

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 6-K

Report of Foreign Private Issuer
Pursuant to Rule 13a-16 or 15d-16
under the Securities Exchange Act of 1934

For the month of: January 2017 (Report No. 2)

Commission file number: 001-35932

ALCOBRA LTD.

(Translation of registrant's name into English)

Azrieli Triangle Building
132 Derech Menachem Begin 39th Floor
Tel Aviv 6701101 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 if the registrant is submitting the Form 6-K in paper as permitted by Regulations S-T Rule 101(b)(1): _____

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulations S-T Rule 101(b)(7): _____

Attached hereto and incorporated by reference herein is the Registrant's press release issued on January 17, 2017, reporting that its phase 3 clinical trial of MDX in adults with ADHD missed the primary endpoint.

The first two paragraphs and the paragraph titled "Forward Looking Statements" of the press release attached to this Form 6-K of the Registrant are incorporated by reference into the Registration Statements on Form F-3 (File No. 333-209960) and Form S-8 (File No. 333-194875, 333-202394 and 333-209947) of the Registrant, filed with the Securities and Exchange Commission, to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.

Exhibit No.

99.1 Press release issued by Alcobra Ltd. on January 17, 2017, reporting that its phase 3 clinical trial of MDX in adults with ADHD missed the primary endpoint.

SIGNATURES

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.

Alcobra Ltd.
(Registrant)

By /s/ Dr. Tomer Berkovitz
Name: Dr. Tomer Berkovitz
Chief Financial Officer and Chief Operating Officer

Date: January 17, 2017



Investor Contacts

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Alcobra Reports Phase 3 Clinical Trial of MDX in Adults with ADHD Missed Primary Endpoint

- Management to hold a conference call & webcast today, January 17th at 8:00 a.m. EST

Tel Aviv, Israel – January 17, 2017 – Alcobra Ltd. (NasdaqGM: ADHD), an emerging pharmaceutical company focused on the development of new medications to treat patients with cognitive disorders, including Attention Deficit Hyperactivity Disorder (ADHD) and Fragile X Syndrome, today reported the top-line results from MEASURE, its second Phase 3 clinical trial for the investigational product Metadoxine Extended Release (MDX) for the treatment of ADHD in adult patients. In this trial, MDX did not meet the primary endpoint of demonstrating a statistically significant difference from placebo in the change from baseline of the investigator rating of the Conners' Adult ADHD Rating Scales (CAARS).

As previously communicated, the top-line data analysis was conducted on the Full Analysis Set (n=283), which includes all randomized subjects with at least one post-baseline efficacy assessment. Consistent with previously conducted studies, MDX was generally well tolerated.

"We are exceedingly disappointed with these top-line results. In the coming weeks, the Company intends to review the full data set from MEASURE. Consequently, we will evaluate our options and communicate our strategic plan to investors," stated Dr. Yaron Daniely, President and CEO of Alcobra. "We wish to reiterate our sincere appreciation to all of the patients, investigators, and others who aided us in conducting this study."

Conference Call & Webcast

Tuesday, January 17, 2017 @ 8:00a.m. Eastern Time/5:00a.m. Pacific Time

Domestic: 855-469-0611

International: 484-756-4341

Passcode: 55387604

Webcast: <http://www.alcobra-pharma.com/events.cfm>

Replays available through January 31, 2017

Domestic: 855-859-2056

International: 404-537-3406

Passcode: 55387604

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995 and other Federal securities laws. Because such statements deal with future events and are based on Alcobra's current expectations, they are subject to various risks and uncertainties and actual results, performance or achievements of Alcobra could differ materially from those described in or implied by the statements in this press release. For example, forward-looking statements include statements regarding the timing and content of future communications to investors. In addition, historic results of scientific research do not guarantee that the conclusions of future research would suggest similar conclusions or that historic results referred to in this press release would be interpreted similarly in light of additional research or otherwise. The forward-looking statements contained or implied in this press release are subject to other risks and uncertainties, including those discussed under the heading "Risk Factors" in Alcobra's Annual Report on Form 20-F for the fiscal year ended December 31, 2015, filed with the Securities and Exchange Commission (SEC) and in subsequent filings with the SEC. Except as otherwise required by law, Alcobra disclaims any intention or obligation to update or revise any forward-looking statements, which speak only as of the date they were made, whether as a result of new information, future events or circumstances or otherwise.