



**FOR IMMEDIATE RELEASE**

**New Data in *Nature's Scientific Reports* Shows Caris Life Sciences' ADAPT Platform Detects Breast Cancer in Women via Liquid Biopsy of Circulating Exosomes**

*Results Demonstrate Potential of Unprecedented Technology Approach to Classify Women Regardless of Breast Density*

**IRVING, Texas, Feb. 21, 2017** – Caris Life Sciences<sup>®</sup>, a leading innovator in molecular science focused on fulfilling the promise of precision medicine, today announced the results of a study that demonstrate the ability of the company's ADAPT Biotargeting System<sup>™</sup> to detect and classify women with or without breast cancer based on a minimally-invasive liquid biopsy of circulating exosomes from blood plasma. The study was published in *Nature's Scientific Reports* (Scientific Reports 7, Article number: 42741 (2017) doi:10.1038/srep42741) on February 20.

"The ability to accurately detect breast cancer with a minimally-invasive blood-based method that covers a systems-wide range of biomarkers would offer a significant advance in breast cancer diagnosis and patient management," said Dr. Lee Schwartzberg, Chief, Division of Hematology/Oncology at the University of Tennessee Health Science Center. "Results of this study provide a potential future opportunity to address shortcomings in the current standard of diagnostic testing utilizing mammography and other imaging techniques, which frequently generate indeterminate results that can result in patients facing invasive tissue biopsies."

The ADAPT Biotargeting System uses a highly complex library of single-stranded molecules called oligodeoxynucleotide (ssODNs) aptamers that bind to individual and multi-component targets, enabling them to profile biological samples at a systems-wide scale. In this study, a parent library of approximately 10<sup>11</sup> ssODNs was 'trained' or enriched for aptamers that preferentially associate with plasma exosomes from women with or without breast cancer. The trained library was then tested against an independent set of plasma exosomes from women with or without disease. Aptamer-mediated affinity purification and mass spectrometry identified low-abundance exosome-associated proteins and protein complexes associated with the two groups. A blinded evaluation of 500 samples from healthy women and breast cancer-positive patients distinguished the two groups independent of breast tissue density.

"Exosomes are increasingly recognized as a rich source of meaningful information underlying healthy and diseased states because they reflect the dynamic alterations of cellular processes during tumor progression," said Michael Famulok, Ph.D., Professor at the Life & Medical Sciences (LIMES)-Institute, University of Bonn, Germany, and co-author of the paper. "This study is important because the results provide proof-of-concept supporting the characterization of complex phenotypes by using an unbiased aptamer-based and minimally-invasive profiling platform. While more work is required before a clinical

offering is available, we are encouraged by these findings that indicate the potential of the ADAPT Biotargeting System to improve cancer diagnostics using this innovative approach.”

“This paper represents a new and novel method for diagnostics that is based on the unbiased profiling of molecular signatures obtained from liquid biopsies from breast cancer patients,” said David Spetzler, Ph.D., M.B.A., President and Chief Scientific Officer of Caris Life Sciences, and co-author of the paper. “This proof-of-concept study of our ADAPT Biotargeting platform in the diagnostics space provides evidence of the platform’s potential for other applications such as drug target discovery and development, biomarker identification and therapeutics.”

### **About Caris Life Sciences**

Caris Life Sciences<sup>®</sup> is a leading innovator in molecular science focused on fulfilling the promise of precision medicine through quality and innovation. The company’s ADAPT Biotargeting System<sup>™</sup> is a revolutionary and unbiased profiling platform with applications across therapy development, drug delivery, advanced diagnostics and disease monitoring. Currently being developed for cancer and other complex diseases, the ADAPT Biotargeting System is able to simultaneously measure millions of molecular interactions within complex biological systems in their natural state(s). Caris also offers comprehensive tumor profiling services through its patented and proprietary product, Caris Molecular Intelligence<sup>®</sup> (CMI). With more than 110,000 clinical cases, CMI provides oncologists with the most clinically actionable treatment options available to personalize cancer care today. Headquartered in Irving, Texas, Caris Life Sciences offers services throughout the U.S., Europe and other international markets. To learn more, please visit [www.CarisLifeSciences.com](http://www.CarisLifeSciences.com).

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### **Media Inquiries:**

The Ruth Group

Kirsten Thomas / Joanna Zimmerman

[kthomas@theruthgroup.com](mailto:kthomas@theruthgroup.com) / [jzimmerman@theruthgroup.com](mailto:jzimmerman@theruthgroup.com)

Tel: +1-508-280-6592 / +1-646-536-7006

Source: Caris Life Sciences

Caris Life Sciences Media Relations & Corporate Affairs

[CorpComm@carisls.com](mailto:CorpComm@carisls.com)

214-294-5606