

OPEXA THERAPEUTICS, INC.

FORM S-3

(Securities Registration Statement (simplified form))

Filed 10/09/09

Address	2635 TECHNOLOGY FOREST BLVD. THE WOODLANDS, TX 77381
Telephone	(281) 272-9331
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Industry	Biotechnology & Drugs
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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

OPEXA THERAPEUTICS, INC.

(Exact Name of the Registrant as Specified in its Charter)

Texas
(State or Other Jurisdiction of
Incorporation or Organization)

2834
(Primary Standard Industrial
Classification Code Number)

76-0333165
(I.R.S. Employer Identification Number)

**2635 N. Crescent Ridge Drive
The Woodlands, Texas 77381
(281) 272-9331**

(Address, Including Zip Code, and Telephone Number, Including
Area Code, of Registrant's Principal Executive Offices)

Neil K. Warma
**2635 N. Crescent Ridge Drive
The Woodlands, Texas 77381
(281) 272-9331**

(Name, Address, Including Zip Code, and Telephone Number,
Including Area Code, of Agent for Service)

Copy to :
Michael C. Blaney
Vinson & Elkins L.L.P.
1001 Fannin, Suite 2300
Houston, TX 77002
(713) 758-2222

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

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

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ☒

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (check one)

Large accelerated filer ☐

Accelerated filer ☐

Non-accelerated filer ☐

(Do not check if smaller reporting company)

Smaller reporting company ☒

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Aggregate Offering Price (2)(3)	Amount of Registration Fee
Common Stock, par value \$0.50	3,515,897	11,215,711	\$625.84
Total	3,515,897	11,215,711	\$625.84

(1) Shares of common stock issuable upon: (a) conversion of \$1,294,000 aggregate principal amount of our 10% convertible promissory notes due 2011 (the "Convertible Notes"), based upon an conversion rate of 20,000 shares per \$10,000 principal amount of the Convertible Notes and (b) the exercise of warrants issued in connection with the issuance of our Convertible Notes (the "Series G Warrants") at an exercise price of \$0.75 per share. This registration statement is registering the underlying shares of common stock into which the Convertible Notes are convertible and the underlying shares of common stock into which the Series G Warrants are exercisable. Pursuant to Rule 416 under the Securities Act of 1933, the number of shares of common stock registered hereby shall include an indeterminate number of additional shares of common stock that may be issuable as a result of anti-dilution adjustments.

(2) Estimated pursuant to Rule 457(c) solely for the purpose of calculating the registration fee based upon the average of the high and low prices for Opexa Therapeutic, Inc.'s Common Stock as reported on The Nasdaq Capital Market on October 7, 2009.

(3) Estimated solely for the purposes of calculating the registration fee pursuant to Rule 457 under the Securities Act of 1933.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities Exchange Commission, acting pursuant to said Section 8(a), may determine .

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

SUBJECT TO COMPLETION, DATED [●], 2009



Opexa Therapeutics, Inc.

3,515,897 Shares of Common Stock Offered by Selling Stockholders

We previously issued 10% convertible promissory notes due April 14, 2011 and May 14, 2011, in the aggregate amount of \$1,294,000 (the “Convertible Notes”) and warrants (the “Series G Warrants” and, together with the Convertible Notes, the “Units”) in a private placement completed on April 14, 2009 and May 14, 2009. We also issued an aggregate of 38,172 shares of common stock in private placements upon exercise of certain Series E Warrants. This prospectus may be used by the Selling Stockholders named herein to resell, from time to time, any shares of our common stock, par value \$0.50 per share, issuable upon conversion of the Convertible Notes at an initial conversion rate of 20,000 shares per \$10,000 principal amount of Convertible Note and upon exercise of the Series G Warrants at an initial exercise price of \$0.75 per share. This prospectus may also be used by the Selling Stockholders named herein to resell, from time to time, shares of our common stock acquired upon exercise of certain Series E Warrants. We will not receive any of the proceeds from the sale of any shares of our common stock offered by this prospectus. However, we will receive the proceeds from any cash exercise of the Series G Warrants.

Shares of our common stock are traded on NASDAQ Stock Market under the symbol “OPXA.” On October 7, 2009, the last reported sales price for our common stock was \$3.16 per share.

Investing in our common stock involves a high degree of risk. You should read carefully this entire prospectus, including the section captioned “Risk Factors” beginning on page page 5, before making a decision to purchase our stock.

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

This prospectus is dated [●], 2009.

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You should rely only on the information contained in or incorporated by reference into this prospectus. We have not authorized any dealer or other person to provide you with additional or 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 or the solicitation of an offer to buy any securities other than the securities to which it relates and is not an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make an offer or solicitation in that jurisdiction. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front cover of this prospectus, or that the information contained in any document 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 or any sale of a security.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process or continuous offering process. Under this shelf registration process, the selling securityholders may, from time to time, sell the securities described in this prospectus in one or more offerings. This prospectus provides you with a description of the securities that may be offered by the selling securityholders. Each time a selling securityholder sells securities, the selling securityholder is required to provide you with this prospectus and, in certain cases, a prospectus supplement containing specific information about the selling securityholder and the terms of the offering. Any prospectus supplement may add, update, or change information in this prospectus. If there is any inconsistency between the information in this prospectus and any prospectus supplement, you should rely on the information in that prospectus supplement.

Additional information, including our financial statements and the notes thereto, is incorporated in this prospectus by reference to our reports filed with the SEC. Please read “Where You Can Find More Information.” You are urged to read this prospectus carefully, including the “Risk Factors,” and our SEC reports in their entirety before investing in our securities.

Unless the context requires otherwise or unless otherwise noted, all references in this prospectus or any accompanying prospectus supplement to “Opexa,” “Company,” “our,” “us” or “we” are to Opexa Therapeutics, Inc.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"). You may read and copy any documents that are filed at the SEC's public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates from the public reference section of the SEC at its Washington address. Please call the SEC at 1-800-SEC-0330 for further information. Our filings are also available to the public through the SEC's website at <http://www.sec.gov>.

We incorporate by reference information into this prospectus, which means that we disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except for any information superseded by information contained expressly in this prospectus. Any information that we file under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, and that is deemed "filed," with the SEC will automatically update and supersede this information. You should rely only on the information contained in or incorporated by reference in this prospectus and in any applicable prospectus supplement. In the event the information set forth in a prospectus supplement differs in any way from the information set forth in this prospectus, you should rely on the information set forth in the prospectus supplement. We have not authorized anyone to provide you with different information. You should not assume that the information in this prospectus or any applicable prospectus supplement is accurate as of any date other than the date of the document. Our business, financial condition, results of operations and prospects may have changed since that date.

The following documents we filed with the SEC pursuant to the Exchange Act are incorporated herein by reference:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2008 as amended by our Form 10-K/A filed on May 18, 2009;
- Our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2009;
- Our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2009;
- Our Current Reports on Form 8-K filed with the Commission on January 20, 2009; February 23, 2009; March 5, 2009; March 17, 2009; April 16, 2009; April 24, 2009; May 15, 2009; June 9, 2009; August 7, 2009; August 10, 2009; August 13, 2009; September 10, 2009 and September 11, 2009
- The description of our common stock contained in our Registration Statement on Form 8-A filed with the SEC on August 30, 2006.

You may request a copy of these filings at no cost by writing or telephoning us at the following address and telephone number:

Opexa Therapeutics, Inc.
Investor Relations
2635 N. Crescent Ridge Drive
The Woodlands, Texas 77381
(281) 272-9331

We also maintain a website at <http://www.opexatherapeutics.com>. However, the information on our website is not part of this prospectus.

CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING STATEMENTS

Certain statements contained in or incorporated by reference into this prospectus, as well as other written and oral statements made or incorporated by reference from time to time by us and our representatives in other reports, filings with the SEC, press releases, conferences, or otherwise, may be deemed to be forward-looking statements within the meaning of Section 21E of the Exchange Act. Although we believe that the expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such expectations will prove to have been correct. When used in this report, the words “anticipate,” “believe,” “estimate,” “expect,” “may,” and similar expressions, as they relate to us and our management, identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements are made subject to certain risks and uncertainties that could cause actual results to differ materially from those stated. Risks and uncertainties that could cause or contribute to such differences include, without limitation, those discussed in the section entitled “Risk Factors” included in this prospectus and elsewhere in or incorporated by reference into this prospectus, including our Annual Report on Form 10-K for the fiscal year ended December 31, 2008, our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2009 and June 30, 2009, our subsequent SEC filings and those factors summarized below:

- our need to raise additional working capital in 2010;
- our history of operating losses;
- the early stage of development of our products;
- government regulation of our product candidates;
- our ability to meet our obligations under our license agreements;
- our lack of sufficient facilities to manufacture our future T-cell therapies;
- our ability to obtain patents and other proprietary rights;
- the reception of our product candidates by the health care community; and
- the limited market for our securities.

Other factors besides those described in this prospectus, any prospectus supplement or the documents we incorporate by reference herein could also affect our actual results. These forward-looking statements are largely based on our expectations and beliefs concerning future events, which reflect estimates and assumptions made by our management. These estimates and assumptions reflect our best judgment based on currently known market conditions and other factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control.

Although we believe our estimates and assumptions to be reasonable, they are inherently uncertain and involve a number of risks and uncertainties that are beyond our control. Our assumptions about future events may prove to be inaccurate. We caution you that the forward-looking statements contained in this prospectus are not guarantees of future performance, and we cannot assure you that those statements will be realized or the forward-looking events and circumstances will occur. All forward-looking statements speak only as of the date of this prospectus. We do not intend to publicly update or revise any forward-looking statements as a result of new information, future events or otherwise, except as required by law. These cautionary statements qualify all forward-looking statements attributable to us or persons acting on our behalf.

PROSPECTUS SUMMARY

The following summary does not contain all the information that may be important to you and is qualified in its entirety by more detailed information appearing elsewhere in, or incorporated by reference into, this prospectus. You should read the entire prospectus, paying particular attention to the risks referred to under the heading "Risk Factors," request from us all additional public information that you wish to review relating to us and complete your own examination of us before making an investment decision.

Our Business

We are a biopharmaceutical company developing autologous cellular therapies with the potential to treat major illnesses, including multiple sclerosis (MS). This therapy is based on our proprietary T-cell technology. The information discussed related to our product candidates is preliminary and investigative. Our product candidates are not approved by the Food and Drug Administration (FDA).

Our lead product, Tovaxin®, is an individualized T-cell therapeutic vaccine licensed from Baylor College of Medicine, which is in clinical development for the treatment for MS.

T-Cell Therapy

Multiple sclerosis is the result of a person's own T-cells attacking the myelin sheath that coats the nerve cells of the central nervous system (CNS). Tovaxin consists of attenuated patient-specific myelin reactive T-cells (MRTCs) against peptides from one or more of the primary proteins on the surface of the myelin sheath (myelin basic protein (MBP), proteolipid protein (PLP) and myelin oligodendrocyte glycoprotein (MOG)). Patient-specific MRTCs are expanded in culture with specific peptides identified by our proprietary test of the patient's peripheral blood. The cells are then attenuated by gamma irradiation, and returned to the patient as a subcutaneous injection. Although further testing is necessary, results from our initial human trials appear to indicate that these attenuated T-cells cause an immune response directed at the autoreactive T-cells in the patient's body, resulting in a reduction in the level of harmful T-cells. In 2008, we completed an FDA cleared Phase IIb clinical trial of Tovaxin which enrolled 150-patients. The trial was entitled, A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study of Subcutaneous Tovaxin in Subjects with Clinically Isolated Syndrome or Relapsing Remitting Multiple Sclerosis. (Tovaxin for Early Relapsing-remitting MS, "TERMS").

The TERMS study was a Phase IIb multi-center, randomized, double blind, placebo-controlled trial in 150 patients with Relapsing-Remitting Multiple Sclerosis (RRMS) or high risk Clinically Isolated Syndrome (CIS). The study involved 2:1 randomization with 100 patients receiving Tovaxin and 50 receiving placebo. According to the study protocol, patients received a total of five subcutaneous injections at weeks 0, 4, 8, 12 and 24. Top-line data from the TERMS trial is as follows:

- Annualized relapse rate (ARR) for Tovaxin-treated patients was 0.214 as compared to 0.339 for placebo-treated patients, which represented a 37% decrease in ARR for Tovaxin as compared to placebo in the general population.
- For patients who had more active disease as indicated by an ARR > 1 in the year prior to the study, Tovaxin demonstrated a 55% reduction in ARR as compared to placebo; and an 87% reduction in relapse rate was observed in Tovaxin patients in this population compared to placebo during the 24 week period following the administration of the full course of treatment (p=0.039).
- Patients who had an ARR>1 at entry demonstrated a statistically significant improvement in disability score as measured by the Expanded Disability Status Scale (EDSS) (p =0.045) for patients treated with Tovaxin as compared to those receiving placebo. The EDSS score is a measure of disability ranging from 0-10. In addition 28.1% of the Tovaxin patients showed an improvement in EDSS of at least one point as compared to 5.6% in the placebo group.
- Patients who had an ARR>1 at entry and were treated with Tovaxin experienced an 88% reduction in brain atrophy and a 59% reduction in absolute T-2 lesion volume as compared to placebo.

- Tovaxin was safe and well tolerated with no serious adverse events related to Tovaxin treatment. The most common adverse event was injection site irritation.

Further analysis of the TERMS clinical study of 150 patients with RRMS evaluated patients with an annualized relapse rate of one or greater at study entry ($ARR \geq 1$). More than 83% of the Tovaxin-treated group ($n=85$) remained relapse free at one year and the annualized relapse rate after treatment decreased to 0.20, a 42% reduction compared to placebo. The results of this expanded analysis confirm those found in the previously-reported per-protocol analysis of patients in the TERMS study with $ARR > 1$. This post-hoc analysis which represents 86% of the total patient population in the TERMS study was conducted to evaluate Tovaxin treatment among study patients with the same baseline disease activity that is being targeted for inclusion in the forthcoming Phase IIb study. Along with a marked reduction in relapses, 73% of the Tovaxin-treated patients with $ARR \geq 1$ showed stabilization or improvement in MS disability, including 16.5% with a sustained improvement in the Expanded Disability Status Scale (EDSS) of at least one full point. On MRI, the Tovaxin-treated group also demonstrated a reduction in brain atrophy and fewer inflammatory brain lesions that progressed to “black holes,” as compared to the placebo-treated group. Treatment with Tovaxin was well tolerated, with no serious adverse events reported in any Tovaxin-treated patient.

Tovaxin is a personalized T-cell vaccine based on a patient’s individual immunologic profile. Detailed immunology data analysis from the TERMS trial indicate that Tovaxin can successfully induce changes in T-cell reactivity to all three targeted myelin antigens implicated in the autoimmune attacks causing neurologic damage in MS. These changes appear epitope-specific, are sustained for 6 months or more, and match each patient’s Tovaxin formulation. Tovaxin is not broadly immunosuppressive, an important feature of its favorable safety profile.

Other Opportunities

Our proprietary T-cell technology has enabled us to develop intellectual property and a knowledge/sample database that may enable discovery of other relevant peptides to be used to treat MS patients.

RISK FACTORS

Your investment in the shares of our common stock involves significant risks. You should carefully consider the important factors set forth in the documents incorporated by reference in this prospectus and any accompanying prospectus supplement, including the risk factors incorporated herein by reference from our Annual Report on Form 10-K for the year ended December 31, 2008 and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2009 and June 30, 2009, and any subsequent reports before investing in our common stock. Any of these risks could materially and adversely affect our business, results of operations and financial condition, which in turn could materially and adversely affect the price of our common stock and the value of your investment in us

USE OF PROCEEDS

We will not receive any proceeds from the sale of the Shares by the Selling Stockholders.

SELLING STOCKHOLDERS

We are registering for resale 3,515,897 shares of our common stock. The shares of common stock covered by this prospectus are to be offered for the account of the Selling Stockholders in the following table. The Selling Stockholders received the Shares in connection with a private placement which closed in April and May 2009 and by the private exercise of certain Series E warrants. The Selling Stockholders may from time to time sell or otherwise dispose of all, some or none of the shares of common stock covered hereby, or interests therein. Please read “Plan of Distribution.” We will bear all costs, fees and expenses incurred in connection with the registration of the common stock offered by this prospectus. Brokerage commissions and similar selling expenses, if any, attributable to the sale of common stock will be borne by the Selling Stockholders.

No such sales may occur unless this prospectus has been declared effective by the SEC, and remains effective at the time such Selling Stockholder offers or sells such shares of common stock. We are required to update this prospectus to reflect material developments in our business, financial position and results of operations.

The table below, which was prepared based upon information filed publicly or supplied to us by the Selling Stockholders, sets forth the information regarding the beneficial ownership of outstanding shares of our common stock by the Selling Stockholders and the shares that they may sell or otherwise dispose of from time to time under this prospectus. Information concerning any of the Selling Stockholders may change from time to time, and any changed information will be presented in a prospectus supplement as necessary. Please carefully read the footnotes located below the table in conjunction with the information presented in the table.

The number of shares disclosed in the table below as “beneficially owned” are those beneficially owned as determined under the rules of the Securities Exchange Commission. Such information is not necessarily indicative of ownership for any other purpose. Under the rules of the Securities Exchange Commission, a person is deemed to be a “beneficial owner” of a security if that person has or shares “voting power,” which includes the power to vote or to direct the voting of such security, or “investment power,” which includes the power to dispose of or to direct the disposition of such security. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options held by that person that are currently exercisable or exercisable within 60 days of September 30, 2009 are deemed outstanding. Such shares, however, are not deemed outstanding for the purpose of computing the percentage of ownership of any other person.

The percentages of beneficial ownership are based upon 12,737,926 shares of common stock outstanding on October 7, 2009. Unless otherwise indicated and subject to community property laws where applicable, the Selling Stockholders named in the following table have, to our knowledge, sole voting and investment power with respect to the shares beneficially owned by them.

Name of Selling Stockholder	Footnote No.	Beneficial Ownership Prior to Offering ⁽¹⁾	Maximum Number of Shares of Common Stock Offered Hereunder	Beneficial Ownership After Offering ⁽²⁾	
		Number of Shares of Common Stock		Number of Shares of Common Stock	Percentage
Albert and Margaret Alkek Foundation	(3)	1,314,888	390,048	1,358,222	9.999%
Alkek & Williams Ventures Ltd.	(4)	1,179,297	419,537	993,093	7.231%
Allen Conkling	(5)	143,400	60,000	83,400	*
Cambria Capital, LLC	(6)	112,140	112,140	-	*
Cambria Investment Fund, LP	(7)	112,500	42,000	70,500	*
Charles E. Sheedy	(8)	1,406,408	150,000	1,256,408	9.382%
Dan Vanderhoof	(9)	53,800	30,000	23,800	*
Darin Ralph	(10)	98,000	60,000	38,000	*
David E. Jorden	(11)	1,353,230	300,000	1,065,714	7.867%
Delaware Charter Guarantee & Trust Company TTEE FBO Louis J D'Ambrosio IRA	(12)	53,400	30,000	23,400	*
Delaware Charter Guarantee & Trust Company TTEE FBO Scott George Mumby R/O IRA	(13)	15,000	15,000	-	*
Delaware Charter Guarantee & Trust Company TTEE FBO Stephen L Barnes R/O IRA	(14)	31,300	24,000	7,300	*
DLD Family Investments, LLC	(15)	979,354	300,000	679,354	5.098%
Enrico D. Cecala Sr.	(16)	30,000	30,000	-	*
Extend Services PTY LTD	(17)	350,000	150,000	200,000	1.540%

Name of Selling Stockholder	Footnote No.	Beneficial Ownership Prior to Offering ⁽¹⁾	Maximum Number of Shares of Common Stock Offered Hereunder	Beneficial Ownership After Offering ⁽²⁾	
		Number of Shares of Common Stock		Number of Shares of Common Stock	Percentage
Ezekiel R. DumkeI IV	(18)	60,000	30,000	30,000	*
George O. McDaniel III	(19)	150,000	150,000	-	*
Jerry Broadway	(20)	17,300	15,000	2,300	*
Joel M. Vanderhoof	(21)	541,865	300,000	241,865	1.821%
Julia P. Gregory	(22)	24,000	24,000	-	*
Kent Ingram	(23)	19,700	15,000	4,700	*
Mark Criddle & Jolynn Criddle	(24)	53,500	30,000	23,500	*
Matthew Simpson	(25)	150,000	150,000	-	*
Michael Vanderhoof	(26)	417,672	150,000	267,672	2.055%
Mobius Capital, LLC	(27)	180,000	60,000	120,000	*
Neil K. Warma	(28)	244,377	30,000	214,377	1.652%
Patro Inc. Retirement Plan PSP	(29)	60,000	30,000	30,000	*
Peter Staedler	(30)	48,950	30,000	18,950	*
R. Todd Inman & Vicki L. Inman	(31)	76,800	30,000	46,800	*
Ray Peterson	(32)	105,000	60,000	45,000	*
Ronald James Holman	(33)	28,000	21,000	7,000	*
Snehal S. Patel	(34)	493,850	75,000	418,850	3.213%
Steven Ericksen	(35)	36,975	30,000	6,975	*
Stradtman Family Trust dtd 11/28/01	(36)	28,000	15,000	13,000	*
The PWF Group GP	(37)	30,000	30,000	-	*
Turnkey Interiors, Inc	(38)	30,000	30,000	-	*
Vanderhoof Family Trust dtd 10/31/91	(39)	114,000	30,000	84,000	*
West Wilrick Inc PSP DTD 9/1/2000	(40)	18,150	15,000	3,150	*
Wyatt Crittenden	(41)	20,100	15,000	5,100	*
Gunn Allen Financial	(42)	31,706	31,706	-	*
Shane Philbrick	(43)	6,466	6,466	-	*
TOTAL		10,219,128	3,515,897	7,382,430	

* Less than 1% of the shares outstanding.

(1) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Shares of common stock subject to options or warrants currently exercisable or exercisable within 60 days of October 7, 2009 are deemed outstanding for computing the percentage of the person holding such option or warrant but are not deemed outstanding for computing the percentage of any other person.

(2) Percentage is based on 12,737,926 shares of common stock outstanding.

- (3) Consisting of: (i) 902,618 shares of common stock; (ii) 22,222 shares of common stock underlying Series C warrants and (iii) 390,048 shares of common stock resulting from the potential conversion of the April 2009 convertible notes. Excludes: (i) 250,000 shares of common stock underlying the April 2006 warrants; (ii) 250,000 shares of common stock underlying the Series E warrants; (iii) 135,951 shares of common stock underlying the Series F warrant; (iv) 109,952 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (v) 250,000 shares of common stock underlying the Series G warrants because the Foundation is contractually prohibited from exercising any of these warrants to the extent that it would beneficially own in excess of 9.999% of the total number of issued and outstanding shares of common stock after such exercise. Pursuant to the Foundation 13D, the Foundation and other reporting persons named therein may be deemed to constitute a group for purposes of Section 13(d) or Section 13(g) of the Exchange Act. However, the Foundation, Ventures, Chaswil, Ltd. and Mr. Seaman expressly disclaim (i) that, for purposes of Section 13(d) or Section 13(g) of the Exchange Act, they are a member of a group with respect to securities of the Company held by DLD Family Investments, LLC, Mr. Arnold, Mr. Bailey or Ms. Williams and (ii) that they have agreed to act together with DLD Family Investments, LLC, Mr. Arnold, Mr. Bailey or Ms. Williams as a group other than as described in the Foundation 13D. Therefore, this does not include the following securities: (i) 392,454 shares of common stock held by DLD Family Investments, LLC; (ii) 17,778 shares of common stock underlying Series C warrants held by DLD Family Investments, LLC; (iii) 110,000 shares of common stock underlying the April 2006 warrants held by DLD Family Investments, LLC; (iv) 100,000 shares of common stock underlying Series E warrants held by DLD Family Investments, LLC; (v) 59,121 shares of common stock underlying Series F warrants; (vi) 200,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; (vii) 100,000 shares of common stock underlying the Series G warrants; (viii) 26,667 shares of common stock held by Mr. Arnold; (ix) 8,889 shares of common stock underlying Series C warrants held by Mr. Arnold; (x) 10,000 shares of common stock underlying the April 2006 warrants held by Mr. Arnold; (xi) 50,000 shares of common stock held by Mr. Bailey; (xii) 5,000 shares of common stock underlying a Warrant held by Mr. Bailey; (xiii) 416,537 shares of common stock held by Ventures; (xiv) 18,223 shares of common stock underlying Series C warrants held by Ventures; (xv) 125,000 shares of common stock underlying the April 2006 warrants held by Ventures; (xvi) 200,000 shares of common stock underlying Series E warrants held by Ventures; (xvii) 52,870 shares of common stock underlying Series F warrants held by Ventures; (xviii) 400,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; (xix) 200,000 shares of common stock underlying the Series G warrants; (xx) 43,655 shares of common stock held by Mr. Seaman; (xxi) 5,334 shares of common stock underlying Series C warrants held by Mr. Seaman; (xxii) 7,500 shares of common stock underlying the April 2006 warrants held by Mr. Seaman; (xxiii) 10,000 shares of common stock underlying Series E warrants held by Mr. Seaman and (xxiv) 15,105 shares of common stock underlying Series F warrants held by Mr. Seaman. The information in this footnote is primarily based on the Foundation 13D and other information provided to us. This information is based on the Schedule 13D/A filed with the SEC on March 13, 2008, by Albert and Margaret Alkek Foundation (the "Foundation"), Alkek & Williams Ventures, Ltd. ("Ventures"), Scott Seaman, DLD Family Investments, LLC, and the other reporting persons named therein the ("Foundation 13D") and other information available to the company. The Foundation acts through an investment committee of its board of directors, which includes Mr. Daniel Arnold, Mr. Joe Bailey, Mr. Scott Seaman and Ms. Randa Duncan Williams. Mr. Seaman is the executive director of the Foundation and chairman of the investment committee. The investment committee has sole voting and investment power over all of the shares of common stock beneficially owned by the Foundation. However, pursuant to the Foundation 13D, neither the executive director nor any member of the investment committee may act individually to vote or sell shares of common stock held by the Foundation; therefore, the Foundation has concluded that no individual committee member is deemed to beneficially own, within the meaning of Rule 13d-3 of the Exchange Act, any shares of common stock held by the Foundation solely by virtue of the fact that he or she is a member of the investment committee. Additionally, pursuant to the Foundation 13D, the Foundation has concluded that because Mr. Seaman, in his capacity as executive director or chairman of the investment committee, cannot act in such capacity to vote or sell shares of common stock held by the Foundation without the approval of the investment committee, he is not deemed to beneficially own, within the meaning of Rule 13d-3 of the Exchange Act, any shares of common stock held by the Foundation by virtue of his position as executive director or chairman of the investment committee.
- (4) Consisting of: (i) 416,537 shares of common stock; (ii) 18,223 shares of common stock underlying Series C warrants; (iii) 125,000 shares of common stock underlying the April 2006 warrants; (iv) 200,000 shares of common stock underlying Series E warrants; (v) 400,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (vi) 19,537 shares of common stock underlying the Series G warrants. Excludes 52,870 shares of common stock underlying Series F warrants and 180,463 shares underlying the Series G warrants. Scott B. Seaman is contractually prohibited from beneficially owning in excess of 9.999% of the total number of issued and outstanding shares of common stock. By virtue of Mr. Seaman having shared voting power and shares investment power over all of the shares of common stock beneficially owned by Ventures, Ventures may not exercise the Series G warrants or convert the convertible notes to the extent such exercise or conversion would cause Mr. Seaman to beneficially own in excess of 9.999% of the total number of issued and outstanding shares of common stock.

- (5) Consisting of: (i) 46,700 shares of common stock; (ii) 36,700 shares of common stock underlying Series E warrants; (iii) 40,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 20,000 shares of common stock underlying the Series G warrants.
- (6) Consisting of 112,140 shares underlying the Series G warrants.
- (7) Consisting of: (i) 23,500 shares of common stock; (ii) 47,000 shares of common stock underlying Series E warrants; (iii) 28,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 14,000 shares of common stock underlying the Series G warrants.
- (8) Consisting of: (i) 752,354 shares of common stock; (ii) 50,000 shares of common stock underlying the April 2006 warrants; (iii) 150,000 shares of common stock underlying Series E warrants; (iv) 304,054 shares of common stock underlying Series F warrants; (v) 100,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (vi) 50,000 shares of common stock underlying the Series G warrants.
- (9) Consisting of: (i) 11,900 shares of common stock; (ii) 11,900 shares of common stock underlying Series E warrants; (iii) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 10,000 shares of common stock underlying the Series G warrants.
- (10) Consisting of: (i) 19,000 shares of common stock; (ii) 19,000 shares of common stock underlying Series E warrants; (iii) 40,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 20,000 shares of common stock underlying the Series G warrants.
- (11) Consisting of: (i) 557,500 shares of common stock; (ii) 60,000 shares of common stock underlying the April 2006 warrants; (iii) 150,000 shares of common stock underlying Series E warrants; (iv) 257,516 shares of common stock underlying Series F warrants; (v) 200,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (vi) 100,000 shares of common stock underlying the Series G warrants; and (vii) 28,214 shares of common stock underlying currently exercisable stock options. Excludes 12,484 shares of Company common stock underlying Series F warrants that David Jorden is contractually prohibited from exercising to the extent that he would beneficially own in excess of 9.999% of the total number of issued and outstanding shares of common stock after such exercise. David E. Jorden is a director of Opexa Therapeutics, Inc.
- (12) Consisting of: (i) 11,700 shares of common stock; (ii) 11,700 shares of common stock underlying Series E warrants; (iii) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 10,000 shares of common stock underlying the Series G warrants.
- (13) Consisting of: (i) 10,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes and (ii) 5,000 shares of common stock underlying the Series G warrants.
- (14) Consisting of: (i) 3,650 shares of common stock; (ii) 3,650 shares of common stock underlying Series E warrants; (iii) 16,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 8,000 shares of common stock underlying the Series G warrants.
- (15) Consisting of: (i) 392,454 shares of common stock; (ii) 17,779 shares of common stock underlying Series C warrants; (iii) 110,000 shares of common stock underlying the April 2006 warrants; (iv) 100,000 shares of common stock underlying Series E warrants; (v) 59,121 shares of common stock underlying Series F warrants; (vi) 200,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (vii) 100,000 shares of common stock underlying the Series G warrants. Randa Duncan Williams is the principal of DLD Family Investments, LLC and she may be deemed to exercise voting and investment power with respect to such shares. The information in this footnote is primarily based on the Foundation 13D and other information provided to us.
- (16) Consisting of: (i) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes and (ii) 10,000 shares of common stock underlying the Series G warrants.

- (17) Consisting of: (i) 100,000 shares of common stock; (ii) 100,000 shares of common stock underlying Series E warrants; (iii) 100,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 50,000 shares of common stock underlying the Series G warrants.
- (18) Consisting of: (i) 10,000 shares of common stock; (ii) 20,000 shares of common stock underlying Series E warrants; (iii) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 10,000 shares of common stock underlying the Series G warrants.
- (19) Consisting of: (i) 100,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (ii) 50,000 shares of common stock underlying the Series G warrants.
- (20) Consisting of: (i) 2,300 shares of common stock underlying Series E warrants; (ii) 10,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iii) 5,000 shares of common stock underlying the Series G warrants.
- (21) Consisting of: (i) 55,865 shares of common stock underlying broker warrants; (ii) 186,000 shares of common stock underlying Series E warrants; (iii) 200,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 100,000 shares of common stock underlying the Series G warrants.
- (22) Consisting of: (i) 16,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes and (ii) 8,000 shares of common stock underlying the Series G warrants.
- (23) Consisting of: (i) 4,700 shares of common stock underlying Series E warrants; (ii) 10,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iii) 5,000 shares of common stock underlying the Series G warrants.
- (24) Consisting of: (i) 23,500 shares of common stock underlying Series E warrants; (ii) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iii) 10,000 shares of common stock underlying the Series G warrants.
- (25) Consisting of: (i) 100,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes and (ii) 50,000 shares of common stock underlying the Series G warrants.
- (26) Consisting of: (i) 131,500 shares of common stock; (ii) 19,672 shares of common stock underlying broker warrants; (iii) 116,500 shares of common stock underlying Series E warrants; (iv) 100,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (v) 50,000 shares of common stock underlying the Series G warrants.
- (27) Consisting of: (i) 60,000 shares of common stock; (ii) 60,000 shares of common stock underlying Series E warrants; (iii) 40,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 20,000 shares of common stock underlying the Series G warrants.
- (28) Consisting of: (i) 3,021 shares of common stock; (ii) 3,021 shares of common stock underlying Series F warrants; (iii) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; (iv) 10,000 shares of common stock underlying the Series G Warrants; and (v) 208,335 shares of common stock underlying currently exercisable stock options. Neil K. Warma is the president and chief executive officer of Opexa Therapeutics, Inc.
- (29) Consisting of: (i) 20,000 shares of common stock; (ii) 10,000 shares of common stock underlying Series E warrants; (iii) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 10,000 shares of common stock underlying the Series G warrants.
- (30) Consisting of: (i) 12,000 shares of common stock; (ii) 6,950 shares of common stock underlying Series E warrants; (iii) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 10,000 shares of common stock underlying the Series G warrants.
- (31) Consisting of: (i) 23,400 shares of common stock; (ii) 23,400 shares of common stock underlying Series E warrants; (iii) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 10,000 shares of common stock underlying the Series G warrants.

- (32) Consisting of: (i) 22,500 shares of common stock; (ii) 22,500 shares of common stock underlying Series E warrants; (iii) 40,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 20,000 shares of common stock underlying the Series G warrants.
- (33) Consisting of: (i) 7,000 shares of common stock underlying Series E warrants; (ii) 14,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iii) 7,000 shares of common stock underlying the Series G warrants.
- (34) Consisting of: (i) 194,897 shares of common stock; (ii) 31,417 shares of common stock underlying Series C warrants; (iii) 5,390 shares of common stock underlying broker warrants; (iv) 157,146 shares of common stock underlying Series E warrants; (v) 50,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; (vi) 25,000 shares of common stock underlying the Series G warrants; and (vii) 30,000 shares of common stock underlying currently exercisable stock options
- (35) Consisting of: (i) 6,975 shares of common stock underlying Series E warrants; (ii) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iii) 10,000 shares of common stock underlying the Series G warrants.
- (36) Consisting of: (i) 3,000 shares of common stock; (ii) 10,000 shares of common stock underlying Series E warrants; (iii) 10,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 5,000 shares of common stock underlying the Series G warrants.
- (37) Consisting of: (i) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes and (ii) 10,000 shares of common stock underlying the Series G warrants.
- (38) Consisting of: (i) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes and (ii) 10,000 shares of common stock underlying the Series G warrants.
- (39) Consisting of: (i) 37,000 shares of common stock; (ii) 47,000 shares of common stock underlying Series E warrants; (iii) 20,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 10,000 shares of common stock underlying the Series G warrants.
- (40) Consisting of: (i) 2,375 shares of common stock; (ii) 775 shares of common stock underlying Series E warrants; (iii) 10,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iv) 5,000 shares of common stock underlying the Series G warrants.
- (41) Consisting of: (i) 5,100 shares of common stock underlying Series E warrants; (ii) 10,000 shares of common stock resulting from the potential conversion of the April 2009 convertible notes; and (iii) 5,000 shares of common stock underlying the Series G warrants.
- (42) Consisting of 31,706 shares of common stock.
- (43) Consisting of 6,466 shares of common stock.

PLAN OF DISTRIBUTION

We will not receive any of the proceeds of the sale of the shares of the common stock offered by this prospectus.
The common stock may be sold from time to time to purchasers:

- directly by the Selling Stockholders; or
- through underwriters, broker-dealers or agents who may receive compensation in the form of discounts, concessions or commissions from the Selling Stockholders or the purchasers of the common stock.

The Selling Stockholders and any underwriters, broker-dealers or agents who participate in the distribution of the common stock may be deemed to be “underwriters” within the meaning of the Securities Act. As a result, any profits on the sale of the common stock by Selling Stockholders and any discounts, commissions or concessions received by any such broker-dealers or agents may be deemed to be underwriting discounts and commissions under the Securities Act. If the Selling Stockholders were deemed to be underwriters, the Selling Stockholders may be subject to statutory liabilities including, but not limited to, those of Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

If the common stock is sold through underwriters or broker-dealers, the Selling Stockholders will be responsible for underwriting discounts or commissions or agent's commissions.

The common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of sale, at varying prices determined at the time of sale, or at negotiated prices. Sales may be effected in one or more of the following transactions:

- on the NASDAQ Capital Market, or any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market ,
- in privately negotiated transactions , through the writing of options, whether the options are listed on an options exchange or otherwise; or
- a combination of any of these transactions .

These transactions may include block transactions or crosses. Crosses are transactions in which the same broker acts as an agent on both sides of the transaction. The shares may be sold or distributed from time to time by selling security holders or by pledges, donees, transferees or other successors-in-interest selling shares received from a named selling security holder as a gift, partnership, distribution or other non-sale-related transfer after the date of this prospectus.

Without limiting the generality of the foregoing, a Selling Stockholder may enter into hedging and/or monetization transactions. For example, a selling stockholder may:

- enter into transactions with a broker-dealer or affiliate of a broker-dealer or other third party in connection with which that other party will become a Selling Stockholder and engage in short sales of our common stock under this prospectus, in which case the other party may use shares of our common stock received from the Selling Stockholder to close out any short position;
- sell short our common stock under this prospectus and use shares of our common stock held by the Selling Stockholder to close out any short position;
- enter into options, forwards or other transactions that require the Selling Stockholder to deliver, in a transaction exempt from registration under the Securities Act, shares of our common stock to a broker-dealer or an affiliate of a broker-dealer or other third party who may then become a Selling Stockholder and publicly resell or otherwise transfer shares of our common stock under this prospectus;
- loan or pledge shares of our common stock to a broker-dealer or affiliate of a broker-dealer or other third party who may then become a Selling Stockholder and sell the loaned shares or, in an event of default in the case of a pledge, become a Selling Stockholder and sell the pledged shares, under this prospectus; or
- enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions.

If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by the Selling Stockholder or borrowed from the Selling Stockholder or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from the Selling Stockholder in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement (or a post effective amendment).

To our knowledge, there are currently no plans, arrangements or understandings between any Selling Stockholders and any underwriter, broker-dealer or agent regarding the sale of the common stock by the Selling Stockholders. Selling Stockholders may decide not to sell all or a portion of the common stock offered by them pursuant to this prospectus. In addition, any Selling Stockholder may transfer, devise or give the common stock by other means not described in this prospectus. The common stock covered by this prospectus that qualifies for sale pursuant to Rule 144 or Rule 144A under the Securities Act, or Regulation S under the Securities Act, may be sold under Rule 144 or Rule 144A or Regulation S rather than pursuant to this prospectus.

The aggregate proceeds to the Selling Stockholders from the sale of the common stock offered pursuant to this prospectus will be the purchase price of such securities less discounts and commissions, if any. Each of the Selling Stockholders reserves the right to accept and, together with their agents from time to time, reject, in whole or part, any proposed purchase of common stock to be made directly or through their agents. We will not receive any of the proceeds from this offering.

Our outstanding common stock is listed for trading on the NASDAQ Capital Market under the symbol "OPXA."

The Selling Stockholders and any other persons participating in the distribution of the common stock will be subject to the Exchange Act and the rules and regulations thereunder. The Exchange Act rules include, without limitation, Regulation M, which may limit the timing of purchases and sales of any of the common stock by the Selling Stockholders and any such other person. In addition, Regulation M of the Exchange Act may restrict the ability of any person engaged in the distribution of the common stock to engage in market-making activities with respect to the common stock being distributed for a period of up to five business days prior to the commencement of such distribution. This may affect the marketability of the common stock and the ability to engage in market-making activities with respect to the common stock.

If required with respect to a particular offering of common stock, the names of the Selling Stockholders, the respective purchase prices and public offering prices, the names of any agent, dealer or underwriter, and any applicable commissions or discounts related to the particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is a part.

Under the registration rights agreement, we and the Selling Stockholders have each agreed to indemnify the other against certain liabilities, including certain liabilities under the Securities Act, or will be entitled to contribution in connection with these liabilities.

We have agreed to pay all of the expenses incidental to the registration, offering and sale of the common stock to the public, other than selling and certain legal expenses of the Selling Stockholders.

LEGAL MATTERS

The validity of the common stock offered by this prospectus was passed upon for us by Vinson & Elkins L.L.P., Houston, Texas.

EXPERTS

The balance sheets as of December 31, 2008 and 2007, and the related statements of expenses, stockholders' equity, and cash flows for each of the years then ended, which were included in our Annual Report on Form 10-K for the year ended December 31, 2008, and incorporated by reference in this Registration Statement have been so incorporated by reference in reliance upon the report of Malone & Bailey, PC, an independent registered public accountants, upon the authority of said firm as experts in accounting and auditing in giving said report.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the sale of the securities being registered. All amounts shown are estimates except the SEC's registration fee.

Registration Fee - Securities and Exchange Commission	\$	626
Printing Costs	\$	-0-
Legal Fees and Expenses	\$	10,000
Accounting Fees and Expenses	\$	1,500
Transfer Agent and Registrar Fees	\$	-0-
Miscellaneous	\$	3,000
Total	\$	<u>15,126</u>

Item 15. Indemnification of Directors and Officers.

Opexa Therapeutics, Inc. (the "Company") has the authority under Articles 2.02a(16) and 2.02-1 of the Texas Business Corporation Act ("TBCA") to indemnify its directors and officers to the extent provided for in such statute. The TBCA provides, in part, that a corporation may indemnify a director or officer or other person who was, is or is threatened to be made a named defendant or respondent in a proceeding because such person is or was a director, officer, employee or agent of the corporation, if it is determined that such person: (1) conducted himself in good faith; (2) reasonably believed, in the case of conduct in his official capacity as a director or officer of the corporation, that his conduct was in the corporation's best interest and, in all other cases, that his conduct was at least not opposed to the corporation's best interests; and (3) in the case of any criminal proceeding, had no reasonable cause to believe that his conduct was unlawful.

A corporation may indemnify a person under the TBCA against judgments, penalties, including excise and similar taxes, fines, settlement, unreasonable expenses actually incurred by the person in connection with the proceeding. If the person is found liable to the corporation or is found liable on the basis that personal benefit was improperly received by the person, the indemnification is limited to reasonable expenses actually incurred by the person in connection with the proceeding, and shall not be made in respect of any proceeding in which the person shall have been found liable for willful or intentional misconduct in the performance of his duty to the corporation. The corporation may also pay or reimburse expenses incurred by a person in connection with his appearance as a witness or other participation in a proceeding at a time when he is not a named defendant or respondent in the proceeding.

The Company's Articles of Incorporation provide that none of its directors shall be personally liable to the Company or its shareholders for monetary damages for an act or omission in such director's capacity as a director; provided, however, that the liability of such director is not limited to the extent that such director is found liable for (1) a breach of the director's duty of loyalty to the Company or its shareholders, (2) an act or omission not in good faith that constitutes a breach of duty of the director to the Company or an act or omission that involves intentional misconduct or a knowing violation of the law, (3) a transaction from which the director received an improper benefit, whether or not the benefit resulted from an action taken within the scope of the director's office, or (4) an act or omission for which the liability of the director is expressly provided by an applicable statute.

The Company believes that these provisions will assist it in attracting and retaining qualified individuals to serve as executive officers and directors. The inclusion of these provisions in the Company's Articles of Incorporation may have the effect of reducing the likelihood of derivative litigation against the Company's directors and may discourage or deter shareholders or management from bringing a lawsuit against directors for breach of their duty of care, even though such an action, if successful, might otherwise have benefited us or our shareholders.

The Company's Articles of Incorporation and By-laws provide that the Company may indemnify its officers, directors, agents and any other persons to the fullest extent permitted by the TBCA.

Additionally, under their employment agreements with Opexa Therapeutics Inc., Mr. Warma and Ms. Rill are entitled to indemnification in their capacity as officers of the Company to the fullest extent permitted by the TBCA.

Item 16. Exhibits

(a)	Exhibits .
4.1+	— Unit Purchase Agreement dated April 14, 2009 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 16, 2009)
4.2+	— Form of 10% Convertible Promissory Note dated April 14, 2009 (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on April 16, 2009)
4.3+	— Form of Series G Warrant dated April 14, 2009 (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed on April 16, 2009)
4.4+	— Registration Rights Agreement dated April 14, 2009 (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on April 16, 2009)
4.5+	— Security Agreement dated April 14, 2009 (incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K filed on April 16, 2009)
5.1*	— Opinion of Vinson & Elkins L.L.P.
23.1*	— Consent of Malone & Bailey, PC
23.4*	— Consent of Vinson & Elkins L.L.P. (contained in Exhibit 5.1)
24.1*	— Powers of Attorney (included on the signature page)

* Filed herewith.

+ Incorporated by reference to the Company's Current Report on Form 8-K (File No. 001-33004) filed on April 16, 2009.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

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

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

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

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
- (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) The undersigned registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.
- (d) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than a payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
- (e) The undersigned registrant hereby undertakes that:
- (1) For purposes of determining liability under the Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
 - (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

In accordance with the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements of filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, in the City of The Woodlands, State of Texas, on the 8th day of October, 2009.

OPEXA THERAPEUTICS, INC.

By: /s/ Neil K. Warma
Name: Neil K. Warma
President and Chief Executive Officer
(Principal Executive Officer)
Acting Chief Financial Officer
(Principal Financial and Accounting Officer)

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Neil K. Warma his true and lawful attorney-in-fact and agent, with full power of substitution and revocation, for him and in his name, place and stead, in any and all capacities (until revoked in writing), to sign any and all amendments (including post-effective amendments) to this Registration Statement and to file the same with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or is substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
	President and Chief Executive Officer and Director (Principal Executive Officer) and	October 8, 2009
<u>/s/ Neil K. Warma</u> Neil K. Warma	Acting Chief Financial Officer (Principal Financial and Accounting Officer)	
<u>/s/ David Hung</u> David Hung	Director	October 8, 2009
<u>/s/ David E. Jordan</u> David E. Jordan	Director	October 8, 2009
<u>/s/David B. McWilliams</u> David B. McWilliams	Director	October 8, 2009
<u>/s/ Michael S. Richman</u> Michael S. Richman	Director	October 8, 2009
<u>/s/ Scott B. Seaman</u> Scott B. Seaman	Director	October 8, 2009

INDEX TO EXHIBITS

Exhibits		
4.1+	—	Unit Purchase Agreement dated April 14, 2009 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on April 16, 2009)
4.2+	—	Form of 10% Convertible Promissory Note dated April 14, 2009 (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on April 16, 2009)
4.3+	—	Form of Series G Warrant dated April 14, 2009 (incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed on April 16, 2009)
4.4+	—	Registration Rights Agreement dated April 14, 2009 (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on April 16, 2009)
4.5+	—	Security Agreement dated April 14, 2009 (incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K filed on April 16, 2009)
5.1 *	—	Opinion of Vinson & Elkins L.L.P.
23.1*	—	Consent of Malone & Bailey, PC
23.4*	—	Consent of Vinson & Elkins L.L.P. (contained in Exhibit 5.1)
24.1*	—	Powers of Attorney (included on the signature page)

*Filed herewith.

+Incorporated by reference to the Company's Current Report on Form 8-K (File No. 001-33004) filed on April 16, 2009.

(VINSON & ELKINS L.L.P. LOGO)

VINSON & ELKINS L.L.P.
2300 FIRST CITY TOWER
1001 FANNIN STREET
HOUSTON, TEXAS 77002-6760
TELEPHONE (713) 758-2222
FAX (713) 758-2346
www.velaw.com

October 8, 2009

Opexa Therapeutics, Inc.
2635 N. Crescent Ridge Drive
The Woodlands, Texas 77381

Re: Registration Statement on Form S-3 of Opexa Therapeutics, Inc.

Ladies and Gentlemen:

We have acted as counsel to Opexa Therapeutics, Inc. (the "Company"), a Texas corporation, with respect to certain legal matters in connection with the Company's Registration Statement on Form S-3 (the "Registration Statement") relating to the registration by the Company under the Securities Act of 1933, as amended (the "Securities Act"), of the re-sale of shares of common stock, par value \$0.50 per share, of the Company (the "Common Stock") that may be issued upon conversion of its 10% Convertible Promissory Notes due April 14, 2011 and May 14, 2011 (the "Notes"), upon exercise of the Company's Series G Warrants (the "Series G Warrants") and upon exercise of certain of the Company's Series E Warrants (collectively with the Series G Warrants, the "Warrants").

We have examined originals or copies, certified or otherwise identified to our satisfaction, of (i) the Articles of Incorporation and Bylaws of the Company, each as amended to the date hereof, (ii) the Registration Statement, (iii) resolutions of the board of directors of the Company and (iv) such other certificates, statutes and other instruments and documents as we considered appropriate for purposes of the opinions hereafter expressed. In addition, we reviewed such questions of law, as we considered appropriate.

In connection with rendering the opinions set forth below, we have assumed that (i) all information contained in all documents reviewed by us is true and correct, (ii) all signatures on all documents examined by us are genuine, (iii) all documents submitted to us as originals are authentic and all documents submitted to us as copies conform to the originals of those documents, (iv) the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective, and (vi) all shares of Common Stock to be issued upon conversion of the Notes and exercise of the Warrants will be issued and sold in compliance with applicable federal and state securities laws and in accordance with the terms of the Warrants.

Based on the foregoing, and subject to the assumptions, qualifications, limitations, and exceptions set forth herein, we are of the opinion that the shares of Common Stock issuable upon conversion of the Notes and exercise of the Warrants, will, upon conversion of the Notes in accordance with the terms of the Notes, and upon exercise of the Warrants in accordance with the terms of the Warrants, be validly issued, fully paid and non-assessable.

The foregoing opinions are limited to the laws of the State of Texas and the federal laws of the United States of America and we are expressing no opinion as to the effect of the laws of any other jurisdiction, domestic or foreign.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the use of our name in the Prospectus forming a part of the Registration Statement under the caption "Legal Matters." In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act and the rules and regulations thereunder.

Very truly yours,

/s/ Vinson & Elkins L.L.P.



Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation in this Registration Statement on Form S-3 of our report dated March 14, 2008 with respect to the audited financial statements of Opexa Therapeutics, Inc. for the year ended December 31, 2007 and 2006 and our report dated April 14, 2009 with respect to the audited financial statements of Opexa Therapeutics, Inc. for the years ended December 31, 2008 and 2007 and to all references to our Firm included in this Registration Statement.

We also consent to the references to us under the heading "Experts" in such Registration Statement.

/s/ Malone & Bailey, PC
Malone & Bailey, PC
www.malone-bailey.com
Houston, Texas

October 8, 2009

www.malone-bailey.com | 10350 Richmond Ave., Suite 800 | Houston, TX 77042 | p. 713.343.4200 | f. 713.266.1815
Registered Public Company Accounting Oversight Board • AICPA Center for Public Company Audit Firms • Texas Society of Certified Public Accountants

