

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: May 2017 (Report No. 3)

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 May 30, 2017, announcing its financial results for the first quarter ended March 31, 2017.

The second, third and fourth bullet points under the heading "First Quarter and Recent Corporate Updates" and the GAAP financial statements in this Form 6-K of the registrant are incorporated by reference into the Registration Statements on Form F-3 (File No. 333-209960) and Forms S-8 (File No. 333-194875, File No. 333-202394, File No. 333-209947 and File No. 333-217556) 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and Exchange Commission, to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.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 May 30, 2017, announcing its financial results for the first quarter ended March 31, 2017.

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**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: May 30, 2017

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**Investor Contacts**

Alcobra Investor Relations  
IR@alcobra-pharma.com

**ALCOBRA ANNOUNCES FIRST QUARTER 2017 FINANCIAL RESULTS AND PROVIDES CORPORATE UPDATE**

**Tel Aviv, Israel – May 30, 2017** – Alcobra Ltd. (NasdaqGM: ADHD) today announced financial results for the three months ended March 31, 2017, and provided a corporate update.

**First Quarter and Recent Corporate Updates:**

- Alcobra recently announced that Dr. Yaron Daniely will step down as Chief Executive Officer and President, and will be appointed the Chairman of the Board of Directors, effective June 1, 2017. David Baker, the Company's Chief Commercial Officer for the last three years, will be appointed Interim Chief Executive Officer.
- Alcobra continues to advance the development of its proprietary Abuse-Deterrent, Amphetamine Immediate Release (ADAIR) product candidate for the treatment of Attention Deficit Hyperactivity Disorder (ADHD). An Investigational New Drug (IND) application is expected to be filed with the U.S. Food and Drug Administration (FDA) in the third quarter of this year.
- Alcobra, together with its financial advisors, continues to evaluate strategic opportunities to expand its pipeline and enhance value for all its shareholders.
- Alcobra is currently in the process of aligning its resources with the corporate strategy, including a significant reduction in force. Management expects these adjustments to result in an approximately 40% reduction in ongoing fixed costs (excluding any one-time charges), expected to be completed, absent any change in overall corporate strategy, by the end of the second quarter of this year. Management will continue to evaluate needed resources on an ongoing basis.

**First Quarter Ended March 31, 2017 Financial Results:**

- Cash, marketable securities, and deposits totaled \$45.3 million at March 31, 2017 and compared with \$50.2 million at December 31, 2016 and \$65.2 million at March 31, 2016.
- Total operating expenses in the first quarter 2017 were \$3.6 million, compared with \$5.2 million in the first quarter 2016.
- Net operating expenses, excluding non-cash stock based compensation of \$0.5 million in the first quarter 2017 were \$3.1 million, compared with \$4.5 million in the first quarter 2016.
- Research and development (R&D) expenses in the first quarter 2017 were \$2.1 million, compared with \$3.4 million in the first quarter 2016. The decline in R&D expenses is mainly driven by the termination of the MEASURE study.
- General and administrative (G&A) expenses in the first quarter 2017 were \$1.2 million, compared with \$1.5 million in the first quarter 2016.

**About Alcobra**

Alcobra Ltd. is an emerging pharmaceutical company primarily focused on the development and commercialization of new medications. For more information, please visit the Company's website, [www.alcobra-pharma.com](http://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 timing of filing an IND and then NDA for ADAIR, if filed at all, evaluating strategic opportunities to expand the Company's pipeline and enhance shareholder value, aligning resources with corporate strategy, reduction in force and in ongoing fixed costs, and the timing thereof. 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 Ltd.'s Annual Report on Form 20-F for the fiscal year ended December 31, 2016, 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.

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

	Three Months Ended	
	March 31,	
	2017	2016
	(Unaudited)	(Unaudited)
Research and development	\$ 2,060	\$ 3,362
Pre commercialization expenses	393	412
General and administrative	1,180	1,458
<b>Total operating expenses</b>	<b>3,633</b>	<b>5,232</b>
Financial income, net	(125)	(172)
Loss before taxes on income	3,508	5,060
Taxes on income	12	26
<b>Net loss attributable to holders of Ordinary shares</b>	<b>\$ 3,520</b>	<b>\$ 5,086</b>
Unrealized gain on available-for-sale marketable securities	2	-
<b>Total comprehensive loss</b>	<b>\$ 3,518</b>	<b>\$ 5,086</b>
<b>Net basic and diluted loss per share</b>	<b>\$ (0.13)</b>	<b>\$ (0.18)</b>
Weighted average number of Ordinary shares used in computing basic and diluted net loss per share	27,562,795	27,562,239

Alcobra Ltd.  
Consolidated Balance Sheet Data  
(In thousands)

**ASSETS**

	<u>March 31,</u> 2017 (Unaudited)	<u>December 31,</u> 2016
<b>Current assets:</b>		
Cash and cash equivalents	\$ 4,674	\$ 2,304
Short-term bank deposits	29,000	33,000
Marketable securities	11,578	14,938
Prepaid expenses and other receivables	<u>921</u>	<u>1,057</u>
<b>Total current assets</b>	<u>46,173</u>	<u>51,299</u>
<b>Long-term assets:</b>		
Other long-term assets	27	29
Property and equipment, net	<u>219</u>	<u>240</u>
<b>Total long-term assets</b>	<u>246</u>	<u>269</u>
<b>Total assets</b>	<u>\$ 46,419</u>	<u>\$ 51,568</u>

**LIABILITIES AND  
SHAREHOLDERS' EQUITY**

<b>Current liabilities:</b>		
Trade payables	\$ 488	\$ 528
Accrued expenses and other liabilities	<u>1,702</u>	<u>3,812</u>
<b>Total current liabilities</b>	<u>2,190</u>	<u>4,340</u>
<b>Shareholders' equity:</b>		
Ordinary shares	74	74
Additional paid-in capital	143,299	142,780
Accumulated other comprehensive loss	(4)	(6)
Accumulated deficit	<u>(99,140)</u>	<u>(95,620)</u>
<b>Total shareholders' equity</b>	<u>44,229</u>	<u>47,228</u>
<b>Total liabilities and shareholders' equity</b>	<u>\$ 46,419</u>	<u>\$ 51,568</u>

Alcobra Ltd.  
Consolidated Cash Flow Data  
(In thousands)

	Three Months Ended	
	March 31,	
	2017	2016
	(Unaudited)	(Unaudited)
<u>Cash flow from operating activities:</u>		
Net loss	\$ (3,520)	\$ (5,086)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	22	15
Amortization of premium on marketable securities	27	-
Stock based compensation	519	736
Change in operating assets and liabilities:		
Prepaid expenses and other receivables	136	187
Other long-term assets	2	(47)
Trade payables	(40)	54
Accrued expenses and other liabilities	(2,110)	(296)
Net cash used in operating activities	<u>(4,964)</u>	<u>(4,437)</u>
<u>Cash flow from investing activities:</u>		
Purchase of property and equipment, net	(1)	(23)
Proceeds from (investment in) marketable securities	3,335	(3,739)
Proceeds from (investment in) bank deposits, net	4,000	5,022
Net cash provided (used in) by investing activities	<u>7,334</u>	<u>1,260</u>
<u>Cash flow from financing activities:</u>		
Exercise of options	-	6
Net cash provided by financing activities	<u>-</u>	<u>6</u>
Increase (decrease) in cash and cash equivalents	2,370	(3,171)
Cash and cash equivalents at the beginning of the period	<u>2,304</u>	<u>16,658</u>
Cash and cash equivalents at the end of the period	<u>\$ 4,674</u>	<u>\$ 13,487</u>