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Caris Life Sciences to Present at the 2021 San Antonio Breast Cancer Symposium

Studies highlight the importance of comprehensive genomic profiling to better treat metastatic breast cancer

IRVING, Texas, Dec. 7, 2021 – [Caris Life Sciences](#)® (Caris), the leading molecular science and technology company actively developing and delivering innovative solutions to revolutionize healthcare, announced today that it will present results at the San Antonio Breast Cancer Symposium (SABCS) that illustrate the potential impact of molecular profiling on the treatment of breast cancer.

Relationships between breast cancer metastases site and mutations detected by DNA next-generation sequencing were investigated using 12,464 breast cancer samples using [Caris'](#) Next-Generation Sequencing (NGS) technology. Results demonstrate that breast cancer metastases are different from primary tumors and have site-specific mutational profiles. Breast cancer metastases to gynecological organs show a unique mutational and immune suppression profile. The data supports repeat biopsy of metastases, particularly gynecological site metastases, given more targetable mutations may be revealed, and could clarify tumor evolution when confirmed from matched or sequential specimens. Integrating comprehensive genomic profiling with clinical outcomes and circulating nucleic acids (cNA) may extend this prognostic signature and improve treatment strategies for patients.

The full results will be featured in "*Spotlight Poster Discussion 6*" Wednesday, Dec. 8, from 5:00 - 6:30 p.m. CT at the 2021 SABCS in San Antonio, Texas (Presentation #PD6-04). The poster is titled, "Mutational landscape and immune infiltration of breast cancer metastases to gynecologic and other organs."

"Caris' Precision Oncology Alliance continues its contribution to advancing breast cancer research by presenting novel findings on genomic-patterning of metastases and the tumor microenvironment at this year's SABCS," said [Dr. Milan Radovich](#), Ph.D., Chief Precision Medicine Officer and Senior Vice President at Caris Life Sciences. "By leveraging Caris' expansive real world clinico-genomic database, our partner academic institutions are able to uncover new insights into the underpinnings of breast cancer biology and clinical outcomes."

The studies were performed in collaboration with The Cancer Center at Brown University, The Duke Cancer Institute and USC Norris Comprehensive Cancer Center, all members of Caris'

Precision Oncology Alliance™ (POA). The POA includes 57 cancer centers and academic institutions, including 24 NCI-designated cancer centers, collaborating to advance precision oncology and biomarker-driven research. POA members work together to establish and optimize standards of care for molecular testing through innovative research focused on predictive and prognostic markers that improve the clinical outcomes for cancer patients.

Additional Presentations Reveal Potential Impact of Comprehensive Molecular Profiling

Caris will present additional data from studies demonstrating the critical role of precision medicine and molecular profiling in the treatment of breast cancer. All presentations will be made available online through [Caris' website](#) beginning Dec. 8.

- **Comprehensive characterization of neurotransmitters and neuronal signaling gene alterations in invasive breast cancers (Presentation Number: PD6-06)**

This study aimed to retrospectively characterize neurotransmitters and neuronal signaling (NTNS) gene alterations in a large real-world breast cancer cohort. Results demonstrate that NTNS pathways are significantly enriched in Triple Negative Breast Cancer tumors, and particularly in brain and bone metastases, with the data advancing the current understanding of the role of NTNS pathways in breast cancer tumorigenesis and metastasis. Further investigation on genetic determinants and signaling alternations associated with the observed NTNS pathway deregulation is warranted and could inform the development of novel therapeutic strategies.

- **Concurrent predictors of an immune responsive tumor microenvironment within tumor mutational burden-high breast cancer (Presentation Number: P2-08-08)**

This study aimed to further evaluate concurrent predictors of an immune responsive or non-responsive TME within TMB-H metastatic breast cancer (MBC). Results demonstrate that high TMB alone does not strongly correlate with immune infiltrate or immune response gene signatures in MBC. Within TMB-H MBC, concurrent mutations in MSI-H and KMT2D are associated with an immune responsive TME while mutations in PIK3CA, CHEK2, CBF3, amplifications of CCND1, FGF19, FGF4 and MMLT6 and expression of Androgen Receptor by IHC are associated with an immune non-responsive TME. Co-occurring biomarkers within TMB-H breast cancer warrant evaluation in prospective cohorts for response or resistance to ICI to help develop composite biomarkers in breast cancer.

“Our data at SABCs 2021 reinforces the need for a comprehensive, multi-omic approach to precision medicine in metastatic breast cancer care,” said [W. Michael Korn](#), M.D., Chief Medical Officer at Caris Life Sciences. “As the use of precision medicine continues to evolve, our ongoing work in tumor biology and biomarkers will have broad implications in helping to guide treatment decisions and the development of novel therapeutic options for patients across a range of tumor types, including breast cancer.”

About Caris Life Sciences

Caris Life Sciences® (Caris) is the leading molecular science and technology company actively

developing and delivering innovative solutions to revolutionize healthcare and improve patient outcomes. Through comprehensive molecular profiling (Whole Exome and Whole Transcriptome Sequencing) and the application of advanced artificial intelligence (AI) and machine learning algorithms, Caris has created the large-scale clinico-genomic database and cognitive computing needed to analyze and unravel the molecular complexity of disease. This information provides an unmatched resource and the ideal path forward to conduct the basic, fundamental research to accelerate discovery for detection, diagnosis, monitoring, therapy selection and drug development to improve the human condition.

With a primary focus on cancer, Caris' suite of market-leading molecular profiling offerings assesses DNA, RNA and proteins to reveal a molecular blueprint that helps patients, physicians and researchers better detect, diagnose and treat patients. Caris' latest advancement, which is currently available within its Precision Oncology Alliance, is a blood-based, circulating nucleic acids sequencing (cNAS) assay that combines comprehensive molecular analysis (Whole Exome and Whole Transcriptome Sequencing from blood) and serial monitoring – making it the most powerful liquid biopsy assay ever developed.

Headquartered in Irving, Texas, Caris has offices in Phoenix, New York, Denver, Tokyo, Japan and Basel, Switzerland. Caris provides services throughout the U.S., Europe, Asia and other international markets. To learn more, please visit CarisLifeSciences.com or follow us on Twitter ([@CarisLS](https://twitter.com/CarisLS)).

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