
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 2026

Commission file number: 001-35223

BioLineRx Ltd.

(Translation of registrant's name into English)

2 HaMa'ayan Street

Modi'in 7177871, Israel

(Address of Principal Executive Offices)

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** ☐

On October 23, 2026, the registrant issued the press release which is filed as [Exhibit 1](#) to this Report on Form 6-K.

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 A. Serlin
Philip A. Serlin
Chief Executive Officer

Dated: October 23, 2026



For Immediate Release

BioLineRx and Hemispherian Present Preclinical Data Demonstrating Synergy of GLIX1 with PARP Inhibitors in HR-Proficient Ovarian Cancer at ESMO 2026

GLIX1 demonstrated reproducible synergy across different PARP inhibitors and multiple HR-proficient ovarian cancer cell lines, with high ZIP synergy scores, highlighting GLIX1's potential to expand the efficacy of PARP inhibitors

In an HR-proficient ovarian cancer patient-derived xenograft model, low-doses of GLIX1 plus olaparib demonstrated statistically significant tumor growth inhibition versus vehicle control, and tumor growth inhibition comparable to cisplatin

TEL AVIV, Israel, and OSLO, Norway, October 23, 2026 – BioLineRx Ltd. (NASDAQ/TASE: BLRX), a clinical-stage biopharmaceutical company pursuing life-changing therapies in oncology and rare diseases, and Hemispherian AS, a clinical-stage oncology company developing novel small molecule therapeutics, announced today that the companies presented data at the 2026 European Society for Medical Oncology Annual Congress (ESMO 2026) demonstrating synergy between GLIX1 and multiple PARP inhibitors (PARPi) in homologous recombination (HR)-proficient ovarian cancer cell lines and in an *in vivo* patient-derived xenograft (PDX) model.

“These preclinical findings extend the rationale for GLIX1 beyond glioblastoma, where we have already enrolled three dose-level patient cohorts in our Phase 1/2a clinical trial,” said Philip Serlin, Chief Executive Officer of BioLineRx. “Importantly, the *in vivo* results further strengthen the rationale for combining GLIX1 with PARP inhibitors, demonstrating meaningful anti-tumor activity in an HR-proficient ovarian cancer model even at reduced doses of both agents. We are very encouraged by these findings and look forward to further exploring GLIX1/PARP inhibitor combinations, including the planned addition of an ovarian cancer arm in the expansion phase of our ongoing clinical trial.”

“GLIX1 is designed to restore TET2 activity and drive tumor-selective DNA damage,” said Dr. Adam Robertson, Ph.D., Chief Scientific Officer of Hemispherian AS and presenting author of the abstract. “These findings suggest GLIX1 could remove the HR-deficiency requirement for PARPi activity, thereby both improving and broadening the use of PARP inhibitors in ovarian cancers, and we look forward to building on this work.”

Presentation Details:

Title: GLIX1, a TET2 Activator Targeting the DNA Damage Response, Synergizes with PARP Inhibitors in Ovarian Cancer Cell Lines

Category: Gynecological Cancers

Presentation #: 1435eP

Presentation type: e-Poster

Location: e-Poster Area, Hall 25

Summary:

Ovarian cancer remains difficult to treat, particularly in HR-proficient tumors, where PARP inhibitors have shown limited activity. GLIX1 is a first-in-class small molecule that activates TET2, an enzyme that is suppressed in cancer and normally drives DNA demethylation. By restoring TET2 activity, GLIX1 is designed to induce tumor-selective single-stranded DNA breaks through base excision repair, which could overcome the PARP inhibitor requirement for HR deficiency.

GLIX1 was combined with three PARP inhibitors (olaparib, veliparib and niraparib) across a panel of HR-proficient ovarian cancer cell lines, supporting a mechanism-driven class effect. The combination produced reproducible synergy with all three agents, with ZIP synergy scores ranging from 10.9 to 43.2 (olaparib: 15.4–43.0; veliparib: 10.9–43.2; niraparib: 12.2–39.8). Cells treated with the combination also showed upregulation of p21, consistent with activation of the DNA damage response.

The poster also presents results from a 28-day study in an HR-proficient ovarian cancer patient-derived xenograft (PDX) model (OV0250). The low-dose combination of GLIX1 (50 mg/kg daily) and olaparib (10 mg/kg daily) demonstrated statistically significant tumor growth inhibition versus vehicle control, and greater antitumor activity than either GLIX1 (250 mg/kg daily) or olaparib (50 mg/kg daily) administered alone at their respective optimal doses. The combination also demonstrated tumor growth inhibition comparable to cisplatin.

Additional tumor-exposure measurements demonstrated GLIX1 penetration into ovarian tumor tissue following oral administration, with tumor-to-plasma concentration ratios of approximately 50%. Plasma and tumor GLIX1 concentrations were measured one hour after dosing in a representative animal from each of the two GLIX1 monotherapy groups.

These data support synthetic lethality between GLIX1 and PARP inhibition and indicate that GLIX1 may remove the HR-deficiency requirement for PARP inhibitor activity. Such a combination, when applied clinically, may improve and broaden the use of PARPi in ovarian cancers. GLIX1 is currently being evaluated in a Phase 1/2a clinical trial in glioblastoma, with plans to include an ovarian cancer arm in the expansion phase ([NCT07464925](#)).

About GLIX1

GLIX1 is a first-in-class, orally administered, brain-penetrant small molecule activator of the Ten-Eleven Translocation 2 (TET2) pathway, which is commonly suppressed in cancer. Activating TET2 with GLIX1 is designed to overwhelm the DNA repair capacity of cancer cells, resulting in tumor-selective cell death. GLIX1 is being developed by BioLineRx and Hemispherian AS for the treatment of glioblastoma and other solid tumors.

About Ovarian Cancer

Ovarian cancer is the deadliest gynecologic malignancy in the United States, with an estimated 21,000 new cases and over 12,000 deaths projected in 2026. Standard first-line treatment consists of cytoreductive surgery and platinum-based chemotherapy, with PARP inhibitors used as maintenance therapy in selected patients, particularly those with BRCA-mutated or homologous recombination (HR)-deficient disease. However, PARP inhibitors are markedly less effective in patients with HR-proficient tumors, which account for approximately 50% of high-grade serous ovarian cancers and are associated with primary platinum resistance and shorter survival. This leaves a substantial and currently underserved patient population in need of new treatment strategies capable of extending the benefits of PARP inhibitors.

About Hemispherian

Hemispherian AS is a clinical-stage pharmaceutical company developing first-in-class small-molecule cancer therapies. Its lead program, GLIX1, is being advanced in partnership with BioLineRx for the treatment of glioblastoma and a broad range of solid tumors.

The company is headquartered in Oslo, Norway, and collaborates with leading academic and clinical institutions worldwide.

Learn more at www.hemispherian.com or on [LinkedIn](#).

About BioLineRx

BioLineRx Ltd. (NASDAQ/TASE: BLRX) is a clinical-stage biopharmaceutical company pursuing life-changing therapies in oncology and rare diseases. The Company's lead development asset is GLIX1, a first-in-class, oral, small molecule targeting DNA damage response in glioblastoma and other solid tumors, for which a Phase 1/2a clinical trial was initiated in the first quarter of 2026. GLIX1 is being developed under a collaboration with Hemispherian AS.

The Company's first approved product, APHEXDA® (motixafortide), is indicated in the U.S. for stem cell mobilization for autologous transplantation in multiple myeloma, and is being commercialized by Ayrmid Ltd. (globally, except Asia) and Auspex Biosciences (in Asia). BioLineRx has retained the rights to develop motixafortide in solid tumors, including metastatic pancreatic cancer (PDAC), and has a Phase 2b PDAC trial currently ongoing under a collaboration with Columbia University.

Learn more about who we are, what we do, and how we do it at www.biolinerx.com, or on [LinkedIn](#).

Forward Looking Statement

Various statements in this release concerning BioLineRx's future expectations constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include words such as "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," and "would," and describe opinions about future events. These include statements regarding management's expectations, beliefs and intentions regarding, among other things, the therapeutic potential of GLIX1, the potential benefits and clinical applicability of GLIX1 in combination with PARP inhibitors, the ability of GLIX1 to improve or broaden the use of PARP inhibitors in ovarian cancer and other solid tumors, the significance and implications of the preclinical data presented at ESMO 2026, expectations regarding BioLineRx's ongoing Phase 1/2a GLIX1 clinical trial, including the planned addition of an ovarian cancer arm in the expansion phase, and BioLineRx's business strategy. These forward-looking statements involve known and unknown risks, uncertainties and other factors 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. Factors that could cause BioLineRx's actual results to differ materially from those expressed or implied in such forward-looking statements include, but are not limited to: the clinical development, commercialization and market acceptance of GLIX1 and motixafortide including the degree and pace of market uptake of APHEXDA for the mobilization of hematopoietic stem cells for autologous transplantation in multiple myeloma patients; the initiation, timing, progress and results of BioLineRx's preclinical studies, clinical trials and other therapeutic candidate development efforts; BioLineRx's ability to advance GLIX1 and motixafortide into clinical trials or to successfully complete its preclinical studies or clinical trials; whether the clinical trial results for GLIX1 and motixafortide will be predictive of real-world results; BioLineRx's receipt of regulatory approvals for GLIX1 and motixafortide and the timing of other regulatory filings and approvals; whether access to GLIX1 and motixafortide is achieved in a commercially viable manner and whether GLIX1 and motixafortide receives adequate reimbursement from third-party payors; BioLineRx's ability to establish, manage, and maintain corporate collaborations, as well as the ability of BioLineRx's collaborators to execute on their development and commercialization plans; BioLineRx's ability to integrate new therapeutic candidates and new personnel, as well as new collaborations; the interpretation of the properties and characteristics of BioLineRx's therapeutic candidates and of the results obtained with its therapeutic candidates in preclinical studies or clinical trials; the implementation of BioLineRx's business model and strategic plans for its business and therapeutic candidates; the scope of protection that BioLineRx is able to establish and maintain for intellectual property rights covering its therapeutic candidates and its ability to operate its business without infringing the intellectual property rights of others; estimates of BioLineRx's expenses, future revenues, capital requirements and its need for and ability to access sufficient additional financing; risks related to changes in healthcare laws, rules and regulations in the United States or elsewhere; competitive companies, technologies and BioLineRx's industry; BioLineRx's ability to maintain the listing of its ADSs on Nasdaq; statements as to the impact of the political and security situation in Israel on BioLineRx's business which may exacerbate the magnitude of the factors discussed above. 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 23, 2026. 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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