

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM F-3  
REGISTRATION STATEMENT UNDER  
THE SECURITIES ACT OF 1933

**Alcobra Ltd.**

(Exact name of registrant as specified in its charter)

**Israel**

(State or other jurisdiction of  
incorporation or organization)

**Not Applicable**

(I.R.S. Employer Identification No.)

**Azrieli Triangle Building  
132 Derech Menachem Begin 39th Floor  
Tel Aviv 6701101 Israel  
+972-72-220-4661**

(Address and Telephone Number of Registrant's Principal Executive Offices)

**Alcobra Inc.**

**600 West Germantown Pike, Suite 400, Plymouth Meeting, PA, 19462  
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(Name, Address, and Telephone Number of Agent for Service)

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Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.C. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.C. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount To Be Registered (1)	Proposed Maximum Offering Price Per Unit (1)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Ordinary Shares, NIS0.01 par value	(3)	(3)	\$ 100,000,000	\$ 6,382(4)

(1) There are being registered under this registration statement such indeterminate number of ordinary shares, as may be sold by the registrant from time to time, which collectively shall have an aggregate initial offering price not to exceed \$100,000,000. In addition, pursuant to Rule 416 under the Securities Act of 1933, as amended, or the Securities Act, the ordinary shares being registered hereunder include such indeterminate number of ordinary shares as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) under the Securities Act.

- (3) Omitted pursuant to Rule 457(o) under the Securities Act.
- (4) Calculated pursuant to Rule 457(o) based on the proposed maximum aggregate offering price. Pursuant to Rule 415(a)(6) under the Securities Act, the filing fees paid in connection with the registration of \$28,635,213 of unsold securities on the Registrant's registration statement on Form F-3 declared effective on August 1, 2014 (Registration No. 333-197411) will continue to be applied to such unsold securities included in this registration statement. In addition, pursuant to Rule 457(p) under the Securities Act, the filing fees paid in connection with the registration of \$28,635,213 of unsold securities are being applied to the filing fees due in connection with this Registration Statement. An additional \$6,382 is being paid to register additional securities in connection with the filing of this Registration Statement.

**The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

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The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell securities and it is not soliciting an offer to buy securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated March 4, 2016

Prospectus

\$100,000,000



### Ordinary Shares

We may offer and sell from time to time in one or more offerings up to a total amount of \$100,000,000 of our ordinary shares. Each time we sell ordinary shares pursuant to this prospectus, we will provide in a supplement to this prospectus the price and any other material terms of any such offering. We may also authorize one or more free writing prospectuses to be provided to you in connection with each offering. Any prospectus supplement and related free writing prospectuses may also add, update or change information contained in the prospectus. You should read this prospectus, any applicable prospectus supplement and related free writing prospectuses, as well as the documents incorporated by reference or deemed incorporated by reference into this prospectus, carefully before you invest in our ordinary shares.

Our ordinary shares are traded on the NASDAQ Global Market under the symbol "ADHD".

**Investing in our ordinary shares involves a high degree of risk. Risks associated with an investment in our ordinary shares will be described in any applicable prospectus supplement and are and will be described in certain of our filings with the Securities and Exchange Commission, as described in "Risk Factors" on page 4.**

The ordinary shares may be sold directly by us to investors, through agents designated from time to time or to or through underwriters or dealers, or through a combination of such methods, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus. If any agents or underwriters are involved in the sale of our ordinary shares with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts and over-allotment options will be set forth in a prospectus supplement. The price to the public of our ordinary shares and the net proceeds that we expect to receive from such sale will also be set forth in a prospectus supplement.

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed on completeness or the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus is \_\_\_\_\_, 2016

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### ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form F-3 that we filed with the Securities and Exchange Commission, or the SEC, utilizing a “shelf” registration process. Under this shelf registration process, we may offer from time to time up to an aggregate of \$100,000,000 of our ordinary shares in one or more offerings. We sometimes refer to our ordinary shares as the “securities” throughout this prospectus.

Each time we sell ordinary shares, we will provide you with a prospectus supplement that will describe the specific amounts, prices and terms of such offering. We may also authorize one or more free writing prospectuses to be provided to you in connection with such offering. The prospectus supplement and any related free writing prospectuses may also add, update or change information contained in this prospectus. You should read carefully both this prospectus, the applicable prospectus supplement and any related free writing prospectus together with additional information described below under “Where You Can Find More Information and Incorporation by Reference” before buying the ordinary shares being offered.

This prospectus does not contain all of the information provided in the registration statement that we filed with the SEC. For further information about us or our ordinary shares, you should refer to that registration statement, which you can obtain from the SEC as described below under “Where You Can Find More Information and Incorporation by Reference.”

You should rely only on the information contained or incorporated by reference in this prospectus, a prospectus supplement and related free writing prospectuses. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement or related free writing prospectuses is accurate on any date subsequent to the date set forth on the front of the document or that any information that we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since those dates.

In this prospectus, references to the terms “Alcobra,” “the Company,” “we,” “us,” “our” and similar terms, refer to Alcobra Ltd., unless we state or the context implies otherwise. References to our “ordinary shares” mean our ordinary shares, par value New Israeli Shekels, or NIS, 0.01 per share.

## ABOUT ALCOBRA LTD.

*This summary highlights information contained in the documents incorporated herein by reference. Before making an investment decision, you should read the entire prospectus, and our other filings with the SEC, including those filings incorporated herein by reference, carefully, including the sections entitled “Risk Factors” and “Warning Regarding Forward-Looking Statements.”*

We are an emerging biopharmaceutical company primarily focused on the development and commercialization of our proprietary oral drug candidate, MDX, to treat Attention Deficit and Hyperactivity Disorder, or ADHD, and other cognitive dysfunctions including Fragile X Syndrome, or Fragile X. The most common currently available treatments for ADHD are stimulants that increase the brain chemicals dopamine and norepinephrine. Stimulants have significant side effects, and are classified as controlled substances, which have significant potential for misuse, abuse and addiction. MDX is not a stimulant, and works with a different mechanism of action. MDX is a proprietary, combined rapid onset/extended release formulation of the chemical pyridoxine pyroglutamate, which is more broadly known as metadoxine. Metadoxine is designed to be a monoamine-independent modulator of gamma-aminobutyric acid transmission. Metadoxine has been available since the 1980s only in immediate release forms for the acute treatment of alcohol intoxication and the chronic treatment of alcoholic liver disease in Italy, Portugal, Hungary, Russia, India, China, Mexico and Thailand.

### *MDX for the Treatment of ADHD*

ADHD is one of the most common behavioral disorders in the world. It is estimated that between 8% and 10% of children worldwide are affected by this condition. Once believed to only affect children, ADHD is now known to persist into adolescence and adulthood in a large number of cases, with approximately 50% of all children with ADHD continuing to have symptoms of the disorder as adults. Over 90% of adults with ADHD experience impaired attention and executive function symptoms, of which approximately 35% also experience hyperactivity-impulsivity symptoms.

ADHD is a treatable condition. The most commonly used therapeutic drugs are stimulants (Schedule II, Controlled Substances), such as Ritalin, Adderall, Vyvanse and Concerta, which are all dopaminergic (related to dopamine) and noradrenergic (related to norepinephrine) compounds with significant abuse and misuse potential, as their use may lead to severe psychological or physical dependence. In addition, stimulants have numerous side effects, such as uncomfortable mental states, interference with sleep and appetite, development of nervous tics and potential cardiovascular effects resulting from increased blood pressure and heart rate. There are limited effective treatments for these side effects for patients taking the drugs. The prevalence of such side effects has also led to dramatically limited medication adherence rates. Up to 30% to 50% of those who are prescribed stimulants for ADHD either do not respond or cannot tolerate these treatments, and only about 20% of those who are prescribed stimulants are still taking them 12 months later. There also is a non-stimulant drug approved for children and adults with ADHD called Strattera (atomoxetine), approved in 2002. This drug also has significant potential side effects, such as fatigue, gastrointestinal upset, sexual problems, palpitations, increased heart rate and high blood pressure and also has regulatory warning labels relating to suicidal thoughts and liver damage. Moreover, Strattera may take six to eight weeks to achieve full clinical effectiveness. More recently, two additional non-stimulant medications were approved for use only in children and adolescents with ADHD, Intuniv (guanfacine) and Kapvay (clonidine). These two drugs have not been approved for use in adults with ADHD and have not had significant commercial success. All approved ADHD drugs need to be carefully monitored by the treating physician to optimize the dose, starting with a low dose and slowly escalating to the most effective and tolerable dose.

In contrast to the most common available treatments, which involve the use of stimulants, MDX is not a stimulant and employs a different mechanism of action that is neither dopaminergic (related to dopamine) nor noradrenergic (related to norepinephrine). Our clinical trials to date have suggested a pro-cognitive effect and favorable tolerability and safety. We therefore believe MDX potentially represents an effective treatment and a safer alternative to currently marketed treatments.

In September 2011, we completed a 120 subject double-blind placebo-controlled Phase 2 study in adult ADHD subjects in two academic sites in Israel. The study showed statistically significant improvement in clinical ADHD symptoms, and also showed favorable tolerability with no significant side effects over a placebo. The trial met all primary and secondary clinical endpoints showing statistically significant improvement over the placebo-treated control group.

In December 2013, we completed an additional 36 subject double-blind placebo-controlled Phase 2 study in adult ADHD subjects, which confirmed our previous findings, highlighted the rapid onset of MDX, and demonstrated efficacy over placebo from the first day of dosing, using a computerized assessment tool.

In October 2014, we announced the results of a 300 subject double-blind placebo-controlled Phase 3 study in adult ADHD in 20 sites (18 in the United States and two in Israel). The study's primary efficacy endpoint did not reach statistical significance. A non-significant favorable trend was observed on the primary endpoint. Other secondary measures showed strong or statistically significant trends. Similar to previous studies, MDX showed a favorable safety profile.

In March 2015, we reported that our Phase 2 safety and tolerability study of a single administration of MDX in adolescent patients with ADHD achieved its primary endpoint. In the study, MDX showed good tolerability and no safety concerns were identified.

In the first quarter of 2015, we met with the U.S. Food and Drug Administration, or the FDA, to discuss the results of our first Phase 3 study in adults with ADHD, the proposed protocol for our second Phase 3 study in adults, the requirements for clinical development of MDX for pediatric ADHD, as well as the requirements for a New Drug Application, or an NDA, submission. The FDA confirmed that a single additional study showing efficacy in adult ADHD may provide a sufficient basis of efficacy for approval of MDX in this sub-population. The FDA also confirmed that a single Phase 2 study, followed by a single Phase 3 study, in a pediatric ADHD population can provide a sufficient basis of efficacy for approval of MDX in this population. We currently plan to file a joint NDA for the adult and pediatric sub-populations. We expect to launch the first of two adequate, well-controlled, short-term efficacy studies in children with ADHD in 2016. The study will be a multi-center, placebo-controlled, short-term efficacy study.

In the second quarter of 2015, we launched the MEASURE study (MDX Evaluation in Adults — Study of Response and Efficacy). The MEASURE study is our second Phase 3 study of MDX in adults with ADHD. The study includes design and operational elements to potentially mitigate placebo response and reduce treatment response variability, and we expect to report data by year end 2016.

We plan to initiate in 2016 the first of two registration studies in the United States for the use of MDX to treat ADHD in pediatrics. The trial will include similar design and monitoring elements to our ongoing Phase 3 trial in adult ADHD to potentially mitigate the placebo effect and reduce variability.

If the data from these and future pre-clinical and clinical trials demonstrate the safety and efficacy of MDX in the pediatric and adult sub-populations, we will seek to obtain marketing approval from the FDA for MDX for use in ADHD. We have similar plans to seek marketing approval in other territories.

#### *MDX for the Treatment of Fragile X*

We are also studying MDX for the treatment of Fragile X, a rare neurogenetic disorder related to autism marked by severe intellectual disability. In June 2015, we reported that our Phase 2 exploratory clinical study of MDX in adolescent and adult patients with Fragile X did not achieve statistical significance on the primary endpoint, yet demonstrated statistically significant improvements in certain clinically meaningful behavioral and cognitive endpoints, including the Vineland II Daily Living Skills Assessment. The FDA has granted fast track designation and Orphan Drug status to MDX for the treatment of Fragile X.

In October 2015, we met with the FDA to discuss the results of our Phase 2 study in Fragile X and the requirements for NDA submission of MDX in this therapeutic indication. The FDA concurred that results from a single short-term, adequate and well-controlled efficacy study in adolescents and adult patients with Fragile X may be sufficient to support a claim of efficacy for approval of MDX in this indication (in line with the FDA's Guidance for Industry — Providing Evidence of Effectiveness for Human Drug and Biological Products, May 1998). We plan to submit a separate application for pediatric patients (ages 4-11) following FDA approval via a supplemental NDA. The FDA confirmed that the Vineland II Daily Living Skills Assessment could serve as the primary endpoint in the adolescents and adults Fragile X pivotal study.

To date, we have not generated revenue from the sale of any product, and we do not expect to generate significant revenue unless and until we obtain marketing approval of, and commercialize, MDX. As of December 31, 2015, we had an accumulated deficit of \$71 million.

## **RISK FACTORS**

Investing in our securities involves significant risks. Before making an investment decision, you should carefully consider the risks described under “Risk Factors” in the applicable prospectus supplement and under Item 3.D. – “Risk Factors” in our most recent Annual Report on Form 20-F, or any updates in our Reports on Form 6-K, together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. The risks so described are not the only risks facing us. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations. Our business, financial condition and results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment. The discussion of risks includes or refers to forward-looking statements; you should read the explanation of the qualifications and limitations on such forward-looking statements discussed elsewhere in this prospectus.

## **WARNING REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus contains and any prospectus supplement may contain, “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 and other U.S. Federal securities laws. Also, documents that we incorporate by reference into this prospectus, including documents that we subsequently file with the SEC, will contain forward-looking statements. These forward-looking statements include, but are not limited to, those statements regarding anticipated expenses, capital requirements and our needs for additional financing; timing, design, the initiation and successful completion of the clinical trials we are or anticipate conducting, if at all; FDA approval of, or other regulatory action in the U.S. and elsewhere, with respect to MDX; the commercial launch, marketing and future sales of MDX or any other future products or product candidates; our ability to achieve favorable pricing for MDX; and our expectations regarding licensing, acquisitions and strategic operations. In some cases, forward-looking statements are identified by terminology such as “may,” “will,” “could,” “should,” “expects,” “plans,” “anticipates,” “believes,” “intends,” “estimates,” “predicts,” “potential,” or “continue” or the negative of these terms or other comparable terminology. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results or performance to differ materially from those projected. These statements are only current predictions and are subject to known and unknown risks, uncertainties, and other factors that may cause our or our industry’s actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. 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 prospectus would be interpreted differently in light of additional research and clinical and preclinical trials results. The forward-looking statements contained in this prospectus are subject to risks and uncertainties, including in our most recent Annual Report on Form 20-F, under Item 3.D. – “Risk Factors” and in our other filings with the SEC. You are cautioned not to place undue reliance on these forward looking statements, which speak only as of the date hereof. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. Except as otherwise required by law, we are under no obligation to (and expressly disclaim any such obligation to) update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this prospectus.

## CAPITALIZATION AND INDEBTEDNESS

The following table sets forth cash and cash equivalents, short-term investments and our shareholders' equity as of December 31, 2015. The financial data in the following table should be read in conjunction with our consolidated financial statements included in our Annual Report on Form 20-F for the year ended December 31, 2015 filed with the SEC on March 4, 2016, which have been incorporated by reference in this prospectus.

	<b>As of December 31, 2015 (U.S. Dollars, in thousands)</b>
Cash and cash equivalents	\$ 16,658
Short-term bank deposit	34,022
<b>Total cash, cash equivalents and short-term bank deposits</b>	<b>50,680</b>
<b>Shareholders' equity:</b>	
<b>Ordinary Shares of NIS 0.01 par value:</b>	
Authorized – 50,000,000 as of December 31, 2015;	
Outstanding – 27,560,920 shares as of December 31, 2015.	74
Additional paid-in capital	140,274
Accumulated deficit during the development stage	(71,017)
<b>Total shareholders' equity</b>	<b>69,331</b>
<b>Capitalization</b>	<b>69,331</b>

### REASONS FOR THE OFFER AND USE OF PROCEEDS

Unless otherwise set forth in the related prospectus supplement or, if applicable, the pricing supplement, we intend to use the net proceeds from the sale of securities offered through this prospectus for general corporate purposes, which include financing our operations, capital expenditures and business development. The specific purpose of any individual issuance of securities will be described in the related prospectus supplement.

### PRICE RANGE OF OUR ORDINARY SHARES

Our ordinary shares were listed on the NASDAQ Capital Market under the symbol "ADHD" from May 22, 2013 until March 27, 2014. Since March 28, 2014, our ordinary shares have been listed on the NASDAQ Global Market. Prior to May 22, 2013, there was no public trading market for our ordinary shares. Our initial public offering was priced at \$8.00 per share on May 21, 2013. The following table sets forth for the periods indicated the high and low sales prices per ordinary share as reported on the NASDAQ Capital Market through March 27, 2014, and, starting March 28, 2014, on the NASDAQ Global Market:

<b>Annual Information:</b>	<b>Low</b>	<b>High</b>
2013	\$ 6.50	\$ 26.96
2014	3.12	25.44
2015	3.68	9.50
<b>Quarterly Information</b>		
First Quarter 2014	\$ 17.11	\$ 25.44
Second Quarter 2014	13.63	21.33
Third Quarter 2014	14.77	22.19
Fourth Quarter 2014	3.12	15.68
First Quarter 2015	3.68	8.3
Second Quarter 2015	5.38	8.84
Third Quarter 2015	5.61	9.50
Fourth Quarter 2015	5.28	8.78
<b>Monthly Information:</b>		
September 2015	\$ 5.61	\$ 9.14
October 2015	5.28	8.34
November 2015	5.68	8.78
December 2015	5.54	6.66
January 2016	4.27	6.50
February 2016	4.45	5.66



## DESCRIPTION OF OUR ORDINARY SHARES

The following is a summary description of our ordinary shares under our amended and restated articles of association, or Articles of Association. Our share capital is NIS 500,000, consisting of 50,000,000 ordinary shares NIS 0.01 par value per share. The ordinary shares do not have cumulative voting rights in the election of directors. As a result, the holders of ordinary shares that represent more than 50% of the voting power have the power to elect all the directors.

*Dividend and Liquidation Rights.* Our board of directors may declare a dividend to be paid to the holders of our ordinary shares according to their rights and interests in our profits and may fix the record date for eligibility and the time for payment. The directors may from time to time pay to the shareholders on account of the next forthcoming dividend such interim dividends as, in their judgment, our position justifies. All dividends unclaimed for one year after having been declared may be invested or otherwise used by the directors for our benefit until claimed. No unpaid dividend or interest shall bear interest as against us. Our board of directors may determine that a dividend may be paid, wholly or partially, by the distribution of certain of our assets or by a distribution of paid up shares, debentures or debenture stock or any of our securities or of any other companies or in any one or more of such ways in the manner and to the extent permitted by the Israeli Companies Law 1999, or the Companies Law.

*Voting; annual, general and extraordinary meeting.* Subject to any rights or restrictions for the time being attached to any class or classes of shares, each shareholder shall have one vote for each share of which he or she is the holder, whether on a show of hands or on a poll. Our Articles of Association do not permit cumulative voting and it is not mandated by Israeli law. Votes may be given either personally or by proxy. A proxy need not be a shareholder. If any shareholder is without legal capacity, he may vote by means of a trustee or a legal custodian, who may vote either personally or by proxy. If two or more persons are jointly entitled to a share then, in voting upon any question, the vote of the senior person who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other registered holders of the share and, for this purpose seniority shall be determined by the order in which the names stand in the shareholder register.

*Quorum for general meetings.* The quorum required for our general meetings of shareholders consists of at least two shareholders present in person, by proxy or written ballot who holds or represent between them at least one-third of the total outstanding voting rights. A meeting adjourned for lack of a quorum is generally adjourned to the same day in the following week at the same time and place or to a later time/date if so specified in the summons or notice of the meeting. At the reconvened meeting, any two or more shareholders present in person or by proxy shall constitute a lawful quorum.

*Notice of general meetings.* Unless a longer period for notice is prescribed by the Companies Law, at least 10 days and not more than 60 days' notice of any general meeting shall be given, specifying the place, the day and the hour of the meeting and, in the case of special business, the nature of such business, shall be given in the manner hereinafter mentioned, to such shareholders as are under the provisions of our Articles of Association, entitled to receive notices from us. Only shareholders of record as reflected on our share register at the close of business on the date fixed by the board of directors as the record date determining the then shareholders who will be entitled to vote, shall be entitled to notice of, and to vote, in person or by proxy, at a general meeting and any postponement or adjournment thereof.

*Annual general meetings; agenda; calling a general meeting.* General meetings are held at least once in every calendar year at such time (within a period of 15 months after the holding of the last preceding general meeting), and at such time and place as may be determined by the board of directors. At a general meeting, decisions shall be adopted only on matters that were specified on the agenda. The board of directors is obligated to call extraordinary general meeting of the shareholders upon a written request in accordance with the Companies Law. The Companies Law provides that an extraordinary general meeting of shareholder may be called by the board of directors or by a request of two directors or 25% of the directors in office, or by shareholders holding at least 5% of the issued share capital of the company and at least 1% of the voting rights, or of shareholders holding at least 5% of the voting rights of the company.

*Majority vote.* Except as otherwise provided in the Articles of Association, any resolution at a general meeting shall be deemed adopted if approved by the holders of a majority of our voting rights represented at the meeting in person or by proxy and voting thereon. In the case of an equality of votes, the chairman of the meeting shall not be entitled to a further vote.

*No discrimination against shareholders.* According to our Articles of Association, there are no discriminating provisions against any existing or prospective holders of our shares as a result of a shareholder holding a substantial number of shares.

*Transfer of Shares; record dates.* Fully paid up ordinary shares may be freely transferred pursuant to our Articles of Association unless such transfer is restricted or prohibited by another instrument or securities laws. Each shareholder who would be entitled to attend and vote at a general meeting of shareholders is entitled to receive notice of any such meeting. For purposes of determining the shareholders entitled to notice and to vote at such meeting, the board of directors will fix a record date.

*Modification of Class Rights.* If, at any time, the share capital is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issuance of the shares of that class) may be varied with the consent in writing of the holders of all the issued shares of that class, or with the sanction of a majority vote at a meeting of the shareholders passed at a separate meeting of the holders of the shares of the class. The provisions of our Articles of Association relating to general meetings shall apply, mutatis mutandis, to every such separate general meeting. Any holder of shares of the class present in person or by proxy may demand a secret poll.

Unless otherwise provided by the conditions of issuance, the enlargement of an existing class of shares, or the issuance of additional shares thereof, shall not be deemed to modify or abrogate the rights attached to the previously issued shares of such class or of any other class. These conditions provide for the minimum shareholder approvals permitted by the Companies Law.

*Restrictions on Shareholders Rights to Own Securities.* Our Articles of Association and the laws of the State of Israel do not restrict in any way the ownership or voting on our shares by nonresidents of Israel, except with respect to subjects of countries which are in a state of war with Israel.

*Election of Directors.* Other than external directors, as defined in the Companies Law, for whom special election requirements and terms of office apply under the Companies Law, our directors are each elected at a general meeting of our shareholders and serve for a term of roughly one year. Directors may nevertheless be removed prior to the end of their term by the majority of our shareholders at a general meeting of our shareholders or upon the occurrence of certain events, all in accordance with the Companies Law and our Articles of Association. In addition, our Articles of Association allow our board of directors to appoint directors, other than external directors, to fill vacancies on our board of directors, for a term of office which shall continue until the next annual meeting following his or her appointment.

External directors are elected for an initial term of three years and may be elected for up to two additional three-year terms (or more) under certain circumstances. External directors may be removed from office only under the limited circumstances set forth in the Companies Law.

## PLAN OF DISTRIBUTION

We may sell the securities being offered hereby in one or more of the following methods from time to time:

- a block trade (which may involve crosses) in which the broker or dealer so engaged will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker or dealer as principal and resale by such broker or dealer for its own account pursuant to this prospectus;
- exchange distributions and/or secondary distributions;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- to one or more underwriters for resale to the public or to investors;
- through agents;
- in “at the market offerings,” within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise;
- transactions not involving market makers or established trading markets, including direct sales or privately negotiated transactions;
- through a combination of these methods of sale.

The securities that we distribute by any of these methods may be sold, in one or more transactions, at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to prevailing market prices; or
- negotiated prices.

We will set forth in a prospectus supplement the terms of the offering of securities, including:

- the name or names of any agents, dealers or underwriters;
- the purchase price of the securities being offered and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- the public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and

- any securities exchanges or markets on which such securities may be listed.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may also sell securities directly to one or more purchasers without using underwriters or agents.

Underwriters, dealers and agents that participate in the distribution of the securities may be underwriters as defined in the Securities Act and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act. We will identify in the applicable prospectus supplement any underwriters, dealers or agents and will describe their compensation. We may have agreements with the underwriters, dealers and agents to indemnify them against specified civil liabilities, including liabilities under the Securities Act. Underwriters, dealers and agents may engage in transactions with or perform services for us in the ordinary course of their businesses.

In connection with an offering, an underwriter may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in the offering.

Accordingly, to cover these short sales positions or to otherwise stabilize or maintain the price of the securities, the underwriters may bid for or purchase securities in the open market and may impose penalty bids. If penalty bids are imposed, selling concessions allowed to syndicate members or other broker-dealers participating in the offering are reclaimed if securities previously distributed in the offering are repurchased, whether in connection with stabilization transactions or otherwise. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. The impositions of a penalty bid may also affect the price of the securities to the extent that it discourages resale of the securities. The magnitude or effect of any stabilization or other transactions is uncertain. These transactions may be effected on The Nasdaq Global Market or otherwise and, if commenced, may be discontinued at any time.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum commission or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

## EXPENSES

We are paying all of the expenses of the registration of our securities under the Securities Act, including, to the extent applicable, registration and filing fees, printing and duplication expenses, administrative expenses, accounting fees and the legal fees of our counsel. We estimate these expenses to be approximately \$30,000 which at the present time include the following categories of expenses:

SEC registration fee	\$	6,382
Legal fees and expenses	\$	11,500
Accounting fees and expenses	\$	5,000
Miscellaneous expenses	\$	7,118
<b>Total</b>	<b>\$</b>	<b>30,000</b>

In addition, we anticipate incurring additional expenses in the future in connection with the offering of our securities pursuant to this prospectus. Any such additional expenses will be disclosed in a prospectus supplement.

#### **LEGAL MATTERS**

The validity of the ordinary shares offered in this prospectus will be passed upon for us by Zysman, Aharoni, Gayer & Co., Tel Aviv, Israel. Zysman, Aharoni, Gayer and Sullivan & Worcester LLP, New York, New York, is acting as our counsel in connection with United States securities laws.

#### **EXPERTS**

The financial statements, incorporated in this prospectus by reference from the Company's Annual Report on Form 20-F, have been audited by Kost Forer Gabbay & Kasierer, a member of EY Global, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

#### **WHERE YOU CAN FIND MORE INFORMATION AND INCORPORATION OF CERTAIN INFORMATION BY REFERENCE**

We are an Israeli company and are a "foreign private issuer" as defined in Rule 3b-4 under the Securities Exchange Act of 1934, as amended, or the Exchange Act. As a result, (1) our proxy solicitations are not subject to the disclosure and procedural requirements of Regulation 14A under the Exchange Act, and (2) transactions in our equity securities by our officers and directors are exempt from Section 16 of the Exchange Act.

In addition, we are not required to file reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. However, we file with the SEC an Annual Report on Form 20-F containing financial statements audited by an independent registered public accounting firm. We also furnish reports on Form 6-K containing unaudited financial information for each calendar quarter and other material information that we are required to make public, that we file with, and that is made public by, any stock exchange on which our shares are traded, or that we distribute, or that is required to be distributed by us, to our shareholders.

You can read and copy any materials we file with the SEC at its Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You can obtain information about the operation of the SEC Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a web site that contains information we file electronically with the SEC, which you can access over the Internet at <http://www.sec.gov>. You may also access the information we file electronically with the SEC through our website at <http://www.alcobra-pharma.com>. The information contained on, or linked from our website or the SEC's website does not form part of this prospectus.

This prospectus is part of a registration statement on Form F-3 filed by us with the SEC under the Securities Act. As permitted by the rules and regulations of the SEC, this prospectus does not contain all the information set forth in the registration statement and the exhibits thereto filed with the SEC. For further information with respect to us and the ordinary shares offered hereby, you should refer to the complete registration statement on Form F-3, which may be obtained from the locations described above. Statements contained in this prospectus or in any prospectus supplement about the contents of any contract or other document are not necessarily complete. If we have filed any contract or other document as an exhibit to the registration statement or any other document incorporated by reference in the registration statement, you should read the exhibit for a more complete understanding of the document or matter involved. Each statement regarding a contract or other document is qualified in its entirety by reference to the actual document.

The following documents filed with or furnished to the SEC by our Company are incorporated by reference in this registration statement:

- The Company's Annual Report on Form 20-F for the fiscal year ended December 31, 2015; and
- The description of the Company's ordinary shares, par value NIS 0.01 per share contained in the Company's registration statement on Form 8-A filed pursuant to the Exchange Act on May 17, 2013 (File No. 001-35932), including any amendment or report filed which updates such description.

All subsequent Annual Reports filed by us pursuant to the Exchange Act on Form 20-F prior to the termination of the offering shall be deemed to be incorporated by reference to this prospectus and to be a part hereof from the date of filing of such documents. We may also incorporate any Form 6-K subsequently submitted by us to the SEC prior to the termination of the offering by identifying in such Forms 6-K that they are being incorporated by reference herein, and any Forms 6-K so identified shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the date of submission of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede the information contained in this prospectus.

We will provide you without charge, upon your written or oral request, a copy of any of the documents incorporated by reference in this prospectus, other than exhibits to such documents which are not specifically incorporated by reference into such documents. Please direct your written or telephone requests to us at Alcobra Ltd., Azrieli Triangle Building, 132 Derech Menachem Begin, 39th Floor, Tel Aviv 6701101, Israel, attention: Dr. Tomer Berkovitz, Chief Financial Officer, telephone number: +972-72-220-4661.

#### **ENFORCEABILITY OF CIVIL LIABILITIES**

We are incorporated in Israel, almost all of our executive officers and directors and the Israeli experts named herein are nonresidents of the United States, and a substantial portion of our assets and of such persons' assets are located outside the United States. Service of process upon us and upon our directors and officers and the experts named in his prospectus, may be difficult to obtain within the United States. Furthermore, because substantially all of our assets and substantially all of our directors and officers are located outside the United States, any judgment obtained in the United States against us or any of our directors and officers may not be collectible within the United States.

We have been informed by our legal counsel in Israel that it may be difficult to assert United States securities law claims in original actions instituted in Israel. Israeli courts may refuse to hear a claim based on a violation of United States securities laws because Israel is not the most appropriate forum to bring such a claim. In addition, even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not U.S. law is applicable to the claim. If United States law is found to be applicable, the content of applicable U.S. law must be proved as a fact, which can be a time-consuming and costly process. Certain matters of procedure will also be governed by Israeli law. There is little binding case law in Israel addressing these matters.

Subject to specified time limitations and legal procedures, under the rules of private international law currently prevailing in Israel, Israeli courts may enforce a final U.S. judgment in a civil matter, including judgments based upon the civil liability provisions of the U.S. securities laws and including a monetary or compensatory judgment in a non-civil matter, provided that:

- the judgment is enforceable in the state in which it was given;
- adequate service of process has been effected and the defendant has had a reasonable opportunity to present his arguments and evidence;

- the judgment and the enforcement of the judgment are not contrary to the law, public policy, security or sovereignty of the state of Israel;
- the judgment was not obtained by fraud and does not conflict with any other valid judgment in the same matter between the same parties; and
- an action between the same parties in the same matter is not pending in any Israeli court at the time the lawsuit is instituted in the foreign court.

We have irrevocably appointed our subsidiary, Alcobra Inc., as our agent to receive service of process in any action against us in the state and federal courts sitting in the City of New York, Borough of Manhattan arising out of any offering under this registration statement of which this prospectus forms a part, or any purchase or sale of securities in connection therewith. We have not given consent for this agent to accept service of process in connection with any other claim.

## PART II

### INFORMATION NOT REQUIRED IN PROSPECTUS

#### **Item 8. Indemnification of Directors and Officers**

Under the Companies Law, a company may indemnify, or undertake in advance to indemnify, an office holder (defined as a director, chief executive officer, deputy chief executive officer or other officer reporting to the chief executive officer of the company) for the following liabilities and expenses, imposed on an office holder or incurred by an office holder due to acts performed by him or her as an office holder, provided its articles of association include a provision authorizing such indemnification:

- financial liability incurred by or imposed on him or her in favor of another person pursuant to a judgment, including a settlement or arbitrator's award approved by a court. However, if an undertaking to indemnify an office holder with respect to such liability is provided in advance, then such an undertaking must be limited to events which, in the opinion of the board of directors, can be foreseen based on the company's activities when the undertaking to indemnify is given, and to an amount or according to criteria determined by the board of directors as reasonable under the circumstances, and such undertaking shall detail the abovementioned foreseen events and amount or criteria;
- reasonable litigation expenses, including attorneys' fees, incurred by the office holder as a result of an investigation or proceeding instituted against him or her by an authority authorized to conduct such investigation or proceeding, provided that (i) no indictment was filed against such office holder as a result of such investigation or proceeding; and (ii) no financial liability was imposed upon him or her as a substitute for the criminal proceeding as a result of such investigation or proceeding or, if such financial liability was imposed, it was imposed with respect to an offense that does not require proof of criminal intent or as a monetary sanction; and
- reasonable litigation expenses, including attorneys' fees, incurred by the office holder or imposed by a court in proceedings instituted against him or her by the company, on its behalf, or by a third party, or in connection with criminal proceedings in which the office holder was acquitted, or as a result of a conviction for an offense that does not require proof of criminal intent.

Under the Companies Law, a company may insure an office holder against the following liabilities incurred for acts performed by him or her as an office holder if and to the extent provided in the company's articles of association:

- a breach of the duty of loyalty to the company, provided that the office holder acted in good faith and had a reasonable basis to believe that the act would not harm the company;

- a breach of duty of care to the company or to a third party; and
- a financial liability imposed on the office holder in favor of a third party.

Nevertheless, under the Companies Law, a company may not indemnify, exculpate or insure an office holder against any of the following:

- a breach of fiduciary duty, except for indemnification and insurance for a breach of the duty of loyalty to the company in the event office holder acted in good faith and had a reasonable basis to believe that the act would not prejudice the company;
- a breach of duty of care committed intentionally or recklessly, excluding a breach arising out of the negligent conduct of the office holder;
- an act or omission committed with intent to derive unlawful personal benefit; or
- a fine, monetary sanction, penalty or forfeit levied against the office holder.

Under the Companies Law, exculpation, indemnification and insurance of office holders require the approval of the compensation committee, board of directors and, in certain circumstances, the shareholders.

Our Articles of Association permit us to exculpate, indemnify and insure our office holders to the fullest extent permitted by the Companies Law.

We have obtained directors' and officers' liability insurance for the benefit of our office holders and intend to continue to maintain such coverage and pay all premiums thereunder to the fullest extent permitted by the Companies Law. In addition, we have entered into agreements with each of our office holders undertaking to indemnify them to the fullest extent permitted by Israeli law, including with respect to liabilities resulting from this offering to the extent that these liabilities are not covered by insurance.

## Item 9. Exhibits

Exhibit Number	Description
1.1*	Form of underwriting agreement.
4.1	Articles of Association of the Company, filed as Exhibit 3.2 to Form F-1/A filed on March 19, 2013 (File No. 333-186003) and incorporated herein by reference.
5.1**	Opinion of Zysman, Aharoni, Gayer & Co.
23.1**	Consent of Kost Forer Gabbay & Kasierer, a member of EY Global, independent registered public accounting firm.
23.2 **	Consent of Zysman, Aharoni, Gayer & Co. (included in Exhibit 5.1).
24 **	Power of Attorney (included in the signature page of this registration statement).

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\* To be filed, if applicable, by post-effective amendment or incorporated by reference in connection with the offering of any ordinary shares, as appropriate.

\*\* Filed herewith.



## Item 10. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) to file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) To file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A. of Form 20-F at the start of any delayed offering or throughout a continuous offering; provided, however, that a post-effective amendment need not be filed to include financial statements and information required by Section 10(a)(3) of the Act or Rule 3-19 if such financial statements and information are contained in periodic reports filed with or furnished to the SEC by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act that are incorporated by reference in this registration statement.

(5) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) If the registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(a) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424; (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant; (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby further undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance under Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4), or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

#### SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunder duly authorized, in the city of Tel Aviv, Israel, on March 4, 2016.

ALCOBRA LTD.

By: /s/ Dr. Yaron Daniely

Dr. Yaron Daniely  
Chief Executive Officer and President

We, the undersigned directors and/or officers of Alcobra Ltd., hereby severally constitute and appoint Dr. Yaron Daniely and Dr. Tomer Berkovitz, and each of them singly, our true and lawful attorneys, with full power to any of them, and to each of them singly, to sign for us and in our names in the capacities indicated below the registration statement on Form F-3 filed herewith, and any and all pre-effective and post-effective amendments to said registration statement, and any registration statement filed pursuant to Rule 462(b) under the Securities Act, as amended, in connection with the said registration under the Securities Act, as amended, and to file or cause to be filed the same, with all exhibits thereto and other documents in connection therewith, with the SEC, granting unto said attorneys, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as each of them might or could do in person, and hereby ratifying and confirming all that said attorneys, and each of them, shall do or cause to be done by virtue of this Power of Attorney.

Pursuant to the requirements of the Securities Act, as amended, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated:

<b>Signature</b>	<b>Title</b>	<b>Date</b>
<u>/s/ Yaron Daniely</u> Dr. Yaron Daniely	Chief Executive Officer, President and Director (principal executive officer)	March 4, 2016
<u>/s/ Tomer Berkovitz</u> Dr. Tomer Berkovitz	Chief Financial Officer (principal financial officer and principal accounting officer)	March 4, 2016
<u>/s/ Howard B. Rosen</u> Howard B. Rosen	Chairman of the Board of Directors	March 4, 2016
<u>/s/ Arie Ben Yosef</u> Arie Ben Yosef	Director	March 4, 2016

<u>/s/ Daniel E. Geffken</u> Daniel E. Geffken	Director	March 4, 2016
<u>Dr. Hadas Gelande</u>	Director	
<u>/s/ Ori Mor</u> Ori Mor	Director	March 4, 2016
<u>/s/ Dr. Aharon Schwartz</u> Dr. Aharon Schwartz	Director	March 4, 2016
<u>Joao Siffert</u>	Director	

Pursuant to the requirements of the Securities Act, as amended, the undersigned, the duly authorized representative in the United States of Alcobra Ltd. has signed this registration statement on March 4, 2016.

ALCOBRA, INC.

By: /s/ Dr. Yaron Daniely

Name: Dr. Yaron Daniely

Title: Chief Executive Officer and President



**ZYSMAN, AHARONI, GAYER & CO.**

March 4, 2016

Alcobra Ltd.  
Azrieli Triangle Building,  
132 Derech Menachem Begin  
Tel Aviv  
Israel 6701101

Re: Registration Statement on Form F-3

Ladies and Gentlemen,

This opinion is furnished to you in connection with a Registration Statement on a Form F-3 (the "Registration Statement") being filed by Alcobra Ltd., an Israeli corporation (the "Company"), with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the sale, from time to time, by the Company of up to \$100,000,000 aggregate amount of Ordinary Shares, par value NIS 0.01 per share of the Company (the "Shares"), all of which may be issued from time to time on a delayed or continuous basis pursuant to Rule 415 under the Securities Act.

We have examined signed copies of the Registration Statement and have also examined and relied upon minutes of meetings of the Board of Directors of the Company as provided to us by the Company, the articles of association of the Company, as restated and/or amended to date (the "Articles"), and such other documents as we have deemed necessary for purposes of rendering the opinions hereinafter set forth.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as copies, the authenticity of the originals of such latter documents and the legal competence of all signatories to such documents. Other than such examination and our examination of the documents indicated above, we have made no other examination in connection with this opinion.

We are members of the Israel Bar and we express no opinion as to any matter relating to the laws of any jurisdiction other than the laws of Israel and have not, for the purpose of giving this opinion, made any investigation of the laws of any other jurisdiction than Israel. This opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters. In addition, we render no opinion in relation to any representation made or given in the Registration Statement.

Based upon and subject to the foregoing, we are of the opinion that when (i) specifically authorized for issuance by the Company's Board of Directors (the "Authorizing Resolutions"); (ii) the Registration Statement has become effective under the Securities Act; (iii) if necessary, an appropriate prospectus supplement with respect to the Shares has been prepared, filed and delivered in compliance with the Securities Act and the applicable rules promulgated thereunder; (iv) the terms of the sale of the Shares have been duly established in conformity with the Articles and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding on the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; (v) the Shares have been issued and sold as contemplated by the Registration Statement and any prospectus supplement, if applicable; and (vi) the Company has received the consideration provided for in the Authorizing Resolutions and such consideration is not less than the par value of the Shares, the Shares will be validly issued, fully paid and nonassessable.

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The opinions set forth herein are rendered as of the date hereof, and we assume no obligation to update such opinions to reflect any facts or circumstances which may hereafter come to our attention or any changes in the law which may hereafter occur. This opinion is intended solely for the benefit and use of the Company, and is not to be used, released, quoted or relied upon by anyone else for any purpose (other than as required by law) without our prior written consent. We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and the references to this firm in the section of the Registration Statement entitled "Legal Matters". In giving this consent we do not admit that we are within the category of persons whose consent is required by Section 7 of the Securities Act.

Very truly yours,

/s/ Zysman, Aharoni, Gayer & Co., Law Offices

Zysman, Aharoni, Gayer & Co., Law Offices

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the reference to our firm under the caption "Experts" in the Registration Statement on Form F-3 and to the incorporation by reference therein of our report dated March 4, 2016, with respect to the consolidated financial statements of Alcobra Ltd. included in the Annual Report on Form 20-F of Alcobra Ltd. for the year ended December 31, 2015, filed with the Securities and Exchange Commission.

Tel Aviv, Israel  
March 4, 2016

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/s/ Kost, Forer, Gabbay & Kasierer  
KOST, FORER, GABBAY & KASIERER  
A Member of EY Global

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