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 2014

BioLineRx Ltd.

(Translation of Registrant's name into English)

P.O. Box 45158
19 Hartum Street
Jerusalem 91450, 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 x **Form 40-F o**

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 o **No x**

On March 17, 2014, at 10:00 am EDT, the Registrant will conduct a conference call concerning its operating results for the quarter and year ended December 31, 2013. The presentation with information relating to such conference call 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 Officer

Dated: March 17, 2014

Exhibit 1

BIOLINERX

Fourth Quarter/Full Year 2013 Earnings Presentation

March 17, 2014

Forward Looking Statements

This presentation contains "forward-looking statements." These statements include words like "may," "expects," "believes," “plans,” “scheduled," 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.

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Pipeline

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Chief Executive Officer
Kinneret Savitsky, Ph.D.

Update on Operations and Lead Programs

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BioLineRx Today

- **Focused on Clinical Execution in Oncology and Immunology**
  - Two lead in-house development programs:
    - BL-8040 for AML, stem cell mobilization and other hematological indications
    - BL-7010 for celiac disease
  - Very well financed to achieve significant clinical milestones
- **Building Excellent Partnering Track Record**
  - BL-1040 with Bellerophon (f/k/a Ikaria) advancing in pivotal CE mark study
  - Established three new collaborations for earlier stage assets
- **Broadened U.S. Representation on Board of Directors**
  - Drs. Bormann and Panem provide strategic business development and capital markets expertise

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Annual Highlights

- **Progress in key clinical programs:**
  - BL-8040 (AML): Reported promising initial Phase 2 results; received Orphan Disease designation
  - BL-8040 (Stem cell mobilization): Regulatory submission for Phase 1 trial; received Orphan Disease designation
  - BL-7010: Commenced Phase 1/2 trial and successfully completed dose escalation phase
  - BL-5010: Received regulatory approval to commence pivotal CE mark trial
- **Signed several collaborationagreements**
  - BL-9020 - Type 1 diabetes collaboration with JHL Biotech for China and Southeast Asia
  - BL-8030 - HCV collaboration with CTTQ for China and Hong Kong
  - BL-8020 - Global collaboration with Genoscience/Panmed for HCV and other viral indications

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LEAD DEVELOPMENT PROGRAMS

BL-8040: BEST-IN-CLASS CXCR4 ANTAGONIST

Advancing two distinct clinical programs:

- **Acute myeloid leukemia (AML)**
  - Reported promising partial results from Phase 2 study:
    - Safe at all doses tested (0.5, 0.75 and 1mg/kg)
    - Substantial mobilization of cancer cells from bone marrow
    - Evidence for robust apoptosis
  - Will provide information upon completion of dose escalation (mid-2014)
  - Top-line results end of 2014/beginning of 2015
- **Stem cell mobilization**
  - Submitted regulatory documentation to begin Phase 1study
  - Expect to initiate trial H1 2014; results expected H2 2014

Two patents granted by USPTO to strengthen BL-8040 IP portfolio

Several new scientific publications in 2013

BL-7010: NOVEL GLIADIN BINDING POLYMER FOR CELIAC DISEASE

Exciting progress in a fast-growing market:

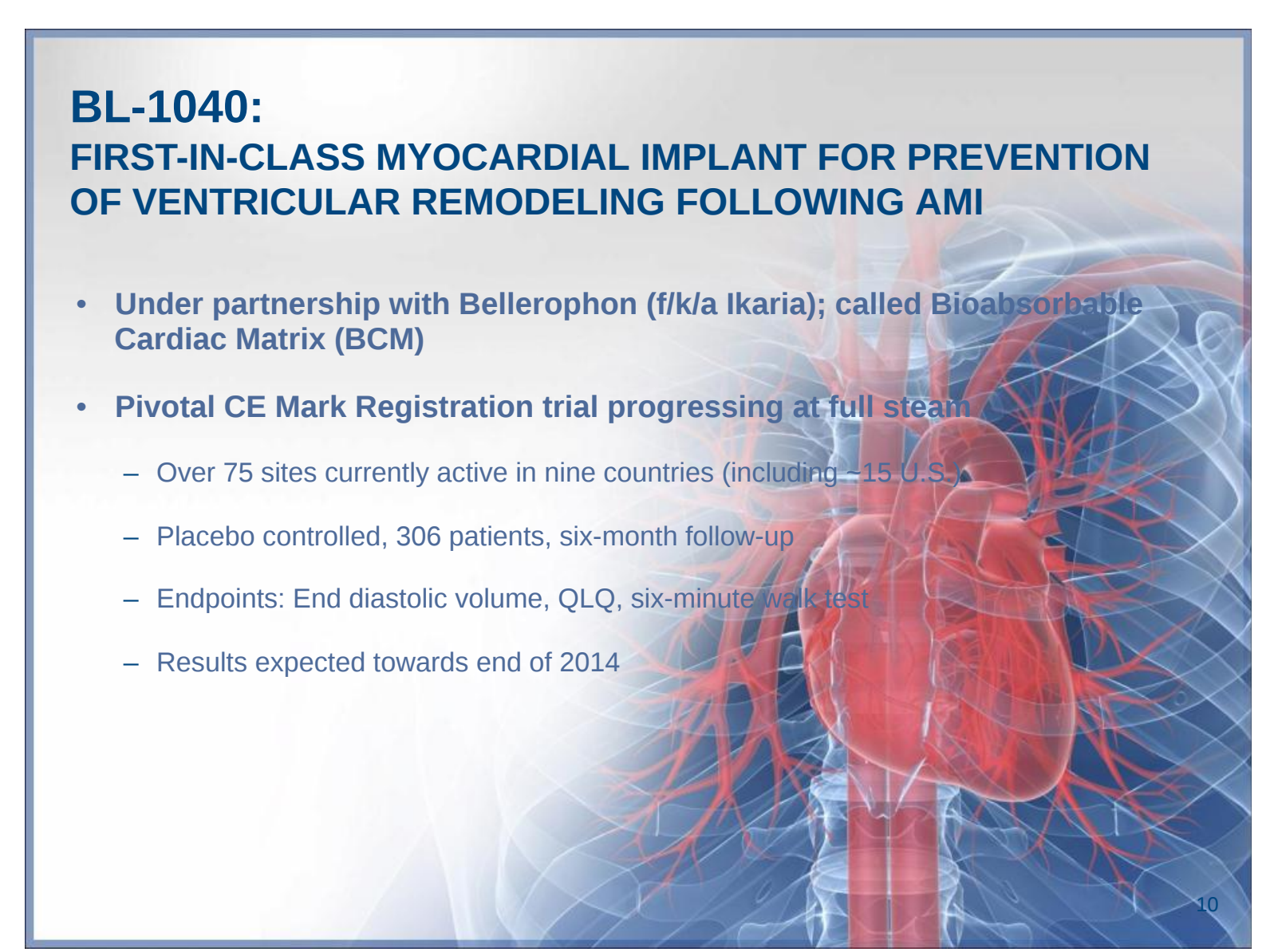
- Initiated blinded Phase 1/2 study in celiac patients consisting of two parts
- Completed single-administration dose escalation stage:
  - Escalation reached highest planned dose without limiting toxicity
  - Advancing to repeated administration stage
  - Top-line results and PK data expected mid-2014
- Expect to commence randomized, controlled efficacy study by YE 2014

Several oral presentations given in 2013 and expected in 2014

Significantly increased interest in celiac disease by pharma industry

BL-1040:
FIRST-IN-CLASS MYOCARDIAL IMPLANT FOR PREVENTION OF VENTRICULAR REMODELING FOLLOWING AMI

- **Under partnership with Bellerophon (f/k/a Ikaria); called Bioabsorbable Cardiac Matrix (BCM)**
- **Pivotal CE Mark Registration trial progressing at full steam**
  - Over 75 sites currently active in nine countries (including ~15 U.S.)
  - Placebo controlled, 306 patients, six-month follow-up
  - Endpoints: End diastolic volume, QLQ, six-minute walk test
  - Results expected towards end of 2014



Chief Financial & Operating Officer

Philip A. Serlin, CPA, MBA

Fourth Quarter and Full Year 2013
Financial Overview

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Completed Significant Financing in early 2014

- **Raised $24.1 million in underwritten public offering of ADS's**
  - Roth Capital (lead) and Maxim (co-manager)
  - Included 1,260,000 ADS's granted to cover over-allotment option
  - Significantly oversubscribed
- **Broadens U.S. institutional investor base**
  - ADS's purchased by high caliber institutions
  - U.S. investors now hold roughly 2/3 of total shares outstanding
- **Provides at least three years of operational capital**
  - Proceeds to be used primarily to advance lead clinical programs to meaningful inflection points

Financial Overview

(in USD at 31-Dec-13 exchange rate)

- **Research and development**
  - Total R&D expenses decreased by $5.8 million, to $12.7 million in 2013
    - 2013 includes $1.7 million one-time reversal of OCS liability
  - "Normalized" R&D decreased by $4.1 million
  - Decrease resulted primarily from:
    - Lower expenses in 2013 associated with the CLARITY trial
    - Partially offset by significant increase in spending on lead clinical-stage projects
- **Sales and marketing**
  - S&M expenses increased by $0.3 million, to $1.2 million in 2013
    - Results primarily from increased business development activities and expenses associated with JHL collaboration agreement

Financial Overview

(in USD at 31-Dec-13 exchange rate)

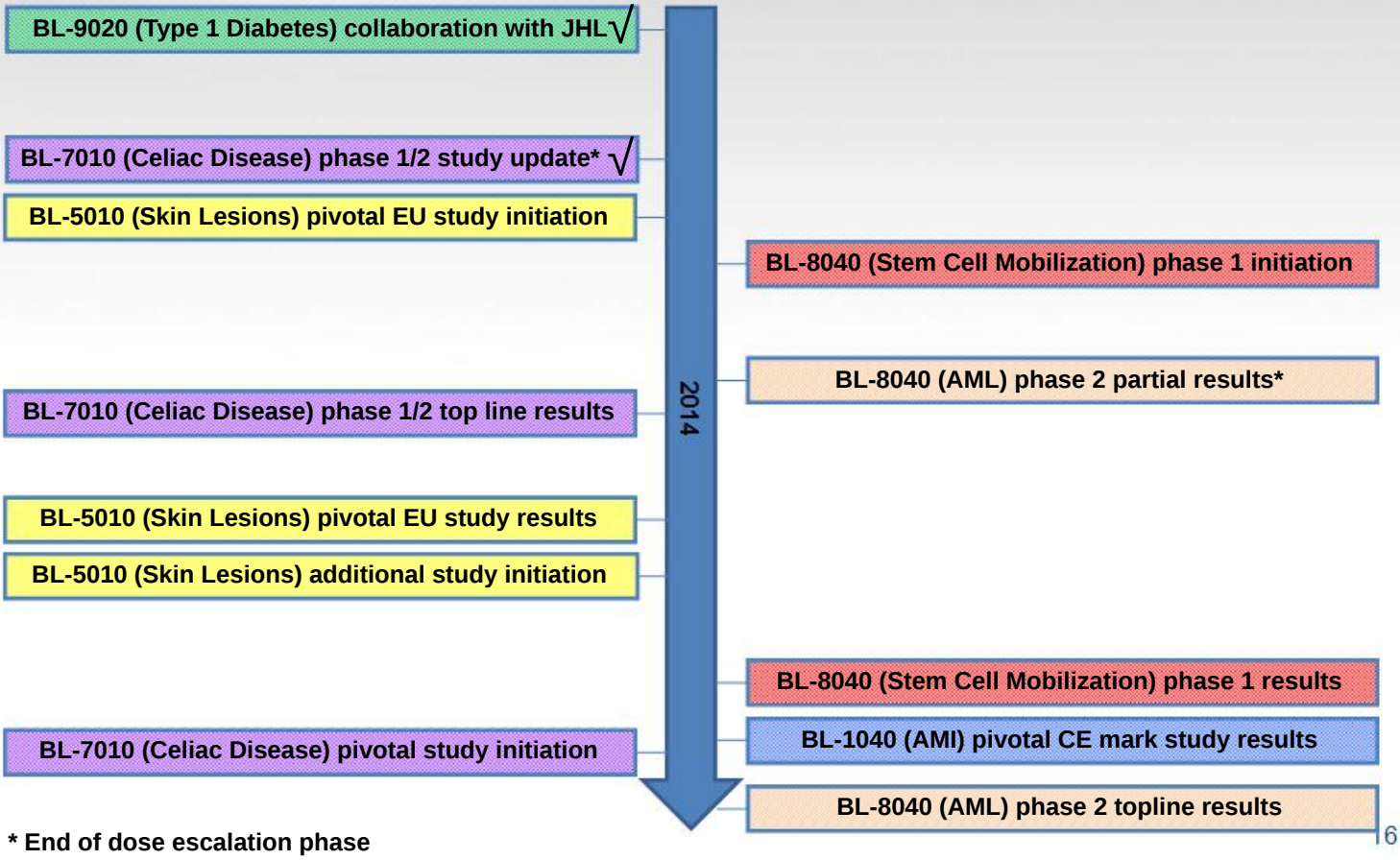
- **General and administrative**
  - G&A decreased $0.2 million to $3.8 million in 2013
  - Small decrease resulted primarily from one-time expense for professional services incurred in 2012
- **Non-operating income**
  - Non-operating income increased $0.1 million to $1.2 million in 2013
  - Primarily stems from fair-value adjustment related to warrant liability
- **Financial income/expenses**
  - Net financial expenses were $1.2 million for the 2013, compared to net financial income of $0.4 million for 2012
  - Changes results primarily from changes in the average exchange rate of NIS to USD, since we hold net assets in USD

Financial Overview

(in USD at 31-Dec-13 exchange rate)

- **Cash and burn rate information**
  - Cash and short-term deposits amounted to $18.2 million at 31-Dec-13
  - Net proceeds from financing in March 2014 were approximately $22.5 million
  - Our net burn rate is ~$12-13 million per year
- **Analyst Coverage**
  - Roth Capital Partners, LLC - Robert Hazlett
  - Aegis Capital Corporation - Raghuram Selvaraju
  - Edison Investment Research - Robin Davison/Jason Zhang

2014 Major Milestones



* End of dose escalation phase

Bench to Bedside to Partner

THANK YOU!

QUESTIONS?

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