# News Release



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# EMERGENT BIOSOLUTIONS PRESENTS PRECLINICAL DATA ON ES425 A BISPECIFIC IMMUNOTHERAPEUTIC PROTEIN FOR TRIPLE-NEGATIVE BREAST CANCER

**GAITHERSBURG**, Md., April 20, 2016—Emergent BioSolutions Inc. (NYSE: EBS) today announced that it presented preclinical data on its bispecific ADAPTIR<sup>™</sup> (modular protein technology) molecule, ES425, at the American Association for Cancer Research Annual Meeting in New Orleans, Louisiana. The ES425 molecule is being developed as a potential therapeutic for triple-negative breast cancer (TNBC). This product candidate was constructed using the ADAPTIR platform technology and will be further developed by Emergent's planned spin-off company Aptevo Therapeutics.

ES425 is a bispecific immunotherapeutic protein that redirects T-cell cytotoxicity to tumor cells expressing ROR1 (receptor tyrosine kinase-like orphan receptor 1), an oncofetal antigen expressed on TNBC and other solid tumor and hematologic malignancies.

The presentation, "Anti-ROR1 x Anti-CD3 ADAPTIR<sup>™</sup> Molecule, ES425, Redirects T-Cell Cytotoxicity and Inhibits Tumor Growth in Preclinical Models of Triple-Negative Breast Cancer," shared results of preclinical studies examining *in vitro* and *in vivo* activity of ES425. Results showed that ES425 efficiently redirected T-cell cytotoxicity against ROR1(+) cell lines at low picomolar concentrations *in vitro*. T cells were activated and proliferated in response to ES425 in the presence of ROR1(+) target cells. *In vivo*, pharmacokinetic analysis showed inhibition of tumor growth and an improvement in overall survival in preclinical models of TNBC.

"The encouraging preclinical data demonstrate that ES425 effectively redirects T-cell cytotoxicity in preclinical TNBC models and merits investigation as a potential therapeutic in TNBC and other malignancies," said Scott C. Stromatt, M.D., chief medical officer of Emergent BioSolutions. "Effective treatment of metastatic, triple-negative breast cancer remains a highly unmet medical need and we look forward to continuing development of this molecule to enable filing an Investigational New Drug application in the next year."

### About the ADAPTIR<sup>™</sup> Platform

ADAPTIR bispecific proteins are modular, single chain polypeptides that are comprised of two separate binding domains, a hinge segment, and an effector domain. They have a differentiated structure from monoclonal antibodies and can generate a unique signaling response. Some ADAPTIR molecules may mediate T-cell cytotoxicity by redirecting T cells against tumor cells and some by targeted cytokine delivery. In addition, other ADAPTIR proteins may mediate complement dependent cytotoxicity and Fc dependent cytotoxicity, similar to monoclonal antibodies. ADAPTIR and any and all Emergent BioSolutions Inc. brand, product, service and feature names, logos, and slogans are trademarks or registered trademarks of Emergent BioSolutions Inc. or its subsidiaries in the United States or other countries. All rights reserved.



## **About Emergent BioSolutions**

Emergent BioSolutions is a global specialty biopharmaceutical company dedicated to one simple mission—to protect and enhance life. We develop, manufacture, and deliver a portfolio of medical countermeasures for biological and chemical threats as well as emerging infectious diseases. We also develop and commercialize therapeutics and other specialty products for hospitals and clinics in the areas of hematology/oncology, transplantation, infectious diseases and autoimmune disorders. Through our work, we envision protecting and enhancing 50 million lives with our products by 2025. Additional information about the company may be found at <u>www.emergentbiosolutions.com</u>. Follow us @emergentbiosolu.

#### **About Aptevo Therapeutics**

Aptevo Therapeutics Inc. is a biotechnology company focused on novel oncology and hematology therapeutics to meaningfully improve patients' lives. Our core technology is the ADAPTIR<sup>™</sup> (modular protein technology) platform. Aptevo has four revenue-generating products in the areas of hematology and infectious diseases, as well as various investigational stage product candidates in immuno-oncology. Aptevo, which is currently a wholly-owned subsidiary of Emergent BioSolutions Inc., was formed in connection with the planned spin-off of Emergent's biosciences business. Upon completion of the spin-off, Aptevo will become a stand-alone publicly-traded company. Additional information about Aptevo may be found in its Form 10 Registration Statement filed with the Securities and Exchange Commission and can be accessed from <u>www.sec.gov</u> under the name Aptevo Therapeutics Inc. or from <u>www.emergentbiosolutions.com/spinoff</u>.

#### Safe Harbor Statement

This press release includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any statements, other than statements of historical fact, including statements about the potential and therapeutic opportunity of the ES425 molecule, the planned spin-off of Aptevo Therapeutics and any other statements containing the words "believes," "expects," "anticipates," "intends," "plans," "estimates" and similar expressions, are forward-looking statements. These forward-looking statements are based on our current intentions, beliefs and expectations regarding future events. We cannot guarantee that any forward-looking statement will be accurate. Investors should realize that if underlying assumptions prove inaccurate or unknown risks or uncertainties materialize, actual results could differ materially from our expectations. Investors are, therefore, cautioned not to place undue reliance on any forward-looking statement. Any forward-looking statement speaks only as of the date of this press release, and, except as required by law, we do not undertake to update any forward-looking statement to reflect new information, events or circumstances.

There are a number of important factors that could cause the company's actual results to differ materially from those indicated by such forward-looking statements, including the success of our ongoing and planned preclinical studies and clinical trials; the rate and degree of market acceptance and clinical utility of our products; the timing of and our ability to obtain and maintain regulatory approvals for our product candidates; our commercialization, marketing and manufacturing capabilities and strategy; and whether the planned spin-off of Aptevo Therapeutics is completed. The foregoing sets forth many, but not all, of the factors that could cause actual results to differ from our expectations in any forward-looking statement. Investors should consider this cautionary statement, as well as the risk factors identified in our periodic reports filed with the SEC, when evaluating our forward-looking statements.