

## **Harvard Bioscience's InBreath Bioreactor Highlighted in Article in The Lancet Summarizing the World's First Synthetic Trachea Transplant**

### **Company Continues to Invest in Regenerative Medicine and Completes Construction of its U.S. Production Facility**

HOLLISTON, Mass., Nov. 28, 2011 (GLOBE NEWSWIRE) -- Harvard Bioscience, Inc. (Nasdaq:HBIO), a global developer, manufacturer, and marketer of a broad range of tools to advance life science research and regenerative medicine, was highlighted in an article published in *The Lancet*, a leading peer-reviewed medical journal. The article described the world's first synthetic trachea transplant, conducted on June 9, 2011 at the Karolinska University Hospital in Sweden. The procedure involved a stem-cell-seeded bioartificial nanocomposite trachea that was grown in Harvard Bioscience's "InBreath" bioreactor that was produced in its regenerative medicine device business.

To read the peer reviewed publication, visit: <http://www.thelancet.com/>

"We are honored that a medical journal as prestigious as *The Lancet* has published a peer-reviewed article on the procedure, and we would like to again congratulate Professor Paolo Macchiarini and his esteemed colleagues who, with the analysis in this article, have added a great piece of science to what was already a great piece of medicine," commented David Green, President of Harvard Bioscience. "Validation of the procedure's importance, provided by publications such as *The Lancet*, is helping to shift the perception of regenerative medicine from science fiction to medical reality. As the number of successful procedures increase and research continues, Harvard Bioscience is focused on participating in the expected demand for regenerative medicine tools."

Mr. Green continued, "Our InBreath Bioreactor played a pivotal role in the construction of this patient's new trachea. For the first time, this procedure used a patient's stem cells in tandem with a synthetic scaffold—a significant milestone in regenerative medicine that removes the need to wait for a donor organ. Harvard Bioscience continues to invest in the regenerative medicine devices, and we have recently completed the construction of a cleanroom in our Holliston, MA facility, which has already been used for the production of 'InBreath' bioreactors. We look forward to updating our shareholders on advancements in regenerative medicine and our participation in the sector."

#### **Procedure Overview:**

The patient, Mr. Andemariam Beyene, is a 36-year old man who had been suffering from late-stage tracheal cancer, which would have been inoperable before this transplantation surgery became possible. Prior to the surgery, he was given two weeks to live. He is alive and well at five months post the surgery. The operation was performed by Professor Paolo Macchiarini of Karolinska University Hospital and Karolinska Institutet, and colleagues. Professor Macchiarini led an international team including Prof. Alexander Seifalian from University College in London, England, who designed and built the nanocomposite tracheal scaffold, and Harvard Bioscience, who produced a specifically designed bioreactor used to seed the scaffold with the patient's own stem cells. The cells were grown on the scaffold inside the bioreactor for two days before transplantation into the patient. Because the cells used to regenerate the trachea were the patient's own, there has been no rejection of the transplant, and the patient is not taking immunosuppressive drugs. The patient has fully recovered and was discharged home four weeks after the surgery.

#### **Harvard Bioscience Regenerative Medicine Strategy:**

Harvard Bioscience's strategy in regenerative medicine is: to create devices, not discover pharmaceuticals, as this reduces risk compared to a therapeutics company; to build these devices using its existing technologies and brands, as this reduces the investment needed to get to market; and to develop devices with a significant disposable revenue stream, as this is both clinically desirable and allows Harvard Bioscience to participate on a per-procedure basis and not just on the sale of an instrument. The company estimates that the nascent market for regenerative medicine devices could potentially grow to hundreds of millions of dollars annually.

Harvard Bioscience's regenerative medicine tools can be found at: <http://www.harvardbioscience.com/regenMed.cfm>

Note that Harvard Bioscience's regenerative medicine products are currently for research use only, and are not for use in humans unless proper local investigational device regulations have been followed.

## About Harvard Bioscience

Harvard Bioscience ("HBIO") is a global developer, manufacturer and marketer of a broad range of specialized products, primarily apparatus and scientific instruments, used to advance life science research and regenerative medicine. We sell our products to thousands of researchers in over 100 countries primarily through our 850-page catalog (and various other specialty catalogs), our website, through distributors, including GE Healthcare, Thermo Fisher Scientific and VWR, and via our field sales organization. HBIO has sales and manufacturing operations in the United States, the United Kingdom, Sweden, Germany and Spain with additional facilities in France and Canada. For more information, please visit [www.harvardbioscience.com](http://www.harvardbioscience.com).

The Harvard Bioscience, Inc. logo is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=6426>

## Forward-looking Statements

The statements made in this press release that are not statements of historical fact are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. You can identify these forward-looking statements by our use of such words as "will," "guidance," "objectives," "optimistic," "potential," "future," "expect," "plans," "estimates," "continue," "drive," "strategy," "crucial," "potential," "potentially," "growth," "long-term," "projects," "projected," "produce," "intends," "believes," "goals," "sees," "seek," "develop," "possible," "new," "enabling," "emerging," "opportunity," "pursue" and similar expressions that do not relate to historical matters. Forward-looking statements in this press release may include, but are not limited to, statements or inferences about HBIO's or management's beliefs or expectations, the field of regenerative medicine, opportunities or potential opportunities in the field of regenerative medicine, HBIO's business strategy, the positioning of HBIO for growth, the market demand and opportunity for HBIO's current products or products it is developing or intends to develop, and HBIO's plans, objectives and intentions that are not historical facts.

These statements involve known and unknown risks, uncertainties and other factors that may cause HBIO's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Factors that may cause HBIO's actual results, performance or achievements to differ materially from those in the forward-looking statements include, but are not limited to, HBIO's failure to successfully expand its product offerings, introduce new products or commercialize new technologies, including in the field of regenerative medicine, decreased demand for the HBIO's products, including products in the field of regenerative medicine, due to changes in our customers' needs, our ability to obtain regulatory approvals, including FDA approval, for our products, including any products in the field of regenerative medicine, the current size or anticipated size of the regenerative medicine market, the existence and size of opportunities in the regenerative medicine market, our financial position, plus risk factors set forth under the heading "Item 1A. Risk Factors" in HBIO's Annual Report on Form 10-K for the fiscal year ended December 31, 2010 or described in HBIO's other public filings. HBIO's results may also be affected by factors of which HBIO is not currently aware. HBIO may not update these forward-looking statements, even though its situation may change in the future, unless it has obligations under the federal securities laws to update and disclose material developments related to previously disclosed information.

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