

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: February 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 February 15, 2017, announcing its financial results for the fourth quarter ended December 31, 2016.

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 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and Exchange Commission, to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.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 February 15, 2017, announcing its financial results for the fourth quarter ended December 31, 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: February 15, 2017



Investor Contacts

Alcobra Investor Relations

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ALCOBRA ANNOUNCES FOURTH-QUARTER AND FULL-YEAR 2016 FINANCIAL RESULTS AND PROVIDES CORPORATE UPDATE

Conference Call & Webcast February 15th at 8:30 a.m. Eastern Time/5:30 a.m. Pacific Time

Tel Aviv, Israel – February 15, 2017 – Alcobra Ltd. (NasdaqGM: ADHD), an emerging pharmaceutical company focused on the development of new medications to treat CNS and cognitive disorders, today announced financial results for the three and twelve months ended December 31, 2016 and provided a corporate update.

Recent Corporate Updates:

- In January 2017, Alcobra held a Pre-IND meeting with the U.S. Food & Drug Administration (FDA) regarding the company's new proprietary Abuse-Deterrent, Amphetamine Immediate Release (ADAIR) product candidate for the treatment of Attention Deficit Hyperactivity Disorder (ADHD). ADAIR could be the first FDA-approved proprietary Abuse Deterrent immediate-release dextro-amphetamine drug.
- As a result of this meeting, Alcobra plans to develop ADAIR to deter abuse by snorting or injecting, a significant unmet need in the growing ADHD market which includes over 24 million annual U.S. prescriptions of immediate-release stimulants. Recent studies show that 40% or more of the people who misuse stimulants do so by snorting or injecting them.
- Alcobra has been developing ADAIR's patent-pending formulation, specifically designed to deter abuse by snorting or injecting, for over a year. Development was conducted in association with Capsugel[®], a global leader in delivering high-quality, innovative dosage forms and solutions.
- ADAIR will be developed through a 505(b)(2) development path, targeting a 2H 2018 New Drug Application (NDA) submission. Management expects that all development activities to NDA filing can be supported by Alcobra's existing cash resources.
- Extensive analyses and commissioned surveys suggest a potential of \$300+ million in ADAIR annual sales within four years of launch, if approved.
- ADAIR can potentially be the first FDA-approved proprietary abuse deterrent immediate release dextro-amphetamine drug in the market.
- Alcobra is exploring various strategic alternatives for Metadoxine Extended Release (MDX) while minimizing any additional investment of Alcobra's existing resources on this drug candidate.

Fourth-Quarter and Fiscal-Year Ended December 31, 2016 Financial Results:

- Total operating expenses in the fourth quarter and fiscal year 2016 were \$6.1 million and \$25.2 million, respectively, compared with \$5.0 million and \$19.7 million in the fourth quarter and fiscal year 2015.
 - Net operating expenses, excluding non-cash stock based compensation of \$0.5 million and \$2.5 million, respectively, in the fourth quarter and fiscal year 2016 were \$5.6 million and \$22.7 million, respectively, compared with \$4.4 million and \$17.3 million in the fourth quarter and fiscal year 2015.
 - Research and development (R&D) expenses in the fourth quarter and fiscal year 2016 were \$4.4 million and \$18.4 million, respectively, compared with \$3.3 million and \$13.5 million in the fourth quarter and fiscal year 2015. R&D expenses consisted primarily of costs associated with the conduct of the MEASURE study.
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- General and administrative (G&A) expenses in the fourth quarter and fiscal year 2016 were \$1.3 million and \$5.4 million, respectively, compared with \$1.3 million and \$5.0 million in the fourth quarter and fiscal year 2015. Pre-commercialization expenses in the fourth quarter and fiscal year 2016 were \$0.4 million and \$1.4 million, respectively, compared with \$0.3 million and \$1.2 million in the fourth quarter and fiscal year 2015.
- Cash, marketable securities, and deposits totaled \$50.2 million at December 31, 2016, compared with \$54.3 million at September 30, 2016 and \$69.7 million at December 31, 2015.
- Total estimated clinical development cost of the ADAIR product to NDA filing is approximately \$13 million. The investment to date in the project (2015 and 2016) has been less than \$1 million.

Conference Call & Webcast

Wednesday, February 15, 2017 @ 8:30a.m. Eastern Time

Domestic: 855-469-0611
International: 484-756-4341
Passcode: 63950344
Webcast: <http://edge.media-server.com/m/p/662vg37q>

Replays available through March 2, 2017

Domestic: 855-859-2056
International: 404-537-3406
Passcode: 63950344

About Alcobra

Alcobra Ltd. is an emerging pharmaceutical company primarily focused on the development and commercialization of medications to treat CNS and cognitive disorders. 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 timing and costs of filing an NDA for ADAIR, if filed at all, the proposed development path to approve ADAIR, the sufficiency of Alcobra's financial resources for its future plans, the market opportunity for and the potential benefits of ADAIR. 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.

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

	Three Months Ended		Year Ended	
	December 31,		December 31,	
	2016	2015	2016	2015
	(unaudited)		(unaudited)	
Research and development	\$ 4,447	\$ 3,335	\$ 18,391	\$ 13,461
Pre-commercialization expenses	360	314	1,419	1,245
General and administrative	1,286	1,325	5,357	4,992
Total operating expenses	6,093	4,974	25,167	19,698
Financial income, net	(176)	(104)	(637)	(300)
Loss before taxes on income	5,917	4,870	24,530	19,398
Tax on income	10	17	73	51
Net loss attributable to holders of Ordinary shares	<u>\$ 5,927</u>	<u>\$ 4,887</u>	<u>\$ 24,603</u>	<u>\$ 19,449</u>
Unrealized loss on available-for-sale marketable securities	(3)	-	(6)	-
Total comprehensive loss	5,930	\$ 4,887	\$ 24,609	\$ 19,449
Net basic and diluted loss per share	<u>\$ (0.22)</u>	<u>\$ (0.20)</u>	<u>\$ (0.89)</u>	<u>\$ (0.90)</u>
Weighted average number of Ordinary shares used in computing basic and diluted net loss per share	<u>27,562,795</u>	<u>24,136,669</u>	<u>27,562,657</u>	<u>21,638,207</u>



Alcobra Ltd.
Consolidated Balance Sheet Data
(In thousands)

ASSETS

	December 31,	
	2016	2015
Current assets:		
Cash and cash equivalents	\$ 2,304	\$ 16,658
Short-term bank deposits	33,000	34,022
Marketable securities	14,938	-
Prepaid expenses and other receivables	1,057	1,666
Total current assets	51,299	52,346
Long-term assets:		
Long-term bank deposits	-	19,000
Other long-term assets	29	110
Property and equipment, net	240	227
Total long-term assets	269	19,337
Total assets	\$ 51,568	\$ 71,683

**LIABILITIES AND
SHAREHOLDERS' EQUITY**

Current liabilities:		
Trade payables	\$ 528	\$ 57
Accrued expenses and other liabilities	3,812	2,295
Total current liabilities	4,340	2,352
Shareholders' equity:		
Ordinary shares	74	74
Additional paid-in capital	142,780	140,274
Accumulated other comprehensive loss	(6)	-
Accumulated deficit	(95,620)	(71,017)
Total shareholders' equity	47,228	69,331
Total liabilities and shareholders' equity	\$ 51,568	\$ 71,683



Alcobra Ltd.
Consolidated Cash Flow Data
(In thousands)

	Three Months Ended		Year Ended	
	December 31,		December 31,	
	2016	2015	2016	2015
Cash flow from operating activities:				
Net loss	\$ (5,927)	\$ (4,887)	\$ (24,603)	\$ (19,449)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation	14	12	61	51
Amortization of premium on marketable securities	37	-	123	-
Stock based compensation	541	579	2,500	2,365
Change in operating assets and liabilities:				
Prepaid expenses and other receivables	222	205	667	(1,077)
Other long-term assets	45	(23)	23	(15)
Trade payables	376	(470)	471	(248)
Accrued expenses and other liabilities	669	305	1,517	225
Net cash used in operating activities	(4,023)	(4,279)	(19,241)	(18,148)
Cash flow from investing activities:				
Purchase of property and equipment, net	(42)	(89)	(74)	(181)
Change in restricted cash	-	(15)	-	(161)
Investment in marketable securities	(1,045)	-	(17,372)	-
Proceeds from maturity of marketable securities	583	-	1,604	-
Proceeds from redemption of marketable securities	456	-	701	-
Proceeds from (investment in) short-term bank deposits, net	2,000	(8,485)	20,022	(14,500)
Investment in long-term bank deposit	-	(19,000)	-	(19,000)
Net cash provided by (used in) investing activities	1,952	(27,589)	4,881	(33,842)
Cash flow from financing activities:				
Issuance of share capital upon public offering, net	-	38,556	-	66,459
Exercise of options	-	-	6	13
Net cash provided by financing activities	-	38,556	6	66,472
Increase (decrease) in cash and cash equivalents	(2,071)	6,688	(14,354)	14,482
Cash and cash equivalents at the beginning of the period	4,375	9,970	16,658	2,176
Cash and cash equivalents at the end of the period	\$ 2,304	\$ 16,658	\$ 2,304	\$ 16,658