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 October 2013

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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 ☑

On October 23, 2013, the registrant will issue the press release which is filed as Exhibit 1 to this Report on Form 6-K.

This Form 6-K, including all exhibits hereto, is hereby incorporated by reference into all effective registration statements filed by the Company under the Securities Act of 1933.

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

Dated: October 23, 2013

Exhibit 1

For immediate release

BioLineRx Announces In-Licensing of BL-9020, for Treatment of Type 1 Diabetes

- Preclinical data show that BL-9020 prevents formation of Type 1 diabetes -

Jerusalem, Israel – October 23, 2013 – BioLineRx (NASDAQ: BLRX; TASE: BLRX), a biopharmaceutical development company, announced today that it has signed a worldwide, exclusive license agreement with Yissum Research Development Company of the Hebrew University of Jerusalem, B.G. Negev Technologies and Applications Ltd., and Hadasit Medical Research Services and Development Ltd. for BioLineRx to develop and commercialize BL-9020, for the treatment of Type 1 diabetes. Promising results of preclinical studies in a mouse model of Type 1 diabetes demonstrated that BL-9020 is able to inhibit the onset of diabetes. Previously, the project was developed under BioLineRx's Early Development Program as EDP-10.

BL-9020 is a novel antibody treatment for prevention of the development of Type 1 diabetes. It was developed to treat Type 1 diabetes in early stage patients, during what is known as the "honeymoon period." At this early stage of the disease, the insulin-producing pancreatic cells are not completely destroyed and continue to secrete insulin. Pre-clinical studies suggest that BL-9020 can preserve surviving cells, thus preventing full maturation of the disease.

"Type 1 diabetes is a highly prevalent autoimmune disease affecting millions around the world. Currently there is no cure for the disease, and patients with diabetes need to administer insulin on a daily basis throughout their lifetime," said Professor Moshe Phillip, M.D., Director of the Institute of Endocrinology and Diabetes, National Center for Childhood Diabetes at Schneider Children's Medical Center in Israel, and Vice President of Medical Affairs at BioLineRx. "Oftentimes, when the disease is diagnosed, patients experience a "honeymoon period" which may last up to a year, during which there are still some insulin producing cells in the pancreas. If the disease could be slowed down or halted at this stage, it would be a significant step towards curing diabetes, and will definitely improve the quality of life for millions."

Dr. Kinneret Savitsky, CEO of BioLineRx, stated, "The results of the pre-clinical studies were extremely convincing, and raise hopes that BL-9020 can be an effective treatment that will prevent the development of diabetes. In the study, which was performed on a mouse model for diabetes, only 40% of the mice treated with BL-9020 developed the disease, compared to 100% in the control group. Therefore, we have high hopes that BL-9020 will be an effective treatment for preventing or delaying full development of the disease in humans.

“Due to its unique mechanism of action, promising *in vivo* results and the true unmet medical need, this project, although still in pre-clinical stages of development, is already under discussion with a number of potential optimization and manufacturing co-development partners. We believe the co-development approach is the most effective for us in the unique development of antibodies,” concluded Dr. Savitsky.

About BL-9020

BL-9020 targets the Natural Killer (NK) receptor NKp46, which has been linked to Type 1 diabetes. Studies have shown that Natural Killer cells belonging to the innate immune system have a key role in the damage to pancreatic cells and, as a consequence, in the development of Type 1 diabetes. Professor Ofer Mandelboim from the Hebrew University of Jerusalem and Professor Angel Progador from Ben-Gurion University, the inventors of BL-9020, together with Professor Yaakov Naparstek and Dr. Chamutal Gur from Hadassah Medical Center in Jerusalem, found that the receptor NKp46 specifically recognizes pancreatic beta cells, leading to their destruction in both animal and human cells. These findings demonstrate the importance of the NKp46 receptor in diabetes development and emphasize the therapeutic potential of an anti-NKp46 monoclonal antibody as a new treatment modality for Type 1 diabetes. The inhibition of NK cells that are specifically targeted to the pancreas is a novel mechanism with potential to modify the course of the disease.

About Type 1 Diabetes

Type 1 diabetes, which usually appears in children and adolescents, results from auto-immune destruction of the pancreatic beta cells producing insulin. This leads to a pathological, high level of sugar in the blood and urine. Treatment of type 1 diabetes is currently limited to life-time administration of insulin, usually by injection. The disease affects over 20 million people worldwide, and in 2012 the Type 1 diabetes market was estimated at over $3.5 billion.

About BioLineRx

BioLineRx is a publicly-traded biopharmaceutical development company dedicated to building a portfolio of products for unmet medical needs, as well as those with advantages over currently available therapies. The Company in-licenses novel compounds primarily from academic institutions and biotech companies based in Israel, develops them through pre-clinical and/or clinical stages, and then partners with pharmaceutical companies for advanced clinical development and/or commercialization.

BioLineRx's current portfolio consists of a variety of clinical and pre-clinical projects, including: BL-1040 for prevention of pathological cardiac remodeling following a myocardial infarction, which has been out-licensed to Ikaria Inc. and is in the midst of a pivotal CE-Mark registration trial; BL-5010 for non-surgical removal of skin lesions, which is expected to commence a pivotal CE-mark registration trial in late 2013; BL-8040 for treating acute myeloid leukemia (AML) and other hematological cancers, which is in the midst of a Phase 2 study; and BL-7010 for celiac disease, which is expected to commence a Phase 1/2 study in late 2013.

For more information on BioLineRx, please visit www.biolinerx.com or download the investor relations mobile device app, which allows users access to the Company's SEC documents, press releases, and events. BioLineRx's IR app is available on the iTunes App Store as well as the Google Play Store.

Various statements in this release concerning BioLineRx's future expectations, including specifically those related to the development and commercialization of BL-9020, 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 12, 2013. 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.

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