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: March 2014 (Report Number 2)

ALCOBRA LTD.
(Translation of registrant's name into English)

Amot Investment Building
2 Weizman St. 9th Floor
Tel Aviv 6423902 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 ☐

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):_____

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 ☒

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): ____

Attached hereto and incorporated by reference herein is the registrant's press release issued on March 18, 2014.

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. Yaron Daniely
Name: Dr. Yaron Daniely

Chief Executive Officer and President

Date: March 18, 2014

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Alcobra Announces Enrollment of First Patient in Phase 3 Clinical Trial for MDX in Adult ADHD

Tel Aviv, Israel – March 18, 2014 – Alcobra Ltd. (NASDAQCM: ADHD), an emerging biopharmaceutical company primarily focused on the development and commercialization of its proprietary drug candidate Metadoxine Extended Release (MDX), to treat cognitive dysfunctions, such as ADHD and Fragile X Syndrome, announced today that, following the recent FDA acceptance of the Company's IND for MDX, the first patient has been enrolled in a Phase 3 clinical trial of MDX in the treatment of Adults with ADHD.

"We are very pleased to have our US clinical program for MDX underway with the enrollment of our first patient in this clinical trial," said Dr. Yaron Daniely, President and Chief Executive Officer of Alcobra. "Building upon our two successful Phase II placebo-controlled studies, this Phase III study is designed to confirm MDX as a fast-acting, highly effective and well tolerated non-scheduled ADHD drug candidate. We expect the trial to be completed in the second half of 2014."

"This study should give us important insights into the efficacy and safety of MDX in ADHD," said Dr. Richard Weisler, adjunct professor of psychiatry at the University of North Carolina School of Medicine and adjunct associate professor of psychiatry at Duke University Medical Center. Dr. Weisler is the Principal Investigator of the study. "Up to 60% of people who have ADHD as children will continue to have significant ADHD symptoms that persist into adulthood. Thus, there remains a significant unmet need for additional treatments that are safe, effective, and preferably for many patients, non-addictive."

The study is a 300-patient, randomized, placebo-controlled trial to be conducted at 20 sites in the United States and Israel. Patients will be randomized to receive either 1400 mg MDX or placebo over 6 weeks following a 2 week screening period. The primary endpoint is the Conners' Adult ADHD Rating Scale (CAARS-INV), a widely accepted clinical measure of the presence and severity of ADHD symptoms. Secondary endpoints will include the computerized TOVA (Test of Variables of Attention) which was also used in the previous Phase 2 studies, as well as additional exploratory endpoints. More information about the trial can be found on ClinicalTrials.gov (Identifier: NCT02059642).

Unlike the most commonly prescribed ADHD medications, MDX is not a stimulant. MDX has a novel mechanism of action that neither targets dopamine nor norepinephrine. MDX has demonstrated significant efficacy and was generally well tolerated in two separate placebo-controlled Phase 2 studies in adults with ADHD. Additionally, MDX has demonstrated significant efficacy following the first dose.

About Alcobra Ltd.

Alcobra Ltd. is an emerging biopharmaceutical company primarily focused on the development and commercialization of a proprietary drug candidate, MDX (Metadoxine Extended Release (MG01CI)), to treat cognitive dysfunctions including Attention Deficit Hyperactivity Disorder (ADHD) and Fragile X Syndrome. MDX has completed Phase II studies to treat Attention Deficit Hyperactivity Disorder. The company was founded in 2008 and is headquartered in Tel Aviv, Israel. For more information please visit the Company's website, www.alcobra-pharma.com, the content of which is not incorporated herein by reference.

Forward Looking Statements – This press release may contain 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 that the Phase III clinical trials with MDX will be conducted in accordance with the design and other parameters mentioned above, the timing of completion thereof, that such clinical trials will confirm certain assumptions and that they will provide certain insights into the efficacy and safety of MDX in ADHD. In addition, historic results of scientific research and clinical and preclinical trials do not guarantee that the conclusions of future research or trials would not suggest different conclusions or that historic results referred to in this press release would be interpreted differently in light of additional research and clinical and preclinical trials results. 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 Ltd.'s registration statement on Form F-1/A filed with the Securities and Exchange Commission ("SEC") on October 22, 2013, 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 hereof, whether as a result of new information, future events or circumstances or otherwise.

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