Filed pursuant to Rule 424(b)(5)
Registration No. 333-197411

Prospectus Supplement
(to prospectus dated August 1, 2014)

6,500,000 Shares

Alcobra Ltd.
Ordinary Shares
$4.00 per share

Alcobra Ltd. is offering 6,500,000 of its ordinary shares. Our ordinary shares are currently traded on the NASDAQ Global Market under the symbol “ADHD”. On January 8, 2015, the closing sale price of our ordinary shares was $4.25 per share.

This prospectus supplement is not complete without, and may not be utilized except in connection with, the accompanying prospectus dated August 1, 2014. This prospectus supplement provides supplemental information regarding us and updates certain information contained in the accompanying prospectus and describes the specific terms of this offering. The accompanying prospectus gives more general information, some of which may not apply to this offering. We incorporate important information into this prospectus supplement and the accompanying prospectus by reference.

INVESTING IN OUR ORDINARY SHARES INVOLVES A HIGH DEGREE OF RISK. SEE “RISK FACTORS” BEGINNING ON PAGE S-7 OF THIS PROSPECTUS SUPPLEMENT AND PAGE 1 OF THE PROSPECTUS ACCOMPANYING THIS PROSPECTUS SUPPLEMENT, AS WELL AS THOSE INCORPORATED BY REFERENCE HEREIN, FOR A DISCUSSION OF IMPORTANT RISKS THAT YOU SHOULD CONSIDER BEFORE MAKING AN INVESTMENT DECISION.

	Per Ordinary Share	Total
Public offering price	US$4.00	US$26,000,000
Underwriting discount	US$0.24	US$1,560,000
Proceeds, before expenses, to us	US$3.76	US$24,440,000

(1) We have agreed to reimburse the representative of the underwriters for certain expenses. See “Underwriting” for a description of the compensation to be received by the underwriters.

The underwriters may also purchase up to an additional 975,000 ordinary shares from us at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus supplement to cover over-allotments, if any.

The ordinary shares are expected to be delivered to the underwriters on or about January 14, 2015. The underwriters are offering the ordinary shares, on a firm commitment basis, as set forth under “Underwriting.”

None of the Securities and Exchange Commission, the Israeli Securities Authority or any U.S. state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense under the laws of the United States and the laws of the State of Israel.

Piper Jaffray

The date of this prospectus supplement is January 9, 2015.

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS SUPPLEMENT

A registration statement on Form F-3 (File No. 333-197411) utilizing a shelf registration process relating to the securities described in this prospectus supplement was initially filed with the Securities and Exchange Commission, or the SEC, on July 14, 2014, and was declared effective on August 1, 2014. Under this shelf registration process, of which this offering is a part, we may, from time to time, sell up to an aggregate of $100 million of our securities. We have not yet sold any securities under this shelf registration process.

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of our ordinary shares, and also adds, updates and changes information contained in the accompanying prospectus and the documents incorporated therein by reference. The second part is the accompanying prospectus, which gives more general information, some of which may not apply to this offering. To the extent the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus or any document filed prior to the date of this prospectus supplement and incorporated herein by reference, the information in this prospectus supplement will control. In addition, this prospectus supplement and the accompanying prospectus do not contain all of the information provided in the registration statement that we filed with the SEC. For further information about us, 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 of Certain Information by Reference.” You may obtain a copy of this prospectus supplement, the accompanying prospectus and any of the documents incorporated by reference without charge by requesting it from us in writing or by telephone at the following address or telephone number: Alcobra Ltd., Amot Investment Building, 2 Weizman St. 9th Floor, Tel Aviv 6423902 Israel. Telephone: +972 72 220 466.

You should rely only on the information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus. We have not, and the underwriters have not, authorized anyone to provide you with information that is different. This prospectus supplement is not an offer to sell or solicitation of an offer to buy these securities in any circumstances under which the offer or solicitation is unlawful. We are offering to sell, and seeking offers to buy, our securities only in jurisdictions where offers and sales are permitted. You should not assume that the information we have included in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date of this prospectus supplement or the accompanying prospectus, respectively, or that any information we have incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus supplement or of any of our securities. Our business, financial condition, results of operations and prospects may have changed since those dates.

Unless the context otherwise requires, all references in this prospectus supplement to “we,” “our,” “our company,” “Alcobra,” “us” and the “company” refer to Alcobra Ltd. and its wholly owned subsidiary, Alcobra, Inc.

All references in this prospectus supplement to “ordinary shares” refer to Alcobra’s ordinary shares, par value NIS 0.01 per share. We sometimes refer to our ordinary shares to be offered under this prospectus supplement as the “securities.”

All references to “NIS” are to New Israel Shekels, the lawful currency of Israel.

All references to “dollars” or “$” are to the lawful currency of the United States.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary does not contain all of the information that you should consider before investing in our securities. You should carefully read the entire prospectus supplement and the accompanying prospectus, including the "Risk Factors" sections, starting on page S-7 of this prospectus supplement and page 1 of the accompanying prospectus and under Item 3.D. — "Risk Factors" in our most recent Annual Report on Form 20-F, as well as the financial statements and the other information incorporated by reference herein, before making an investment decision.

Overview

We are an emerging biopharmaceutical company primarily focused on the development and commercialization of our proprietary oral drug candidate, MDX, to treat Attention Deficit Hyperactivity Disorder (ADHD) and other cognitive dysfunctions including Fragile X Syndrome. 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 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. In September 2011, we completed a 120 subject double-blind placebo-controlled Phase 2 study in adult ADHD subjects in Israel that 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 confirming our previous findings and highlighting the rapid onset of the drug, demonstrating efficacy over placebo from the first day of dosing. 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 2 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, the drug showed a favorable safety profile.

Pending discussions with the United States Food and Drug Administration, or the FDA, and with their agreement, we plan to initiate a second Phase 3 study clinical trial in the United States for the use of MDX to treat ADHD in adults. The design of this trial will incorporate lessons learned from the first Phase 3 such as improved powering assumptions, duration of treatment, frequency and duration of trial visits, and patient selection and enrichment methods. If future clinical trials demonstrate the safety and efficacy of MDX, we will seek to obtain marketing approval from the FDA for MDX for use in adults with ADHD. We have similar plans to seek marketing approval in the European Union, Japan and other territories.

We have initiated a Phase 2 study in pediatric ADHD in Israel and expect to announce the results of the study in the first quarter of 2015. If the data from this and future clinical trials support it, we plan to request a marketing authorization. The requirements to conduct pediatric clinical trials are more stringent than those for adults.

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 adults who had ADHD as children continuing to have symptoms of the disorder as adults. Over 90% of these adults 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 because 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. These side effects have limited effective treatment in those taking the drugs and have also 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 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 takes six to 10 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 differentiated mechanism of action that is neither dopaminergic (related to dopamine) nor noradrenergic (related to norepinephrine). Our clinical trials to date demonstrated a consistent pro-cognitive effect and favorable tolerability and safety. MDX, therefore, potentially represents an effective treatment and a safer alternative to currently marketed treatments.

In addition, because of its unique mechanism of action and specific clinical effect on inattention and cognitive function, we believe that MDX possibly may be useful in treating additional cognitive disorders. Accordingly, we completed pre-clinical studies evaluating metadoxine in the standard mouse model of Fragile X Syndrome (Fmr1 knockout mouse). The studies showed significant improvement in cognitive and social functioning following treatment with metadoxine in the Fragile X mouse model. In 2014, we initiated a Phase 2 study to evaluate the efficacy and safety of MDX for the treatment of Fragile X. We expect to complete enrollment in this study by the end of the first quarter of 2015 and we expect to announce data in the second quarter of 2015.

Fragile X Syndrome, a rare disease, as defined by the Orphan Drug Act, is the most common single-gene cause of autism and inherited cause of intellectual disability among boys. Approximately one in 4,000 males and one in 8,000 females have Fragile X, according to Centers for Disease Control and Prevention (CDC). Not everyone with the mutation will show signs or symptoms of Fragile X, and disabilities will range from mild to severe and may include physical characteristics such as an elongated face, large or protruding ears and large testes, and behavioral characteristics such as stereotypic movements (e.g. hand-flapping), problems with attention and hyperactivity and social anxiety. A majority of individuals with Fragile X will have either Autism Spectrum Disorder or autistic symptoms, and will have varying levels of cognitive impairment. The FDA has not approved any drugs specifically for the treatment of Fragile X or its symptoms.

One of the Fragile X studies we completed included multiple behavioral assessments of 40 mice, comprising 20 Fmr1 knock-out mice and 20 control littermate wild type mice that were treated with metadoxine or placebo. The data showed significant improvement in behavioral outcomes assessed with this animal model, including contextual fear conditioning (a test primarily evaluating memory and learning), social interaction, rewarded T-maze alteration (a test for working memory) and Y-maze alternation (a test of learning and perseverance). All assessments were scored blindly (raters were not aware of the treatment each mouse received).

We have multiple claims in our issued patents (three in the U.S.; two in other jurisdictions) as well as other U.S. pending patent applications that, if issued, would prevent the use by others of Metadoxine and MDX to treat ADHD, Fragile X Syndrome and other cognitive disorders. In addition, the FDA has granted Orphan Drug status to Metadoxine for treatment of Fragile X Syndrome.

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 September 30, 2014, we had an accumulated deficit of $44.8 million, as described below under “Capitalization and Indebtedness.”

Our Strategic Plan

Our objective is to develop and commercialize proprietary pharmaceutical products for treatment of central nervous system disorders, and cognitive dysfunctions in particular. To this effect, we intend to conduct additional clinical trials for our most advanced product (MDX) and, if those trials are successful, seek marketing approval from the FDA and other worldwide regulatory bodies for MDX for the treatment of ADHD in adults and children. We also plan to advance clinical studies and commercialization plans for MDX in additional indications of cognitive dysfunction which present significant market opportunities, such as Fragile X Syndrome, where we announced positive results from pre-clinical studies. To achieve these objectives, we plan to:

- continue the clinical development of MDX for the treatment of ADHD in adults, and, if successful, file for marketing approval for adults in the United States (we expect to initiate a second Phase 3 study in the second quarter of 2015 and announce results in the first half of 2016);
- complete clinical trials in a pediatric ADHD population, and, if successful, file for marketing approval for that use in the United States;
- initiate and complete clinical trials in EU and Japan for both adult and pediatric ADHD, and, if successful, file for marketing approval of such uses in these regions;
- prepare to commercialize MDX for the treatment of patients with ADHD by establishing independent distribution capabilities or in conjunction with large pharmaceutical companies;
- complete the required clinical trials, that, if successful, would allow us to request drug approval of MDX to treat children and adults with Fragile X in the United States (we expect to announce results from the Phase 2 trial during the second quarter of 2015 and FDA meeting in the third quarter of 2015); and
- conduct early stage clinical trials into the possible use of MDX to treat other cognitive disorders and impairments.

Corporate Information

We were incorporated under the laws of the State of Israel in 2008. Our principal executive offices are located at Amot Investment Building, 2 Weizman St. 9th Floor, Tel Aviv 6423902 Israel, and our telephone number is +972 72 220 4661. In 2013 we established a wholly-owned subsidiary in the United States, Alcobra Inc., a Delaware corporation. Alcobra, Inc. is located at 600 West Germantown Pike, Suite 400, Plymouth Meeting, PA, 19462, and its telephone number is (610)-940-1631. Our website address is *www.alcobra-pharma.com.* The information contained on our website is not incorporated by reference and should not be considered as part of this prospectus supplement.

THE OFFERING

Ordinary shares offered	6,500,000 shares (7,475,000 shares, if the underwriters exercise their over-allotment option in full)
Ordinary shares outstanding prior to the offering	13,702,722 shares
Ordinary shares to be outstanding after the offering	20,202,722 shares (21,177,722 shares, if the underwriters exercise their over-allotment option in full)
Use of proceeds	To fund our future clinical development program and for general corporate purposes
Risk factors	See "Risk Factors" beginning on page S-7 of this prospectus supplement and page 1 of the accompanying prospectus and in the documents incorporated by reference herein (including under Item 3.D. — "Risk Factors" in our most recent Annual Report on Form 20-F) for a discussion of the risks you should carefully consider before deciding to invest in our ordinary shares.
Lock-up agreements	Subject to certain exceptions, we and the members of our board of directors and our executive officers have agreed with the underwriters not to sell, transfer or dispose of any ordinary shares for a period of 90 days from the date of the closing of the offering under this prospectus supplement. See "Underwriting."
NASDAQ Global Market symbol	ADHD

Unless otherwise stated, all information in this prospectus supplement is based on 13,702,722 ordinary shares outstanding as of December 31, 2014, assumes no exercise of the underwriters' over-allotment option, and does not include the following as of that date:

- 1,553,478 ordinary shares issuable upon the exercise of share options outstanding under our 2010 Incentive Option Plan, at a weighted average exercise price of $7.261 per share; and
- 148,653 ordinary shares issuable upon the exercise of outstanding warrants, at a weighted average exercise price of $16.06 per share.

Summary Consolidated Financial Data

We derived the summary consolidated financial statement data for the years ended December 31, 2013, and 2012, set forth below from our audited consolidated financial statements and related notes incorporated by reference in this prospectus supplement and the accompanying prospectus. We derived the summary consolidated financial statement data as of September 30, 2014, and for the nine months ended September 30, 2014, and 2013, from our unaudited condensed consolidated financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus. Our results for interim periods are not necessarily indicative of the results that may be expected for the entire year. You should read the information presented below together with our consolidated financial statements, the notes to those statements and the other financial information incorporated by reference in this prospectus supplement and the accompanying prospectus.

(in thousands of U.S. dollars, except share and per share amounts)	Nine Months Ended September 30,		Year Ended December 31,	Year Ended December 31,
	2014	2013	2013	2012
	(unaudited)	(unaudited)		
Statements of Operations Data:				
Research and development expenses	$ 20,197	$ 2,463	$ 7,066	$ 818
Pre commercialization expenses	1,651	—	—	—
General and administrative expenses	4,403	2,183	3,224	683
Financial (income) expense, net	(194)	198	197	78
Taxes on income	(25)	—	61	—
Loss attributable to holders of ordinary shares	$ 26,032	$ 4,844	$ 10,548	$ 1,579
Weighted average number of ordinary shares used in computing basic and diluted net loss per share[(1)]	13,665,459	9,320,696	10,177,786	7,791,932

RISK FACTORS

Investing in our securities involves significant risks. Before making an investment decision, you should carefully consider the risks described below, in the accompanying prospectus and under Item 3.D. — "Risk Factors" in our most recent Annual Report on Form 20-F, or in any updates in our Reports on Form 6-K, together with all of the other information appearing in this prospectus supplement or the accompanying prospectus or incorporated by reference herein or therein, 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 supplement under the caption "Warning Regarding Forward-Looking Statements" below.

We may be subject to any number of legal proceedings.

Recently, several purported class action lawsuits were filed in the Southern District of New York seeking to pursue remedies under the Securities Exchange Act of 1934, as amended, or the Exchange Act, with respect to allegedly false and/or misleading statements, as well as alleged failure to disclose material adverse facts about our business. On November 19, 2014, a class action lawsuit was filed against us and certain of our current and former officers and directors in the United States District Court for the Southern District of New York. The case was filed on behalf of a putative class of investors who purchased or acquired our publicly traded securities between March 28, 2014 and November 14, 2014. The complaint asserted violations of Sections 10(b) and 20(a) of the Exchange Act and SEC Rule 10b-5. The complaint alleged, among other things, that our officers and directors made false or misleading statements relating to the results of our Phase III study for our MDX drug candidate. The complaint sought an unspecified amount of damages, as well as other forms of relief. On December 16, 2014, another class action lawsuit was filed against us and certain of our current and former officers and directors in the United States District Court for the Southern District of New York. This complaint is largely identical to the earlier complaint and purports to bring the same claims on behalf of the same putative class. On December 23, 2014, the first plaintiff in the first action moved to voluntarily dismiss his case which motion was granted on December 30, 2014. To date, we have not been served with any of the lawsuits. Such legal proceedings, regardless of their outcome, could be costly, divert management attention, or damage our reputation and demand for our products. Litigation, particularly in the United States, is inherently unpredictable and unexpectedly high awards of damages can result if we receive an adverse verdict. In many cases, particularly in the United States, the practice of the plaintiffs' bar is to claim damages (compensatory, punitive and statutory) in extremely high amounts. Accordingly, it is difficult to quantify the potential exposure to claims in many proceedings of the type mentioned above. Unfavorable resolution of current and similar future proceedings could have a material adverse effect on our financial condition and results of operations. We may become subject to monetary and/or non-monetary sanctions and/or may be required to make significant provisions in our accounts related to legal proceedings, which could have a material adverse effect on our financial condition and results of operations.

Since we have broad discretion in how we use the proceeds from this offering, we may use the proceeds in ways with which you disagree.

We intend to use the net proceeds of this offering to fund the company's future clinical development program and for general corporate purposes. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used in ways with which you would agree. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for the company. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow.

Investors will incur an immediate dilution from the public offering price.

Because the price per share of our ordinary shares being offered is substantially higher than the book value per share of our ordinary shares, you will suffer substantial dilution in the net tangible book value of the ordinary shares you purchase in this offering. Based on the public offering price of $4.00 per share, if you purchase ordinary shares in this offering, you will suffer immediate and substantial dilution of $1.51 per ordinary share in the net tangible book value of the ordinary shares, as of September 30, 2014. See “Dilution” for a more detailed discussion of the dilution you will incur in this offering.

A substantial percentage of our authorized shares may be sold in this offering, which could cause the price of our ordinary shares to decline.

Pursuant to this offering, we will sell 6,500,000 ordinary shares, or approximately 47.4%, of our outstanding ordinary shares as of December 31, 2014. This sale and any future sales of a substantial number of ordinary shares in the public market, or the perception that such sales may occur, could adversely affect the price of our ordinary shares. We have issued a substantial number of ordinary shares upon exercise of warrants and options to purchase our ordinary shares, which are eligible for, or may become eligible for, unrestricted resale. Any sales or registration of such shares in the public market or otherwise could reduce the prevailing market price for our ordinary shares, as well as make future sales of equity securities by us less attractive or even not feasible. The sale of shares issued upon the exercise of options and warrants granted pursuant to our stock option plans and shares sold to employees pursuant to our employee stock purchase plan could also further dilute the holdings of our then existing shareholders.

We may need additional funds in the future. We may be unable to obtain additional funds or if we obtain financing it may not be on terms favorable to us. You may lose your entire investment.

Based on our current plans, we believe our existing cash and cash equivalents along with cash generated from this offering will be sufficient to fund our operating expenses and capital requirements through 2016, although there is no assurance of this result, and we may need funds in the future. If our capital resources are insufficient to meet future capital requirements, we will have to raise additional funds. If we are unable to obtain additional funds on terms favorable to us, we may be required to cease or reduce our operating activities.

WARNING REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement contains “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 supplement, 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 and studies we are or anticipate conducting, if at all; FDA approval of, or other regulatory action in the United States and elsewhere, with respect to MDX; the commercial launch 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 supplement would be interpreted differently in light of additional research and clinical and preclinical trials results. The forward-looking statements contained in this prospectus supplement 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 supplement.

USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of 6,500,000 shares of our ordinary shares in this offering will be approximately $24.3 million, based on the offering price of $4.00 per share, and after deducting underwriting discounts and commissions and offering expenses payable by us. If the representative of the underwriters exercises the over-allotment option in full, we estimate that the net proceeds from this offering will be approximately $27.9 million, based on the offering price of $4.00 per share, and after deducting underwriting discounts and commissions and offering expenses payable by us. We currently expect to use the net proceeds from this offering to fund our future clinical development program and for general corporate purposes.

The amounts and timing of our actual expenditures will depend upon numerous factors, including the progress of our development and commercialization efforts, the status of and results from our clinical trials, whether or not we enter into strategic collaborations or partnerships, and our operating costs and expenditures. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering.

We have no current commitments or binding agreements with respect to any material acquisition of or investment in any technologies, products or companies.

PRICE RANGE OF ORDINARY SHARES

Our ordinary shares are quoted on the NASDAQ Global Market under the symbol “ADHD”. From May 22, 2013 until March 28, 2014, our ordinary shares were listed on the NASDAQ Capital Market. Prior to May 22, 2013, there was no public trading market for our ordinary shares.

The following table sets forth, for the periods indicated, the high and low sales prices of our ordinary shares on the NASDAQ Global Market or the NASDAQ Capital Market, as applicable:

Year	High	Low
2015 (through January 8, 2015)	$ 4.25	$ 3.68
2014	$ 25.44	$ 3.12
2013 (from May 22, 2013)	$ 26.96	$ 6.50
Calendar Quarter		
2015		
First quarter (through January 8, 2015)	$ 4.25	$ 3.68
2014		
First quarter	$ 25.44	$ 17.11
Second quarter	$ 21.33	$ 13.63
Third quarter	$ 22.19	$ 14.77
Fourth quarter	$ 15.68	$ 3.12
2013		
Second quarter (from May 22, 2013)	$ 8.30	$ 6.81
Third quarter	$ 18.99	$ 6.80
Fourth quarter	$ 26.96	$ 14.78
Month		
July 2014	$ 20.20	$ 16.82
August 2014	$ 22.19	$ 17.02
September 2014	$ 21.53	$ 14.77
October 2014	$ 15.68	$ 3.26
November 2014	$ 3.90	$ 3.12
December 2014	$ 4.51	$ 3.16
January 2015 (through January 8, 2015)	$ 4.25	$ 3.68

On January 8, 2015, the last reported sale price of our ordinary shares on the NASDAQ Global Market was $4.25 per share.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our ordinary shares and do not anticipate paying any cash dividends in the foreseeable future. Payment of cash dividends, if any, in the future will be at the discretion of our Board of Directors and will depend on then-existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our Board of Directors may deem relevant.

CAPITALIZATION AND INDEBTEDNESS

The following table sets forth cash and cash equivalents, short-term investments and our shareholders' equity as of September 30, 2014. The financial data in the following table should be read in conjunction with our consolidated unaudited financial statements included in the report of foreign private issuer on Form 6-K furnished to the SEC on November 17, 2014, for the period ended September 30, 2014, which have been incorporated by reference in this prospectus.

	As of September 30, 2014 (unaudited, U.S. dollars, in thousands)	Pro Forma
Cash and cash equivalents	$ 2,714	$ 26,984
Short-term bank deposit	26,724	26,724
	29,438	53,708
Shareholders' equity:		
Ordinary Shares of NIS 0.01 par value:		
Authorized – 50,000,000 as of September 30, 2014;		
Outstanding – 13,695,409 shares as of September 30, 2014	39	56
Additional paid-in capital	70,685	94,938
Accumulated deficit during the development stage	(44,766)	(44,766)
Total shareholders' equity	25,958	50,228
Capitalization	25,958	50,228

DILUTION

If you invest in our ordinary shares, you will experience immediate and substantial dilution to the extent of the difference between the public offering price of our ordinary shares and the pro forma net tangible book value per share of our ordinary shares immediately after the offering.

Our historical net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the actual number of outstanding ordinary shares. The historical net tangible book value of our ordinary shares as of September 30, 2014 was $25,958,000, or $1.90 per share.

The pro forma net tangible book value of our ordinary shares as of September 30, 2014, was $50,228,000, or $2.49 per share. The pro forma net tangible book value gives effect to the issuance and sale of 6,500,000 ordinary shares in this offering at a public offering price of $4.00 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The following table illustrates this dilution on a per share basis to new investors:

Public offering price per share	$ 4.00
Net tangible book value per share before this offering, as of September 30, 2014	1.90
Increase in net tangible book value per share attributable to new investors in this offering	0.59
Pro forma net tangible book value per share after offering	2.49
Dilution in pro forma tangible book value per share to new investors	(1.51)

If the underwriters' over-allotment option to purchase additional shares from us is exercised in full, and based on a public offering price of $4.00 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, the pro forma net tangible book value per share after this offering would be approximately $2.55 per share, the increase in the pro forma net tangible book value per share attributable to new investors would be approximately $0.65 per share and the dilution to new investors purchasing shares in this offering would be approximately $1.45 per share.

UNDERWRITING

We are offering the ordinary shares described in this prospectus supplement through Piper Jaffray & Co. as the sole book-running manager of this offering. Subject to the terms and conditions of the purchase agreement, we have agreed to sell to the underwriters, and the underwriters have agreed to purchase from us, the number of ordinary shares shown opposite each underwriter's name below.

Underwriters	Number of Shares
Piper Jaffray & Co.	6,500,000
Total	6,500,000

The underwriters are committed to purchase all the ordinary shares offered by us if they purchase any ordinary shares, other than those ordinary shares covered by the option to purchase additional ordinary shares described below.

The underwriters have advised us that they propose to offer the ordinary shares directly to the public at the public offering prices set forth on the cover page of this prospectus supplement and to certain dealers at the same prices less a concession not in excess of $0.12 per ordinary share. After the offering, these figures may be changed by the underwriters.

The underwriters have advised us that they currently intend to make a market in the ordinary shares. However, the underwriters are not obligated to do so and may discontinue market-making activities at any time without notice. No assurance can be given as to the liquidity of the trading market for the ordinary shares.

We have granted to the underwriters an option to purchase up to an additional 975,000 ordinary shares from us at the same price to the public as set forth on the cover page of this prospectus supplement. The underwriters may exercise this option any time during the 30-day period after the date of this prospectus supplement.

The following table shows the per share underwriting discounts and commissions and the total underwriting discounts and commissions to be paid to the underwriters in connection with this offering.

	Per Ordinary Share	Total	
		Without Over-allotment	With Over-allotment
Public offering price	$ 4.00	$26,000,000	$ 29,900,000
Underwriting discounts and commissions paid by us	$ 0.24	$ 1,560,000	$ 1,794,000
Proceeds, before expenses, to us	$ 3.76	$24,440,000	$ 28,106,000

We estimate that the total fees and expenses payable by us, excluding underwriting discounts and commissions, will be approximately $170,000. Pursuant to the terms of the purchase agreement, we have also agreed to reimburse the underwriters for expenses, including reasonable fees and disbursements of counsel, relating to this offering of up to $100,000, which amount is excluded from the above total and our estimations of net proceeds and shall not be increased without our prior written consent.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

We and each of our directors and executive officers are subject to lock-up agreements that prohibit us and them from offering for sale, pledging, selling, contracting to sell, selling any option or contract to purchase, purchasing any option or contract to sell, granting any option, right or warrant to purchase, lending, or otherwise transferring or disposing of, directly or indirectly, any shares of our ordinary shares or any securities convertible into or exercisable or exchangeable for ordinary shares, from entering into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the ordinary shares, or making any demand for, or exercising any right with respect to, the registration of any ordinary shares or any security convertible into or exercisable or exchangeable for ordinary shares or making any public announcement of the intention to do any of the foregoing, for a period of at least 90 days following the

date of the purchase agreement without the prior written consent of the underwriters. The lock-up agreements do not prohibit our directors and executive officers from transferring ordinary shares as a *bona fide* gift or gifts, to any trust for the direct or indirect benefit of the such director or officer or the immediate family of such director or executive officer, or for bona fide estate or tax planning purposes, subject to certain requirements, including that the transferee be subject to the same lock-up terms, or entering into plans that satisfy the requirements of Rule 10b5-1 under the Exchange Act, provided that no sales are made under such plans during the lock-up period.

The lock-up agreements do not prohibit us from issuing shares upon the exercise or conversion of securities outstanding on the date of this prospectus supplement. The lock-up provisions do not prevent us from selling shares to the underwriters pursuant to the purchase agreement, or prevent us from granting options to acquire securities under our existing stock option plans or issuing shares upon the exercise or conversion of securities outstanding on the date of this prospectus supplement. Additionally, one of our directors may transfer up to 250,000 ordinary shares beginning 30 days after the date hereof at a price per share greater than the public offering price.

The 90-day lock-up period in all of the lock-up agreements is subject to extension if (i) during the last 17 days of the lock-up period we issue an earnings release or material news or a material event relating to us occurs or (ii) prior to the expiration of the lock-up period, we announce that we will release earnings results during the 16-day period beginning on the last day of the lock-up period, in which case the restrictions imposed in these lock-up agreements shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event, if, within three days of that issuance or occurrence, either underwriter publishes or otherwise distributes a research report or makes a public appearance concerning us, unless the underwriters waive the extension in writing and except to extent that our securities are “actively traded securities” within the meaning of Rule 101(c)(1) of Regulation M of the Exchange Act, and we other satisfy the requirements set forth in Rule 139 of the Securities Act that would permit the underwriters to publish issuer-specific research reports pursuant to Rule 139 of the Securities Act.

Our shares are quoted on the NASDAQ Global Market under the symbol “ADHD.”

To facilitate the offering, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of our ordinary shares and after the offering. Specifically, the underwriters may over-allot or otherwise create a short position in the ordinary shares for its own account by selling more ordinary shares than we have sold to it. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. The underwriters may close out any short position by either exercising its option to purchase additional shares or purchasing shares in the open market.

The underwriters may also engage in passive market making transactions in our ordinary shares. Passive market making consists of displaying bids on the NASDAQ Global Market limited by the prices of independent market makers and effecting purchases limited by those prices in response to order flow. Rule 103 of Regulation M promulgated by the Securities and Exchange Commission limits the amount of net purchases that each passive market maker may make and the displayed size of each bid. Passive market making may stabilize the market price of our ordinary shares at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

This prospectus supplement in electronic format may be made available on websites maintained by the underwriters, and the underwriters may distribute the prospectus supplement electronically. Other than the prospectus supplement in electronic format, the content or information on the underwriter’s website and any information contained in any other website maintained by the underwriter is not part of the prospectus supplement or the registration statement of which this prospectus supplement forms a part.

From time to time in the ordinary course of their respective businesses, the underwriters and certain of its affiliates may in the future engage in commercial banking or investment banking transactions with us and our affiliates.

Israel

In the State of Israel, the securities offered hereby may not be offered to any person or entity other than the following:

- a fund for joint investments in trust (i.e., mutual fund), as such term is defined in the Law for Joint Investments in Trust, 5754-1994, or a management company of such a fund;
- a provident fund as defined in the Control of the Financial Services (Provident Funds) Law 5765-2005, or a management company of such a fund;
- an insurer, as defined in the Law for Oversight of Insurance Transactions, 5741-1981;
- a banking entity or satellite entity, as such terms are defined in the Banking Law (Licensing), 5741-1981, other than a joint services company, acting for its own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law, 1968;
- a company that is licensed as a portfolio manager, as such term is defined in Section 8(b) of the Law for the Regulation of Investment Advisors and Portfolio Managers, 5755-1995, acting on its own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law, 1968;
- an investment advisor or investment distributer, as such term is defined in Section 7(c) of the Law for the Regulation of Investment Advisors and Portfolio Managers, 5755-1995, acting on its own account;
- a member of the Tel Aviv Stock Exchange, acting on its own account or for the account of investors of the type listed in Section 15A(b) of the Securities Law, 1968;
- an underwriter fulfilling the conditions of Section 56(c) of the Securities Law, 5728-1968, acting on its own account;
- a venture capital fund (defined as an entity primarily involved in investments in companies which, at the time of investment, (i) are primarily engaged in research and development or manufacture of new technological products or processes and (ii) involve above-average risk);
- an entity fully owned by investors of the type listed in Section 15A(b) of the Securities Law, 1968;
- an entity, other than an entity formed for the purpose of purchasing securities in this offering, in which the shareholders' equity is in excess of NIS 50 million; and
- an individual fulfilling the conditions of Section 9 to the supplement to the Law for the Regulation of Investment Advisors and Portfolio Managers, 5755-1995, acting on its own account (for this matter, Section 9 to the supplement shall be referred to as "as an investor for the meaning of Section 15A(b)(1) of the Securities Law 1968" instead of "as an eligible client for the meaning of this law").

Any offeree of the ordinary shares offered hereby in the State of Israel shall be required to submit written confirmation that it falls within the scope of one of the above criteria. This prospectus will not be distributed or directed to investors in the State of Israel who do not fall within one of the above criteria.

LEGAL MATTERS

The validity of the securities offered hereby and certain matters of Israeli law will be passed upon for us by Zysman, Aharoni, Gayer & Co., Tel Aviv, Israel. Certain matters of United States federal securities law relating to this offering will be passed upon for us by Zysman, Aharoni, Gayer and Sullivan & Worcester, LLP, New York, New York. Certain matters of United States federal securities law relating to this offering will be passed upon for the underwriters by Troutman Sanders LLP, New York, New York. Certain matters of Israeli law relating to this offering will be passed upon for the underwriters by Yigal Arnon & Co., Tel Aviv, Israel.

EXPERTS

The consolidated financial statements of Alcobra Ltd. as of December 31, 2013, have been incorporated by reference herein in reliance upon the report of Kost Forer Gabbay & Kasier, a member firm of EY Global, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm 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 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 supplement and the accompanying prospectus are 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 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;
- The Company's Annual Report on Form 20-F for the fiscal year ended December 31, 2013;
- The notice of annual general meeting of the Company incorporated by reference into the Company's report of foreign private issuer on Form 6-K furnished to the SEC on April 22, 2014;
- The Company's report of foreign private issuer on Form 6-K furnished to the SEC on May 1, 2014;
- The Company's Interim GAAP Financial Statements included in the report of foreign private issuer on Form 6-K furnished to the SEC on May 15, 2014;

- The Company’s report of foreign private issuer on Form 6-K furnished to the SEC on May 27, 2014;
- The Company’s Interim GAAP Financial Statements included in the report of foreign private issuer on Form 6-K furnished to the SEC on August 11, 2014, as well as the first sentence in each of the three first bullet points and the last bullet point under the heading ‘Second Quarter and Recent Corporate Updates’ in the Company's press release included in said Form 6-K;
- The first, third, fourth and sixth paragraphs in the press release incorporated by reference into the Company’s report of foreign private issuer on Form 6-K furnished to the SEC on October 6, 2014;
- The Company’s Interim GAAP Financial Statements included in the report of foreign private issuer on Form 6-K furnished to the SEC on November 17, 2014;
- The Company’s Interim GAAP Financial Statements and Management’s Discussion and Analysis of Financial Condition and Results of Operations included in the Company’s report of foreign private issuer on Form 6-K furnished to the SEC on January 8, 2015; and
- The Company’s report of foreign private issuer on Form 6-K furnished to the SEC on January 9, 2015.

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., Amot Investment Building, 2 Weizman St. 9th Floor, Tel Aviv 6423902, Israel, attention: Dr. Tomer Berkovitz, Chief Financial Officer, telephone number: +972-72-220-4661.

TABLE OF CONTENTS

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 1.

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 August 1, 2014

TABLE OF CONTENTS

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 proprietary pharmaceutical products for treatment of Central Nervous System (CNS) disorders, and cognitive dysfunctions in particular. Our lead drug candidate is MDX for the treatment of Attention Deficit and Hyperactivity Disorder, or ADHD, and other cognitive dysfunctions including Fragile X Syndrome.

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. In September 2011, we completed a 120 subject double-blind placebo-controlled Phase 2 study in adult ADHD subjects that 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 confirming our previous findings and highlighting the rapid onset of the drug, demonstrating efficacy over placebo from first day of dosing.

In March 2014, following the U.S. Food and Drug Administration, or FDA, acceptance of our investigational new drug application (IND) for MDX, we initiated patient enrollment in a Phase 3 clinical trial for the use of MDX to treat ADHD in adults. This study is a 300-patient, randomized, placebo-controlled trial conducted at 20 sites — 18 in the U.S. and 2 in Israel. If this and any future clinical trials demonstrate the safety and efficacy of MDX, we will seek to obtain marketing approval from the FDA for MDX for use in adults. We have similar plans to seek marketing approval in the European Union, Japan and other territories.

Subject to obtaining the necessary regulatory clearances, we further plan to conduct a Phase II study in pediatric ADHD in 2014, followed by a Phase 3 study in this population in 2015, and, if the data supports it, proceed to request a marketing authorization. The requirements to conduct pediatric clinical trials are more stringent than those for adults.

We also plan to advance clinical studies and commercialization plans for MDX in additional indications of cognitive dysfunction which present significant market opportunities, such as Fragile X Syndrome, where we announced positive results from pre-clinical studies. Fragile X Syndrome is a neurogenetic disorder characterized by intellectual disability, behavioral and learning challenges. It is the leading known genetic cause of autism, and accounts for approximately 2-5% of autism cases. According to the U.S. Centers for Disease Control and Prevention, approximately 1 in 4,000 males and 1 in 8,000 females have Fragile X Syndrome.

In May 2014, the FDA has accepted our Phase IIb clinical trial protocol for MDX for the treatment of adolescent and adult patients with Fragile X Syndrome. This trial will be a multi-center, randomized, placebo-controlled study and will be conducted primarily in the U.S. including 10 clinical sites.

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 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 March 31, 2014. The financial data in the following table should be read in conjunction with our consolidated unaudited financial statements included in the report of foreign private issuer on Form 6-K furnished to the SEC on May 15, 2014 for the period ended March 31, 2014, which have been incorporated by reference in this prospectus.

	As of March 31, 2014 (unaudited, U.S. Dollars, in thousands)
Cash and cash equivalents	$ 10,392
Short-term bank deposit	34,033
Shareholders' equity:	
Ordinary Shares of NIS 0.01 par value:	
Authorized – 50,000,000 as of March 31, 2014;	
Outstanding – 13,636,709 shares as of March 31, 2014.	39
Additional paid-in capital	68,718
Deficit accumulated during the development stage	(26,500)
Total shareholders' equity	42,257
Capitalization	42,257

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:

Annual Information:	**Low**	**High**
2013	$ 6.64	$ 25.51
Quarterly Information		
Second Quarter 2013	$ 6.64	$ 7.25
Third Quarter 2013	$ 6.84	$ 18.71
Fourth Quarter 2013	$ 15.51	$ 25.51
First Quarter 2014	$ 17.86	$ 25.02
Second Quarter 2014	$ 14.03	$ 20.62
Monthly Information:		
January 2014	$ 17.86	$ 23.10
February 2014	$ 19.95	$ 25.02
March 2014	$ 18.15	$ 23.61
April 2014	$ 14.03	$ 18.49
May 2014	$ 15.85	$ 17.31
June 2014	$ 16.44	$ 20.62
July 2014 (through July 7, 2014)	$ 17.94	$ 19.73

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 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 or 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 reallowed 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 reallowed 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	$	12,880
Legal fees and expenses	$	7,000
Accounting fees and expenses	$	5,000
Miscellaneous expenses	$	5,120
Total	**$**	**30,000**

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, 2013;
- The notice of annual general meeting of the Company incorporated by reference into the Company’s report of foreign private issuer on Form 6-K furnished to the SEC on April 22, 2014;
- The Company’s GAAP Financial Statements included in the report of foreign private issuer on Form 6-K furnished to the SEC on May 15, 2014;

- The Company's report of foreign private issuer on Form 6-K furnished to the SEC on May 27, 2014; 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., Amot Investment Building, 2 Weizman St. 9th Floor, Tel Aviv 6423902, 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.

TABLE OF CONTENTS

6,500,000 Shares

Alcobra Ltd.

Ordinary Shares

PROSPECTUS SUPPLEMENT

Piper Jaffray

January 9, 2015