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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 March 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 March 7, 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: March 7, 2012

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**For Immediate Release****BioLineRx Announces Grant of European Patent Covering BL-1020, an Orally Available Treatment for Schizophrenia**

Jerusalem, March 7, 2012 - BioLineRx (NASDAQ:BLRX; TASE:BLRX), a biopharmaceutical development company, announced today that a European patent has been granted claiming BL-1020's composition and its use for the treatment of schizophrenia. This patent will be valid until September 29, 2022. Member patents of this family have been granted or have received a notice of allowance in the U.S., Japan, India, China, Korea, Mexico, Israel and Australia.

In addition, several other complementary patent applications are pending worldwide claiming the crystalline form of BL-1020 and the use of BL-1020 for improving cognitive function. These patents, when issued, would be valid at least through December 2030.

In June 2011, BioLineRx announced commencement of the Phase II/III CLARITY clinical trial of BL-1020. This 450-patient trial aims to determine the short-term (6 weeks) and the long-term (24 weeks) cognitive benefit and anti-psychotic efficacy, safety and tolerability of BL-1020 in schizophrenia patients, compared with Risperidone (one of the leading schizophrenia treatments) as the positive control. The CLARITY trial is proceeding according to schedule at sites in Romania and India.

**Dr. Kinneret Savitsky, CEO of BioLineRx**, stated, "We are extremely pleased at receiving approval for the European Patent covering BL-1020 which joins the broad protection we have already received in other territories, securing a broad basis for our future commercial operations. We believe this represents significant further progress in the development and commercialization of BL-1020. Today, almost 1% of the world's population suffers from schizophrenia, and in approximately 90% of the cases, it is accompanied by cognitive impairment that may severely affect daily functioning. Current therapies for schizophrenia do not address this need. BL-1020 has previously demonstrated improved cognitive function in schizophrenia patients, and we are currently conducting the CLARITY clinical trial, which has validation of BL-1020's cognition enhancement as its primary objective. We expect to obtain results during mid-2013."

**About BL-1020**

BL-1020 is a novel, first in class, oral therapeutic for schizophrenia. Pre-clinical and clinical studies to date have shown that BL-1020 is effective at treating schizophrenia symptoms and has a good safety profile. These trials have shown that BL-1020 blocks activity of the neurotransmitter dopamine and enhances the activity of another neurotransmitter, GABA. These characteristics may contribute to the efficacy and safety of the drug. In addition, clinical trials have shown that BL-1020 improves cognitive function in schizophrenia patients. Many schizophrenia patients suffer from a significant decrease in cognitive function, which is an unmet medical need not addressed by current therapies.

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### **About Schizophrenia**

Schizophrenia is a chronic, severe mental disorder which affects approximately 1% of the population worldwide. It is characterized by hallucinations, delusions and disorganized thoughts. In addition, many schizophrenia patients suffer from cognitive impairment, which affects their ability to function and lead normal lives. The antipsychotic therapeutic market recorded sales of \$13.6 billion in the U.S. alone in 2008.

### **About BioLineRx**

BioLineRx Ltd. is a publicly-traded biopharmaceutical development company. It 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 Phase II. In addition, BioLineRx has 13 products in various pre-clinical development stages for a variety of indications, including central nervous system diseases, oncology, 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.bioglinerx.com](http://www.bioglinerx.com)

*Various statements in this release concerning BioLineRx's future expectations, plans and prospects, including, without limitation, statements relating to the ability to develop and commercialize the BL-1020 project, 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 Form F-1 filed with the Securities and Exchange Commission on February 29, 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:**

Garth Russell / Todd Fromer  
KCSA Strategic Communications  
1 212-896-1250 / 1 212-896-1215  
[grussell@kcsa.com](mailto:grussell@kcsa.com) / [tfromer@kcsa.com](mailto:tfromer@kcsa.com)

Tsipi Haitovsky  
Public Relations  
+972-3-6240871  
[tsipih@netvision.net.il](mailto:tsipih@netvision.net.il)