



NEWS RELEASE

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Spiration, Inc. Presents Further Analysis of Computed Tomography Results from Pilot Study of Innovative Treatment for Emphysema

Analysis of High Resolution CT Scans Enhances Understanding of Unique Mechanism of Action; Validates Correlation to Patient-Reported Quality of Life Improvements

Toronto and Redmond, Wash. – May 20, 2008 – Spiration, Inc., a developer of novel medical devices designed to benefit patients with severe and chronic conditions of the lung, today presented further results of a Computed Tomography (CT) Study at the Annual American Thoracic Society (ATS) International conference taking place in Toronto May 16 to 21, 2008.

Results of the CT Study provide further understanding of the novel mechanism of action of the IBV[®] Valve System, Spiration's minimally invasive treatment for severe emphysema. In addition, an analysis of the data showed that it is possible to establish a threshold of response to the therapy that demonstrates a significant correlation between changes in regional lung volume and patient-reported health status improvements. Images analyzed in the CT Study were from patients treated with Spiration's therapy for severe emphysema as part of the company's U.S. pilot study of the IBV Valve System.

Onset and Duration of Lung Volume Response

Data from the study indicates that the IBV Valve System treatment of bilateral upper-lobes of the lung results in an inter-lobar shift of volume from the treated to the less-affected, untreated areas. These lobar volume changes are consistent and sustained at one, three and six months. In addition, health-related quality of life showed highly significant improvement over time and was correlated with the inter-lobar volume shifts.



“Last year we presented results showing that computed tomography analysis of lobar volume changes are associated with very significant quality of life improvements following bronchial valve treatment. The results presented today further enhance our understanding of the IBV Valve’s mechanism of action and the timeframes in which results can expect to be seen. These data demonstrate that lobar volume changes are dynamic and increase over time,” said Steven Springmeyer, M.D., medical director, Spiration, Inc. “The decreasing upper lobe volume and increasing non-upper lobe volume suggests that bilateral upper lobe treatment with the IBV Valve System has early and later positive effects on both the treated and untreated lobes of the lung.”

Correlation of Regional Lung Volume Changes with Improvements in Clinical Findings

Another analysis of the CT study reported by Spiration at the ATS conference evaluated whether a threshold could be established to correlate CT scan results with improvements in self-reported health status, pulmonary function tests, and/or a six-minute walk test.

Using a reasonable regional volume change threshold, the study found that regional volumetric changes quantified by CT scanning significantly correlate with self-reported health status improvements. Effort-dependent tests such as pulmonary function and six-minute walk tests had greater variation but demonstrated positive trends in the CT responder group.

“These data continue to validate the definition of patient response by CT volume analysis and the significant association with the St. George’s Respiratory Questionnaire, a disease-specific measure that evaluates patient quality of life. Furthermore, this successful use of quantitative CT in a research study may presage broader application of this technology,” said Harvey O. Coxson, Ph.D., of Vancouver General Hospital in Canada.

About CT Scan Analysis Technology

The advanced CT scan analysis technology used in the study combines modern high-resolution imaging with volumetric software analyses. By applying this technology to images before and after the valve procedures, researchers are able to accurately pinpoint the changes in inspired air volumes and understand the redirection of air from the diseased portions of the lung to the less-affected areas. The CT scan analysis technology has provided the detailed analyses needed to better understand the manner in which Spiration’s bronchial valve treatment works.



About the CT Study

The purpose of the CT Study, which consisted of retrospective and prospective analyses of data from patients from the U.S. pilot investigational study of the IBV Valve System, was to correlate patient-reported disease specific health status with CT measurements of regional lung volumes. Through the use of CT analysis technology, investigators were able to confirm that the re-direction of air from the bronchial valves improved the patient's health status.

About the IBV Valve System

The IBV Valve System was developed as a potential treatment alternative for the many people with emphysema who do not respond well to current medical therapies or are not eligible for invasive surgery such as lung volume reduction or lung transplantation. The device is currently under investigation in the U.S. as a new treatment option for patients with severe emphysema. In Europe, the system has received market clearance through CE Mark for the treatment of diseased and damaged lung, an indication that includes the treatment of emphysema and the resolution of prolonged air leaks, which can occur following lung surgery.

For the treatment of emphysema, the IBV Valve System is designed to redirect airflow from diseased portions of the lung to healthier areas. During the minimally invasive procedure, a catheter is passed through a bronchoscope (a flexible tube passed into the bronchial tubes through the mouth or nose) to deploy the small umbrella-shaped valves into the airways of the upper lobes of the lungs.

About Spiration, Inc.

Spiration, Inc. is committed to improving quality of life for patients with acute and chronic conditions of the lung through the development of novel therapies. Founded in 1999 in Redmond, Wash., the privately held company is backed by prominent investors including Three Arch Partners, New Enterprise Associates, Versant Ventures, Sprout Group (New Leaf Ventures), InterWest Partners, Investor Growth Capital, Boston Scientific Corporation and Olympus Medical Systems Corp. For more information, visit the company's website at www.spiration.com.

Information about the U.S. pivotal study of Spiration's IBV Valve System may be found at www.emphysematrial.com.

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The IBV Valve System has the CE Mark in the EU. The IBV Valve System is an investigational device in the United States. CAUTION – Investigational device limited by Federal (or U.S.) law to investigational use.