



DISCOVERY LABORATORIES, INC.

DISCOVERY'S HUMANIZED LUNG SURFACTANT EXHIBITS SIGNIFICANT ANTI-INFLAMMATORY PROPERTIES

Results Suggest Discovery's Surfactant May Also Modify the Severity of Lung Injury in Respiratory Diseases

Doylestown, PA – April 9, 2003 – Discovery Laboratories, Inc. (Nasdaq: DSCO), announced today that research at the University of Pennsylvania Department of Medicine, Pulmonary, Allergy and Critical Care Division has shown that Discovery's humanized lung surfactant, including its lead product, Surfaxin[®], exhibits significant anti-inflammatory properties in the lungs.

In animal models of Acute Lung Injury, Discovery's humanized lung surfactant demonstrated anti-inflammatory properties including a significant reduction in protein leak and influx of inflammatory cells into the airways. Many respiratory diseases, such as Acute Respiratory Distress Syndrome, Acute Lung Injury, asthma, and chronic obstructive pulmonary disease (COPD), are associated with an inflammatory event and degradation of natural lung surfactant.

Melpo Christofidou-Solomidou, Ph.D., the principal investigator of the study and a Research Assistant Professor of Medicine at the University of Pennsylvania Department of Medicine, Pulmonary, Allergy and Critical Care Division, commented, "Notably, in certain animal models Discovery's humanized lung surfactant almost completely blocked the appearance of neutrophils in the lungs. In contrast, animals treated with the leading commercially available animal-derived surfactant, exhibited little positive effect. The appearance of these neutrophils is considered one of the hallmarks of an inflammatory response in the lungs. These results suggest that Discovery's surfactant may modify the severity of lung injury associated with respiratory diseases."

Specific details will be presented in full at the FASEB (Federation of American Societies of Experimental Biology) in San Diego, California, USA, on April 12, 2003, and the American Thoracic Society in Seattle, Washington, USA, on May 18, 2003.

Robert J. Capetola, Ph.D, President and Chief Executive Officer of Discovery Laboratories stated, "Surfactants are critical for breathing. There is a wealth of scientific literature supporting the therapeutic benefits of surfactant replacement therapy - the ability to replace or provide a lung surfactant to those patients suffering from or at risk of dysfunction of their natural lung surfactant. We believe our proprietary surfactant technology is the only one presently available to potentially provide surfactant replacement therapy for a broad range of respiratory diseases. These anti-inflammatory results further support the therapeutic rationale of our aerosolized surfactant development program which is initially targeting hospitalized patients suffering from Acute Lung

Injury (ALI), asthma, and COPD, each a condition that is associated with an inflammatory event that causes surfactant dysfunction.”

The research at the University of Pennsylvania was conducted and funded pursuant to a sponsored research agreement with Discovery.

About Discovery Laboratories

Discovery Laboratories, Inc. is a specialty pharmaceutical company leveraging the only platform technology in humanized lung surfactants to develop a number of potential novel respiratory therapies. Surfactants are produced naturally in the lungs and are critical to all air-breathing mammals. Discovery’s humanized surfactant technology produces an engineered version of natural lung surfactant that is designed to precisely mimic the essential human lung surfactant protein B (SP-B) and is being developed initially for critical care patients with life-threatening respiratory disorders where there are few or no approved therapies available. Surfaxin, Discovery’s lead product, is currently in Phase 3 clinical trials for Respiratory Distress Syndrome (RDS) in premature infants, a Phase 3 clinical trial for Meconium Aspiration Syndrome (MAS) in full-term infants, and a Phase 2 clinical trial for Acute Respiratory Distress Syndrome (ARDS) in adults. Aerosol formulations are being developed in an effort to treat other respiratory conditions including asthma, chronic obstructive pulmonary disease, acute lung injury and upper airway diseases such as sinusitis. Discovery is developing a dedicated sales and marketing capability through a collaboration with Quintiles for the United States, and has a strategic alliance with Esteve for Europe and Latin America.

Interested parties can receive corporate updates by sending their email addresses to dsco@focuspartners.com. More information about Discovery Laboratories is available on the Company's Web site at www.discoverylabs.com.

To the extent that statements in this press release are not strictly historical, including statements as to business strategy, outlook, objectives, future milestones, plans, intentions, goals, future financial conditions, future collaboration agreements, the success of the Company’s product development, events conditioned on stockholder or other approval, or otherwise as to future events, such statements are forward-looking, and are made pursuant to the safe harbor provisions of the Securities Litigation Reform Act of 1995. The forward-looking statements contained in this release are subject to certain risks and uncertainties that could cause actual results to differ materially from the statements made. Among the factors which could affect the company's actual results and could cause results to differ from those contained in the forward-looking statements contained herein are the risk that financial conditions may change, risks relating to the progress of the company's research and development, the risk that the Company will not be able to raise additional capital or enter into additional collaboration agreements, risks relating to the progress of the Company's research and development, risks relating to the lack of sufficient drug product for completion of any of the Company’s clinical studies, and risks relating to the development of competing therapies and/or technologies by other companies. Those associated risks and others are further described in the company's filings with the Securities and Exchange Commission including the most recent reports on Forms 10-K, 8-K, 10-QSB and 10-Q, and amendments thereto.

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