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 2017

BioLineRx Ltd.

(Translation of registrant's name into English)

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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 ☐

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 March 23, 2017, 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 registrant 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 Executive Officer

Dated: March 23, 2017

Exhibit 1

BioLineRx Reports Year End 2016 Financial Results

Tel Aviv, Israel, March 23, 2017 – BioLineRx Ltd. (NASDAQ/TASE: BLRX), a clinical-stage biopharmaceutical company focused on oncology and immunology, today reports its financial results for the year ended December 31, 2016.

Highlights and achievements in 2016 and to date:

- Acquired Agalimmune Ltd., a UK-based biopharmaceutical company developing immunotherapeutic cancer treatments, thereby broadening and bolstering BioLineRx's presence in immuno-oncology. Agalimmune's novel lead compound, AGI-134, harnesses the body's pre-existing, highly abundant, anti-alpha-Gal antibodies to drive a patient-specific, systemic, anti-tumor response for various cancer indications. AGI-134 may also bring about a long-lasting, protective, follow-on, anti-tumor immune response, and has exhibited synergies in combination with check-point inhibitor therapies;

- Signed extensive immuno-oncology collaboration with Genentech, a member of the Roche Group, for several Phase 1b studies for BL-8040 in combination with Genentech's Atezolizumab, in multiple solid tumor indications, including pancreatic cancer, gastric cancer and non-small cell lung cancer, as well as AML. The collaboration may also be expanded into additional indications;

- Signed immuno-oncology collaboration with MSD (known as Merck in the US and Canada), and subsequently initiated a Phase 2a study in pancreatic cancer for BL-8040 in combination with Merck's KEYTRUDA®;

- Initiated Phase 2b immuno-oncology collaboration with MD Anderson Cancer Center for additional BL-8040 and KEYTRUDA combination study in pancreatic cancer, as part of strategic clinical research immunotherapy collaboration between MSD and MD Anderson Cancer Center;

- Reported partial results data on Phase 2 open label study for BL-8040 as novel stem cell mobilization treatment. Interim results support BL-8040 as a one-day dosing regimen for rapid mobilization of substantial amounts of stem cells, a significant improvement over the current standard of care which requires four-to-six daily injections of G-CSF.

- In-licensed three new projects under strategic collaboration with Novartis, including two novel liver fibrosis/failure projects, and a novel anti-inflammatory treatment for dry eye syndrome;

- Presented growing body of clinical evidence surrounding BL-8040 at leading medical and scientific conferences, including the American Society of Hematology (ASH), Society of Hematologic Oncology (SOHO), and American Association for Cancer Research (AACR);

- Expanded geographic reach with new joint venture in China for development of novel drug candidates; and

- Appointed Philip A. Serlin as CEO.

Expected upcoming significant milestones for 2017 and 2018:

- Initiation of Phase 2/3 registrational study for BL-8040 in stem-cell mobilization for autologous transplantation expected in H2 2017;

- Completion of Phase 2 study for BL-8040 in stem-cell mobilization for allogeneic transplantation, expected by year end;

- Partial results from the immuno-oncology Phase 2a study for pancreatic cancer for BL-8040 in combination with Merck's KEYTRUDA® expected in H2 2017; top line results expected in H2 2018;

- Initiation of Phase 1b immuno-oncology studies for BL-8040 in combination with Genentech's Atezolizumab in multiple solid tumor indications and AML expected in H2 2017; partial results expected in H2 2018; and

- Initiation of Phase 1 immuno-oncology study for AGI-134 in multiple solid tumor indications expected in H1 2018.

Philip A. Serlin, Chief Executive Officer of BioLineRx, remarked, "2016 demonstrated BioLineRx's strengths, as we leveraged our BL-8040 oncology platform to initiate combination studies with industry leaders in the field of immuno-oncology, while steadily advancing our multiple other clinical studies. In addition, we continued to validate our asset discovery and development capabilities, with the addition of an immunology and fibrosis franchise following the in-licensing of three programs under our Novartis collaboration. As we enter 2017, we are pleased to have just announced our first acquisition, of Agalimmune Ltd., adding a unique oncology platform to our pipeline, which significantly expands and strengthens our immuno-oncology offering."

“We remain focused on building a robust clinical-stage oncology and immunology therapeutic pipeline offering us exciting potential business opportunities. We believe BioLineRx is at a very significant stage, with key milestones in the next 12-18 months,” Mr. Serlin concluded.

Financial Results for the Year Ended December 31, 2016

Research and development expenses for the year ended December 31, 2016 were $11.2 million, a decrease of $0.3 million, or 2.6%, compared to $11.5 million for the year ended December 31, 2015. The decrease results primarily from a decrease in spending on BL-7010, partially offset by increased spending on new projects.

Sales and marketing expenses for the year ended December 31, 2016 were $1.4 million, an increase of $0.4 million, or 40.0%, compared to $1.0 million for the year ended December 31, 2015. The increase results primarily from consultancy services related to BL-8040 and new projects.

General and administrative expenses for the year ended December 31, 2016 were $4.0 million, an increase of $0.3 million or 8.1%, compared to $3.7 million for the year ended December 31, 2015. The increase results primarily from one-time salary-related payments and an increase in professional fees.

The Company’s operating loss for the year ended December 31, 2016 amounted to $16.5 million, compared with an operating loss of $16.2 million for the year ended December 31, 2015.

Net non-operating income of $0.2 million was recognized for the year ended December 31, 2016, a decrease of $1.2 million compared to net non-operating income of $1.4 million for the year ended December 31, 2015. Non-operating expenses and income for both periods primarily relate to fair-value adjustments of liabilities on account of warrants issued in the private and direct placements which we conducted in February 2012 and 2013. These fair-value adjustments were highly influenced by our share price at each period end.

Net financial income for the year ended December 31, 2016 was $0.5 million, compared to net financial income of $0.4 million for the year ended December 31, 2015. Net financial income for the two periods primarily relates to investment income earned on our bank deposits, as well as banking fees.

The Company's net loss for the year ended December 31, 2016 amounted to $15.8 million, compared with a net loss of $14.4 million for the year ended December 31, 2015.

The Company held $35.6 million in cash, cash equivalents and short-term bank deposits as of December 31, 2016.

Net cash used in operating activities for the year ended December 31, 2016 was $14.5 million, compared to $14.2 million for the year ended December 31, 2015. The increase in net cash used in operating activities in 2016 was primarily the result of an increase in our operating loss.

Net cash provided by investing activities for the year ended December 31, 2016 was $9.3 million, compared to $15.6 million cash used in investing activities for the year ended December 31, 2015. The changes in cash flows from investing activities relate primarily to investments in, and maturities of, short-term bank deposits and other investments during the respective periods.

Net cash provided by financing activities for the year ended December 31, 2016 was $2.1 million, compared to $29.5 million for the year ended December 31, 2015. The cash flows in 2016 primarily reflect the funding under the share purchase agreement with LPC. The cash flows in 2015 primarily reflect the underwritten public offering of our ADSs in March 2015.

Conference Call and Webcast Information

BioLineRx will hold a conference call today, March 23, 2017, at 9:00 a.m. EDT. To access the conference call, please dial 1-888-281-1167 from the US, or +972-3-918-0687 internationally. The call will also be available via live webcast through BioLineRx's website, www.biolinerx.com. A replay of the conference call will be available approximately two hours after completion of the live conference call. To access the replay, please dial 1-888-782-4291 from the US or +972-3-925-5940 internationally. The replay will be available through March 26, 2017.

(Tables follow)

About BioLineRx
BioLineRx is a clinical-stage biopharmaceutical company focused on oncology and immunology. The Company in-licenses novel compounds, develops them through pre-clinical and/or clinical stages, and then partners with pharmaceutical companies for advanced clinical development and/or commercialization.

BioLineRx's leading therapeutic candidates are: BL-8040, a cancer therapy platform, which has successfully completed a Phase 2a study for relapsed/refractory AML and is in the midst of a Phase 2b study as an AML consolidation treatment and a Phase 2 study in stem cell mobilization for allogeneic transplantation; and AGI-134, an immunotherapy treatment in development for multiple solid tumors, which is expected to initiate a first-in-man study in the first half of 2018. In addition, BioLineRx has a strategic collaboration with Novartis for the co-development of selected Israeli-sourced novel drug candidates; a collaboration agreement with MSD (known as Merck in the US and Canada), on the basis of which the Company has initiated a Phase 2a study in pancreatic cancer using the combination of BL-8040 and Merck's KEYTRUDA®; and a collaboration agreement with Genentech, a member of the Roche Group, to investigate the combination of BL-8040 and Genentech's Atezolizumab in several Phase 1b studies for multiple solid tumor indications and AML.

For additional information on BioLineRx, please visit the Company's website at www.biolinerx.com, where you can review the Company's SEC filings, press releases, announcements and events. BioLineRx industry updates are also regularly updated on Facebook, Twitter, and LinkedIn.

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 "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 23, 2017. 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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BioLineRx Ltd.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

	December 31,	
	2015	2016
	in USD thousands	
Assets		
CURRENT ASSETS		
Cash and cash equivalents	5,544	2,469
Short-term bank deposits	42,119	33,154
Prepaid expenses	229	255
Other receivables	291	223
Total current assets	48,183	36,101
NON-CURRENT ASSETS		
Long-term prepaid expenses	58	52
Property and equipment, net	2,909	2,605
Intangible assets, net	152	181
Total non-current assets	3,119	2,838
Total assets	51,302	38,939
Liabilities and equity		
CURRENT LIABILITIES		
Current maturities of long-term bank loan	93	93
Accounts payable and accruals:		
Trade	1,910	2,590
Other	1,137	978
Total current liabilities	3,140	3,661
NON-CURRENT LIABILITIES		
Long-term bank loan, net of current maturities	344	250
Warrants	208	1
Total non-current liabilities	552	251
COMMITMENTS AND CONTINGENT LIABILITIES		
Total liabilities	3,692	3,912
EQUITY		
Ordinary shares	1,455	1,513
Share premium	196,201	199,567
Capital reserve	10,735	10,569
Other comprehensive loss	(1,416)	(1,416)
Accumulated deficit	(159,365)	(175,206)
Total equity	47,610	35,027
Total liabilities and equity	51,302	38,939

BioLineRx Ltd.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	Year ended December 31,		
	2014	2015	2016
	in USD thousands		
RESEARCH AND DEVELOPMENT EXPENSES	(11,866)	(11,489)	(11,177)
SALES AND MARKETING EXPENSES	(1,589)	(1,003)	(1,352)
GENERAL AND ADMINISTRATIVE EXPENSES	(3,800)	(3,704)	(3,984)
OPERATING LOSS	(17,255)	(16,196)	(16,513)
NON-OPERATING INCOME, NET	3,061	1,445	214
FINANCIAL INCOME	3,566	457	480
FINANCIAL EXPENSES	(448)	(106)	(22)
NET LOSS	(11,076)	(14,400)	(15,841)
OTHER COMPREHENSIVE LOSS -			
CURRENCY TRANSLATION DIFFERENCES	(2,834)	-	-
COMPREHENSIVE LOSS	(13,910)	(14,400)	(15,841)
	in USD		
LOSS PER ORDINARY SHARE – BASIC AND DILUTED	(0.34)	(0.28)	(0.28)
WEIGHTED AVERAGE NUMBER OF SHARES USED IN CALCULATION OF LOSS PER ORDINARY SHARE	32,433,883	51,406,434	56,144,727

BioLineRx Ltd.

STATEMENTS OF CHANGES IN EQUITY

	Ordinary shares	Share premium	Capital reserve	Other comprehensive income (loss)	Accumulated deficit	Total
	in USD thousands					
BALANCE AT JANUARY 1, 2014	640	134,390	9,163	1,418	(133,889)	11,722
CHANGES IN 2014:						
Issuance of share capital, net	415	32,523	-	-	-	32,938
Employee stock options exercised	-	22	(22)	-	-	-
Employee stock options expired	-	396	(396)	-	-	-
Share-based compensation	-	-	1,055	-	-	1,055
Other comprehensive loss	-	-	-	(2,834)	-	(2,834)
Comprehensive loss for the year	-	-	-	-	(11,076)	(11,076)
BALANCE AT DECEMBER 31, 2014	1,055	167,331	9,800	(1,416)	(144,965)	31,805
CHANGES IN 2015:						
Issuance of share capital, net	400	28,653	-	-	-	29,053
Employee stock options expired	-	217	(217)	-	-	-
Share-based compensation	-	-	1,152	-	-	1,152
Comprehensive loss for the year	-	-		-	(14,400)	(14,400)
BALANCE AT DECEMBER 31, 2015	1,455	196,201	10,735	(1,416)	(159,365)	47,610
CHANGES IN 2016:						
Issuance of share capital, net	57	2,126	-	-	-	2,183
Employee stock options exercised	1	171	(172)	-	-	-
Employee stock options expired	-	1,069	(1,069)	-	-	-
Share-based compensation	-	-	1,075	-	-	1,075
Comprehensive loss for the year	-	-	-	-	(15,841)	(15,841)
BALANCE AT DECEMBER 31, 2016	1,513	199,567	10,569	(1,416)	(175,206)	35,027

BioLineRx Ltd.

CONSOLIDATED CASH FLOW STATEMENTS

	Year ended December 31,		
	2014	2015	2016
	in USD thousands		
CASH FLOWS - OPERATING ACTIVITIES			
Net loss	(11,076)	(14,400)	(15,841)
Adjustments required to reflect net cash used in operating activities (see appendix below)	(4,674)	232	1,328
Net cash used in operating activities	(15,750)	(14,168)	(14,513)
CASH FLOWS - INVESTING ACTIVITIES			
Investments in short-term deposits	(57,186)	(63,130)	(32,982)
Maturities of short-term deposits	37,650	50,083	42,334
Maturities of restricted deposits	-	166	-
Purchase of property and equipment	(187)	(2,683)	(52)
Purchase of intangible assets	(6)	(36)	(3)
Net cash provided by (used in) investing activities	(19,729)	(15,600)	9,297
CASH FLOWS - FINANCING ACTIVITIES			
Issuance of share capital and warrants, net of issuance costs	32,635	29,053	2,183
Proceeds of bank loan	-	467	-
Repayments of bank loan	-	(31)	(93)
Net cash provided by financing activities	32,635	29,489	2,090
DECREASE IN CASH AND CASH EQUIVALENTS	(2,844)	(279)	(3,126)
CASH AND CASH EQUIVALENTS - BEGINNING OF YEAR	8,899	5,790	5,544
EXCHANGE DIFFERENCES ON CASH AND CASH EQUIVALENTS	(265)	33	51
CASH AND CASH EQUIVALENTS - END OF YEAR	5,790	5,544	2,469

BioLineRx Ltd.

CONSOLIDATED CASH FLOW STATEMENTS

	Year ended December 31,		
	2014	2015	2016
	in USD thousands		
APPENDIX			
Adjustments required to reflect net cash used in operating activities:			
Income and expenses not involving cash flows:			
Depreciation and amortization	269	441	482
Write-off of intangible assets	105	-	-
Retirement benefit obligations	(42)	-	-
Long-term prepaid expenses	(6)	(9)	6
Exchange differences on cash and cash equivalents	(261)	(33)	(51)
Gain on adjustment of warrants to fair value	(3,454)	(1,292)	(207)
Commitment fee paid by issuance of share capital	303	-	-
Share-based compensation	1,055	1,152	1,075
Interest and exchange differences on short-term deposits	(2,787)	(182)	(387)
Interest and linkage differences on bank loan	-	1	(1)
Interest and exchange differences on restricted deposits	(20)	-	-
	(4,838)	78	917
Changes in operating asset and liability items:			
Decrease (increase) in prepaid expenses and other receivables	80	(42)	42
Increase in accounts payable and accruals	84	196	369
	164	154	411
	(4,674)	232	1,328
Supplementary information on investing and financing activities not involving cash flows:			
Credit received in connection with purchase of property and equipment and intangible assets	143	87	152
Supplementary information on interest received in cash	97	173	453