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**SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

**FORM 6-K**

**REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13a-16 OR 15d-16 OF  
THE SECURITIES EXCHANGE ACT OF 1934**

*For the month of April 2012*

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**BioLineRx Ltd.**

(Translation of Registrant's name into English)

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**P.O. Box 45158**

**19 Hartum Street**

**Jerusalem 91450, Israel**

(Address of Principal Executive Offices)

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Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

**Form 20-F**  **Form 40-F**

Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934:

**Yes**  **No**

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On April 25, 2012, the Registrant will issue the press release which is filed as Exhibit 1 to this Report on Form 6-K.

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Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**BioLineRx Ltd.**

By: /s/ Philip Serlin  
Philip Serlin  
Chief Financial and Operating Officer

Dated: April 25, 2012

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For immediate release

**BioLineRx Announces Extension of Patent  
for BCM (BL-1040) by USPTO**

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*BL-1040 patent extended through at least April 2029*

Jerusalem, Israel – April 25, 2012 - BioLineRx (NASDAQ: BLRX) (TASE: BLRX), a biopharmaceutical development company, announced today that an Issue Notification has been received from the United States Patent and Trademark Office (USPTO) granting 1,787 days of Patent Term Adjustment for the patent claiming the composition of BCM (BL-1040), a novel medical device for prevention of cardiac remodeling following an acute myocardial infarction. Accordingly, the term of this patent will now extend through at least the end of April 2029, which is almost three years longer than previously reported by the Company. Additional patents claiming the BL-1040 composition and its use for the treatment of ventricular remodeling and congestive heart failure due to acute myocardial infarction are granted or pending in Europe, Japan, Canada, Korea, Mexico, Israel, India, China and Australia.

In June 2009, BioLineRx out-licensed BL-1040 to Ikaria, Inc. for continuation of development and commercialization of BL-1040, which was previously named IK-5001 by Ikaria and now is known as Bioabsorbable Cardiac Matrix (BCM). In December 2011, Ikaria commenced the PRESERVATION I clinical trial, a CE Mark registration trial for BL-1040.

Dr. Kinneret Savitsky, CEO of BioLineRx, stated, "We are pleased with the extension of the patent covering BL-1040's composition by the USPTO. There is now a significantly longer period of exclusivity to this unique device for preventing irreversible cardiac remodeling in patients following an acute myocardial infarction, which is known to occur in many cases of myocardial infarction. Currently, approximately 1.5 million cases of myocardial infarction occur annually in the U.S. alone. BL-1040 has demonstrated efficacy at preventing cardiac remodeling following an acute myocardial infarction in pre-clinical studies, giving new hope to patients around the world. In addition, we are pleased with the intensive efforts being made by Ikaria, who are carrying out the CE Mark Registration Trial."

**About BCM (BL-1040)**

BL-1040 is a medical device, intended to be injected to patients following acute myocardial infarction, for prevention of ventricular remodeling and subsequent congestive heart failure. Ventricular remodeling is the structural alteration of the damaged heart muscle that occurs following an acute heart attack. Once this damage occurs, the weakened heart muscle forces the rest of the heart to compensate. Under this extra workload, the heart muscle dilates, the walls of the heart thin, and the heart further remodels, thereby causing another cycle of dilation and overcompensation. The extra workload to the heart causes further structural damage and can lead to congestive heart failure. BL-1040 is a liquid polymer which is delivered in a bolus injection via the coronary artery during catheterization and flows into the damaged heart muscle, creating a scaffold within injured cardiac muscle, designed to enhance cardiac mechanical strength during the healing period and prevent pathological ventricular dilation. BL-1040 degrades within several weeks of injection and is excreted through the kidneys. Pre-clinical studies in various animal models have demonstrated BL-1040's safety and efficacy in preventing cardiac wall thinning and preserving cardiac function.

Ikaria, Inc. acquired the exclusive worldwide license to develop and commercialize BCM from BioLineRx in 2009. In January 2012, BioLineRx announced the commencement of the PRESERVATION I clinical trial, a CE Mark registration trial of BCM (BL-1040) led by Ikaria.

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## **About BioLineRx**

BioLineRx is a publicly-traded biopharmaceutical development company. BioLineRx is dedicated to building a portfolio of products for unmet medical needs or with advantages over currently available therapies. BioLineRx's current portfolio consists of five clinical stage candidates: BL-1020 for schizophrenia has commenced a Phase II/III study; BL-1040, for prevention of pathological cardiac remodeling following a myocardial infarction, which has been out-licensed to Ikaria Inc., is currently undergoing a pivotal CE-Mark registration trial; BL-5010 for non-surgical removal of skin lesions has completed a Phase I/II study; BL-1021 for neuropathic pain is in Phase I development and BL-7040 for treating Inflammatory Bowel Disease (IBD) is commencing a Phase II trial. In addition, BioLineRx has eleven products in various pre-clinical development stages for a variety of indications, including central nervous system diseases, infectious diseases, cardiovascular and autoimmune diseases.

BioLineRx's business model is based on acquiring molecules mainly from biotechnological incubators and academic institutions. The Company performs feasibility assessment studies and development through pre-clinical and clinical stages, with partial funding from the Israeli Government's Office of the Chief Scientist (OCS). The final stage includes partnering with medium and large pharmaceutical companies for advanced clinical development (Phase III) and commercialization.

For more information on BioLineRx, please visit [www.biolinerx.com](http://www.biolinerx.com).

*Various statements in this release concerning BioLineRx's future expectations, plans and prospects constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include words such as "may", "expects", "anticipates", "believes", and "intends", and describe opinions about future events. These forward-looking statements involve known and unknown risks and uncertainties that may cause the actual results, performance or achievements of BioLineRx to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Some of these risks are: changes in relationships with collaborators; the impact of competitive products and technological changes; risks relating to the development of new products; and the ability to implement technological improvements. These and other factors are more fully discussed in the "Risk Factors" section of BioLineRx's most recent annual report on Form 20-F filed with the Securities and Exchange Commission on March 22, 2012. In addition, any forward-looking statements represent BioLineRx's views only as of the date of this release and should not be relied upon as representing its views as of any subsequent date. BioLineRx does not assume any obligation to update any forward-looking statements unless required by law.*

## **Contacts:**

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