September 6, 2016

Aeolus Announces Positive Data Confirming Efficacy of AEOL 10150 as a Medical Countermeasure Against Sulfur Mustard Gas

MISSION VIEJO, CA -- (Marketwired) -- 09/06/16 --

- ***AEOL 10150 DOUBLED SURVIVAL AT 28 DAYS AFTER EXPOSURE TO LETHAL SULFUR MUSTARD GAS***
- ***MEDIAN SURVIVAL TIME FOR ANIMALS TREATED WITH AEOL 10150 WAS 4.5 TIMES GREATER THAN UNTREATED ANIMALS***

Aeolus Pharmaceuticals, Inc. (OTCQB: AOLS), a biotechnology company developing compounds to protect against fibrosis, inflammation, nerve damage and infection announced the release of data confirming the efficacy of AEOL 10150 as a medical countermeasure against sulfur mustard gas inhalation. The new data are from studies performed by Brian Day, Ph.D., Vice Chair of Research at National Jewish Health in collaboration with the U.S. Army Medical Institute for Chemical Defense and funded by the CounterACT Program, the National Institutes of Health Office of the Director, and the National Institute of Environmental Health Sciences.

In this most recent study, utilizing a new sustained-release formulation, 28 animals (14 control and 14 treated daily with AEOL 10150 for 28 days) were followed for 28 days after inhaled exposure to a lethal dose of sulfur mustard gas. The primary endpoint in the study was survival at 28 days and the secondary endpoint was median survival. Survival at 28 days in the AEOL 10150 treatment animals improved to 36 percent from 14 percent in the control group. Median survival improved from 4 days in the control group to 18 days in the AEOL 10150 treated group. There was also improvement in blood oxygenation in the AEOL 10150 treated group. These positive results build on data from prior acute and longer-term studies noted below:

Sulfur Mustard Lung Program -- Highlights from Prior Studies

- A prior 28 day study revealed that a 1.4mg/kg sulfur mustard gas exposure is 100% lethal by 20 days.
- In the prior 28 day study AEOL 10150 treatment every four hours for two days increased the median sulfur mustard survival from 2.8 days to 16 days with survival of AEOL10150 treated animals past 28 days.
- In acute 24 to 48 hour studies, AEOL 10150 treatment:
    - significantly improved lung function 25% to normal levels in sulfur mustard

exposed rats which correlated with arterial blood gas improvements in pO2, pCO2 and pH.
- significantly improved clinical scores 60% in sulfur mustard exposed rats.
- significantly improved survival at 24 hours after sulfur mustard exposure from 42% vs. 94% and at 48hrs from 35% to 88%.
- reduced airway cast formation at 24 hours and 48 hours.

"AEOL 10150 has now been tested in 4 studies with a total of 100 rats and in each study the drug has demonstrated a significant improvement on survival and underlying measures of lung function and lung damage," stated John L. McManus, President and Chief Executive Officer of Aeolus Pharmaceuticals, Inc. "The compound's efficacy against chemical threats adds to its demonstrated efficacy as a medical countermeasure against radiological threats and its promise as a therapy for patients suffering from Idiopathic Pulmonary Fibrosis and the side effects of radiation for cancer therapy. We look forward to initiating clinical studies of AEOL 10150 in IPF patients in the near future to further confirm the drug's potential lung protection and to provide safety data for our IPF and medical countermeasure programs."

The development of AEOL 10150 as a treatment for chemical vesicant and nerve gas exposure is funded by the National Institutes of Health's Countermeasures Against Chemical Threats ("CounterACT") program. Aeolus is also developing AEOL 10150 as a treatment for the lung syndrome of Acute Radiation Syndrome ("Lung-ARS") under a five year, cost plus contract with the Biomedical Advanced Research and Development Authority ("BARDA"), a division of the U.S. Department of Health and Human Services. The contract, worth up to $118.4 million, fully funds the development of AEOL 10150 through approval and licensure by the U.S. FDA. Aeolus believes that much of the chemistry, manufacturing and controls, toxicology and safety data generated under the BARDA contract will be applicable to support a potential approval of AEOL 10150 as a countermeasure against chemical threats, in addition to the Lung-ARS indication.

About Aeolus Pharmaceuticals

Aeolus Pharmaceuticals is developing compounds with demonstrated anti-fibrotic, anti-inflammatory, anti-infective and neuro-protective properties. Its first compound, AEOL 10150, is being developed, with funding from the U.S. Department of Health and Human Services, as a medical countermeasure against chemical and radiological weapons, as well as a treatment for pulmonary fibrosis. Aeolus' strategy is to leverage the substantial investment in toxicology, manufacturing and preclinical and clinical studies of AEOL 10150 made by U.S. government agencies, including the contract with BARDA valued, with options, at up to $118.4 million, to efficiently develop the compound for use in idiopathic pulmonary fibrosis and oncology. For more information, please visit Aeolus's corporate website at www.aolsrx.com

Forward-Looking Statements

The statements in this press release that are not purely statements of historical fact are forward-looking statements. Such statements include, but are not limited to, those relating to Aeolus' product candidates, as well as its proprietary technologies and research programs, and the Company's initiation or potential initiation of a phase 1 study in IPR or

oncology patients. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause Aeolus' actual results to be materially different from historical results or from any results expressed or implied by such forward-looking statements. Important factors that could cause results to differ include risks associated with uncertainties of progress and timing of clinical trials, scientific research and product development activities; difficulties or delays in development, testing and obtaining regulatory approval; the need to obtain funding for pre-clinical and clinical trials and operations; the scope and validity of intellectual property protection for Aeolus' product candidates, proprietary technologies and their uses; competition from other biopharmaceutical companies; and whether BARDA exercises one or more additional options under the its contract with Aeolus. Certain of these factors and others are more fully described in Aeolus' filings with the Securities and Exchange Commission, including, but not limited to, Aeolus' Annual Report on Form 10-K for the year ended September 30, 2015. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof.

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Source: Aeolus Pharmaceuticals