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 August 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 August 6, 2014, at 10:00 am EDT, the Registrant will conduct a conference call concerning its operating results for the quarter ended June 30, 2014. 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: August 6, 2014

Exhibit 1

BIOLINERX

Second Quarter 2014 Earnings Presentation

August 6, 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.

BIOLINERX

Pipeline

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Chief Executive Officer
Kinneret Savitsky, Ph.D.

Update on Operations and Lead Programs

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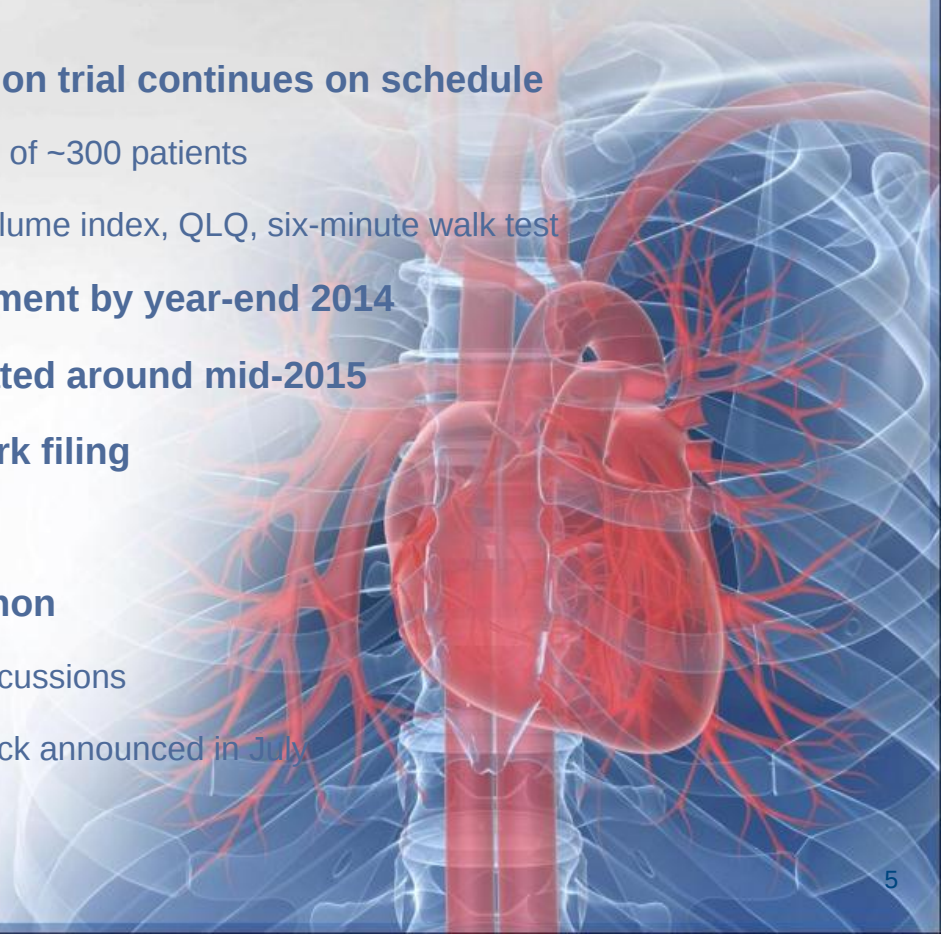
BL-1040: FIRST-IN-CLASS BIOABSORABLE CARDIAC MATRIX FOR PREVENTION OF VENTRICULAR REMODELING FOLLOWING AMI



- **Pivotal CE Mark registration trial continues on schedule**
  - Trial enrolled >200 patients of ~300 patients
  - Endpoints: End diastolic volume index, QLQ, six-minute walk test
- **Expect to complete enrollment by year-end 2014**
- **Study completion anticipated around mid-2015**
- **Will be followed by CE Mark filing**

- **Partnership with Bellerophon**
  - Continuing constructive discussions
  - New CEO Jonathan Peacock announced in July

BL-8040: BEST-IN-CLASS CXCR4 ANTAGONIST

Promising Platform Candidate for Hematological Cancers

- ü Evidence for robust apoptosis of cancer cells; Substantial mobilization of cancer cells
- ü Strong global IP estate: 13 issued/25 patents pending worldwide (two recent issued in U.S)
- ü Received orphan drug status for two lead indications

Acute myeloid leukemia (AML) - Phase 2 study ongoing (dose escalation)

- ü Dec. 2013: Announced promising partial dose escalation phase results
- ü Jun/Jul. 2014: Presented promising pre-clinical results at EHA and Gordon Research Conference
  - Synergizes with AC220 (Quizartinib) to minimize residual AML disease (mouse model)
  - Reduces level of BM cancer cells *in vivo* by at least one order of magnitude
  - Prevented reduction in normal white blood cells seen with AC220 alone
- – Study running at full steam towards completion of dose escalation phase
- – Early 2015: Completion of study

BL-8040: CONTINUED

Stem cell mobilization

üJun. 2014: Received approval from Israeli Ministry of Health to begin human studies

– Within 4-6 weeks: Initiate two-part Phase 1 study

Part 1: Safety and tolerability as a standalone therapy

- Dose escalation (randomized, double-blind, placebo-controlled); 32 volunteers

Part 2: Quantify stem cell mobilization capacity and yield

- Open-label study; eight volunteers (at optimal dose from Part 1)

– Late 2014/Early 2015: Report final results

Chronic Myeloid Leukemia (CML) - Investigator-initiated Phase 1/2 Study

üApr. 2014: Announced approval from Israeli Ministry of Health (Prof. Arnon Nagler, Sheba Medical Center, Israel)

– Expected to initiate in 2014

- Randomized, dose-escalation study; combination with Imatinib in up to 40 patients
- Primary endpoint: safety/tolerability of combination
- Secondary endpoint: efficacy (cytogenetic and molecular response in CML patients)

BL-7010: NOVEL GLIADIN BINDING POLYMER FOR CELIAC DISEASE

Exciting progress in a fast-growing market

- Significantly increased Pharma interest
- Very high-need and underserved population

Phase 1/2 study ongoing in celiac patients:

ü Mar. 2014: Completed dose escalation stage; initiated repeated-dose stage
- Reached highest planned single dose without limiting toxicity

ü Jul. 2014: Reported unblinded results of repeated-dose stage (14 days, 3x per day)
- No serious or dose-limiting toxicity
- No systemic absorption - likely to support medical device classification in EU
- Minor gastrointestinal (GI) adverse events reported in study and placebo groups
- Currently investigating lower repeated doses due to wide therapeutic window

– Early 2015: Commence randomized, placebo-controlled efficacy study

Chief Financial & Operating Officer

Philip A. Serlin, CPA, MBA

Second Quarter 2014 Financial Overview

BIOLINERX

Corporate Highlights

- **Strong current cash position: $33.1 million at June 30, 2014**
  - Funds operational capital through end of 2016
  - Expect to reach several value inflection points during this time
- **Broad U.S. institutional investor base**
  - U.S. investors now hold roughly 2/3 of total shares outstanding
- **Upcoming conferences**
  - Rodman Conference in New York in September
  - Zacks Conference in Basel in September
  - Biotech Showcase in San Francisco in January

Financial Overview

(in USD at 30-Jun-14 exchange rate)

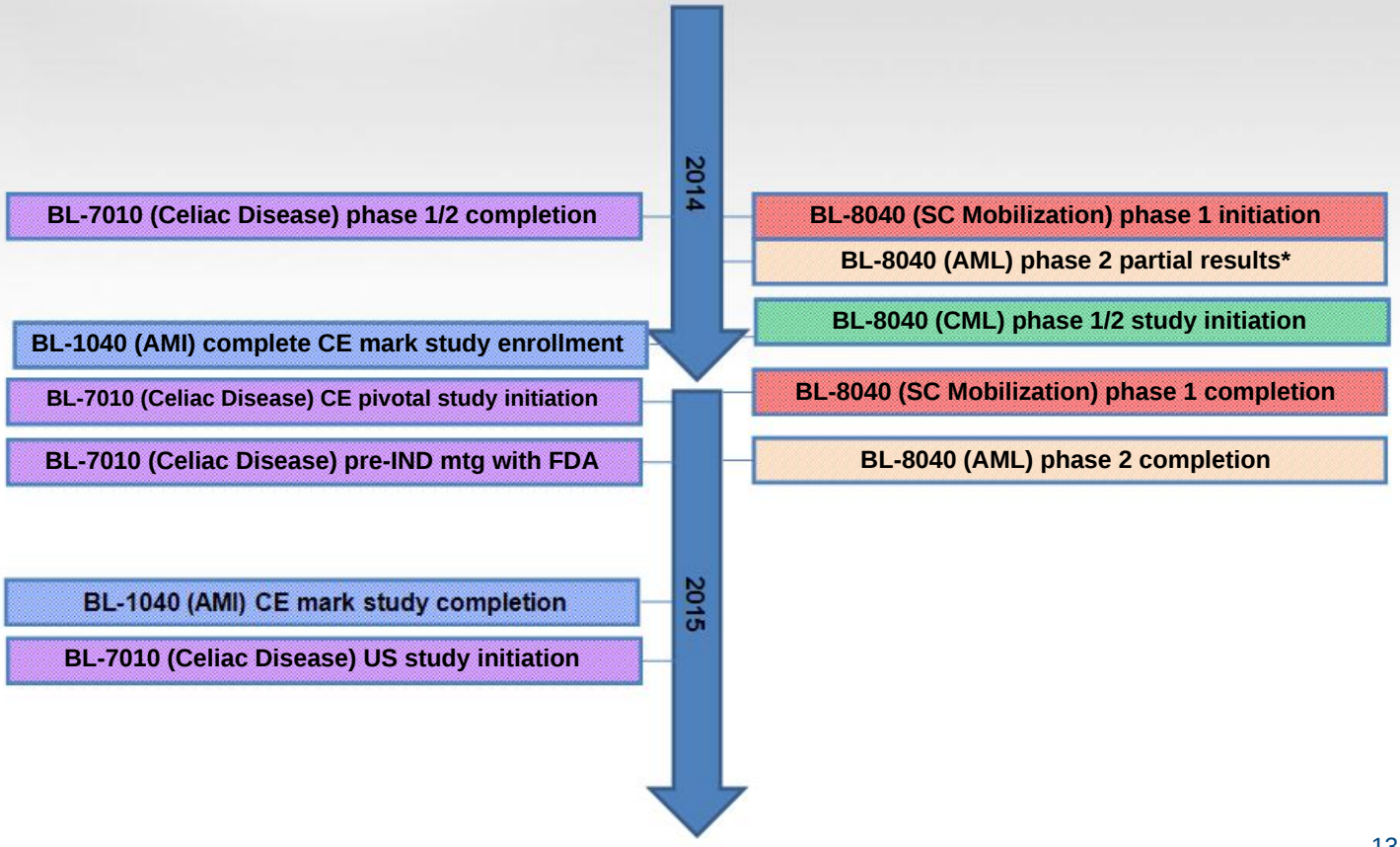
- **Research and development**
  - Total R&D expenses decreased by $5.3 million, to $5.6 million for the six months ended June 30, 2014
    - Primarily from termination of the BL-1020 CLARITY clinical trial in March 2013, as well as certain one-time costs associated with several clinical-stage projects in 2013
    - Decrease partially offset by increased spending on the BL-7010 (celiac) project
- **Sales and marketing**
  - S&M expenses increased by $0.2 million, to $0.7 million for the six months ended June 30, 2014
    - Increase resulted primarily from professional fees in connection with increased business development activities

Financial Overview

(in USD at 31-Mar-14 exchange rate)

- **General and administrative**
  - G&A expenses decreased by $0.2 million, to $1.9 million for the six months ended June 30, 2014
    - Primarily due to a one-time expense for professional services in the 2013 period
- **Non-operating income**
  - Non-operating income decreased $2.0 million, to $2.0 million in for the six months ended June 30, 2014
    - Primarily stems from fair-value adjustment related to warrant liability
- **Financial income/expenses**
  - Net financial expenses were $0.2 million for the six months ended June 30, 2014, compared to net financial expenses of $0.5 million in the 2013 period
    - Changes result primarily from changes in average exchange rate of NIS to USD

Major Milestones over next 12 Months



*** End of dose escalation phase**

Bench to Bedside to Partner

THANK YOU!

QUESTIONS?

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