



# 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 OncoPrint 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 Zembutsu, 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 EpiSwitch<sup>TM</sup> 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, Trovogene, 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.