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# EMERGENT BIOSOLUTIONS PRESENTS PRECLINICAL DATA ON ES414 ITS LEAD BISPECIFIC ADAPTIR THERAPEUTIC FOR PROSTATE CANCER

**ROCKVILLE, MD, November 6, 2013**—Emergent BioSolutions Inc. (NYSE: EBS) today announced that it presented preclinical data on its lead bispecific ADAPTIR<sup>™</sup> (Modular Protein Technology) therapeutic, ES414, at the 5<sup>th</sup> Annual Protein and Antibody Engineering Summit (PEGS) in Lisbon, Portugal. The ES414 molecule was constructed using Emergent's ADAPTIR technology platform and is being developed as a potential therapeutic for metastatic castration-resistant prostate cancer (mCRPC).

The presentation, "ADAPTIR Molecules: Unique Biology from a Flexible Bispecific Platform," shared results of preclinical studies demonstrating ES414 is pharmacologically active and well tolerated. Preclinical *in vitro* and *in vivo* studies have shown ES414 redirects T-cell cytotoxicity (RTCC) towards prostate cancer cells expressing Prostate Specific Membrane Antigen (PSMA), an antigen commonly found on prostate cancer cells. The ES414 molecule selectively binds and links the T cell receptor on cytotoxic T cells to the PSMA on tumor cells, triggering tumor cell destruction.

"The encouraging ES414 preclinical data support our efforts to both engage the scientific community and further generate partnering interest in our biosciences programs," said Barry Labinger, Emergent's executive vice president and biosciences division president. "We believe certain features of ES414 including activity at very low doses, minimal cytokine release on binding to target and T cells, and a long half-life, make it a promising molecule for continued development. Additionally, the company has a defined, scalable process for Phase 1 clinical manufacturing of ES414 and is proceeding toward filing an Investigational New Drug application."

## **About Prostate Cancer**

Prostate cancer is the most common cancer in men with approximately 230,000 new cases annually in the United States. Although screening, radiation, surgery and hormone ablation therapy have greatly improved the detection and treatment of early stage prostate cancer, few options exist to treat metastatic castration-resistant prostate cancer.

#### **About the ADAPTIR™ Platform**

ADAPTIR bispecific proteins are modular, single chain polypeptides that comprise two separate binding domains, a hinge segment, and an effector domain (huFc). They have a differentiated structure from monoclonal antibodies and can generate a unique signaling response. Some ADAPTIR molecules, like ES414, may mediate T-cell cytotoxicity by redirecting T cells against tumor cells. In

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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 specialty pharmaceutical company seeking to protect and enhance life by offering specialized products to healthcare providers and governments to address medical needs and emerging health threats. Additional information may be found at <a href="https://www.emergentbiosolutions.com">www.emergentbiosolutions.com</a>. Follow us on twitter: @emergentbiosolu.

#### **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, are forward-looking statements. Forward-looking statements in this press release include statements about the potential and therapeutic opportunity of the ES414 molecule. 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; and our commercialization, marketing and manufacturing capabilities and strategy. 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.

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