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: August 2016

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 August 30, 2016, announcing its financial results for the second quarter ended June 30, 2016.

The GAAP financial statements in this Form 6-K of the registrant are incorporated by reference into the Registration Statement on Forms F-3 (File No. 333-209960) and Forms S-8 (File Nos. 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and Exchange Commission, to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.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 August 30, 2016, announcing its financial results for the second quarter ended June 30, 2016.

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: August 30, 2016

Exhibit 99.1

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ALCOBRA ANNOUNCES SECOND QUARTER 2016 FINANCIAL RESULTS AND PROVIDES CORPORATE UPDATE

- *Conference Call & Webcast August 30th at 8:30 a.m. Eastern Time/5:30 a.m. Pacific Time*

Tel Aviv, Israel – August 30, 2016 – 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 announced financial results for the three and six months ended June 30, 2016, and provided a corporate update.

Second Quarter Ended June 30, 2016 Financial Results:

- Total operating expenses in the second quarter 2016 were $5.9 million, compared to $5.2 million in the second quarter 2015.
- Net operating expenses, excluding non-cash stock based compensation of $0.6 million, in the second quarter 2016 were $5.3 million, compared with $4.8 million in the second quarter 2015.
- Research and development (R&D) expenses in the second quarter 2016 were $4.2 million, compared with $3.7 million in the second quarter 2015. R&D expenses consist primarily of costs associated with the conduct of Alcobra's Phase III Adult ADHD clinical study named MEASURE.
- General and administrative (G&A) expenses in the second quarter 2016 were $1.4 million, compared with $1.2 million in the second quarter 2015.
- Cash, marketable securities, and deposits totaled $61.1 million at June 30, 2016, compared with $65.2 million at March 31, 2016 and $69.7 million at the end of 2015.

Second Quarter and Recent Corporate Updates:

- Alcobra is currently enrolling subjects into the MEASURE study (MDX Evaluation in Adults – Study of Response and Efficacy). The MEASURE study is Alcobra's second Phase III study of Metadoxine Extended Release (MDX) in 750 adults with ADHD.
- 718 subjects have been screened to date in the MEASURE study, with 474 subjects already enrolled or at a post-screening visit. With a current rate of close to 150 screenings per month, Alcobra expects to complete enrollment in this study in 2016 and release data in the first quarter of 2017.
- Alcobra expects to begin enrollment in the first of two registration studies with MDX in pediatric ADHD in the fourth quarter of 2016.
- Alcobra is continuing discussions with the FDA on a pivotal Phase III study in adolescents and adult subjects with Fragile X Syndrome. MDX has previously shown a benefit on Daily Living Skills in a placebo-controlled Phase II study in this population. The European Commission recently granted orphan drug designation to MDX for the treatment of Fragile X. The FDA previously granted orphan drug designation and Fast Track designation to MDX for the treatment of Fragile X Syndrome.

Conference Call & Webcast
Tuesday, August 30, 2016 @ 8:30 a.m. Eastern Time

Domestic:	855-469-0611
International:	484-756-4341
Passcode:	22966106
Webcast:	http://www.alcobra-pharma.com/events.cfm

Replays available through September 13, 2016
Domestic: 855-859-2056
International: 404-537-3406
Passcode: 22966106

About Alcobra Ltd.
Alcobra Ltd. is an emerging pharmaceutical company primarily focused on the development and commercialization of MDX, a proprietary drug candidate, to treat cognitive disorders including ADHD and Fragile X Syndrome. 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 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 enrollment of subjects to its clinical studies and expected timing of reporting results of such studies, design of future clinical studies and content of discussions with the FDA and possible positive outcomes of such discussions. In addition, historic results of scientific research do not guarantee that the conclusions of future research would not suggest different conclusions or that historic results referred to in this press release would not be interpreted differently in light of additional research or otherwise. Also, while Alcobra has received Fast Track designation for MDX for the treatment of Fragile X Syndrome, the company cannot guarantee that it will be able to maintain such designation due to reasons within or outside of its control. 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 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.

Alcobra Ltd.
Consolidated Statements of Comprehensive Loss
(In thousands, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
	(unaudited)	(unaudited)	(unaudited)	(unaudited)
Research and development	$ 4,182	$ 3,683	$ 7,544	$ 7,273
Pre commercialization expenses	334	288	746	637
General and administrative	1,402	1,202	2,860	2,491
Total operating expenses	5,918	5,173	11,150	10,401
Financial income, net	(152)	(64)	(324)	(128)
Loss before taxes on income	5,766	5,109	10,826	10,273
Tax on income	22	14	48	27
Net loss attributable to holders of Ordinary shares	5,788	5,123	10,874	10,300
Unrealized gain on available-for-sale marketable securities	5	-	5	-
Total comprehensive loss	$ 5,783	$ 5,123	$ 10,869	$ 10,300
Net basic and diluted loss per share	$ (0.21)	$ (0.24)	$ (0.39)	$ (0.50)
Weighted average number of Ordinary shares used in computing basic and diluted net loss per share	27,562,795	21,179,233	27,562,517	20,677,364

Alcobra Ltd.
Consolidated Balance Sheet Data
(In thousands)

ASSETS

	June 30, 2016 (Unaudited)	December 31, 2015
Current assets:		
Cash and cash equivalents	$ 15,093	$ 16,658
Short-term bank deposits	24,000	34,022
Available-for-sale marketable securities	13,989	-
Prepaid expenses and other receivables	1,276	1,666
Total current assets	54,358	52,346
Long-term assets:		
Long-term bank deposits	8,000	19,000
Other long-term assets	112	110
Property and equipment, net	219	227
Total long-term assets	8,331	19,337
Total assets	$ 62,689	$ 71,683

LIABILITIES AND SHAREHOLDERS' EQUITY

Current liabilities:		
Trade payables	$ 138	$ 57
Accrued expenses and other liabilities	2,769	2,295
Total current liabilities	2,907	2,352
Shareholders' equity:		
Ordinary shares	74	74
Additional paid-in capital	141,594	140,274
Accumulated other comprehensive income	5	-
Accumulated deficit	(81,891)	(71,017)
Total shareholders' equity	59,782	69,331
Total liabilities and shareholders' equity	$ 62,689	$ 71,683

Alcobra Ltd.
Consolidated Cash Flow Data
(In thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
	(unaudited)	(unaudited)	(unaudited)	(unaudited)
Cash flow from operating activities:				
Net loss	$ (5,788)	$ (5,123)	$ (10,874)	$ (10,300)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation	18	11	33	21
Amortization of premium on marketable securities	41	-	41	-
Stock based compensation	578	418	1,314	1,201
Loss from sale of property, and equipment	-	(1)	-	(1)
Change in operating assets and liabilities:				
Prepaid expenses and other receivables	261	(86)	448	94
Other long-term assets	(13)	22	(60)	10
Trade payables	27	106	81	(144)
Accrued expenses and other liabilities	770	762	474	633
Net cash used in operating activities	(4,106)	(3,891)	(8,543)	(8,486)
Cash flow from investing activities:				
Purchase of property and equipment	(2)	(24)	(25)	(36)
Investment in marketable securities	(10,676)	-	(14,415)	-
Proceeds from maturity of marketable securities	145	-	145	-
Proceeds from call redemption of marketable securities	245	-	245	-
Decrease in long-term deposit	-	-	-	-
Proceeds from (investment in) short-term bank deposit	16,000	5,000	21,022	(13,000)
Net cash provided by (used in) investing activities	5,712	4,976	6,972	(13,036)
Cash flow from financing activities:				
Issuance of share capital upon public offering, net	-	-	-	27,903
Exercise of options	-	13	6	13
Net cash provided by financing activities	-	13	6	27,916
Increase (decrease) in cash and cash equivalents	1,606	1,098	(1,565)	6,394
Cash and cash equivalents at the beginning of the period	13,487	7,472	16,658	2,176
Cash and cash equivalents at the end of the period	$ 15,093	$ 8,570	$ 15,093	$ 8,570