for surveillance of head and neck squamous cell carcinoma. Shi-Long Lu, University of Colorado, Aurora, CO.

B08 Tumor-educated platelets for early prostate cancer diagnosis, and therapy stratification in patients with metastasized castration resistant prostate cancer. Jonas Nilsson, Umeå University, Umeå, Sweden.

B09 Identification of salivary exosomes derived miRNAs as potential early diagnostic markers in oral cancer patients: A liquid biopsy approach. Shanaya Patel, Biological and Life Sciences Division, School of Arts and Sciences, Ahmedabad University, Ahmedabad, Gujarat, India.

B10 Feasibility of bronchial washing fluid-based approach to early-stage lung cancer diagnosis. Jeong Seon Ryu, Inha University Hospital, Incheon, Incheon, South Korea.

B11 Whole exome sequencing analysis of urine trans-renal tumor DNA in metastatic colorectal cancer patients. Giulia Siravegna, Massachusetts General Hospital, Harvard Medical School, Boston, MA.

B12, PR14 Sub-nucleosomal fragmentation in urine cell-free DNA. Havell Markus, Translational Genomics Research Institute, Phoenix, Arizona.

B13 Applying Machine Learning for Urine Cytology– Computational Urothelial carcinoma Analysis and Diagnosis. Wei-Lei Yang, AIxMed, Inc., Fremont, California.

B14 Artificial Intelligence Assists Automation and High-performance of Circulating Tumor Cells Enumeration and Circulating Tumor Microemboli Characterization in Fluorescence Microscopy Images. Wei-Lei Yang, AIxMed, Inc., Fremont, California.

B15 Circulating tumor cells express tissue specific antigens in multiple cancers. Dadasaheb Akolkar, Datar Cancer Genetics Limited, Nasik, Maharashtra, India.

B16 Non-invasive liquid biopsies for guideline-compliant diagnostic assessment in ovarian cancers. Dadasaheb Akolkar, Datar Cancer Genetics Limited, Nasik, Maharashtra, India.

B17 An mRNA signature that accurately discerns gliomas from healthy individuals. Dadasaheb Akolkar, Datar Cancer Genetics Limited, Nasik, Maharashtra, India.

B18, PR11 Multimodal analysis of circulating tumor cell RNA, circulating cell-free DNA and genomic DNA from a single blood sample collected Into a PAXgene Blood ccfDNA Tube*. Anna Babayan, QIAGEN GmbH, Hilden, Germany.

B19 The impact of circulating tumor cells on treatment response in early breast cancer patients with hormone receptor positive and HER2 positive who underwent the neoadjuvant therapy. Soong June Bae, Department of Surgery, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Republic of Korea.

B20 Prolonged time to clearance of circulating-tumor DNA from patients with limited-stage small cell lung cancer is associated with inferior progression-free and overall survival. Christopher Cann, Vanderbilt University Medical Center, Nashville, Tennessee.

B21 Circulating tumor cell by microfluidic magnetophoresis-based gene expression changes for monitoring of prognosis in advanced prostate cancer patient: A pilot study. Jae-Seung Chung, 1Department of Urology, Inje University, Haeundae Paik Hospital, Busan, South Korea.

B22 A method for early detection of hemangiosarcoma in dogs. Taylor DePauw, University of Minnesota, Minneapolis, MN.

B23 PMN-MDSCs enhance CTC metastatic properties through reciprocal interactions via ROS/Notch/Nodal Nodal signaling. Dario Marchetti, UNM Health Sciences Center, Albuquerque, NM.

B24 Integration of filtration with immunoaffinity for isolating circulating tumor cells from pancreatic and colorectal cancer patients. Hugh Fan, University of Florida, GAINESVILLE, FL.

B25 Isolation and engraftment of circulating tumor cells into zebrafish embryos to predict tumor response of ovarian cancer patients. Charlotte Fieuws, UGhent, Ghent, East-Flandres, Belgium.

B26 A new way of fabricating high-porosity parylene membranes for high throughput capturing of viable circulating and exfoliated tumor cells from large-volume bodily fluids. Jian Gu, Univesity of Arizona College of Medicine - Phoenix, Phoenix, AZ.

B27 Longitudinal evaluation of PD-L1 expression on circulating tumor cells (CTCs) in non-small cell lung cancer (NSCLC) patients treated with nivolumab. Mio Ikeda, Wakayama medical university, Wakayama, Japan.

B28 Large and polymorphonuclear circulating cancer-associated cell with dual epithelial and macrophage/myeloid phenotype as a liquid biomarker in non-small cell lung cancer patients. Jussuf T. Kaifi, University of Missouri Health Care, Columbia, Missouri.

B29 Development of CTC-derived xenograft (CDX) mouse models from early-stage non-small cell lung cancer patients. Suvilesh Kanve Nagaraj, University of Missouri-Columbia, Columbia, Missouri.

B30 Clinical correlation of circulating tumor cells as a blood marker in Indian Head and Neck cancer patients. Jayant Khandare, Actorius Innovations and Research Private Limited, Pune, Maharashatra, India.

B31 Detection of viable tumor cells from cryo-preserved buffy coat using the VTX-1 Liquid Biopsy Platform. Haiyan (Emily) Liu, Vortex Biosciences, Pleasanton, California.

B34 The number of tumorspheres cultured from peripheral blood is directly related to presence of metastasis in breast cancer patients. Pizon Monika, Transfusion Center Bayreuth, Bayreuth, Bavaria, Germany.

B35 Isolation and characterization of circulating tumor cells (CTCs) from bladder cancer patients using a highly sensitive graphene oxide based microfluidic device (GO chip). Zeqi Niu, University of Michigan, Ann Arbor, Michigan.

B36 Identifying single cell gene expression and EGFR mutation profile heterogeneity in NSCLC patients CTCs. Sarah Owen, University of Michigan, Ann Arbor, MI.

B37 Analysis of non-small cell lung cancer (NSCLC) circulating biomarkers for monitoring early response to radiation therapy. Emma Purcell, University of Michigan, Ann Arbor, MI.

B38, PR10 Analytical Validation and Preliminary Clinical Utility of PD-L1 and HLA I Expression Profiling of Circulating Tumor Cells Using Automated Exclusion-Based Sample Preparation Technology. Jennifer Schehr, University of Wisconsin, Madison, WI.

B39 Changes in the number of residual circulating epithelial tumor cells (CETCs) and their programmed cell death ligand 1 (PD-L1) status during radiotherapy in breast cancer patients. Dorothea Schott, Transfusion Center Bayreuth, Bayreuth, Bavaria, Germany.

B40 Analytical validation and initial clinical utility of multi-analyte transcriptomic biomarker profiling of circulating tumor cells using automated exclusion-based sample preparation technology. Zachery Schultz, University of Wisconsin-Madison, Madison, Wisconsin.

B41 Piritramide analgesia reduces CEA mRNA-positive circulating tumor cells presence compared to morphine and epidural analgesia following radical colon cancer surgery. Josef Srovnal, Palacky University, Olomouc, Czech Republic.

B42 Identification of molecular drivers in circulating tumor cell cluster formation and lung metastasis. Rokana Taftaf, Northwestern University, Chicago, IL.

B43 Genetic analysis of circulating tumor cells of colorectal cancer patients captured by multi-antibodies technique. Kohki Takeda, Department of Digestive Surgery, Nippon Medical School Hospital, Tokyo, Japan.

B44 An optimized method of multimodal mRNA and gDNA isolation from low biomass input. Siegfried Hauch, QIAGEN GmbH, Hilden, Germany.

B45 High Throughput label-free isolation and expansion of circulating tumor cells (CTCs) from Non-small cell lung cancer (NSCLC) patients for personalized treatments. Mina Zeinali, University of Michigan, Ann Arbor, Michigan.

B46 Development of a fully integrated sample-to-report system for a Pan-Cancer application. Kelli Bramlett, Thermo Fisher Scientific, Austin, TX.

B47, PR13 Comprehensive detection of ctDNA in localized head and neck cancer by genome- and methylome-based analysis. Justin Burgener, Princess Margaret Cancer Centre, Toronto, Ontario, Canada.

B48 Minimally invasive classification of pediatric solid tumors using reduced representation bisulfite sequencing of cell-free DNA. Katleen De preter, Ghent University, Ghent, Belgium.

B49 Substantial performance differences among RNA purification kits and blood collection tubes in the Extracellular RNA Quality Control study - important considerations for liquid biopsies. Anneleen Decock, Center for Medical Genetics, Ghent University, Cancer Research Institute Ghent (CRIG), Ghent, Belgium.

B50 Using pattern recognition neural networks to detect prostate cancer: a new method to analyze flow cytometry-based immunophenotyping using machine learning. George Dominguez, Anixa Biosciences, Inc., San Jose, CA.

B51 Performance assessment of total RNA sequencing of human biofluids and extracellular vesicles. Celine Everaert, Ghent University, Ghent, East-Flanders, Belgium.

B52 Standardized Exosome Isolation and Profiling for Biomarker Discovery. Ahmed Fadiel, USF, Tampa, FL.

B53 Extracellular vesicle-based liquid biopsy via lipid-based nanoprobes. Hongzhang He, Captis Diagnostics, Pittsburgh, PA.

B54 Profiling the TCR beta repertoire in liquid biopsies from NSCLC donors. Leisa Jackson, Biodesix, Inc., Boulder, Colorado.

B55 PIK3CA mutation enrichment and detection in clinical samples. Ieva Keraite, Heriot-Watt University, Edinburgh, UK.

B56 Neuroblastoma patient-derived tumor-specific mRNA and DNA in platelets and extracellular vesicles. Nathalie Lak, Princess Maxima Center for Pediatric Oncology, Utrecht, Utrecht, Netherlands.

B57, PR12 Detection of EV-based signatures in prostate cancer using microflow cytometry and machine learning. John Lewis, University of Alberta, Edmonton, Alberta, Canada.

B58 Detection of ESR1 gene fusions in breast cancer cell derived exosomal RNA. Tiantong Liu, Department of Molecular Pharmacology and Chemical Biology, University of Pittsburgh, Pittsburgh, PA.

B59 Validation of an exosomal osteosarcoma-associated gene signature in dogs with osteosarcoma. Kelly Makielski, University of Minnesota, Minneapolis, MN.

B60 Isolation of cfDNA and circulating extracellular vesicles allows for biomarker detection in a single aliquot of breast cancer patients plasma. VERA MUGONI, Department of Cellular, Computational and Integrative Biology (CIBIO), University of Trento, Trento, Italy, Trento, Italy.

B61 Encyclopedic non-invasive liquid biopsies for differential diagnosis in prostate cancer. Dadasaheb Akolkar, Datar Cancer Genetics Limited, Nasik, Maharashtra, India.

B62 Wholesome non-invasive liquid biopsies for pharmacodiagnostic work-up in breast cancer. Dadasaheb Akolkar, Datar Cancer Genetics Limited, Nasik, Maharashtra, India.

B63 Clearance of ctDNA in triple negative and Her2 positive breast cancer patients during neoadjuvant treatment is correlated with pathological complete response. Vicente Peg, Vall d'Hebron University Hospital, Barcelona, Spain.

B64 Translating the ClarityDxProstate microflow cytometry extracellular vesicle assay to the clinic: A real-world experience in progress. Desmond PInk, Nanostics Inc, Edmonton, Alberta, Canada.

B65 Precompetitive collaboration on liquid biopsy for early cancer assessment. Lynn Sorbara, National Cancer Institute/NIH, Rockville, Maryland.

B66 Multiplexed quantitative screening of circulating tumor DNA using a nanoplasmonic sensor. Amogha Tadimety, Thayer School of Engineering at Dartmouth, Hanover, NH.

B67 Genome-wide 5-hydroxymethylcytosine mapping in circulating cell-free DNA reveals prognostic implications in pancreatic ductal adenocarcinoma. Zhou Zhang, Department of Preventive Medicine, Northwestern University, Chicago, IL.