



BioLineRx Announces Positive Preliminary Results from the Phase I/II Trial of BL-1040, the First Injectable Device Addressing Pathological Cardiac Remodeling

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- Fifteen Patients Successfully Treated With BL-1040 With No Complications;
- Five Patients Completed Six Months Follow up Period with prevention of LV remodeling

Jerusalem, ISRAEL, June, 2009 - BioLineRx Ltd. (TASE: BLRX), a clinical stage drug development company, today announced positive preliminary results from the ongoing phase I/II clinical trial designed to assess the safety and feasibility of BL-1040, the first injectable device designed to address cardiac remodeling, in 20- 30 patients at several sites in Germany and Belgium. To date, 15 patients were successfully treated with BL-1040 with no complications. Moreover, six months follow up results from the first 5 patients show BL-1040's efficacy in preventing cardiac remodeling and preserving cardiac function.

BL-1040 represents a breakthrough approach to supporting cardiac tissue damaged as a result of acute myocardial infarction (MI), improving cardiac function and survival. BL-1040 is a resorbable liquid polymer that is administered via the coronary artery during standard catheterization and flows into the damaged heart muscle. BL-1040 undergoes a liquid to gel phase transition within the infarcted cardiac tissue and forms a protective "scaffold" that enhances the mechanical strength of the heart muscle during recovery and repair, thereby preventing pathological enlargement of the left ventricle after the MI. BL-1040 is excreted naturally from the body within six weeks after injection, leaving behind a stronger, more stable heart muscle.

The safety, biocompatibility and efficacy of BL-1040 were demonstrated in pre-clinical studies performed in multiple species. BL-1040 was shown to prevent wall thinning and stabilize End Systolic Volume (ESV) and Ejection Fraction (EF). Data from the ongoing phase I/II trial confirm these findings. To date, 15 patients suffering from a significant infarction were successfully treated with BL-1040 with no complications, no arrhythmias, no elevations in cardiac enzymes and no occlusions. In addition, six months follow up data from the first 5 patients show that BL-1040 prevented End Systolic and End Diastolic Volume dilation, prevented wall thinning and preserved left ventricular dimensions. It is important to note, that patients enrolled in the study suffered a significant MI and were expected to display wall thinning and volume dilations.

"BL-1040 could revolutionize the treatment of patients recovering from a massive heart attack," said Professor Jonathan Leor, who together with Professor Smadar Cohen invented BL-1040 and conducted the initial experiments. "We look forward to completing the trial and believe that it will continue to provide more evidence for the success of our new approach to bring effective and safe treatment for patients with injured hearts," added Professor Leor.

"This is an important milestone in the development of BL-1040, BioLineRx's innovative product candidate, which is the first treatment that attempts to treat damaged cardiac tissue resulting from an acute MI and addresses a tremendous unmet medical need." said Morris C. Laster, MD, CEO of BioLineRx.

BL-1040 was in-licensed by BioLineRx from Ben-Gurion University through BGN Technologies. It was invented by Professor Smadar Cohen, Biotechnology Engineering Department Head at Ben-Gurion University and Professor Jonathan, Director of the Neufeld Cardiac Research Institute at Tel-Aviv University.

For further information on BL-1040, please visit the BioLineRx website and BL-1040 animation.

About Acute Myocardial Infarction

Acute MI is a leading cause of morbidity and mortality in the Western world. Approximately 1.3 million cases of nonfatal MI are reported each year in the U.S. alone, with an annual incidence rate of approximately 600 cases per 100,000 people.

About BioLineRx

BioLineRx, a clinical stage drug development company traded on the Tel Aviv Stock Exchange (TASE: BLRX), is dedicated to building a robust pipeline of promising therapeutics for unmet medical needs. The Company's leading programs are BL-1020 for the treatment of schizophrenia and BL-1040 for the treatment of damaged heart tissue post-acute myocardial infarction. Additional products under development include compounds for the treatment of cancer and CNS, cardiovascular, infectious and autoimmune diseases.

BioLineRx advances projects from early stage discovery and lead generation to advanced clinical trials. BioLineRx partners with researchers, universities and biotech companies to further the development of promising compounds. The Company was founded in 2003 by leaders in the Israeli life science arena including Teva Pharmaceuticals Ltd., venture capital firms Giza Venture Capital and Pitango Venture Capital, and Hadasit, the technology transfer company of Hadassah Hospital and the Jerusalem Development Authority.

For more information, please visit www.bioglinerx.com.