Final Assessment of the Independent Safety Monitoring Board (ISMB) regarding the BL-1040 Phase I/II Clinical Trial Results

March 7, 2010

BioLineRx Ltd. (“the Company”) is pleased to announce that on March 4, 2010, it received the final assessment of the ISMB regarding the Phase I/II clinical trial for BL-1040, a medical device indicated for the treatment of patients who have experienced a heart attack. The conclusions of the ISMB, relating to the 27 patients who participated in the trial, indicate that the treatment is safe and that it would be appropriate to continue clinical development of the device.

The Company believes that these positive conclusions constitute successful fulfillment of the second milestone under its out-license agreement with Ikaria Holdings Inc., thus triggering the payment of $10 million as set forth in the agreement. Pursuant to the agreement, the payment will be made (following formal approval of the milestone achievement by Ikaria) within 30 days. The Company is obligated to pay approximately $2.8 million of the amount received to the original licensors of the compound.

With regard to the ISMB’s final assessment, the Company notes that such assessment confirms the interim results published by the Company in July 2009, which indicated that treatment with BL-1040 is safe.

BL-1040 is a first-in-class medical device, administered by injection during catheterization to patients who have experienced a heart attack, designed to prevent pathological changes in the heart. BL-1040 represents a revolutionary approach to supporting the cardiac tissue following a heart attack. BL-1040 is a liquid polymer that creates a scaffold within the injured cardiac muscle, enhances its mechanical strength during the healing period and prevents pathological dilation of the ventricle. BL-1040 degrades within few weeks of injection, leaving behind a stronger, stable and healthier heart. BL-1040’s safety and efficacy were demonstrated in extensive pre-clinical studies in various models. These studies have shown that BL-1040 prevents thinning of the cardiac wall and stabilizes important anatomical parameters.

The estimates and judgments with respect to BL-1040 included in this report are considered forward-looking statements, which involve certain risks and uncertainties. Factors that could cause actual results to differ materially from those forward-looking statements include the high uncertainty that characterizes research and development activities in general, and those of drug development in particular, including inefficiencies, inability to manufacture, toxicity, a high level of risk/reward as compared to current treatments existing in the marketplace, as well as new information regarding intellectual property rights which may affect the economic viability of continued product development. The Company assumes no responsibility to update forward-looking statements made herein or otherwise