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.