OPEXA THERAPEUTICS, INC.
2635 NORTH CRESCENT RIDGE DRIVE
THE WOODLANDS, TEXAS 77381

October 2, 2009

To Our Shareholders:

You are cordially invited to attend the Annual Meeting of Shareholders of Opexa Therapeutics, Inc. on Wednesday, November 11, 2009 at 10:00 a.m. Eastern Standard Time. The meeting will be held at 1251 Avenue of Americas, 20th Floor, New York, New York 10020.

Information about the Annual Meeting, including matters on which shareholders will act, may be found in the notice of annual meeting and proxy statement accompanying this letter. We look forward to greeting in person as many of our shareholders as possible.

It is important that your shares be represented and voted at the meeting. Whether or not you plan to attend the Annual Meeting, please complete, sign, date, and promptly return the accompanying proxy in the enclosed envelope or by fax to (281) 872-8585. Returning the proxy does NOT deprive you of your right to attend the Annual Meeting. If you decide to attend the Annual Meeting and wish to change your proxy vote, you may do so automatically by voting in person at the meeting. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to attend and vote in person at the meeting, you must obtain from the record holder a legal proxy issued in your name.

Sincerely yours,

Neil K. Warma, President and Chief Executive Officer

If you need additional copies of this Proxy Statement or the enclosed proxy card, or if you have other questions about the proposals or how to vote your shares, you may contact our proxy solicitor:

Advantage Proxy
(877) 870-8565 (toll free)

OPEXA THERAPEUTICS, INC.
2635 NORTH CRESCENT RIDGE DRIVE
THE WOODLANDS, TX 77381

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS TO BE HELD NOVEMBER 11, 2009

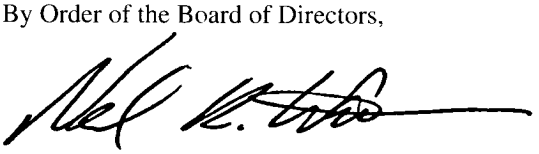
The Annual Meeting of Shareholders of Opexa Therapeutics, Inc. will be held on Wednesday, November 11, 2009 at 10:00 a.m. Eastern Standard Time, at 1251 Avenue of Americas, 20th Floor, New York, New York 10020. Our shareholders are asked to vote to:

1. Elect David Hung, David E. Jorden, Michael S. Richman, Scott B. Seaman and Neil K. Warma to the Board of Directors to serve until the next annual meeting of shareholders or until their respective successors have been duly elected;
2. Approve an amendment to the Company's Articles of Incorporation to reduce the par value of the Company's common stock from $0.50 per share to $0.01 per share;
3. Ratify the appointment of Malone & Bailey, PC, as independent auditors of the Company for its fiscal year ending December 31, 2009; and
4. Transact any other business properly brought before the annual meeting and any adjournment or postponement thereof.

These business items are described more fully in the Proxy Statement accompanying this Notice.

Only shareholders who owned common stock at the close of business on September 21, 2009 can vote at this meeting or any adjournments or postponements that may take place. All shareholders are cordially invited to attend the meeting in person. However, to assure your representation at the meeting, you are urged to mark, sign and return the enclosed proxy as promptly as possible in the postage-prepaid envelope for that purpose or by fax at (281) 872-8585. Your stock will be voted in accordance with the instructions you have given. Any shareholder attending the meeting may vote in person even if he or she has previously returned a proxy. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to attend and vote in person at the meeting, you must obtain from the record holder a legal proxy issued in your name.

By Order of the Board of Directors,



Neil K. Warma, President and Chief Executive Officer

Dated: October 2, 2009

The Board of Directors solicits the enclosed proxy. Your vote is important no matter how large or small your holdings. To assure your representation at the meeting, please complete, sign exactly as your name appears, date and promptly mail the enclosed proxy card in the postage-paid envelope provided or fax to (281) 872-8585.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to be held on November 11, 2009: This Proxy Statement and our 2008 Annual Report on Form 10-K are available at: www.cstproxy.com/opexatherapeutics/2009.

OPEXA THERAPEUTICS, INC.

PROXY STATEMENT

ANNUAL MEETING OF SHAREHOLDERS

TO BE HELD ON NOVEMBER 11, 2009

INFORMATION CONCERNING SOLICITATION AND VOTING

General

The enclosed proxy is solicited on behalf of the Company's Board of Directors ("Board") for use at the Annual Meeting of Shareholders to be held on Wednesday, November 11, 2009, at 10:00 a.m. Eastern Standard Time (the "Annual Meeting"), or at any adjournment or postponement of this meeting, for the purposes set forth in this Proxy Statement and in the accompanying Notice of Annual Meeting of Shareholders. The Annual Meeting will be held at 1251 Avenue of Americas, 20th Floor, New York, New York 10020. We intend to mail this Proxy Statement and accompanying proxy card to shareholders on or about October 2, 2009. The Board of Directors of Opexa Therapeutics, Inc., a Texas corporation, prepared this proxy statement for the purpose of soliciting proxies for our Annual Meeting of Shareholders. The terms "we," "our," the "Company" or "Opexa," refers to Opexa Therapeutics, Inc.

Availability of Annual Report and Form 10-K

Accompanying this Proxy Statement is the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission (the "SEC"). The Company makes available, free of charge through its website (www.opexatherapeutics.com), its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as soon as reasonably practicable after such documents are electronically filed with or furnished to the SEC. These reports can be found under "SEC Filings" through the "Investors" section of the Company's website located at www.opexatherapeutics.com. The Company will provide to any shareholder without charge, upon the written request of that shareholder, a copy of the Company's Annual Report on Form 10-K (without exhibits), including financial statements and the financial statement schedules, for the fiscal year ended December 31, 2008. Such requests should be addressed to Investor Relations, Opexa Therapeutics, Inc., 2635 North Crescent Ridge Drive, The Woodlands, Texas 77381.

Revocability of Proxies

Any proxy given pursuant to this solicitation may be revoked by the person giving it at any time before its use by delivering to the Company's Secretary, at the address of the Company's executive offices noted above, written notice of revocation or a duly executed proxy bearing a later date or by attending the Annual Meeting and voting in person. Attendance at the Annual Meeting will not, by itself, revoke a proxy. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to attend and vote in person at the Annual Meeting, you must obtain from the record holder a legal proxy issued in your name.

Quorum, Abstentions and Broker Non-Votes

Our common stock is the only type of security entitled to vote at the Annual Meeting. Only shareholders of record at the close of business on September 21, 2009 (the "Record Date") will be entitled to notice of and to vote at the Annual Meeting. As of the Record Date, there were 12,737,926 shares of common stock outstanding and entitled to vote. Each holder of record of shares of common stock on the record date will be entitled to one vote for each share held on all matters to be voted upon at the Annual Meeting. Shares of common stock may not be voted cumulatively.

Proxies properly executed, duly returned to the Company and not revoked will be voted in accordance with the specifications made. Where no specifications are given, such proxies will be voted "FOR" each of the five director nominees, "FOR" the amendment to the Company's Articles of Incorporation to reduce the par value of the Company's common stock from $0.50 per share to $0.01 per share, and "FOR" the ratification of the Company's auditors. It is not expected that any matters other than those referred to in this Proxy Statement will be brought before the Annual Meeting. If, however, any matter not described in this Proxy Statement is properly presented for action at the Annual Meeting, the person named as proxy in the enclosed form of proxy will have discretionary authority to vote according to his own discretion.

The required quorum for the transaction of business at the Annual Meeting is a majority of the issued and outstanding shares of the Company's common stock entitled to vote at the Annual Meeting, whether present in person or represented by proxy. The bylaws of the Company provide that unless otherwise provided by law or by the Articles of Incorporation, all matters other than the election of directors shall be decided by the affirmative vote of a majority of the shares of stock represented in person or by proxy at the Annual Meeting. Shares of common stock represented by a properly signed and returned proxy will be treated as present at the Annual Meeting for purposes of determining a quorum, regardless of whether the proxy is marked as casting a vote or abstaining. Shares of stock represented by "broker non-votes" (i.e., shares of stock held in record name by brokers or nominees) as to which (i) instructions have not been received from the beneficial owners or persons entitled to vote; (ii) the broker or nominee does not have discretionary voting power under applicable rules or the instrument under which it serves in such capacity; or (iii) the record holder has indicated on the proxy card or has executed a proxy and otherwise notified the Company that it does not have authority to vote such shares on that matter will be treated as present for purposes of determining a quorum.

Voting

Proposal 1. Directors are elected by a plurality of the affirmative votes cast by those shares of common stock present in person, or represented by proxy, and entitled to vote at the Annual Meeting. This means the five nominees for directors receiving the highest number of affirmative votes will be elected. Proxies marked to "Withhold Authority" and broker non-votes will not affect the election of a candidate who receives a plurality of votes. Shareholders may not cumulate votes in the election of directors.

Proposal 2. Approval of the amendment to the Company's Articles of Incorporation to reduce the par value of the Company's common stock from $0.50 per share to $0.01 per share requires the approval of a majority of the outstanding shares of common stock entitled to vote at the Annual Meeting. Abstentions and broker non-votes will not be counted as having been voted on the proposal and will have the effect of voting against the proposal.

Proposal 3. Ratification of our independent public accountants requires the approval of a majority of the shares of common stock represented in person or by proxy at the Annual Meeting. Abstentions as to Proposal 3 will have the same effect as votes against the proposal. Broker non-votes as to Proposal 3, however, will be deemed shares not entitled to vote on the proposal, will not be counted as votes for or against the proposal, and will not be included in calculating the number of votes necessary for approval of the proposal.

Solicitation

The cost of soliciting proxies will be borne by the Company. In addition to soliciting shareholders by mail and through its regular employees, the Company will request that banks and brokers and other persons representing beneficial owners of the shares forward the proxy solicitation material to such beneficial owners and the Company may reimburse these parties for their reasonable out-of-pocket costs. The Company may use the services of its officers, directors and others to solicit proxies, personally or by telephone, facsimile or electronic mail, without additional compensation. We have retained Advantage Proxy to assist us in soliciting proxies using the means referred to above. We will pay the fees of Advantage Proxy, which we expect to be approximately $3,000, plus reimbursement of out-of-pocket expenses.

If you need additional copies of this Proxy Statement or the enclosed proxy card, or if you have other questions about the proposals or to obtain directions to attend the meeting and vote in person, you may contact our proxy solicitor, Advantage Proxy, at (877) 870-8565 (toll free).

Shareholder Proposals

Proposals of shareholders that are intended to be presented at our 2010 Annual Meeting of Shareholders in the proxy materials for such meeting must comply with the requirements of SEC Rule 14a-8 and must be received by our Secretary no later than June 4, 2010, in order to be included in the Proxy Statement and proxy materials relating to our 2010 Annual Meeting of Shareholders. Moreover, with respect to any proposal by a shareholder not seeking to have the proposal included in the proxy statement but seeking to have the proposal considered at our next annual meeting, such shareholder must provide written notice of such proposal to our Secretary at our principal executive offices by August 18, 2010. With respect to a proposal not to be included in the proxy statement and the proposal is permitted at the Annual Meeting, the persons who are appointed as proxies may exercise their discretionary voting authority with respect to such proposals, even if the shareholders have not been advised of the proposal. In addition, shareholders must comply in all respects with the rules and regulations of the SEC then in effect and the procedural requirements of our bylaws.

Dissenter's Rights

Neither Texas law nor our articles of incorporation or bylaws provide our shareholders with dissenters' rights in connection with the matters described in this Proxy Statement.

PROPOSAL 1
ELECTION OF DIRECTORS

The Board of Directors currently consists of six members, each with a term expiring at the 2009 Annual Meeting. David McWilliams, who is currently an incumbent director, has informed the Company that he does not intend to stand for re-election at the Annual Meeting. The Nominating Committee of the Board has recommended, and the Board has nominated, the remaining five incumbent directors for election at the 2009 Annual Meeting. The Board intends to reduce the size of the Board of Directors to five members at that time, and therefore, proxies cannot be voted for a greater number of persons than the five nominees. The shares represented by the enclosed proxy will be voted for the election as directors of the five nominees named below to serve until the 2010 Annual Meeting or until their successors have been duly elected and qualified. All of the nominees have indicated to the Company that they will be available to serve as directors. If any of the nominees becomes unavailable for any reason or if a vacancy should occur before the election (which events are not anticipated), the shares represented by the enclosed proxy may be voted for such other person or persons recommended by the Board of Directors as may be determined by the holders of the proxy. There are no family relationships among our executive officers and directors.

Director Nominees

Individuals nominated for election are:

Name	Age	Position
David Hung	52	Director
David E. Jorden	47	Director
Michael S. Richman	48	Director
Scott B. Seaman	54	Director
Neil K. Warma	46	President, Chief Executive Officer, Acting Chief Financial Officer and Director

David Hung, M.D. has served as a Director since May 2006. Dr. Hung has served as the president, chief executive officer and as a director of Medivation, Inc. since December 2004. Dr. Hung also has served as the president and chief executive officer, and member of the board of directors, of Medivation, Inc.'s subsidiary, Medivation Neurology, Inc. since its inception in September 2003. From 1998 until 2001, Dr. Hung was employed by ProDuct Health, Inc., a privately held medical device company, as Chief Scientific Officer (1998-1999), and as president and chief executive officer (1999-2001). From December 2001 to January 2003, Dr. Hung served as a consultant to Cytyc Health Corporation. Dr. Hung received his M.D. from the University of California at San Francisco, and his A.B. in biology and organic chemistry from Harvard College.

David E. Jorden has served as a Director since August 2008. Mr. Jorden has served as executive board member for Cytomedix, Inc. since October 2008. Mr. Jorden previously served as vice president with Morgan Stanley in its Wealth Management group where he was responsible for equity portfolio management for high net worth individuals since 2003. Prior to Morgan Stanley, Mr. Jorden served as vice president and chief financial officer of Genometrix, Inc., a private genomics/life sciences company focused on high-throughput microarray applications from March 2000 to September 2002. Mr. Jorden was a principal with Fayez Sarofim & Co. prior to joining Genometrix. Mr. Jorden earned a MBA from Kellogg School of Management at Northwestern University and a BBA from the University of Texas/Austin. He currently serves as a director of Cytomedix, Inc. and PLx Pharma, Inc. Mr. Jorden is a Chartered Financial Analyst and Certified Public Accountant.

Michael S. Richman has served as a Director since June 2006. Mr. Richman has served as president and chief executive officer of Amplimmune, Inc. since July 2008. Mr. Richman served as president and chief operating officer of Amplimmune, Inc. from May 2007 to July 2008. From April 2002 to May 2007, Mr. Richman served as executive vice president and chief operating officer of MacroGenics, Inc. Mr. Richman

joined MacroGenics, Inc in 2002 with approximately twenty years experience in corporate business development within the biotechnology industry. Mr. Richman obtained his B.S. in Genetics/Molecular Biology at the University of California at Davis and his MSBA in International Business at San Francisco State University.

Scott B. Seaman has served as a Director of since April 2006. Mr. Seaman has served for over five years as the executive director and treasurer of the Albert and Margaret Alkek Foundation of Houston, Texas, a private foundation primarily supporting institutions in the Texas Medical Center in Houston, Texas. Since January 1996 to present, Mr. Seaman has served as the chief financial officer of Chaswil Ltd., an investment management company. Since September 1986, Mr. Seaman has served as secretary and treasurer of M & A Properties Inc., a ranching and real estate concern. Since January 2003, Mr. Seaman has served as chairman and, since July 2004, president of ICT Management Inc., the general partner of Impact Composite Technology Ltd., a composite industry supplier. Mr. Seaman serves on the board of GeneExcel, Inc., a privately held biotechnology company. Since May 2004, Mr. Seaman has served as a Member of the Investment Committee of Global Hedged Equity Fund LP, a hedge fund. Mr. Seaman received a bachelor's degree in business administration from Bowling Green State University and is a certified public accountant.

Neil K. Warma has served as President and Chief Executive Officer since June 2008 and as Acting Chief Financial Officer since March 2009. From July 2004 to September 2007, Mr. Warma served as president and chief executive officer of Viron Therapeutics Inc., a privately-held clinical stage biopharmaceutical company. From 2000 to 2003, Mr. Warma was co-founder and president of MedExact USA, Inc., an Internet company providing clinical information and services to physicians and pharmaceutical companies. From 1992 to 2000, Mr. Warma held senior positions of increasing responsibility at Novartis Pharmaceuticals (previously Ciba-Geigy Ltd.) at its corporate headquarters in Basel, Switzerland. While at Novartis, Mr. Warma served as the Head of International Pharma Policy & Advocacy and in senior management within global marketing where he worked on the international launch of a gastrointestinal product. Mr. Warma obtained an honors degree specializing in Neuroscience from the University of Toronto and an International M.B.A. from the Schulich School of Management at York University in Toronto.

The Board of Directors recommends that shareholders vote "FOR" the election to the Board of each of the above nominees. The five persons receiving the highest number of "FOR" votes represented by shares of Company common stock present in person or represented by proxy and entitled to be voted at the Annual Meeting will be elected.

Board and Shareholder Meetings

Members of the Board are encouraged to attend the Company's annual meeting of shareholders; however, attendance is not mandatory. Six directors attended the 2008 annual meeting of shareholders. For the fiscal year ended December 31, 2008, the Board held 14 meetings, and each incumbent director nominee attended at least 75% of the total number of meetings held by the Board and all committees on which such director served during the period he was a director in 2008.

Director Independence

The Board has determined that each member of the Board, except for Messrs. Warma and McWilliams, are an independent director within the meaning of NASDAQ listing standards, which directors constitute a majority of the Board. The Board has determined that each member of the Board's Audit, Compensation and Nominating and Corporate Governance Committees is independent (or similarly designated) based on the Board's application of the listing standards of NASDAQ, the rules and regulations promulgated by the SEC, or the Internal Revenue Service, as appropriate for such committee membership.

Committees of the Board of Directors

We currently have a standing Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee. The Board has adopted written charters for each of the committees, and copies of the charters are available on our website at www.opexatherapeutics.com. Please note that the information contained on our website is not incorporated by reference in, or considered to be a part of, this document.

The current members of these committees are as follows:

Director	Independent	Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee
David Hung	X		X	X
David E. Jorden	X	X		X
Michael S. Richman	X	X	X	
Scott B. Seaman	X	X	X	X

Audit Committee

The Audit Committee of the Board currently consists of Messrs. Jorden, Richman and Seaman, each of whom is an independent, non-employee director. The Audit Committee selects, on behalf of our Board, an independent public accounting firm to audit our financial statements, discuss with the independent auditors their independence, review and discuss the audited financial statements with the independent auditors and management, and recommend to our Board whether the audited financials should be included in our Annual Reports to be filed with the SEC. The Audit Committee operates pursuant to a written charter, which was adopted in February 2005. During the last fiscal year, the Audit Committee held four meetings, and the members of the Audit Committee attended each meeting.

All of the members of the Audit Committee are non-employee directors who: (1) met the criteria for independence as required by NASDAQ listing standards and as set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"); (2) did not participate in preparation of the Company's financial statements during the past three years; and (3) are able to read and understand fundamental financial statements, including a balance sheet, income statement, and cash flow statement. The Board has determined that Messrs. Jorden and Seaman each, individually, qualify as an "audit committee financial expert" as defined in SEC regulations and also possesses the financial sophistication and requisite experience as required under NASDAQ listing standards.

Compensation Committee

The Compensation Committee of the board currently consists of Dr. Hung and Messrs. Richman and Seaman, each of whom is an independent director. The Compensation Committee reviews and approves (1) the annual salaries and other compensation of our executive officers, and (2) individual stock and stock option grants. The Compensation Committee also provides assistance and recommendations with respect to our compensation policies and practices, and assists with the administration of our compensation plans. During the last fiscal year, the Compensation Committee held one meeting, and the members of the Compensation Committee attended that meeting.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee of the Board currently consists of Dr. Hung and Messrs. Jorden and Seaman, each of whom was determined by the Board to be an independent director. The Nominating and Corporate Governance Committee assists our Board in fulfilling its responsibilities by: identifying and approving individuals qualified to serve as members of our Board, selecting director nominees

for our annual meetings of shareholders, evaluating the performance of our Board, and developing and recommending to our Board corporate governance guidelines and oversight procedures with respect to corporate governance and ethical conduct. In identifying and evaluating candidates, the committee takes into consideration the criteria approved by the Board and such other factors as it deems appropriate. These factors may include judgment, skill, diversity, experience with businesses and other organizations of comparable size, the interplay of the candidate's experience with the experience of other Board members, and the extent to which the candidate would be a desirable addition to the Board and any committees of the Board. The nominating committee will consider properly submitted shareholder nominations for candidates for the board. Following verification of the shareholder status of persons proposing candidates, recommendations will be aggregated and considered by the nominating committee. If any materials are provided by a shareholder in connection with the nomination of a director candidate, such materials will be forwarded to the committee. During the last fiscal year, the Nominating and Corporate Governance Committee held one meeting, and the members of the committee attended that meeting.

2008 Director Compensation

The following table presents summary information for the year ended December 31, 2008 regarding the compensation of the non-employee members of our Board. Mr. Jorden was appointed to the Board on August 12, 2008. Mr. Bailey resigned from the Board effective December 10, 2008, and Mr. Randall resigned from the Board effective February 19, 2009.

Name	Fees Earned or Paid in Cash ($)	Restricted Stock and Option Awards ($)(1)	Total ($)
Gregory H. Bailey(2)	—(3)	72,966	72,966
David Hung(4)	—(5)	93,077	93,077
David E. Jorden(6)	—(7)	10,877	10,877
David B. McWilliams(8)	—	7,367	7,367
Lorin J. Randall(9)	27,000	22,699	49,699
Michael S. Richman(10)	—(7)	70,486	70,486
Scott B. Seaman(11)	—(7)	69,630	69,630

(1) Reflects the dollar amount recognized for financial statement reporting purposes for the year ended December 31, 2008 in accordance with FAS 123R (but disregarding forfeiture estimates related to service-based vesting conditions) and, accordingly, includes amounts from options granted in prior years. See the information appearing under the heading entitled "Stock Options and Warrants" in Note 10 to our consolidated financial statements included as part of our Annual report on Form 10-K for the fiscal years ended December 31, 2008 and 2007 for certain assumptions made in the valuation of options granted during 2008 and 2007. See the information appearing in Note 11 to our consolidated financial statements in our Form 10-KSB for the year ended December 31, 2006 for assumptions made in the valuation of options granted in prior years.

(2) 50,000 shares of common stock underlying options outstanding at fiscal year end.

(3) In exchange for Board compensation fees due, 31,000 shares of restricted common stock were issued on May 5, 2008, of which 13,300 shares of common stock vested on the date of grant and the balance of 17,700 restricted shares were to vest on December 31, 2008; however, since Dr. Bailey resigned from the board on December 10, 2008, the 17,700 shares were forfeited.

(4) 55,000 shares of common stock underlying options outstanding at fiscal year end.

(5) In exchange for Board compensation fees due, 31,900 shares of restricted common stock were issued on May 5, 2008, of which 12,400 shares of common stock vested on the date of grant and the balance of 19,500 restricted shares vested on December 31, 2008.

(6) 20,000 shares of common stock underlying options outstanding at fiscal year end.

(7) Messrs. Jorden, Richman and Seaman elected to exchange Board compensation fees due as of December 31, 2008 for stock options on February 6, 2009. Stock options equal to one share of common stock for each dollar due, fully vested and exercisable for a term of ten years, were granted to Messrs. Jorden, Richman and Seaman at an exercise price of $ $0.47 per share.

(8) 10,000 shares of common stock underlying options outstanding at fiscal year end.

(9) 30,000 shares of common stock underlying options outstanding at fiscal year end.

(10) 66,400 shares of common stock underlying options outstanding at fiscal year end.

(11) 66,900 shares of common stock underlying options outstanding at fiscal year end.

No options were exercised during the fiscal year ended December 31, 2008.

The following table presents the fair value of each grant of stock options in 2008 to non-employee members of our Board, computed in accordance with FAS 123R:

Name	Grant Date	Number of Securities Underlying Options	Exercise Price of Option Awards	Grant Date Fair Value of Options
Gregory H. Bailey	06/26/08	10,000	$1.17	$ 9,823
David Hung	06/26/08	10,000	$1.17	$ 9,823
David E. Jorden	08/19/08	20,000	$1.55	$26,105
David B. McWilliams	06/26/08	10,000	$1.17	$ 9,823
Lorin J. Randall	06/26/08	10,000	$1.17	$ 9,823
Michael Richman	05/06/08	11,400	$1.09	$10,417
	06/26/08	10,000	$1.17	$ 9,823
Scott B. Seaman	05/06/08	11,900	$1.09	$10,873
	06/26/08	10,000	$1.17	$ 9,823

Standard Compensation Arrangements

Employee directors do not receive any compensation for services as a member of our Board. We reimburse our directors for travel and lodging expenses in connection with their attendance at board and committee meetings. In summary, non-employee Board members receive the following fees:

Annual retainer	$12,000
For each Board meeting attended in person	$ 1,500
For each Board meeting attended that is held over the telephone	$ 750
For each committee meeting attended by a non-chair committee member	$ 750
For each committee meeting attended by the chair of that committee	$ 1,000

In addition, on June 26, 2008 Dr. Hung and Messrs. McWilliams, Randall, Richman and Seaman were each granted a ten-year option to purchase 10,000 shares of our common stock an exercise price of $1.17, of which 5,000 shares vested immediately and 5,000 shares vested on the first anniversary of the date of grant. On August 19, 2008, Mr. Jorden was granted a ten-year option to purchase 20,000 shares of our common stock at an exercise price of $1.55.

In lieu of compensation for services as a member of the Board for 2009, the Board elected to temporarily suspend cash payments and non-employee directors are being issued stock options instead.

Communications to the Board of Directors

The Board of Directors has adopted the following policy for shareholders who wish to communicate any concern directly with the Board of Directors. Shareholders may mail or deliver their communication to the Company's principal executive offices, addressed as follows:

Addressee (*)
c/o Secretary
Opexa Therapeutics, Inc.
2635 North Crescent Ridge Drive
The Woodlands, TX 77381

*Addressees: Board of Directors; Audit Committee of the Board of Directors; Nominating and Corporate Governance Committee of the Board of Directors; Compensation Committee of the Board of Directors; name of individual director.

Copies of written communications received at such address will be forwarded to the addressee as soon as practicable.

AUDIT COMMITTEE REPORT

The Audit Committee of the Board currently consists of Messrs. Jorden, Richman and Seaman, all of whom are independent, non-employee directors.

The Audit Committee operates under a written charter adopted by the Board of Directors, which is evaluated annually. The Audit Committee selects, evaluates and, where deemed appropriate, replaces the Company's independent auditors. The Audit Committee also pre-approves all audit services, engagement fees and terms, and all permitted non-audit engagements, except for certain de minimus amounts.

Management is responsible for the Company's internal controls and the financial reporting process. The Company's independent auditors are responsible for performing an independent audit of the Company's consolidated financial statements in accordance with auditing standards generally accepted in the United States of America and issuing a report on the Company's consolidated financial statements. The Audit Committee's responsibility is to monitor and oversee these processes.

In this context, the Audit Committee has reviewed the Company's audited financial statements for fiscal 2008 and has met and held discussions with management and Malone & Bailey, PC, the Company's independent auditors. Management represented to the Audit Committee that the Company's consolidated financial statements for fiscal 2008 were prepared in accordance with accounting principles generally accepted in the United States of America, and the Audit Committee discussed the consolidated financial statements with the independent auditors. The Audit Committee also discussed with Malone & Bailey, PC the matters required to be discussed by the Statement on Auditing Standards No. 61, as amended, as adopted by the Public Company Accounting Oversight Board (PCAOB) in Rule 3200T.

Malone & Bailey, PC also provided to the Audit Committee the written disclosures and the letter required by applicable requirements of the PCAOB regarding the independent accountant's communications with the Audit Committee concerning independence, and the Audit Committee discussed with Malone & Bailey, PC the accounting firm's independence.

Based upon the Audit Committee's discussion with management and Malone & Bailey, PC, and the Audit Committee's review of the representation of management and the report of Malone & Bailey, PC to the Audit Committee, the Audit Committee recommended to the Board of Directors that the audited consolidated financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008, filed with the SEC.

Submitted by the Audit Committee of the
Board of Directors of Opexa Therapeutics, Inc.:
David E. Jorden, Michael S. Richman, Scott B. Seaman

COMPENSATION COMMITTEE REPORT

The Compensation Committee of the Board currently consists of Dr. Hung and Messrs. Richman and Seaman, all of whom are independent, non-employee directors.

The Compensation Committee operates under a written charter adopted by the Board. The Compensation Committee administers Opexa's June 2004 Compensatory Stock Option Plan; reviews compensation components to be provided to Opexa's officers, employees, and consultants; grants options to purchase common stock and restricted stock to Opexa's officers, employees, and consultants; and reviews and makes recommendations to the Board regarding all forms of compensation to be provided to the members of the Board. The Compensation Committee believes it has fulfilled its responsibilities under its charter for the fiscal year ended December 31, 2008.

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K for the fiscal year ended December 31, 2008 with management. Based upon this review and discussion, the Compensation Committee recommended to the Board that the Compensation Discussion and Analysis be included in Opexa's Annual Report on Form 10-K for the fiscal year ended December 31, 2008.

Submitted by the Compensation Committee
of the Board of Directors of Opexa Therapeutics, Inc.:
David Hung, Michael S. Richman, Scott B. Seaman

Compensation Committee Interlocks and Insider Participation

Our Compensation Committee is comprised of Dr. Hung and Messrs. Richman and Seaman. None of the committee members has ever been an employee of Opexa Therapeutics, Inc. None of our executive officers serve as a member of the board of directors or compensation committee of any entity that has any executive officer serving as a member of our Board of Directors or Compensation Committee.

PROPOSAL 2
AMENDMENT TO ARTICLES OF INCORPORATION TO REDUCE THE PAR VALUE OF THE COMPANY'S COMMON STOCK

The Board of Directors has adopted a resolution approving a proposed amendment to Article IV of the Company's current Articles of Incorporation to change the par value of our common stock from $0.50 per share to $0.01 per share.

The first paragraph of Article IV of the Company's current Articles of Incorporation reads as follows:

> "The aggregate number of shares which the corporation shall have authority to issue is one hundred ten million (110,000,000), consisting of one hundred million (100,000,000) shares of common stock having $0.50 par value ("Common Stock"), and ten million (10,000,000) shares of preferred stock having no par value ("Preferred Stock")."

The proposed amendment, if approved by shareholders in conjunction with approval of this Proposal 2, would replace the first paragraph of Article IV with the following:

> "The aggregate number of shares which the corporation shall have authority to issue is one hundred ten million (110,000,000), consisting of one hundred million (100,000,000) shares of common stock having $0.01 par value ("Common Stock"), and ten million (10,000,000) shares of preferred stock having no par value ("Preferred Stock")."

Reasons for Reducing the Par Value of our Common Stock

As of the Record Date, the Company has outstanding options to purchase an aggregate of 1,736,634 shares of Company common stock. Of the 1,736,634 options issued and outstanding, options to purchase an aggregate of 448,339 shares of Company common stock were issued to corporate officers, directors, employees and consultants between January 16, 2009 and March 13, 2009 at per share exercise prices which were at the fair market value on the date of grant but below the par value of the Company's common stock since the stock was trading below $0.50 during this time period.

During this period, options to purchase the following number of shares of common stock were granted to the following directors, each of whom is also a nominee (except for David McWilliams), at an average per share exercise price of $0.47: David Jorden, 14,880; Michael Richman, 29,250; Scott Seaman, 37,250; David Hung, 8,000; and David McWilliams, 8,000. In addition, during this period, options to purchase the following number of shares of common stock were granted to the following executive officers, at the average per share exercise prices indicated: Neil K. Warma, 150,000 shares, at an average exercise price of $0.22; and Donna Rill, 48,396 shares at an average exercise price of $0.35.

In order to comply with the limits of Texas corporate law, which prohibits the issuance of a corporation's common stock for less than the par value of such stock, and to remain consistent with common business practice among our peer companies with respect to par value, the Company is seeking approval of its shareholders to amend its Articles of Incorporation to reduce the par value of the Company's common stock from $0.50 per share to $0.01 per share. We further believe that a change from a par value of $0.50 per share to $0.01 per share will provide us with greater flexibility in utilizing our common stock for various corporate purposes in the future.

The Company believes that a reduction in the common stock par value from $0.50 to $0.01 is also the most efficient way to address the challenges resulting from having outstanding options with exercise prices of less than par value. If the reduction in the par value of the Company's common stock is approved by the shareholders, the Company will be able to issue shares of its common stock to the optionees upon the exercise of the options at issue, all pursuant to the terms of the options previously granted. If the reduction in the par value is not approved, the Company may be required to explore other alternatives which may be less efficient and more expensive to meet the contractual obligations represented by these outstanding options.

Historically, par value served as a stated price at which a corporation's stock would be issued. Nevertheless, we believe the protection par values may have provided investors have become less important over time. Regulation of the securities markets and increased financial transparency has contributed to this trend. Also, as markets have become more liquid, with prices responding more rapidly to market developments, it has became increasingly difficult for a corporation to commit in advance to issue securities at their par value. Instead, for public companies, the market sets the price at which stock may be issued or otherwise sold. For this reason, par value is generally considered to be an anachronistic concept, and many corporations today set their par value at $0.01 per share or even less. In fact, under Texas law, stock without par value is permissible.

Effective Date and Accounting Matters

The reduction in par value will become effective upon the filing with the Secretary of State of the Articles of Amendment, which is expected to take place promptly after the approval of the amendment to the Articles at the Annual Meeting. The reduction in the par value of our common stock would result in a reduction in the stated capital on our balance sheet attributable to our common stock and a corresponding increase in the paid-in capital account. The reduction in the par value would not change the number of authorized shares of our common stock. The reduction in the par value will have no effect on the rights of the holders of our common stock.

The Board of Directors recommends a vote "FOR" the amendment to the Company's Articles of Incorporation to reduce the par value of the Company's common stock from $0.50 per share to $0.01 per share. The approval of the amendment to the Company's Articles of Incorporation requires a majority of the outstanding shares entitled to vote at the annual meeting.

PROPOSAL 3
RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee selected Malone & Bailey, PC as an independent registered public accounting firm to audit the financial statements of the Company for the year ending December 31, 2009 and requests that the shareholders ratify such selection. In the event the shareholders fail to ratify the appointment, the Audit Committee of the Board of Directors will consider it as a direction to select other auditors for the subsequent year. Even if the selection is ratified, the Board at its discretion may direct the appointment of a different independent accounting firm at any time during the subsequent year if the Board determines that such a change would be in the best interests of the Company and its shareholders.

The Company is asking the shareholders to ratify the selection of Malone & Bailey, PC as the Company's independent public accountants for the fiscal year ending December 31, 2009. The affirmative vote of the holders of a majority of the shares represented in person or by proxy at the Annual Meeting will be required to ratify the selection of Malone & Bailey, PC.

A representative of Malone & Bailey, PC is not expected to attend the Annual Meeting or make a statement and so will not be available to respond to questions.

Audit Fees

The following table presents the estimated aggregate fees billed by Malone & Bailey, PC for services performed during our last two fiscal years.

	Years Ended December 31,	
	2008	2007
Audit fees[1]	$67,415	$175,466
Audit-Related fees	—	—
Tax fees[2]	5,600	3,505
All other fees[3]	11,785	15,370
	$84,800	$194,341

(1) "Audit fees" include professional services rendered for (i) the audit of our annual financial statements for the fiscal years ended December 31, 2007 and 2008, (ii) the reviews of the financial statements included in our quarterly reports on Form 10-Q for such years and (iii) the issuance of consents and other matters relating to registration statements filed by us.

(2) Tax fees include professional services relating to preparation of the annual tax return.

(3) Other fees include professional services for review of various filings and issuance of consents.

Policy on Audit Committee Pre-Approval and Permissible Non-Audit Services of Independent Auditors

The Board's policy is to pre-approve all audit and permissible non-audit services provided by the independent auditors. These services may include audit services, audit-related services, tax services and other services. Pre-approval is generally provided for up to one year and any pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. The independent auditors and management are required to periodically report to the Board regarding the extent of services provided by the independent auditors in accordance with this pre-approval, and the fees for the services performed to date. The Board of Directors may also pre-approve particular services on a case-by-case basis. The Audit Committee pre-approved 100% of the tax services and other services provided by our independent auditors during the last two fiscal years.

The Board of Directors recommends a vote "FOR" the ratification of the selection of Malone & Bailey, PC as the independent registered public accounting firm for the Company for the fiscal year ending December 31, 2009. The ratification requires a majority vote of the shares represented by person or proxy at the annual meeting.

EXECUTIVE OFFICERS

Our executive officers are elected by the Board of Directors and serve at the discretion of the Board. Our executive officers are as follows:

Name	Age	Position
Neil K. Warma	46	President, Chief Executive Officer, Acting Chief Financial Officer and Director
Donna R. Rill	55	Senior Vice President of Operations

The following biographical information is for Ms. Rill (see Proposal 1 for biographical information for Mr. Warma):

Donna R. Rill has served as Senior Vice President of Operations since January 2009. From November 2004 until January 2009, she served as our Vice President of Operations. From April 2003 to November 2004, she was the director of quality systems and process development at Opexa Pharmaceuticals, Inc. prior to its acquisition by the Company. From November 1997 to April 2003, she was the director of translational research for the Center for Cell & Gene Therapy at Baylor College of Medicine. Ms. Rill has worked to design and qualify GMP Cell & Gene Therapy Laboratories, GMP Vector Production facilities, and Translational Research Labs at St. Jude Children's Research Hospital, Texas Children's Hospital, and Baylor College of Medicine. Ms. Rill received her B.S. in Medical Technology from the University of Tennessee, Memphis.

EXECUTIVE COMPENSATION AND OTHER INFORMATION

Compensation Discussion and Analysis

Objectives of Our Executive Compensation Program

The Compensation Committee of our Board (the "Compensation Committee") administers our executive compensation program. The Compensation Committee is composed entirely of independent directors.

The general philosophy of our executive compensation program is to align executive compensation with the Company's business objectives and the long-term interests of our shareholders. To that end, the Compensation Committee believes executive compensation packages provided by the Company to its executives, including the named executive officers, should include both cash and stock-based compensation that reward performance as measured against established goals. In addition, the Company strives to provide compensation that is competitive with other biopharmaceutical and biotechnology companies and that will allow us to attract, motivate, and retain qualified executives with superior talent and abilities.

Our executive compensation is designed to reward achievement of the Company's corporate goals. In 2008, our corporate goals included, but were not limited to: (i) advancement of the Company's clinical development program; (ii) advancing the Company's research and development programs; (iii) obtaining additional financing as needed; and (iv) realizing financial goals. This focus allows us to reward our executives for their roles in creating value for our shareholders.

The Role of the Compensation Committee

The Compensation Committee has the primary authority to determine the Company's compensation philosophy and to establish compensation for the Company's executive officers. The Compensation Committee oversees the Company's compensation and benefit plans and policies; administers the Company's stock option plans; reviews the compensation components provided to Opexa's officers, employees, and consultants; grants

options to purchase common stock to Opexa's officers, employees, and consultants; and reviews and makes recommendations to the Board regarding all forms of compensation to be provided to the members of the Board.

The Compensation Committee generally sets the initial compensation of each executive. The Compensation Committee annually reviews and in some cases adjusts compensation for executives. Although, the Chief Executive Officer provides recommendations to the Compensation Committee regarding the compensation of the other executive officers, the Compensation Committee has full authority over all compensation matters relating to executive officers.

Elements of Executive Compensation

Although the Compensation Committee has not adopted any formal guidelines for allocating total compensation between equity compensation and cash compensation, it strives to maintain a strong link between executive incentives and the creation of shareholder value. Therefore, the Company emphasizes incentive compensation in the form of stock options rather than base salary.

Executive compensation consists of the following elements:

Base Salary. Base salaries for our executives are generally established based on the scope of their responsibilities, taking into account what the Compensation Committee believes to be, based on its general business experience, competitive market compensation paid by other companies for similar positions and recognizing cost of living considerations. Prior to making its recommendations and determinations, the Compensation Committee reviews each executive's:

- historical pay levels;
- past performance; and
- expected future contributions.

The Compensation Committee does not use any particular indices or formulae to arrive at each executive's recommended pay level. Evaluations of past performance are made on a strictly qualitative basis, and may include such factors as leadership performance, contribution to the officer group, overall performance, continuous improvements, and other appropriate measures. In making decisions as to the base salaries of the Company's executive officers, the Compensation Committee does not engage in benchmarking by using specific compensation data about other companies as a reference point.

Equity Awards. We also use long-term incentives in the form of stock options. Employees and executive officers generally receive stock option grants at the commencement of employment and periodically receive additional stock option grants, typically on an annual basis. We believe that stock options are instrumental in aligning the long-term interests of the Company's employees and executive officers with those of the shareholders because such individuals realize gains only if the stock price increases. Stock options also help to balance the overall executive compensation program, with base salary providing short-term compensation and stock options rewarding executives for long-term increases in shareholder value.

Options are generally granted through our June 2004 Compensatory Stock Option Plan that authorizes us to grant options to purchase shares of common stock to our employees, directors, and consultants. The Compensation Committee reviews and approves stock option awards to executive officers in amounts that are based upon a review and assessment of:

- individual performance;
- each executive's existing long-term incentives; and
- retention considerations.

Periodic stock option grants are made at the discretion of the Compensation Committee to eligible employees and, in appropriate circumstances, the Compensation Committee considers the recommendations of members of management, such as the Chief Executive Officer. In determining the amount of any equity award, the Compensation Committee gives subjective consideration to our named executive officers' contributions towards the achievement of the goals of the Company. In 2008, each named executive officer was awarded stock options in the amounts indicated in the section entitled "Grants of Plan-Based Awards." Stock options are granted with an exercise price equal to the fair market value of our common stock on the day of grant and typically vest ratably over a three-year period.

Section 162(m) Policy

Section 162(m) of the Internal Revenue Code limits the tax deductibility by public companies of compensation in excess of $1 million paid to certain executive officers. These officers include any employee who, as of the close of the taxable year, is the principal executive officer, and any employee whose total compensation for the taxable year is required to be reported to shareholders under the Exchange Act by reason of such employee being among the three highest compensated officers for that taxable year, other than the principal executive officer or the principal financial officer. However, compensation which qualifies as "performance-based" is excluded from the $1 million limit if, among other requirements, the compensation is payable only upon attainment of pre-established, objective performance goals under a plan approved by the corporation's shareholders.

It is our policy to qualify, to the extent reasonable, our executive officers' compensation for deductibility under applicable tax law. However, we intend to retain the flexibility necessary to provide total cash compensation in line with competitive practice, our compensation philosophy, and our best interests. Therefore, we may from time to time pay compensation to our executive officers that may not be deductible.

Executive Officer Compensation

2008 Summary Compensation Table

The following table sets forth certain information concerning compensation earned by or paid to certain persons who we refer to as our "Named Executive Officers" for services provided for the fiscal year ended December 31, 2008. Our Named Executive Officers include persons who (i) served as our principal executive officer or acted in a similar capacity during 2008; (ii) were serving at fiscal year-end as our two most highly compensated executive officers, other than the principal executive officer, whose total compensation exceeded $100,000, and (iii) up to two additional individuals for whom disclosure would have been provided as a most highly compensated executive officer, but for the fact that the individual was not serving as an executive officer at fiscal year-end.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Other Compensation ($)[6]	Options Awards ($)[7]	Total ($)
Neil K. Warma[1]	2008	195,100	—	62,487	72,869	330,456
CEO, President, Director	2007	—	—	—	—	—
David B. McWilliams[2]	2008	148,959	—	—	700,059	849,018
CEO, President, Director	2007	275,000[8]	—	—	411,807	686,807
Jim C. Williams[3]	2008	225,750[9]	—	—	161,466	387,216
Chief Operating Officer	2007	225,750[9]	—	—	449,024	674,774
Lynne Hohlfeld[4]	2008	175,000[10]	—	—	135,135	310,135
CFO and Secretary	2007	175,000[10]	—	—	102,700	277,700
Donna R. Rill[5]	2008	141,886[11]	—	—	110,402	252,288
Senior V.P. of Operations	2007	137,940	10,000	—	234,598	382,538

(1) Served as president and chief executive officer since June 2008.

(2) Served as president and chief executive officer from August 2004 to June 2008.

(3) Served as an executive officer from June 2007 to February 2009.

(4) Served as chief financial officer from June 2006 to March 2009.

(5) Named as an executive officer in June 2007.

(6) Other compensation includes costs of moving and temporary housing.

(7) Reflects the dollar amount recognized for financial statement reporting purposes for the year ended December 31, 2008 in accordance with FAS 123(R) (but disregarding forfeiture estimates related to service-based vesting conditions) and, accordingly, includes amounts from options granted in prior years. See the information appearing under the heading entitled "Stock Options and Warrants" in Note 10 to our consolidated financial statements included as part of our Annual report on Form 10-K for the fiscal years ended December 31, 2008 and 2007 for certain assumptions made in the valuation of options granted during 2008 and 2007. See the information appearing in Note 11 to our consolidated financial statements included in our Form 10-KSB for the fiscal year ended December 31, 2006 for assumptions made in the valuation of options granted in prior years.

(8) Mr. McWilliams' salary was increased to $288,750 effective April 1, 2007. However, the increase in salary was accrued but not paid. As of December 31, 2008, the outstanding amount due Mr. McWilliams was $17,188.

(9) Dr. Williams' salary was increased to $237,038 effective April 1, 2007 and to $248,890 effective April 1, 2008. However, the increase in salary was accrued but not paid. As of December 31, 2008, the outstanding amount due Dr. Williams was $28,643. On February 6, 2009, Dr. Williams exchanged the outstanding salary due for a fully vested stock option to purchase 28,643 shares of Opexa common stock at an exercise price of $0.47 per share.

(10) Ms. Hohlfeld's salary was increased to $183,750 effective April 1, 2007 and to $192,938 effective April 1, 2008. However, the increase in salary was accrued but not paid. As of December 31, 2008, the outstanding amount due Ms. Hohlfeld was $22,203.

(11) Ms. Rill's salary was increased to $151,114 effective April 1, 2008. However, the increase in salary was accrued but not paid. As of December 31, 2008, the outstanding amount due Ms. Rill was $8,396. On February 6, 2009, Ms. Rill exchanged the outstanding salary due for a fully vested stock option to purchase 8,396 shares of Opexa common stock at an exercise price of $0.47 per share.

Executive Employment Agreements

The Company entered into a three-year employment agreement on June 16, 2008 with Neil K. Warma pursuant to which he will serve as president and chief executive officer. Pursuant to the agreement, Mr. Warma is paid $285,000 for the first 12-month period, $335,000 for the second 12-month period and $385,000 for the third 12-month period. In addition, Mr. Warma is entitled to the following: (i) an annual cash bonus of up to 50% of his base salary based upon milestones to be agreed upon; (ii) a one-time payment of $50,000 cash and 25,000 shares of the Company's common stock to be issued if and when the closing bid price of the Company's common stock equals or exceeds $4.00 for 20 consecutive trading days; and (iii) a 10-year stock option to purchase 250,000 shares of common stock with an exercise price of $1.01 per share that vests 50,000 shares immediately and the balance quarterly in equal amounts over three years. In addition, the Company provided Mr. Warma with relocation assistance and the Company's standard benefits and insurance coverage as generally provided to its management. If employment is terminated by the Board without cause, Mr. Warma will receive 12 months base salary plus a payment equal to 30% of base salary and including any earned but unpaid bonus. In addition, vesting of stock options will accelerate in full if the effective date of the termination is at least two years after commencement of employment or vesting will be accelerated for a 12-month period if termination is prior to two years of employment. Upon the effectiveness of a change in control, Mr. Warma will receive 18 months of salary and a payment equal to 45% of base salary. All vesting of options will accelerate in full.

The Company entered into a one-year employment agreement with Donna Rill on May 9, 2008, effective April 1, 2008 through March 31, 2009, at an annual salary of $151,114 pursuant to which Ms. Rill served as vice-president of operations of the Company. On January 16, 2009, Ms. Rill was promoted to senior vice president of the Company at an annual salary of $200,000. The Company entered into a new one-year employment agreement with Ms. Rill on April 14, 2009, effective April 1, 2009 through March 31, 2010. The employment agreement may be terminated at any time voluntarily by her or without cause by the Board. If employment is terminated by the Board without cause, Ms. Rill will receive six months base salary and any and all stock options granted to Ms. Rill prior to termination will be accelerated for a 12-month period. Ms. Rill will have one year to exercise any vested stock options. In the event of a change of control, any and all stock options granted to Ms. Rill prior to such change of control will be accelerated to become vested and Ms. Rill will have one year to exercise any vested stock options.

2008 Grants of Plan Based Awards

The following table presents each grant of stock options in 2008 to the Named Executive Officers.

Name	Grant Date	Number of Securities Underlying Options	Exercise Price of Option Awards	Grant Date Fair Value of Options
Neil K. Warma	06/16/08	250,000(1)	$1.01	$216,866
David B. McWilliams	05/06/08	8,700(2)	$1.09	$ 7,950
	06/26/08	39,000(3)	$1.17	$ 39,133
Jim C. Williams	05/06/08	10,300(4)	$1.09	$ 9,411
	06/26/08	23,000(5)	$1.17	$ 23,079
Lynne Hohlfeld	05/06/08	8,000(4)	$1.09	$ 7,310
	06/26/08	21,000(6)	$1.17	$ 21,072
Donna R. Rill	05/06/08	3,000(4)	$1.09	$ 2,741
	06/26/08	33,000(7)	$1.17	$ 33,113

(1) 50,000 options vested upon date of grant, balance of 200,000 options vest quarterly over three years.

(2) Accelerated vesting on 6/16/2008 upon retirement from the Company.

(3) Vested immediately on date of grant.

(4) Fully vested at 12/31/2008.

(5) Accelerated vesting on 2/13/2009 upon retirement from the Company.

(6) 17,500 shares forfeited upon departure from the Company in March 2009.

(7) Vest quarterly over three years from date of grant.

Each of the options in the foregoing table was granted under the Company's June 2004 Compensatory Stock Option Plan.

2008 Outstanding Equity Awards at Fiscal Year-End

The following table presents information regarding outstanding equity awards at the end of 2008 for each of the Named Executive Officers.

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Neil K. Warma	83,334	166,666(1)	1.01	06/16/18
David B. McWilliams	37,000	—	30.00	08/31/09
	5,000	—	30.00	01/21/10
	120,000	—	5.00	05/02/16
	41,000	—	5.47	06/18/17
	8,700	—	1.09	05/06/18
	39,000	—	1.17	06/26/18
	5,000	5,000(2)	1.17	06/26/18
Jim C. Williams	12,500	—	30.00	11/06/09
	9,375	3,125(3)	7.00	12/05/10
	28,583	14,292(3)	5.00	04/20/16
	10,000	20,000(3)	5.47	06/18/17
	10,300	—	1.09	05/06/18
	3,833	19,167(3)	1.17	06/26/18
Lynne Hohlfeld	15,000	7,500(4)	5.00	04/20/16
	8,333	4,167(4)	8.25	07/12/16
	10,667	21,333(4)	5.47	06/18/17
	8,000	—	1.09	05/06/18
	3,500	17,500(4)	1.17	06/26/18
Donna R. Rill	6,000	—	30.00	11/06/09
	4,500	1,500(5)	7.00	12/05/10
	15,587	7,793(6)	5.00	04/20/16
	10,667	21,333(7)	5.47	06/18/17
	3,000	—	1.09	05/06/18
	5,500	27,500(8)	1.17	06/26/18

(1) Vests quarterly over three years from the 6/16/08 grant date.

(2) Vested on 6/26/09.

(3) Vested on 2/13/09.

(4) Options subsequently forfeited upon departure from the Company in March 2009.

(5) Vests on 12/5/09.

(6) Vested on 4/20/09.

(7) 10,668 vested on 6/18/09 and 10,667 vests on 6/18/10.

(8) Vests quarterly over three years from the 6/26/08 grant date.

Certain Relationships and Related Transactions

The Audit Committee of our Board is responsible for oversight and review of any related person transactions. We have no related person transactions that require disclosure under this section.

SECURITY OWNERSHIP OF PRINCIPAL SHAREHOLDERS AND MANAGEMENT

Beneficial Ownership

The following table sets forth, as of September 21, 2009, the number and percentage of outstanding shares of our common stock beneficially owned by: (a) each person who is known by us to be the beneficial owner of more than 5% of our outstanding shares of common stock; (b) each of our directors and nominees; (c) the Named Executive Officers; and (d) all current directors and executive officers, as a group. As of the Record Date, there were 12,737,926 shares of common stock issued and outstanding.

Beneficial ownership has been determined in accordance with Rule 13d-3 under the Exchange Act. Under this rule, certain shares may be deemed to be beneficially owned by more than one person (if, for example, persons share the power to vote or the power to dispose of the shares). In addition, shares are deemed to be beneficially owned by a person if the person has the right to acquire shares (for example, upon exercise of an option or warrant) within 60 days of the date as of which the information is provided. In computing the percentage ownership of any person, the amount of shares is deemed to include the amount of shares beneficially owned by such person by reason of such acquisition rights. As a result, the percentage of outstanding shares of any person as shown in the following table does not necessarily reflect the person's actual voting power at any particular date.

To our knowledge, except as indicated in the footnotes to this table and pursuant to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them.

Name and Address of Beneficial Owner[1]	Number of Shares Owned	Percentage of Class
Beneficial Owners of more than 5%:		
Charles E. Sheedy[2]	1,406,408[3]	10.502%
Albert and Margaret Alkek Foundation[4]	1,314,888[5]	9.999%
LB I Group Inc.[6]	1,340,101[7]	9.999%
Alkek & Williams Ventures Ltd.[8]	1,179,297[9]	8.735%
DLD Family Investments, LLC[10]	979,354[11]	7.350%
SF Capital Partners Ltd.[12]	851,514[13]	6.432%
Officers and Directors:		
David E. Jorden	1,353,230[14]	9.999%
Scott B. Seaman[8]	1,364,041[15]	9.999%
David B. McWilliams	275,668[16]	2.118%
Neil K. Warma	227,710[17]	1.757%
Donna R. Rill	100,219[18]	*
Michael S. Richman	95,650[19]	*
David Hung	68,105[20]	*
All directors and executive officers as a group (7 persons)**	3,484,623[21]	22.93%

* Less than 1%

** Includes only current directors and officers serving in such capacity on the Record Date.

(1) Unless otherwise indicated in the footnotes, the mailing address of the beneficial owner is c/o Opexa Therapeutics, Inc., 2635 North Crescent Ridge Drive, The Woodlands, Texas 77381.

(2) Charles E. Sheedy exercises sole voting and dispositive power over all of the shares of common stock beneficially owned. The information in this footnote is primarily based on information reported on the Schedule 13G/A filed with the SEC on July 23, 2009 by Charles E. Sheedy. The mailing address of the beneficial owner is 909 Fannin Street, Suite 2907, Houston, Texas 77010.

(3) 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.

(4) 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. The mailing address of the beneficial owner is 1100 Louisiana, Suite 5250, Houston, Texas 77002.

(5) 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.

(6) Lehman Brothers Holdings Inc. exercises sole voting and dispositive power over all of the shares of common stock beneficially owned by LBI Group Inc. The information in this footnote is primarily based on information reported on the Schedule 13G filed with the SEC on August 19, 2008 by LBI Group Inc. The mailing address of the beneficial owner is 399 Park Avenue, New York, New York 10022.

(7) Consisting of: (i) 675,675 shares of common stock and (ii) 664,426 shares of common stock underlying Series F warrants. Excludes 11,249 shares of Company common stock underlying Series F warrants that LBI Group Inc. is contractually prohibited from exercising 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.

(8) Chaswil, Ltd. is the investment manager of Ventures and holds voting power and investment power with respect to Company securities held by Ventures pursuant to a written agreement. Scott B. Seaman is a principal of Chaswil, Ltd. and has shared voting power and shared investment power over all of the shares of common stock beneficially owned by Ventures. The information in this footnote is primarily based on the Foundation 13D and other information provided to us. The mailing address of the beneficial owner is 1100 Louisiana, Suite 5250, Houston, Texas 77002.

(9) 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) 52,870 shares of common stock underlying Series F warrants; and (vi) 366,667 shares of common stock underlying the Series G warrants. Excludes 33,333 shares underlying the convertible notes and 200,000 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.

(10) 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. The mailing address of the beneficial owner is P.O. Box 4735, Houston, Texas 77210-4735.

(11) 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.

(12) Michael A. Roth and Brian J. Stark exercise joint voting and dispositive power over all of the shares of common stock beneficially owned by SF Capital Partners Ltd., but Messrs Roth and Stark disclaim beneficial ownership of such shares. The information in this footnote is primarily based on a Schedule 13G reported with the SEC on February 17, 2009 and other information provided to us. The mailing address of SF Capital Partners Ltd. is c/o Stark Offshore Management, LLC, 3600 South Lake Drive, St. Francis, Wisconsin 53235.

(13) Consisting of: (i) 351,514 shares of common stock and (ii) 500,000 shares of common stock underlying the April 2006 warrants held by SF Capital Partners Ltd.

(14) 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.

(15) Consisting of: (i) 103,150 shares underlying stock options; (ii) 416,537 shares of common stock held by Ventures; (iii) 18,223 shares of common stock underlying Series C warrants held by Ventures; (iv) 125,000 shares of common stock underlying the April 2006 warrants held by Ventures; (v) 200,000 shares of common stock underlying Series E warrants held by Ventures; (vi) 52,870 shares of common stock underlying Series F Warrants held by Ventures; (vii) 366,667 shares of common stock underlying the Series G warrants held by Ventures; (viii) 5,334 shares of common stock underlying Series C warrants; (ix) 7,500 shares of common stock underlying the April 2006 warrants; (x) 10,000 shares of common stock underlying Series E warrants; (xi) 15,105 shares of common stock underlying Series F warrants; and (xii) 43,655 shares of common stock. (See footnote 9 for additional discussion of the information set forth in clauses (i) through (vii) of the preceding sentence.) Pursuant to the Foundation 13D, this does not include the following shares which Mr. Seaman has determined he does not have beneficial ownership of or has disclaimed beneficial ownership: (i) 902,618 shares of common stock held by the Foundation; (ii) 22,223 shares of common stock underlying Series C warrants held by the Foundation; (iii) 250,000 shares of common stock underlying he April 2006 warrants held by the Foundation; (iv) 250,000 shares of common stock underlying Series E warrants held by the Foundation; (v) 135,951 shares of common stock underlying Series F warrants held by the Foundation; (vi) 250,000 shares of common stock underlying Series G warrants held by the Foundation; and (vii) 109, 952 shares of common stock resulting from the potential conversion of the April 2009 convertible notes held by the Foundation. (See footnote 5 for additional discussion of the information set forth in clauses (i) through (vii) of the preceding sentence.) The mailing address of the beneficial owner is 1100 Louisiana, Suite 5250, Houston, Texas 77002.

(16) Consisting of: (i) 6,968 shares of common stock underlying Series C warrants and (ii) 268,700 shares of common stock underlying currently exercisable stock options.

(17) 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) 191,668 shares of common stock underlying currently exercisable stock options.

(18) Consisting of: (i) 2,610 shares of common stock and (ii) 97,609 shares of common stock underlying currently exercisable stock options.

(19) Consisting of 95,650 shares of common stock underlying currently exercisable stock options.

(20) Consisting of: (i) 15,105 shares of common stock underlying Series F warrants and (ii) 53,000 shares of common stock underlying currently exercisable stock options.

(21) Consisting of: (a) the following held by Mr. Jorden (i) 60,000 shares of common stock underlying the April 2006 warrants; (ii) 150,000 shares of common stock underlying Series E warrants; (iii) 257,516 shares of common stock underlying Series F warrants; (iv) 28,214 shares of common stock underlying currently exercisable stock options; (v) 200,000 shares of common stock underlying convertible promissory notes; (vi) 100,000 shares underlying Series G warrants; and (vii) 557,500 shares of common stock; (b) the following held by Mr. Seaman or for which Mr. Seaman may be deemed to have voting and investment power: (i) 103,150 shares of common stock underlying currently exercisable stock options; (ii) 416,537 shares of common stock held by Ventures; (iii) 18,223 shares of common stock underlying Series C

warrants held by Ventures; (iv) 125,000 shares of common stock underlying April 2006 warrants held by Ventures; (v) 200,000 shares of common stock underlying Series E warrants held by Ventures; (vi) 52,870 shares of common stock underlying Series F warrants held by Ventures; (vii) 366,667 shares of common stock underlying convertible promissory notes; (viii) 5,334 shares of common stock underlying Series C warrants; (ix) 7,500 shares of common stock underlying the April 2006 warrants; (x) 10,000 shares of common stock underlying Series E warrants; (xi) 15,105 shares of common stock underlying Series F warrants; and (xii) 43,655 shares of common stock; (c) the following held by Mr. McWilliams (i) 268,700 shares of common stock underlying currently exercisable stock options and (ii) 6,968 shares of common stock underlying Series C warrants; (d) the following held by Dr. Hung (i) 15,105 shares of common stock underlying warrants and (ii) 53,000 shares of common stock underlying currently exercisable stock options; (e) the following held by Mr. Warma (i) 3,021 shares of common stock; (ii) 3,021 shares underlying Series F warrants; (iii) 20,000 shares underlying convertible promissory notes; (iv) 10,000 shares underlying Series G warrants; and (v) 191,668 shares of common stock underlying currently exercisable stock options; (f) 95,650 shares underlying currently exercisable stock options held by Mr. Richman and (g) 2,610 shares of common stock and 97,609 shares of common stock underlying currently exercisable stock options held by Ms. Rill.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and executive officers, and persons who own more than 10% of a registered class of our equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership. These reporting persons are required by SEC regulations to furnish us with copies of all such reports they file. To our knowledge, based solely on our review of the copies of such reports furnished to us and written representations from certain insiders that no other reports were required, we believe all of the reporting persons complied with all Section 16(a) filing requirements.

HOUSEHOLDING

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more shareholders sharing the same address by delivering a single proxy statement addressed to those shareholders. This process, which is commonly referred to as "householding," potentially means extra convenience for shareholders and cost savings for companies.

A number of brokers with account holders who are our shareholders may be "householding" our proxy materials. If householding is in effect, a single proxy statement will be delivered to multiple shareholders sharing an address unless contrary instructions have been received from the affected shareholders. Once you have received notice from your broker that they will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate proxy statement and annual report, please notify your broker, or direct a written request to Investor Relations, Opexa Therapeutics, Inc., 2635 North Crescent Ridge Drive, The Woodlands, Texas 77381, or call Investor Relations at (281) 272-9331. Shareholders who currently receive multiple copies of the proxy statement and/or annual report at their address and would like to request "householding" of their communications should contact their broker.

OTHER BUSINESS

The Board knows of no other business to come before the Annual Meeting. However, if any other matters are properly brought before the Annual Meeting, the person named in the accompanying form of proxy or his or their substitutes will vote in their discretion on those matters.

By Order of the Board of Directors

Neil K. Warma
President and Chief Executive Officer

October 2, 2009
The Woodlands, Texas

WHETHER OR NOT YOU PLAN TO ATTEND THE ANNUAL MEETING, PLEASE COMPLETE, SIGN, DATE, AND PROMPTLY RETURN THE ACCOMPANYING PROXY IN THE ENCLOSED ENVELOPE OR BY FAX AT (281) 872-8585. YOU MAY REVOKE YOUR PROXY AT ANY TIME PRIOR TO THE ANNUAL MEETING. IF YOU DECIDE TO ATTEND THE ANNUAL MEETING AND WISH TO CHANGE YOUR PROXY VOTE, YOU MAY DO SO AUTOMATICALLY BY VOTING IN PERSON AT THE MEETING.

THANK YOU FOR YOUR ATTENTION TO THIS MATTER. YOUR PROMPT RESPONSE WILL GREATLY FACILITATE ARRANGEMENTS FOR THE ANNUAL MEETING.

If you need additional copies of this Proxy Statement or the enclosed proxy card, or if you have other questions about the proposals or how to vote your shares, you may contact our proxy solicitor:

Advantage Proxy
(877) 870-8565 (toll free)

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2008

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number: 001-33004

Opexa Therapeutics, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Texas	76-0333165
(State or Other Jurisdiction of Incorporation or Organization)	(IRS Employer Identification No.)
2635 N Crescent Ridge Drive, The Woodlands, Texas	77381
(Address of Principal Executive Offices)	(Zip Code)

Registrant's Telephone Number, Including Area Code: (281) 272-9331

Securities registered pursuant to Section 12(b) of the Act: Series E Warrant

Securities registered pursuant to Section 12(g) of the Act: Common Stock

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☑

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☑

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 the definitions 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 a smaller reporting company)	☑ Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

As of April 13, 2009, 12,245,858 shares of the registrant's common stock, par value $0.50 per share, were outstanding. The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of April 13, 2009 based upon the closing price as of such date was approximately $4.4 million.

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Forward Looking Statements

The statements contained in this report, other than statements of historical fact, constitute forward-looking statements. Such statements include, without limitation, all statements as to expectation, belief, estimation, intent, anticipation, development, trial, contingency and statements as to our future results of operations, the progress of our research and product development programs, the need for, and timing of, additional capital and capital expenditures, partnering prospects, the need for additional intellectual property rights, effects of regulations, and the potential market opportunities. These statements relate to events and/or future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements or the industry in which we operate to be materially different from any future results, levels of activity, performance or achievements expressed or implied by the forward-looking statements. These risks and other factors include those listed under "Risk Factors" and those described elsewhere in this report.

In some cases, you can identify forward-looking statements by our use of terms such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "intends," "predicts," "potential," or the negative of these terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially. In evaluating these statements, you should specifically consider various factors, including the risks outlined under "Risk Factors." These factors may cause our actual results to differ materially from any forward-looking statement. Factors that could affect our actual results and could cause actual results to differ materially from those in forward-looking statements include, but are not limited to, the following:

- *Our ability to raise capital to finance our operations and continue as a going concern beyond August 2009;*
- *Our ability to advance the clinical development of our products in a timely manner;*
- *Our ability to compete in the markets in which we expect to market our products;*
- *Our ability to generate revenue from the commercialization and sale of our products;*
- *Our ability to obtain regulatory approval for our products from the FDA;*
- *Our ability to ensure the safety and efficacy of our products;*
- *Our ability to obtain and protect proprietary technologies;*
- *Our ability to attract and retain talented employees;*
- *Our ability to manufacture our products on a commercial-scale;*
- *Our ability to meet our obligations under our license agreements;*
- *The availability of third party reimbursement policies to sustain a market for our products;*
- *The acceptance of our product candidates in the medical community; and*
- *A variety of other risks common to our industry and development stage companies, including ongoing regulatory review, legislative and regulatory changes and public and investment community perceptions of our industry.*

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. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of these forward-looking statements. We do not intend to update any of the forward-looking statements after the date of this report to conform prior statements to actual results.

PART I

ITEM 1. BUSINESS.

Overview

Unless otherwise indicated, we use "Opexa," "the Company," "we," "our" and "us" in this annual report to refer to the businesses of Opexa Therapeutics, Inc.

We are a biopharmaceutical company developing autologous cellular therapies with the potential to treat major illnesses, including multiple sclerosis (MS) and diabetes. These therapies are based on our proprietary T-cell and adult stem cell technologies. 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).

T-Cell Therapy

We have an exclusive worldwide license from Baylor College of Medicine (or Baylor) to an individualized T-cell therapeutic vaccine, Tovaxin®, which is in clinical development for the treatment of MS.

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 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 percent 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 percent 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;

Stem Cell Therapy

We have developed a proprietary adult stem cell technology to produce monocyte-derived stem cells (MDSC) from blood. These MDSC can be derived from a patient's monocytes, expanded in our laboratories, and then administered to the same patient. We believe that because this is an autologous therapy, there should be no immunological problems. Normally, allogenic cells trigger host immune responses and require the use of anti-rejection drugs.

Our multi-potent stem cell is derived from peripheral blood monocytes which when cultured under defined conditions are able to further differentiate into several cellular lineages. Molecular biology and cellular analysis studies have shown that these MDSCs have specific markers that distinguish them from other stem cells. In addition these studies have also shown a time-dependence for the expression of these markers during the growth and differentiation of MDSCs. *In vitro* experiments with MDSCs have shown their capacity to differentiate as hematopoietic, epithelial, endothelial, endocrine and neuronal cells. Our main focus is the further development of this monocyte-derived stem cell (MDSC) technology as a platform for the *in vitro* generation of highly specialized cells for potential application in autologous cell therapy for patients with diseases such diabetes mellitus and cardiovascular disease.

Other Opportunities

We may conduct basic research to determine the potential use of stem cells and differentiated cells in other indications, such as macular degeneration, stroke, myocardial infarction, wound healing and Parkinson's disease. We will attempt to partner or sublicense some of these indications if they are not pursued for internal development. For those indications where we believe we can participate commercially, we also desire to partner in key commercial markets outside of the U.S.

Our proprietary T-cell technology has enabled us to develop intellectual property and a knowledge/sample database that may enable discovery of the most relevant peptides to be used to treat MS patients. We may conduct research to identify the most promising peptide targets that could lead to customized off the shelf approaches based on a patient's shifting epitope profile.

Our Products and Services

Our T-cell Platform

Multiple Sclerosis—Background

In the U.S., approximately 400,000 people suffer from MS, a chronic progressive autoimmune disease of the central nervous system (CNS) that is caused by myelin autoreactive T-cells progressively eroding the myelin that surrounds and insulates nerve fibers of the brain and spinal cord resulting in varying amounts of disability. Globally, there are approximately 2.5 million MS patients representing a drug market believed to be approximately $6 billion in 2007. The US markets accounted for slightly more than 65 percent of global MS sales in 2007, approximately $3.5 billion. From 2004 to 2007, the market grew at a compound annual growth rate (CAGR) of 15%. The MS market is forecast to continue growing at a CAGR of approximately 7%, reaching $10 billion by 2016.

Multiple sclerosis remains a challenging autoimmune disease to treat because the pathophysiologic mechanisms are diverse, and the chronic, unpredictable course of the disease makes it difficult to determine

whether the favorable effects of short-term treatment will be sustained. Therapies that are easy to use and can safely prevent or stop the progression of disease represent the greatest unmet need in MS.

In recent years, the understanding of MS pathogenesis has evolved to comprise an initial, T-cell-mediated inflammatory activity followed by selective demyelination (erosion of the myelin coating of the nerve fibers) and then neurodegeneration. The discovery of disease-relevant immune responses has accelerated the development of targeted therapeutic products for the treatment of the early stages of MS.

Some subjects, who have the appropriate genetic background, have increased susceptibility for the *in vivo* activation and expansion of myelin autoreactive T-cells. These myelin autoreactive T-cells may remain dormant, but at some point they are activated in the periphery, thus enabling them to cross the blood-brain barrier (BBB) and infiltrate the healthy tissue of the brain and spinal cord. The cascade of pathogenic events leads to demyelination of axons, which causes nerve impulse transmissions to diffuse into the tissue resulting in disability to the subject.

Current Therapy for Multiple Sclerosis

Current MS disease modifying drugs on the market are mostly palliative and generally work by modulation or suppression of the immune system. These therapies for MS are dominated by three forms of interferon that when used as therapies, require frequent subcutaneous or intramuscular injections (Avonex®, Betaseron® and Rebif®). Copaxone® is an immunomodulator that is administered daily. Novantrone® (mitoxanthrone) is an immunosuppressive drug that can only be given four times per year with a lifetime limit of 8 to 12 doses. All of the current therapies only claim to slow the progression of MS and present significant patient compliance challenges because of the dosing schedule, limited decrease in relapse rate and side effects profile. The interferon formulations produce severe flu-like symptoms, injection site reactions, infection and neutralizing antibodies (ranging from 5% to 45%) that limit the efficacy of treatment. Copaxone® causes significant injection site reactions; while Novantrone® causes infections, bone marrow suppression, nausea, hair thinning, bladder infections, and mouth sores. These drugs must be administered daily to weekly. Tysabri®, a selective adhesion molecule inhibitor (an alpha 4 integrin antagonist), represents another class of MS drugs that works by preventing immune system cells from crossing the BBB and from moving into the central nervous system (CNS). Tysabri® requires a once per month infusion and has been reintroduced to the market after being originally withdrawn in 2005 based on safety concerns over several patient deaths due to a virally mediated brain inflammation.

Tovaxin for Multiple Sclerosis

We believe that Tovaxin works selectively on the myelin autoreactive T-cells by harnessing the body's natural immune defense system and feedback mechanisms to deplete these T-cells and induce favorable immune regulatory responses by rebalancing the immune system. Tovaxin is manufactured by taking the MRTCs from the blood, expanding them to a therapeutic dose *ex-vivo*, and attenuating them with gamma irradiation to prevent DNA replication. These attenuated MRTCs are then injected subcutaneously into the body in large quantities. The body recognizes specific T-cell receptor molecules of these MRTCs as foreign and mounts an immune response reaction against them, not only destroying the injected attenuated MRTCs, but also the circulating, myelin autoreactive T-cells carrying the peptide-specific T-cell receptor molecules. In addition, T-cell activation molecules on the surface of the activated MRTCs used as vaccine induce favorable immune regulatory responses, which promote anti-inflammatory responses. Because the therapy uses an individual's own cells, the only directly identifiable side effect, observed thus far, is injection site reaction in a small percentage of the patients. These reactions are minor and generally clear within 24 hours.

We believe that this technology platform may have applications in other T-cell mediated autoimmune diseases such as Crohn's disease, psoriasis, rheumatoid arthritis and Type 1 diabetes.

Tovaxin Manufacturing

We manufacture our TCV therapy in our own Good Manufacturing Practice ("cGMP") facility. The TCV technology used to produce Tovaxin is similar to that of traditional microbial vaccine technology, where the pathogen (or the attenuated derivative) is used to derive the protective antigens necessary to induce protective immune responses. In preparing the Tovaxin for a patient, the myelin autoreactive T-cells causing the disease are taken from the blood, specifically identified, and expanded *ex vivo* by incubating these T-cells with selected peptides in the presence of antigen-presenting cells and growth factors. Myelin-peptide reactive T-cells are grown to therapeutic levels and cryopreserved. Prior to use, the MRTCs are expanded, formulated, and attenuated (by irradiation) to render them incompetent to replicate but viable for therapy. These attenuated T-cells are administered in a defined schedule of subcutaneous injections. We have shown that a single draw of a 500 ml bag of patient blood is sufficient to provide a full year's therapeutic regimen of Tovaxin.

Clinical Development of Tovaxin

In August 2008 we completed a Phase IIb clinical trial of Tovaxin in patients with Relapsing Remitting Multiple Sclerosis, which demonstrated a positive trend in the reduction in annualized relapse rate (ARR) for patients treated with Tovaxin as compared to placebo. Top-line results from the study showed that Tovaxin-treated patients experienced an ARR of 0.214 as compared to 0.339 for placebo-treated patients, which represented a 37 percent decrease in ARR for Tovaxin as compared to placebo in the general population. Additionally, in the group of patients with more active disease as measured by an ARR > 1 at study entry, Tovaxin demonstrated a 55 percent reduction in ARR as compared to placebo.

The study also demonstrated that Tovaxin was safe and well tolerated with no serious adverse events related to treatment. The most common adverse event related to Tovaxin was mild injection site reaction. We believe that this favorable safety profile may be an important advantage as patient compliance represents a significant challenge due to serious side effects associated with many currently available and in development MS treatments.

In November 2008, Opexa implemented a restructuring plan to terminate the one-year open label extension of the TERMS Phase IIb Clinical Trial of Tovaxin® therapy for multiple sclerosis (OLTERMS). The trial was enrolled with patients that had previously completed one year in the TERMS, Tovaxin Phase IIb multi-center, randomized, double blind, placebo-controlled trial. The Company terminated OLTERMS to conserve financial resources for clinical data analysis, future clinical trial planning and seeking a development partner for Tovaxin. Our ability to move forward the clinical development of Tovaxin will rely on obtaining a development partner.

Our Adult Stem Cell Platform

Stem Cells—Background

Stem cells are undifferentiated primary cells that have the potential to become any tissue or organ of the body. They hold therapeutic promise for the development of effective treatments and possibly cure for various diseases. The current stem cell research efforts have been divided between embryonic and tissue specific adult stem cells as potential therapeutic progenitor cells. Recent experiments with embryonic stem (ES) cells have demonstrated that these highly proliferative, pluripotent cells can differentiate into pancreatic-like ß-cells. A major concern with ES cells is their pluripotency and risk that these cells, once transplanted, could form tumors. Adult tissue-specific stem cells may be an attractive alternative to ES cells due to several key advantages; first, these cells can be isolated from a more manageable source such as bone marrow or other tissues; second, they proliferate in a controlled fashion and without the likelihood of tumorogenicity; and third, they can be used in an autologous setting and avoid the potential for rejection which exists for allogenic use of stem cells.

Hematopoietic stem cells (HSC's), present in the bone marrow and precursors to all blood cells, are currently the only type of stem cells commonly used for therapy. Doctors have been transferring HSC's in bone marrow transplants for more than 40 years. Advanced techniques for collecting or "harvesting" HSC's are now used to treat leukemia, lymphoma and several inherited blood disorders.

The clinical potential of stem cells has also been demonstrated in the treatment of other human diseases, including diabetes and advanced kidney cancer. However, these new therapies have been offered only to a very limited number of patients using adult stem cells.

To realize the promise of novel cell-based therapies for such pervasive and debilitating diseases such as diabetes and kidney cancer, scientists must be able to easily and reproducibly manipulate stem cells so that they possess the necessary characteristics for successful differentiation, transplantation and engraftment. To be useful for transplant purposes, stem cells must be reproducibly made to: proliferate extensively and generate sufficient quantities of tissue, differentiate into the desired cell type(s), survive in the recipient after transplant, integrate into the surrounding tissue after transplant, function appropriately for the duration of the recipient's life, avoid harming the recipient in any way, and avoid the problem of immune rejection. There is no assurance that any commercialized cell-based therapies will ever be developed.

Therapies Utilizing Our Stem Cell Platform

We have developed a proprietary adult stem cell technology to produce monocyte-derived stem cells (MDSC) from blood. These MDSC can be derived from a patient's monocytes, expanded *ex vivo*, and then administered to the same patient. We believe that because this is an autologous therapy, there should be no allogenic rejection issues. Normally, allogenic cells are deleted by host immune responses and require the use of anti-rejection drugs.

Our multi-potent stem cell is derived from peripheral blood monocytes which when cultured under defined conditions are able to further differentiate into several cellular lineages. Molecular biology and cellular analysis studies have shown that these MDSCs have specific markers that distinguish them from other stem cells. In addition these studies have also shown a time-dependence for the expression of these markers during the growth and differentiation of MDSCs. In vitro experiments with MDSCs have shown their capacity to differentiate towards hematopoietic, epithelial, endothelial, endocrine and neuronal cells. Our initial focus is the further development of this monocyte-derived stem cell technology as a platform for the *in vitro* generation of highly specialized cells for potential application in autologous cell therapy for patients with diabetes mellitus.

The diabetes program is currently in pre-clinical development and we may choose to continue the development program with a strategic partner.

Pancreatic Islet Cell Development

Diabetes is a disease characterized by the failure or loss of pancreatic ß-cells to generate sufficient levels of the hormone insulin required to maintain normal healthy glucose levels. Type 1 diabetes is caused by the complete loss of pancreatic ß-cells when the body's own immune system mistakenly attacks and destroys a person's ß-cells. While for Type 2 diabetes the causes are far more complicated and poorly understood, the results of the disease are similar in that often the ß-cells fail to generate sufficient amounts of insulin to maintain normal healthy glucose levels. The loss of insulin results in an increase in blood glucose levels that may eventually lead to the development of premature cardiovascular disease, stroke, and kidney failure. Currently there is no permanent cure for diabetes; however, cadaveric-sourced islet cell transplantations have shown good success in restoring long-term endogenous insulin production and glycemic stability in subjects who have Type 1 diabetes mellitus with unstable baseline control. Persistent islet function without injected insulin dependence provides considerable health benefit.

Current cell transplant therapy for the treatment of diabetes is limited by an inadequate supply of insulin-producing cells. Cadaveric sources are limited and up to three pancreata are required to obtain clinically significant quantities of ß-cells for one patient. The identification of adult human stem cells provides a new prospect for obtaining a sufficient number of insulin-producing ß-cells for transplantation. Using our technology a single blood draw may be adequate to produce clinical quantities of ß-cells for a patient.

In vitro experiments with MDSC have shown their capacity to differentiate toward a wide variety of cell types including pancreatic ß-like cells. These cells aggregate into clusters resembling pancreatic Islets of Langerhans termed monocyte derived islets (MDI). The cluster aggregates show endocrine gene expression. Biochemical assays have demonstrated that MDI can synthesize and secrete significant amounts of insulin during their growth and respond in a glucose-dependent manner. In addition, MDI can be stimulated or repressed by the addition of agonists or antagonists of insulin *in vitro*.

These stem cells are important because of our ability to easily and cost effectively derive them from an individual's circulating monocytes, expand them and administer them back into the same patient. This autologous approach provides a method to overcome any rejection issues and the need to suppress the immune system, which are often associated with current transplantations.

Stem Cell Pre-Clinical and Clinical Development

We are planning to conduct pre-clinical studies to demonstrate proof of concept and method of delivery towards preparation of an IND (Investigational New Drug) submission to the FDA.

Licenses, Patents and Proprietary Rights

We believe that proprietary protection of our technologies is critical to the development of our business. We intend to continue to protect our proprietary intellectual property through patents and other appropriate means. We rely upon trade-secret protection for some confidential and proprietary information and take active measures to control access to that information. We currently have non-disclosure agreements with all of our employees, consultants, vendors, advisory board members and contract research organizations.

Our intellectual property strategy includes developing proprietary technology for the sourcing, scale up, manufacturing, and storage of T cells and multipotent adult stem cells and the use of these cells in multiple therapeutic applications. This strategy will include expanding on technologies in-licensed to us as well as in-licensing additional technologies through collaborations with universities and biotech companies.

We have exclusive, worldwide licenses to certain patents and patent applications that relate to our T-cell technology and our multipotent adult stem cell technology. We have begun to engage companies in discussions to possibly partner these technologies.

T-Cell Therapy Intellectual Property

Our T-cell technology is based on discoveries made by Dr. Jingwu Zang at the Baylor College of Medicine in Houston. We have an exclusive, worldwide license from Baylor College of Medicine to develop and commercialize three technology areas for MS, namely T-cell vaccination, peptides, and diagnostics. Under the License Agreement with Baylor College of Medicine, we have rights to a total of 11 issued patents (2 U.S. and 9 foreign) and 80 pending patent applications (6 U.S. and 74 foreign).

The license was granted to us by Baylor in exchange for common stock in Opexa Pharmaceuticals, a company we acquired in November 2004. The license requires us to pay royalties on sales of products covered by the license. We have filed additional patent applications related to T-Cell vaccination for MS.

Stem Cell Therapy Intellectual Property

We have an exclusive, worldwide license from the University of Chicago, through its prime contractor relationship with Argonne National Laboratory, to a patent application related to the development of adult multipotent stem cells from monocytes isolated from adult human peripheral blood. The technology was discovered and developed at the Argonne National Laboratory, a U.S. Department of Energy Laboratory.

Pursuant to the license we have issued a total of 53,462 shares of our common stock and paid $232,742 to the University of Chicago. We will owe milestone payments upon demonstration of efficacy in Phase II clinical studies, submission for product approval to the FDA and approval of licensed products totaling $1,350,000. We will also pay royalties on net sales of products covered by the license.

We have filed additional patent applications related to the process of obtaining monocyte-derived stem cells. In addition, we have filed a patent application for the process of differentiation of MDSCs into monocyte-derived islets which function like pancreatic islet cells.

Our Product Pipeline

Multiple Sclerosis T-Cell Therapy

Tovaxin is being developed as a therapeutic vaccine approach for treating MS, in that it induces the body's immune system to attack the MRTCs that we believe are responsible for destroying the myelin sheath coating of the axons in the central nervous system. We believe that the depletion and regulation of the MRTCs may stop progression of multiple sclerosis. We completed a Phase IIb clinical trial of Tovaxin in August 2008 with 150 MS patients.

Diabetes Stem Cell Therapy

We believe that there are approximately 21 million people in the U.S. who have diabetes. More than 1 million of these people have Type 1 diabetes mellitus. Among adults with diagnosed diabetes, approximately 31% take insulin to control their disease. Research studies have found that improved glycemic control benefits people with either Type 1 or Type 2 diabetes. Islet transplantation using Opexa's proprietary monocyte-derived islet cell may offer the potential to improve glycemic control in a subgroup of patients with Type 1 and Type 2 diabetes mellitus who are disabled by refractory hypoglycemia. We are in preclinical development and we may choose to continue the development program with a strategic partner.

Research Collaborations

We anticipate that from time to time in the future we will enter into collaborative research agreements with other academic and research institutions. We will use such agreements to enhance our research capabilities. Typically, in the industry, such agreements provide the industry partner with rights to license the intellectual property created through the collaboration. We may also enter into collaborative research agreements with other pharmaceutical companies when we believe such collaboration will support the development and commercialization of our technology.

Commercialization Through Third Parties

We anticipate that we will grant sublicenses for certain applications of our technologies. We believe that by sublicensing some of the rights to our technology to pharmaceutical companies and other third parties, we will be able to more efficiently develop some applications of our technologies. We currently do not have any sublicenses.

Competition

The development of therapeutic agents for human disease is intensely competitive. Major pharmaceutical companies currently offer a number of pharmaceutical products to treat MS, heart attack, stroke, Parkinson's disease, diabetes, liver diseases, arthritis and other diseases for which our technologies may be applicable. Many pharmaceutical and biotechnology companies are investigating new drugs and therapeutic approaches for the same purposes, which may achieve new efficacy profiles, extend the therapeutic window for such products, alter the prognosis of these diseases, or prevent their onset. We believe that our products, when and if successfully

developed, will compete with these products principally on the basis of improved and extended efficacy and safety and their overall economic benefit to the health care system. We expect competition to increase. We believe that our most significant competitors will be fully integrated pharmaceutical companies and more established biotechnology companies. Smaller companies may also be significant competitors, particularly through collaborative arrangements with large pharmaceutical or biotechnology companies. Some of our primary competitors in the current treatment of and in the development of treatments for MS include Biogen-Idec, Elan, Merck-Serono, Sanofi-Aventis, Teva, and Bayer/Schering AG. Some of our primary competitors in the development of stem cell therapies include Aastrom Biosciences, Geron, Gamida-Cell Ltd, Stem Cells Inc., Cellerant Therapeutics, and Osiris Therapeutics. Many of these competitors have significant products in development that could be competitive with our potential products.

Sales and Marketing

We may choose to partner with large biotech or pharmaceutical companies for sales and marketing or alternatively develop our own sales force to market our MS cell therapy products in the U.S. Given the concentration of MS treatment among a relatively small number of specialized neurologists, we believe that a modest size sales force would be sufficient to market the MS products.

We will consider partnering with large biotech and pharmaceutical companies to assist with marketing and sales of our MS T-cell products outside the U.S. and for our stem cell therapy products.

Government Regulation

Our research and development activities and the future manufacturing and marketing of our potential products are, and will be, subject to regulation for safety and efficacy by a number of governmental authorities in the United States and other countries.

In the U.S., pharmaceuticals, biologicals and medical devices are subject to FDA regulation. The Federal Food, Drug and Cosmetic Act, as amended, and the Public Health Service Act, as amended, the regulations promulgated thereunder, and other Federal and state statutes and regulations govern, among other things, the testing in human subjects, manufacture, safety, efficacy, labeling, storage, export, record keeping, approval, marketing, advertising and promotion of our potential products. Product development and approval within this regulatory framework takes a number of years and involves significant uncertainty combined with the expenditure of substantial resources.

FDA Approval

We will need to obtain FDA approval of any therapeutic product we plan to market and sell. The FDA will only grant marketing approval if it determines that a product is both safe and effective. The testing and approval process will require substantial time, effort and expense. The steps required before our potential products may be marketed in the U.S. include:

Preclinical Laboratory and Animal Tests. Preclinical tests include laboratory evaluation of the product and animal studies in specific disease models to assess the potential safety and efficacy of the product and our formulation as well as the quality and consistency of the manufacturing process.

Submission to the FDA of an Application for an Investigational New Drug Exemption, or IND, Which Must Become Effective Before U.S. Human Clinical Trials May Commence. The results of the preclinical tests are submitted to the FDA as part of marketing approval authorization, and the IND becomes effective 30 days following its receipt by the FDA, as long as there are no questions, requests for delay or objections from the FDA. The sponsor of an IND must keep the FDA informed during the duration of the study through required amendments and reports, including adverse event reports.

Adequate and Well-Controlled Human Clinical Trials to Establish the Safety and Efficacy of the Product. Clinical trials, which test the safety and efficacy of the product in humans, are conducted in accordance with protocols that detail the objectives of the study, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. Any product administered in a U.S. clinical trial must be manufactured in accordance with Current Good Manufacturing Practice (cGMP or GMP). Each protocol is submitted to the FDA as part of the IND.

The protocol for each clinical study must be approved by an independent Institutional Review Board, or IRB, at the institution at which the study is conducted and the informed consent of all participants must be obtained. The IRB will consider, among other things, the existing information on the product, ethical factors, the safety of human subjects, the potential benefits of the therapy and the possible liability of the institution.

Clinical development is traditionally conducted in three sequential phases, which may overlap:

- In Phase I, products are typically introduced into healthy human subjects or into selected patient populations (i.e., patients with a serious disease or condition under study, under physician supervision, as may be the case with our potential products) to test for adverse reactions, dosage tolerance, absorption and distribution, metabolism, excretion and clinical pharmacology.
- Phase II involves studies in a limited population of patients with the disease or condition under study to (i) determine the efficacy of the product for specific targeted indications and populations, (ii) determine optimal dosage and dosage tolerance and (iii) identify possible and common adverse effects and safety risks. (Phase II may divided into Phase IIa and Phase IIb studies to address these issues.) When a dose is chosen and a candidate product is found to have preliminary evidence of effectiveness, and to have an acceptable safety profile in Phase II evaluations, Phase III trials begin.
- Phase III trials are undertaken to develop additional safety and effectiveness information from an expanded patient population, generally at multiple study sites. This information obtained is used to develop a better understanding of the risks and benefits of the product, and to determine appropriate labeling for use.

Based on clinical trial progress and results, the FDA may request changes or may require discontinuance of the trials at any time if significant safety issues arise.

Submission to the FDA of Marketing Authorization Applications and FDA Review. The results of the preclinical studies and clinical studies are submitted to the FDA as part of marketing approval authorization applications such as New Drug Applications (NDAs) or Biologics License Applications (BLAs). The FDA will evaluate such applications for the demonstration of safety and effectiveness. A BLA is required for biological products subject to licensure under the Public Health Service Act and must show that the product is safe, pure and potent. In addition to preclinical and clinical data, the BLA must contain other elements such as manufacturing materials, stability data, samples and labeling. FDA approval of a BLA (granted by issuance of a license) is required prior to commercial sale or shipment of a biologic, A BLA shall only be approved once the FDA examines the product and inspects the manufacturing establishment to assure conformity to the BLA and all applicable regulations and standards for biologics. The Center for Biologics Evaluation and Research has regulatory responsibility for review of biologics including cellular products and human cells, tissues and cellular and tissue-based products (HCT/Ps), while the Center for Drug Evaluation and Research is responsible for review of certain therapeutic biological products.

The time for approval may vary widely depending on the specific product and disease to be treated, and a number of factors, including the risk/benefit profile identified in clinical trials, the availability of alternative treatments, and the severity of the disease. Additional animal studies or clinical trials may be requested during the FDA review period, which might add to the review time.

The FDA's marketing approval for a product for the treatment of a specific disease or condition in specified populations in certain clinical circumstances, as described on the approved labeling. The approved use is known as the "indication." After the FDA approves a product for the initial indication, further clinical trials may be required to gain approval for the use of the product for additional indications. The FDA may also require post-marketing testing (Phase IV studies) and surveillance to monitor for adverse effects, which could involve significant expense, or may elect to grant only conditional approvals.

Interaction with the FDA During the Application and Review Process. Generally, early interaction and ongoing communication with the FDA can facilitate the testing and approval process by helping to clarify FDA expectations, obtain FDA guidance and directions, and resolve disputed issues. In addition, expectations can be formalized in a "Special Protocol Assessment," in which the FDA provides official evaluation and guidance on proposed protocols for pivotal Phase III clinical trials. An SPA documents the FDA's agreement that the design and plan analysis of the Phase III study adequately addresses objectives in support of a regulatory submission such as a BLA.

Ongoing Compliance Requirements

Even after product approval or licensure, there are a number of ongoing FDA regulatory requirements, including:

- Registration and listing;
- Regulatory submissions relating to changes in an NDA or BLA (such as the manufacturing process or labeling) and annual reports;
- Adverse event reporting;
- Compliance with advertising and promotion restrictions that relate to drugs and biologics;
- Compliance with GMP and biological product standards (subject to FDA inspection of facilities to determine compliance);
- Compliance with "Good Tissue Practice" regulations, as applicable. (As defined by regulation, "human cell, tissue and cellular and tissue-based products" (HCT/P), which are subject to additional regulatory requirement, include stem cells that are progenitors of blood cells; however, the FDA makes no explicit statement in the regulations regarding the inclusion of other types of stem cells.)

Other Regulations

In addition to safety regulations enforced by the FDA, we are also subject to regulations under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act and other present and potential future foreign, Federal, state and local regulations. For instance, Product manufacturing establishments located in certain states also may be subject to separate regulatory and licensing requirements.

Outside the U.S., we will be subject to regulations that govern the import of drug products from the U.S. or other manufacturing sites and foreign regulatory requirements governing human clinical trials and marketing approval for our products. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursements vary widely from country to country. In particular, the European Union is revising its regulatory approach to high tech products, and representatives from the U.S., Japan and the European Union are in the process of harmonizing and making more uniform the regulations for the registration of pharmaceutical products in these three markets.

Research and Development

Research and development expenses for the year ended December 31, 2008 were approximately $8.4 million, mainly reflecting the costs of the Phase IIb clinical trial for Tovaxin and research and development in support of pre-clinical diabetes stem cell therapies. Research and development expenses for the year ended December 31, 2007, were approximately $13.1 million.

Organizational History

We are a development-stage company and have a limited operating history. Our predecessor company for financial reporting purposes was formed on January 22, 2003 to acquire rights to our adult stem cell technology. In November 2004 we acquired Opexa Pharmaceuticals, Inc. and its MS treatment technology. We are still developing all of our technology, and to date, we have not generated any revenues from our operations. As we continue to execute our operations plan, we expect our development and operating expenses to increase.

Employees

As of March 31, 2009 we had 10 full time employees. We believe that our relations with our employees are good. None of our employees is represented by a union or covered by a collective bargaining agreement.

Available Information

We are subject to the information and reporting requirements of the Securities Exchange Act of 1934, or the Exchange Act, under which we file periodic reports, proxy and information statements and other information with the United States Securities and Exchange Commission, or SEC. Copies of the reports, proxy statements and other information may be examined without charge at the Public Reference Room of the SEC, 100 F Street, N.E., Room 1580, Washington, D.C. 20549, or on the Internet at http://www.sec.gov. Copies of all or a portion of such materials can be obtained from the Public Reference Room of the SEC upon payment of prescribed fees. Please call the SEC at 1-800-SEC-0330 for further information about the Public Reference Room.

Financial and other information about Opexa is available on our website (**www.opexatherapeutics.com**). Information on our website is not incorporated by reference into this report. We make available on our website, free of charge, copies of our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the SEC. Copies are available in print to any Opexa shareholder upon request in writing to Attention: Investor Relations, Opexa Therapeutics, Inc., 2635 N. Crescent Ridge Drive, The Woodlands, TX 77381.

ITEM 1A. RISK FACTORS.

Risks Related to Our Business

The following factors affect our business and the industry in which we operate. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known or which we currently consider immaterial may also have an adverse effect on our business. If any of the matters discussed in the following risk factors were to occur, our business, financial condition, results of operations, cash flows, or prospects could be materially adversely affected.

Our business is at an early stage of development.

Our business is at an early stage of development. We do not have any products in late-stage clinical trials or on the market. We are still in the early stages of identifying and conducting research on potential products. Only one of our products has progressed to the stage of being studied in human clinical trials in the United States. Our

potential products will require regulatory approval prior to marketing in the United States and other countries. Obtaining such approval will require significant research and development and preclinical and clinical testing. We may not be able to develop any products, to obtain regulatory approvals, to enter clinical trials for any of our product candidates, or commercialize any products. Our product candidates may prove to have undesirable and unintended side effects or other characteristics adversely affecting their safety, efficacy or cost-effectiveness that could prevent or limit their use. Any product using any of our technology may fail to provide the intended therapeutic benefits, or achieve therapeutic benefits equal to or better than the standard of treatment at the time of testing or production.

We have a history of operating losses and do not expect to be profitable in the near future.

We have not generated any profits since our entry into the biotechnology business, have no source of revenues, and have incurred significant operating losses. We expect to incur additional operating losses for the foreseeable future. We do not have any sources of revenues and may not have any in the foreseeable future.

We will need additional capital to conduct our operations beyond August 2009 and our ability to obtain the necessary funding is uncertain.

We need to obtain significant amounts of additional capital to continue our business beyond August 2009. The capital may come from many sources, including equity and/or debt financings, license arrangements, grants and/or collaborative research arrangements. As of December 31, 2008, we had cash and cash equivalents of approximately $1.2 million. Our current burn rate is approximately $300,000 per month. Effective, April 14, 2009, the Company closed on an initial tranche of a private offering of secured convertible notes and warrants for approximately $1.1 million. We must rely upon third-party debt or equity funding and we can provide no assurance that we will be successful in any funding effort. The failure to raise such funds will necessitate the curtailment or ceasing of operations.

The timing and degree of any future capital requirements will depend on many factors, including:

- our ability to establish, enforce and maintain strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- the accuracy of the assumptions underlying our estimates for capital needs in 2009 and beyond;
- scientific progress in our research and development programs;
- the magnitude and scope of our research and development programs;
- our progress with preclinical development and clinical trials;
- the time and costs involved in obtaining regulatory approvals;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; and
- the number and type of product candidates that we pursue.

We do not have any committed sources of capital, although we have issued and outstanding warrants that, if exercised, would result in an equity capital raising transaction. Additional financing through strategic collaborations, public or private equity financings, capital lease transactions or other financing sources may not be available on acceptable terms, or at all. Additional equity financings could result in significant dilution to our stockholders. Further, if additional funds are obtained through arrangements with collaborative partners, these arrangements may require us to relinquish rights to some of our technologies, product candidates or products that we would otherwise seek to develop and commercialize ourselves. If sufficient capital is not available we may not be able to continue operations as proposed, requiring us to modify our business plan, curtail various aspects of our operations or cease operations.

Our independent auditor's opinion expresses substantial doubt about our ability to continue as a going concern which may make raising capital more difficult and could require us to cease operations.

The opinion of our independent auditors in respect of the 2008 fiscal year, included elsewhere in this annual report, expresses substantial doubt about our ability to continue as a going concern. Specifically, it indicates an absence of obvious or reasonably assured sources of future funding that will be required by us to maintain ongoing operations. Although Opexa has been successfully funded to date by attracting investors in our equity, there is no assurance that our capital raising efforts will be able to attract the capital needed to sustain our operations. The opinion from our auditors expressing substantial doubt about our ability to continue as a going concern may make it more difficult for us to raise funds. If we are unable to obtain additional funding for operations, we may not be able to continue operations as proposed, requiring us to modify our business plan, curtail various aspects of our operations or cease operations. In such event, investors may lose a portion or all of their investment.

We will need regulatory approvals for all of our product candidates which require that all of our product candidates be tested in clinical trials. Clinical trials are subject to extensive regulatory requirements, very expensive, time-consuming and difficult to design and implement. Our products may fail to achieve necessary safety and efficacy endpoints during clinical trials in which case we will be unable to generate revenue from the commercialization and sale of our products.

Human clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous Food and Drug Administration (FDA) requirements, and must otherwise comply with federal, state and local requirements and policies of the medical institutions where they are conducted. The clinical trial process is also time-consuming. We estimate that clinical trials of our product candidates will take at least several years to complete. Furthermore, failure can occur at any stage of the trials, and we could encounter problems that cause us to abandon or repeat clinical trials. The commencement and completion of clinical trials may be delayed by several factors, including:

- FDA or Institutional Review Board (IRB) objection to proposed protocols;
- discussions or disagreement with the FDA over the adequacy of trial design to potentially demonstrate effectiveness, and subsequent design modifications;
- unforeseen safety issues;
- determination of dosing issues and related adjustments;
- lack of effectiveness during clinical trials;
- slower than expected rates of patient recruitment;
- product quality problems (e.g., sterility or purity)
- challenges to patient monitoring and data collection during or after treatment (for example, patients' failure to return for follow-up visits); and
- failure of medical investigators to follow our clinical protocols.

In addition we or the FDA (based on its authority over clinical studies) may delay a proposed investigation or suspend clinical trials in progress at any time if it appears that the study may pose significant risks to the study participants or other serious deficiencies are identified. Prior to approval of our product the FDA must determine that the data demonstrate safety and effectiveness. The large majority of drug candidates that begin human clinical trials fail to demonstrate the desired safety and efficacy characteristics.

Even if we obtain regulatory approvals for certain of our product candidates, that approval may be subject to limitations on the indicated uses for which it may be marketed. Our ability to generate revenues from the commercialization and sale of our products will be limited by any failure to obtain necessary regulatory approvals.

We are dependent upon our management team and a small number of employees.

Our business strategy is dependent upon the skills and knowledge of our management team. If any critical employee leaves, we may be unable on a timely basis to hire suitable replacements to effectively operate our business. We also operate with a very small number of employees and thus have little or no backup capability for their activities. The loss of the services of any member of our management team or the loss of a number of other employees could have a material adverse effect on our business and results of operations.

If we fail to meet our obligations under our license agreements, we may lose our rights to key technologies on which our business depends.

Our business depends on three licenses from third parties. These third party license agreements impose obligations on us, such as payment obligations and obligations to diligently pursue development of commercial products under the licensed patents. If a licensor believes that we have failed to meet our obligations under a license agreement, the licensor could seek to limit or terminate our license rights, which could lead to costly and time-consuming litigation and, potentially, a loss of the licensed rights. During the period of any such litigation, our ability to carry out the development and commercialization of potential products could be significantly and negatively affected. If our license rights were restricted or ultimately lost, our ability to continue our business based on the affected technology platform could be adversely affected.

Our current research and manufacturing facility is not large enough to manufacture future stem cell and T-cell therapies.

We conduct our research and development in a 10,200 square foot facility in The Woodlands, Texas, which includes an approximately 800 square foot suite of three rooms for the manufacture of T-cell therapies. Our current facility is not large enough to fully support pivotal Phase III trials for the development of Tovaxin for MS or conduct commercial-scale manufacturing operations. We will need to expand further our manufacturing staff and facility, obtain a new facility or contract with corporate collaborators or other third parties to assist with future drug production.

In the event that we decide to establish a commercial-scale manufacturing facility, we will require substantial additional funds and will be required to hire and train significant numbers of employees and comply with applicable regulations, which are extensive. We do not have funds available for building a manufacturing facility, and we may not be able to build a manufacturing facility that both meets regulatory requirements and is sufficient for our commercial-scale manufacturing.

We may arrange with third parties for the manufacture of our future products. However, our third-party sourcing strategy may not result in a cost-effective means for manufacturing our future products. If we employ third-party manufacturers, we will not control many aspects of the manufacturing process, including compliance by these third parties with the FDA's current Good Manufacturing Practices and other regulatory requirements. We further may not be able to obtain adequate supplies from third-party manufacturers in a timely fashion for development or commercialization purposes, and commercial quantities of products may not be available from contract manufacturers at acceptable costs.

Patents obtained by other persons may result in infringement claims against us that are costly to defend and which may limit our ability to use the disputed technologies and prevent us from pursuing research and development or commercialization of potential products.

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have been issued patents relating to cell therapy, stem cells, T-cells, and other technologies potentially relevant to or required by our expected products. We cannot predict which, if any, of such applications will issue as patents or the claims that might be allowed. We are aware that a number of companies have filed applications relating to stem cells. We are also aware of a number of patent applications and patents claiming use of stem cells and other modified cells to treat disease, disorder or injury.

If third party patents or patent applications contain claims infringed by either our licensed technology or other technology required to make and use our potential products and such claims are ultimately determined to be valid, there can be no assurance that we would be able to obtain licenses to these patents at a reasonable cost, if at all, or be able to develop or obtain alternative technology. If we are unable to obtain such licenses at a reasonable cost, we may not be able to develop some products commercially. There can be no assurance that we will not be obliged to defend ourselves in court against allegations of infringement of third party patents. Patent litigation is very expensive and could consume substantial resources and create significant uncertainties. An adverse outcome in such a suit could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties, or require us to cease using such technology.

If we are unable to obtain future patents and other proprietary rights our operations will be significantly harmed.

Our ability to compete effectively is dependent in part upon obtaining patent protection relating to our technologies. The patent positions of pharmaceutical and biotechnology companies, including ours, are uncertain and involve complex and evolving legal and factual questions. The coverage sought in a patent application can be denied or significantly reduced before or after the patent is issued. Consequently, we do not know whether the patent applications for our technology will result in the issuance of patents, or if any future patents will provide significant protection or commercial advantage or will be circumvented by others. Since patent applications are secret until the applications are published (usually eighteen months after the earliest effective filing date), and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that the inventors of our licensed patents were the first to make the inventions covered by the patent applications or that the licensed patent applications were the first to be filed for such inventions. There can be no assurance that patents will issue from the patent applications or, if issued, that such patents will be of commercial benefit to us, afford us adequate protection from competing products, or not be challenged or declared invalid.

Our competition includes fully integrated biopharmaceutical and pharmaceutical companies that have significant advantages over us.

The markets for therapeutic stem cell products, multiple sclerosis products, and rheumatoid arthritis products are highly competitive. Our most significant competitors are fully integrated pharmaceutical companies and more established biotechnology companies. These companies have significantly greater capital resources and expertise in research and development, manufacturing, testing, obtaining regulatory approvals, and marketing than we currently do. Many of these potential competitors are further along in the process of product development and also operate large, company-funded research and development programs. As a result, our competitors may develop more competitive or affordable products, or achieve earlier patent protection or product commercialization than we are able to achieve. Competitive products may render any products or product candidates that we develop obsolete.

The market for our products will be heavily dependent on third party reimbursement policies.

Our ability to successfully commercialize our product candidates will depend on the extent to which government healthcare programs, such as Medicare and Medicaid, as well as private health insurers, health maintenance organizations and other third party payors will pay for our products and related treatments. Reimbursement by third party payors depends on a number of factors, including the payor's determination that use of the product is safe and effective, not experimental or investigational, medically necessary, appropriate for the specific patient and cost-effective. Reimbursement may not be available or maintained for any of our product candidates. If we do not obtain approvals for adequate third party reimbursements, we may not be able to establish or maintain price levels sufficient to realize an appropriate return on our investment in product development. Any limits on reimbursement from third party payors may reduce the demand for, or negatively affect the price of, our products.

Restrictive and extensive government regulation could slow or hinder our production of a cellular product.

The research and development of stem cell therapies is subject to and restricted by extensive regulation by governmental authorities in the United States and other countries. The process of obtaining FDA and other necessary regulatory approvals is lengthy, expensive and uncertain. We may fail to obtain the necessary approvals to continue our research and development, which would hinder our ability to manufacture or market any future product. Even after granting regulatory approval the FDA and regulatory agencies in other countries continue to review and inspect marketed products, manufacturers and manufacturing facilities, which may create additional regulatory burdens.

To be successful, our product candidates must be accepted by the health care community, which can be very slow to adopt or unreceptive to new technologies and products.

Our product candidates, if approved for marketing, may not achieve market acceptance since hospitals, physicians, patients or the medical community in general may decide to not accept and utilize these products. The product candidates that we are attempting to develop represent substantial departures from established treatment methods and will compete with a number of more conventional drugs and therapies manufactured and marketed by major pharmaceutical companies. The degree of market acceptance of any of our developed products will depend on a number of factors, including:

- our establishment and demonstration to the medical community of the clinical efficacy and safety of our product candidates;
- our ability to create products that are superior to alternatives currently on the market;
- our ability to establish in the medical community the potential advantage of our treatments over alternative treatment methods; and
- reimbursement policies of government and third-party payers.

If the health care community does not accept our products for any of the foregoing reasons, or for any other reason, our business would be materially harmed.

Risks Related to Our Securities

There is currently a limited market for our securities, and any trading market that exists in our securities may be highly illiquid and may not reflect the underlying value of our net assets or business prospects.

Although our common stock and Series E warrants are traded on the NASDAQ Capital Market, there is currently a limited market for our securities and there can be no assurance that an improved market will ever develop. Investors are cautioned not to rely on the possibility that an active trading market may develop.

Our stock may be delisted from Nasdaq, which could affect its market price and liquidity.

We are required to meet certain qualitative and financial tests (including a minimum stockholders' equity requirement and bid price for our common stock of $1.00 per share) to maintain the listing of our common stock on the Nasdaq Capital Market. As of December 31, 2008, our stockholders' equity was below the continued listing standard requirement of $2.5 million and the bid price for our common stock is below $1.00 per share. We may receive notice from Nasdaq that we have failed to meet these requirements. If we were unable to cure these failures in a timely manner and our common stock were delisted, it could be more difficult to buy or sell our common stock and to obtain accurate quotations, and the price of our stock could suffer a material decline. Delisting may also impair our ability to raise capital.

As our share price is volatile, we may be or become the target of securities litigation, which is costly and time-consuming to defend.

In the past, following periods of market volatility in the price of a company's securities or the reporting of unfavorable news, security holders have often instituted class action litigation. If the market value of our securities experience adverse fluctuations and we become involved in this type of litigation, regardless of the outcome, we could incur substantial legal costs and our management's attention could be diverted from the operation of our business, causing our business to suffer.

Our "blank check" preferred stock could be issued to prevent a business combination not desired by management or our current majority shareholders.

Our articles of incorporation authorize the issuance of "blank check" preferred stock with such designations, rights and preferences as may be determined by our board of directors without shareholder approval. Our preferred stock could be utilized as a method of discouraging, delaying, or preventing a change in our control and as a method of preventing shareholders from receiving a premium for their shares in connection with a change of control.

Future sales of our common stock in the public market could lower our stock price.

We may sell additional shares of common stock in subsequent public or private offerings. We may also issue additional shares of common stock to finance future acquisitions. We cannot predict the size of future issuances of our common stock or the effect, if any, that future issuances and sales of shares of our common stock will have on the market price of our common stock. Sales of substantial amounts of our common stock (including shares issued in connection with an acquisition), or the perception that such sales could occur, may adversely affect prevailing market prices for our common stock.

We presently do not intend to pay cash dividends on our common stock.

We currently anticipate that no cash dividends will be paid on the common stock in the foreseeable future. While our dividend policy will be based on the operating results and capital needs of the business, it is anticipated that all earnings, if any, will be retained to finance the future expansion of the our business.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 2. PROPERTIES.

Our 10,200 sq. ft. facility is located on 3 acres at 2635 North Crescent Ridge Drive in The Woodlands, Texas. This location provides space for research and development and manufacturing capacity for clinical trials; a specialized Flow Cytometry and Microscopy lab; support of clinical trials with 800 sq. ft. of good manufacturing practice (GMP) manufacturing suites; Quality Systems management with a Quality Control Laboratory, Regulatory Affairs, Quality Assurance; as well as administrative support space. There is 2,500 sq. ft. of space still available for future build-out. We lease the facility including the property for a term ending in 2015 with two options for an additional five years each at the then prevailing market rate.

ITEM 3. LEGAL PROCEEDINGS.

We are not currently a party to any material legal proceedings.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

No matters were submitted to a vote of our security holders, through solicitation of proxies or otherwise, during the quarter ended December 31, 2008.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Market Information and Holders

Our common stock is traded on the NASDAQ Capital Market under the symbol "OPXA". As of March 23, 2009, there were 288 holders of record of the common stock. This number does not include stockholders for whom shares were held in "nominee" or "street name." Our common stock trades on a limited, sporadic and volatile basis.

The table below shows the high and low per-share bid information for our common stock for the periods indicated, as reported by NASDAQ.

	Price Ranges	
	High	Low
Fiscal Year Ended December 31, 2007		
First Quarter	6.05	3.90
Second Quarter	5.89	4.05
Third Quarter	5.35	3.50
Fourth Quarter	4.30	1.85
Fiscal Year Ended December 31, 2008		
First Quarter	$3.25	$0.91
Second Quarter	1.43	0.59
Third Quarter	2.15	0.15
Fourth Quarter	0.34	0.09

Dividends

We have never declared or paid any cash dividends on our common stock and we do not intend to pay cash dividends in the foreseeable future. We currently expect to retain any future earnings to fund the operation and expansion of our business.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table sets forth information, as of December 31, 2008, with respect to our compensation plans under which common stock is authorized for issuance. We issue options to officers, directors, employees and consultants under our stockholder approved 2004 Compensatory Stock Plan. We believe that the exercise price for all of the options set forth below reflects fair market value.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (A)	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights (B)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column A) (C)
Equity Compensation Plans Approved by Security Shareholders	1,598,547	$5.86	701,453
Equity Compensation Plans Not Approved by Security Shareholders	—	—	—
Total	1,598,547	$5.86	701,453

Refer to Item 8, Note 10 "Options and Warrants" in the Notes to Our Consolidated Financial Statements for the fiscal year ended December 31, 2008, included elsewhere in the annual report for a description of our equity compensation plan.

Recent Sales of Unregistered Securities and Equity Purchases by Company

None.

ITEM 6. SELECTED FINANCIAL DATA

Not applicable.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following discussion of our financial condition and results of operations should be read in conjunction with the accompanying financial statements and the related footnotes thereto.

Organizational Overview

We are a development-stage company and have a limited operating history. Our predecessor company for financial reporting purposes was formed on January 22, 2003 to acquire rights to our adult stem cell technology. In November 2004 we acquired Opexa Pharmaceuticals, Inc. and its MS treatment technology. We are still developing all of our technology, and to date, we have not generated any revenues from our operations.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the U.S. The preparation of these consolidated financial statements requires us to make estimates and judgments

that affect the reported amounts of assets, liabilities and expenses. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe the following critical accounting policies affect our most significant judgments and estimates used in preparation of our consolidated financial statements.

Stock-Based Compensation. On January 1, 2006, we adopted the provisions of Statement of Financial Accounting Standards No. 123R, "Share-Based Payment" ("SFAS 123R") which establishes accounting for equity instruments exchanged for employee service. We utilize the Black-Scholes option pricing model to estimate the fair value of employee stock based compensation at the date of grant, which requires the input of highly subjective assumptions, including expected volatility and expected life. Further, as required under SFAS 123R, we now estimate forfeitures for options granted, which are not expected to vest. Changes in these inputs and assumptions can materially affect the measure of estimated fair value of our share-based compensation. These assumptions are subjective and generally require significant analysis and judgment to develop. When estimating fair value, some of the assumptions will be based on, or determined from, external data and other assumptions may be derived from our historical experience with stock-based payment arrangements. The appropriate weight to place on historical experience is a matter of judgment, based on relevant facts and circumstances.

We estimated volatility by considering historical stock volatility. As allowed by Staff Accounting Bulletin (SAB) No. 107, "Share-Based Payment", we have opted to use the simplified method for estimating expected term equal to the midpoint between the vesting period and the contractual term.

Research and Development. The costs of materials and equipment or facilities that are acquired or constructed for research and development activities and that have alternative future uses are capitalized as tangible assets when acquired or constructed. The cost of such materials consumed in research and development activities and the depreciation of such equipment or facilities used in those activities are research and development costs. However, the costs of materials, equipment, or facilities acquired or constructed for research and development activities that have no alternative future uses are considered research and development costs and are expensed at the time the costs are incurred.

Accounting for Derivative Instruments. Statement of Financial Accounting Standard ("SFAS") No. 133, "Accounting for Derivative Instruments and Hedging Activities," as amended, requires all derivatives to be recorded on the balance sheet at fair value. These derivatives are separately valued and accounted for on our balance sheet. Fair values for securities traded in the open market and derivatives are based on quoted market prices. Where market prices are not readily available, fair values are determined using market based pricing models incorporating readily observable market data and requiring judgment and estimates.

The pricing model we use for determining fair values of our derivatives is the Black Scholes option-pricing model. Valuations derived from this model are subject to ongoing internal and external verification and review. The model uses market-sourced inputs such as interest rates, exchange rates and stock price volatilities. Selection of these inputs involves management's judgment and may impact net income.

In December 2006, the FASB issued FASB Staff Position No. EITF 00-19-2, "Accounting for Registration Payment Arrangements" (EITF 00-19-2). EITF 00-19-2 addresses an issuer's accounting for registration payment arrangements. It specifies that the contingent obligation to make future payments or otherwise transfer consideration under a registration payment arrangement, whether issued as a separate agreement or included as a provision of a financial instrument or other agreement, should be separately recognized and measured in accordance with FASB Statement No. 5, "Accounting for Contingencies". The guidance in EITF 00-19-2 amends FASB Statements No. 133, "Accounting for Derivative Instruments and Hedging Activities", and No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity", and FASB

Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others", to include scope exceptions for registration payment arrangements. EITF 00-19-2 also requires additional disclosure regarding the nature of any registration payment arrangements, alternative settlement methods, the maximum potential amount of consideration and the current carrying amount of the liability, if any. This EITF is effective immediately for registration payment arrangements and the financial instruments subject to those arrangements that are entered into or modified subsequent to the date of issue of this EITF. For registration payment arrangements and financial instruments subject to those arrangements that were entered into prior to the issuance of this EITF, this is effective for financial statements issued for fiscal years beginning after December 15, 2006, and interim periods within those fiscal years. The impact of implementing EITF 00-19-2 in the fiscal year 2007 resulted in a cumulative effect of a change in accounting principle with a credit to beginning retained earnings of $6,656,677 and a reversal of the same amount to the derivative liability account.

In June 2008, the FASB finalized EITF 07-5, "Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock" (EITF 07-5). EITF 07-5 lays out a procedure to determine if an instrument is indexed to a company's own common stock. EITF 07-5 is effective for fiscal years beginning after December 15, 2008. Opexa evaluated all of its financial instruments and determined that the warrants associated with the August 2008 financing qualified for treatment under EITF 07-5. As of January 1, 2009, Opexa adjusted its financial statements to reflect the adoption of the EITF 07-5. Opexa reclassified the fair value on these warrants as of January 1, 2009 in the amount of $220,835 from additional paid in capital to derivative liabilities and the cumulative effect of the change in accounting principle in the amount of $1,755,622 is recognized as an adjustment to the opening balance of retained earnings.

Results of Operations

Comparison of Year Ended December 31, 2008 with the Year Ended December 31, 2007

Net Sales. We recorded no sales for the years ended December 31, 2008 and 2007.

Research and Development Expenses. Research and development expense was $8,388,734 for the year ended December 31, 2008, compared to $13,071,856 for the year ended December 31, 2007.

The decrease in expenses was primarily due to a decrease in activities related to the Phase IIb clinical trial for Tovaxin which was completed in 2008 as compared to 2007 and a reduction in stock compensation expense recorded in 2008. We have made and expect to continue to make substantial investments in research and development in order to develop and market our technology. We expense research and development costs as incurred. Acquired research and development that has no alternative future use is expensed when acquired. Property, plant and equipment for research and development that has an alternative future use is capitalized and the related depreciation is expensed.

General and Administrative Expenses. Our general and administrative expense was $3,341,415 for the year ended December 31, 2008, as compared to $3,418,306 for the year ended December 31, 2007. The decrease in expenses is primarily due to a decrease in stock compensation expense and professional service fees offset in part by an increase in personnel costs.

Interest Expense. Interest expense was $19,983 for the year ended December 31, 2008, compared to $16,103 for the year ended December 31, 2007. Interest expense for 2008 and 2007 was related to a loan payable consisting of an equipment line of up to $250,000 with Wells Fargo of which $165,201 was outstanding as of December 31, 2008.

Interest Income. Interest income was $100,235 for the year ended December 31, 2008 compared to $477,605 for the year ended December 31, 2007. The decrease was due to the reduction in cash balances that were available for investment in cash equivalent instruments and a reduction in interest rates.

Gain on Extinguishment of Debt. Opexa entered into a second amended and restated license agreement with the University of Chicago that eliminated the obligations under the prior agreement for the payment of $1.5 million due July 31, 2007 and the obligation to issue 21,623 shares of Opexa common stock. These obligations were recorded as research and development expense, with the liabilities recorded as notes payable—current portion of $1.5 million and a stock payable of $112,440. As a result of the amendment and restatement of the license agreement with the University of Chicago $1,612,440 was reported as a gain on extinguishment of liability in 2007. Opexa applied the accounting guidance of Financial Accounting Standard No. 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities" ("FAS 140") and EITF 96-19 "Debtor's Accounting for a Modification or Exchange of Debt Instruments".

Net loss. We had a net loss for the year ended December 31, 2008, of $11,852,152, or $1.12 per share (basic and diluted), compared with a net loss of $14,667,367, or $2.19 per share (basic and diluted), for the year ended December 31, 2007. The decrease in net loss is primarily due to the reduction of costs associated with the Phase IIb clinical trial of Tovaxin that was completed in 2008.

Comparison of Year Ended December 31, 2007 with the Year Ended December 31, 2006

Net Sales. We recorded no sales for the years ended December 31, 2007 and 2006.

Research and Development Expenses. Research and development expense was $13,071,856 for the year ended December 31, 2007, compared to $7,850,373 for the year ended December 31, 2006.

The increase in expenses was primarily due to the costs of the Phase IIb clinical trial for Tovaxin and an increase in stock compensation expense recorded in 2007. We have made and expect to continue to make substantial investments in research and development in order to develop and market our technology. We expense research and development costs as incurred. Acquired research and development that has no alternative future use is expensed when acquired. Property, plant and equipment for research and development that has an alternative future use is capitalized and the related depreciation is expensed.

General and Administrative Expenses. Our general and administrative expense was $3,418,306 for the year ended December 31, 2007, as compared to $5,461,047 for the December 31, 2006. The decrease in expenses is primarily due to a decrease in stock compensation expense, professional service fees and overhead expenses.

Interest Expense. Interest expense was $16,103 for the year ended December 31, 2007, compared to $984 for the year ended December 31, 2006. The increase in interest expense was primarily due to a loan payable consisting of an equipment line of up to $250,000 with Wells Fargo of which $222,816 was outstanding as of December 31, 2007.

Interest Income. Interest income was $477,605 for the year ended December 31, 2007 compared to $688,299 for the year ended December 31, 2006. The decrease was due to the reduction in cash balances that were available for investment in cash equivalent instruments.

Gain (Loss) on Derivative Instruments Liabilities, net. The implementation of EITF 00-19-2 in the fiscal year 2007, discussed in "Accounting for Derivative Instruments", resulted in a cumulative effect of a change in accounting principle with a credit to beginning retained earnings of $6,656,677 and a reversal of the same amount to the derivative liability account as compared to a gain on derivative instruments of $104,978 for the twelve months ended December 31, 2006.

Gain on Extinguishment of Debt. Opexa entered into a second amended and restated license agreement with the University of Chicago that eliminated the obligations under the prior agreement for the payment of $1.5 million due July 31, 2007 and the obligation to issue 21,623 shares of Opexa common stock. These obligations were recorded as research and development expense, with the liabilities recorded as notes payable—current

portion of $1.5 million and a stock payable of $112,440. As a result of the amendment and restatement of the license agreement with the University of Chicago $1,612,440 was reported as a gain on extinguishment of liability. Opexa applied the accounting guidance of Financial Accounting Standard No. 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities" ("FAS 140") and EITF 96-19 "Debtor's Accounting for a Modification or Exchange of Debt Instruments".

Net loss. We had a net loss for the year ended December 31, 2007, of $14,667,367, or $2.19 per share (basic and diluted), compared with a net loss of $12,649,170, or $2.35 per share (basic and diluted), for the year ended December 31, 2006. The increase in net loss is primarily due to the costs associated with the Phase IIb clinical trial for Tovaxin offset in part by a reduction in stock-based compensation expense, and a gain on extinguishment of liability.

Liquidity and Capital Resources

Historically, we have financed our operations primarily from the sale of debt and equity securities. As of December 31, 2008 we had cash and cash equivalents of approximately $1.2 million.

Our financing activities generated $9.2 million for the year ended December 31, 2008 as compared to approximately $0.1 million for the year ended December 31, 2007. The cash generated in 2008 was the result of $7.6 million in gross proceeds from a public offering in February and $3.0 million in gross proceeds from a private financing in August.

Our current burn rate is approximately $300,000 per month. Effective, April 14, 2009, the Company closed on an initial tranche of a private offering of secured convertible notes and warrants for gross proceeds of approximately $1.1 million which will support our operations at current levels through August 2009. We will need to raise additional capital in fiscal year 2009 to fund our business plan and support our operations. As our prospects for funding, if any, develop during the fiscal year, we will assess our business plan and make adjustments accordingly. The report of our independent auditors with regard to our financial statements for the fiscal year ended December 31, 2008, includes a going concern qualification. Although we have successfully funded our operations to date by attracting additional investors in our equity, there is no assurance that our capital raising efforts will be able to attract additional necessary capital for our operations. If we are unable to obtain additional funding for operations at any time now or in the future, we may not be able to continue operations as proposed, requiring us to modify our business plan, curtail various aspects of our operations or cease operations.

Off-Balance Sheet Arrangements

None.

Contractual Commitments

A tabular disclosure of contractual obligations at December 31, 2008, is as follows:

		Payments Due by Period			
	Total	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Operating Leases[1]	$1,052,927	$150,474	$313,764	$313,372	$276,318
Consulting Agreements	—	—	—	—	—
Total	$1,052,927	$150,474	$313,764	$313,372	$276,318

(1) Includes lease for office equipment.

Recently Issued Accounting Pronouncements.

In June 2007, the Emerging Issues Task Force (EITF) issued EITF Issue No. 07-3, "Accounting for Nonrefundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities" ("EITF 07-3"). EITF 07-3 provides guidance concerning the accounting for non-refundable advance payments for goods and services that will be used in future research and development activities and requires that they be expensed when the research and development activity has been performed and not at the time of payment. The provisions of EITF 07-3 are effective for the Company as of January 1, 2008, with a cumulative-effect adjustment to retained earnings as of the beginning of the year of adoption. The Company does not believe EITF 07-3 will have a material impact on its results from operations or financial position.

In June 2008, the FASB finalized EITF 07-5, "Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock" which lays out a procedure to determine if the instrument is indexed to a Company's own common stock. The EITF is effective for fiscal years beginning after December 15, 2008. Opexa evaluated all of its financial instruments and determined that the warrants associated with the August 2008 financing qualified for treatment under EITF 07-5. As of January 1, 2009, Opexa adjusted its financial statements to reflect the adoption of the EITF 07-5. Opexa reclassified the fair value on these warrants as of January 1, 2009 in the amount of $220,835 from additional paid in capital to derivative liabilities and the cumulative effect of the change in accounting principle in the amount of $1,755,622 is recognized as an adjustment to the opening balance of retained earnings.

There were various other accounting standards and interpretations issued during 2008, 2007 and 2006, none of which are expected to have a material impact on the Company's consolidated financial position, operations or cash flows.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK.

Our financial instruments include cash and cash equivalents. Our main investment objectives are the preservation of investment capital and the maximization of returns on our investment portfolio. Our interest income is sensitive to changes in the general level of U.S. interest rates. We believe that our investment policy is conservative, both in the duration of our investments and the credit quality of the investments we hold. As of March 26, 2009, the Company held no auction rate securities.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

The Financial Statements and supplementary data required by this item are included in Part IV, Item 15 of this Form 10-K and are presented beginning on page F-1.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

In accordance with Exchange Act Rules 13a-15 and 15a-15, we carried out an evaluation, under the supervision and with the participation of management, including our Chief Executive Officer and Acting Chief Financial Officer, of the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, our Chief Executive Officer and Acting Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2008.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Based on our evaluation under the framework in *Internal Control—Integrated Framework* issued by COSO, our management concluded that our internal control over financial reporting was effective as of December 31, 2008 in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

This annual report does not include an attestation report of the Company's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's registered public accounting firm pursuant to temporary rules of the Securities Exchange Commission that permit the company to provide only management's report in this annual report.

ITEM 9B. OTHER INFORMATION.

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

Executive Officers

Our executive officers are elected by the board of directors and serve at the discretion of the board. Our executive officers are as follows:

Name	Age	Position
Neil K. Warma	46	President, Chief Executive Officer, Acting Chief Financial Officer and Director
Donna R. Rill	55	Senior Vice President of Operations

Biographical information for our executive officers is set forth below:

Neil K. Warma has served as President and Chief Executive Officer since June 2008 and as Acting Chief Financial Officer since March 2009. From July 2004 to September 2007, Mr. Warma served as president and chief executive officer of Viron Therapeutics Inc., a privately-held clinical stage biopharmaceutical company. From 2000 to 2003 Mr. Warma was co-founder and president of MedExact USA, Inc., an Internet company providing clinical information and services to physicians and pharmaceutical companies. From 1992 to 2000 Mr. Warma held senior positions of increasing responsibility at Novartis Pharmaceuticals (previously Ciba-Geigy Ltd.) at its corporate headquarters in Basel, Switzerland. While at Novartis, Mr. Warma served as the Head of International Pharma Policy & Advocacy and in senior management within global marketing where he worked on the international launch of a gastrointestinal product. Mr. Warma obtained an honors degree specializing in Neuroscience from the University of Toronto and an International M.B.A. from the Schulich School of Management at York University in Toronto.

Donna R. Rill served as Senior Vice President of Operations since January 2009. From November 2004 until January 2009 she served as Vice President of Operations. From April 2003 to November 2004, she was the director of quality systems and process development at Opexa Pharmaceuticals, Inc. From November 1997 to April 2003 she was the director of translational research for the Center for Cell & Gene Therapy at Baylor College of Medicine. Ms. Rill has worked to design and qualify GMP Cell & Gene Therapy Laboratories, GMP Vector Production facilities, and Translational Research Labs at St. Jude Children's Research Hospital, Texas Children's Hospital, and Baylor College of Medicine. Ms. Rill received her B.S. in Medical Technology from the University of Tennessee, Memphis.

Directors

All of the current directors will serve until the next annual stockholders' meeting or until their successors have been duly elected and qualified. Our current board of directors are as follows:

Name	Age	Position
David Hung	51	Director
David E. Jorden	46	Director
David B. McWilliams	65	Director
Michael S. Richman	48	Director
Scott B. Seaman	53	Director
Neil K. Warma	46	Director, President, CEO and Acting CFO

David Hung, M.D. has served as a Director since May 2006. Dr. Hung has served as the president, chief executive officer and as a director of Medivation, Inc. since December 2004. Dr. Hung also has served as the president and chief executive officer, and member of the board of directors, of Medivation, Inc.'s subsidiary, Medivation Neurology, Inc. since its inception in September 2003. From 1998 until 2001, Dr. Hung was employed by ProDuct Health, Inc., a privately held medical device company, as Chief Scientific Officer (1998-1999), and as president and chief executive officer (1999-2001). From December 2001 to January 2003, Dr. Hung served as a consultant to Cytyc Health Corporation. Dr. Hung received his M.D. from the University of California at San Francisco, and his A.B. in biology and organic chemistry from Harvard College.

David E. Jorden has served as a Director since August 2008. Mr. Jorden has served as executive board member for Cytomedix, Inc. since October 2008. Mr. Jorden previously served as vice president with Morgan Stanley in its Wealth Management group where he is responsible for equity portfolio management for high net worth individuals since 2003. Prior to Morgan Stanley, Mr. Jorden served as vice president and chief financial officer of Genometrix, Inc., a private genomics/life sciences company focused on high-throughput microarray applications from March 2000 to September 2002. Mr. Jorden was a principal with Fayez Sarofim & Co. prior to joining Genometrix. Mr. Jorden earned a MBA from Kellogg School of Management at Northwestern University in 1989 and a BBA from the University of Texas/Austin in 1984. He currently serves as a director of Cytomedix, Inc. and PLx Pharma, Inc. Mr. Jorden is a Chartered Financial Analyst and Certified Public Accountant.

David B. McWilliams has served as Director since August 2004. From August 2004 to June 2008 Mr. McWilliams also served as president and chief executive officer of Opexa. From December 2003 until August 2004, Mr. McWilliams was a private investor. From June 2003 to December 2003, Mr. McWilliams served as president and chief executive officer of Bacterial Barcodes, Inc., a molecular diagnostics company. Mr. McWilliams currently serves as a director of Novelos Therapeutics, Inc., and on the boards of ApoCell Biosciences and the Houston Technology Center. Mr. McWilliams received an MBA in finance from the University of Chicago and a B.A. in chemistry, Phi Beta Kappa, from Washington and Jefferson College.

Michael S. Richman has served as a Director of the Company since June 2006. Mr. Richman has served as president and chief executive officer of Amplimmune, Inc. since July 2008. Mr. Richman served as president and chief operating officer of Amplimmune, Inc. from May 2007 to July 2008. From April 2002 to May 2007, Mr. Richman served as executive vice president and chief operating officer of MacroGenics, Inc. Mr. Richman joined MacroGenics, Inc in 2002 with approximately twenty years experience in corporate business development within the biotechnology industry. Mr. Richman serves on the board of Cougar Biotechnology, a public drug development company. Mr. Richman obtained his B.S. in Genetics/Molecular Biology at the University of California at Davis and his MSBA in International Business at San Francisco State University.

Scott B. Seaman has served as a Director of since April 2006. Mr. Seaman has served for over five years as the executive director and treasurer of the Albert and Margaret Alkek Foundation of Houston, Texas, a private foundation primarily supporting institutions in the Texas Medical Center in Houston, Texas. Since January 1996 to present, Mr. Seaman has served as the chief financial officer of Chaswil Ltd., an investment management company. Since September 1986, Mr. Seaman has served as secretary and treasurer of M & A Properties Inc., a ranching and real estate concern. Since January 2003, Mr. Seaman has served as chairman and, since July 2004, president of ICT Management Inc., the general partner of Impact Composite Technology Ltd., a composite industry supplier. Mr. Seaman serves on the board of GeneExcel, Inc., a privately held biotechnology company. Since May 2004, Mr. Seaman has served as a Member of the Investment Committee of Global Hedged Equity Fund LP, a hedge fund. Mr. Seaman received a bachelor's degree in business administration from Bowling Green State University and is a certified public accountant.

Neil K. Warma – For further background information regarding Mr. Warma see "Executive Officers" section.

Board Independence

The Company has determined that Dr. Hung, Mr. Jorden, Mr. Richman and Mr. Seaman meet the requirements under the NASDAQ Rule 4200 as independent directors.

Committees of the Board of Directors

We currently have an audit committee, a compensation committee, and a nominating and corporate governance committee.

Audit Committee

The audit committee of the Board currently consists of Mr. Jorden, Mr. Richman, and Mr. Seaman, each of whom are independent, non-employee directors. The audit committee selects, on behalf of our board of directors, an independent public accounting firm to audit our financial statements, discuss with the independent auditors their independence, review and discuss the audited financial statements with the independent auditors and management, and recommend to our board of directors whether the audited financials should be included in our Annual Reports to be filed with the SEC. The audit committee operates pursuant to a written charter, which was adopted in February 2005. During the last fiscal year, the audit committee held four meetings, and the members of the audit committee attended each meeting.

All of the members of the audit committee are non-employee directors who: (1) met the criteria for independence set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"); (2) did not participate in the preparation of our financial statements or the financial statements of Opexa; and (3) are able to read and understand fundamental financial statements, including a balance sheet, income statement, and cash flow statement. The Board has determined that Mr. Jorden and Mr. Seaman each, individually, qualify as an "audit committee financial expert" as defined by Item 407(d)(5)(ii) of Regulation S-K of the Exchange Act.

Compensation Committee

The compensation committee of the board currently consists of Dr. Hung, Mr. Richman, and Mr. Seaman, each of whom are independent directors, as defined in Rule 10A-3 of the Exchange Act. The compensation committee reviews and approves (1) the annual salaries and other compensation of our executive officers, and (2) individual stock and stock option grants. The compensation committee also provides assistance and recommendations with respect to our compensation policies and practices, and assists with the administration of our compensation plans. During the last fiscal year the compensation committee held one meeting, and the members of the compensation committee attended that meeting.

In addition, the Board has adopted a written charter for the compensation committee, adopted in August 2004, which is available on our website at www.opexatherapeutics.com.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee of the board currently consists of Dr. Hung, Mr. Jorden, and Mr. Seaman, each of whom were determined by the board of directors to be an "independent director" pursuant to the applicable rules and regulations promulgated by the SEC. The nominating and corporate governance committee assists our board of directors in fulfilling its responsibilities by: identifying and approving individuals qualified to serve as members of our board of directors, selecting director nominees for our annual meetings of shareholders, evaluating the performance of our board of directors, and developing and recommending to our board of directors corporate governance guidelines and oversight procedures with respect to corporate governance and ethical conduct. This committee operates pursuant to a written charter adopted in

February 2005, which is available on our website at http://www.opexatherapeutics.com. The nominating committee will consider properly submitted shareholder nominations for candidates for the board. Following verification of the shareholder status of persons proposing candidates, recommendations will be aggregated and considered by the nominating committee. If any materials are provided by a shareholder in connection with the nomination of a director candidate, such materials will be forwarded to the nominating committee. During the last fiscal year, the nominating and corporate governance committee held one meeting, and the members of the governance committee attended that meeting.

Compensation Committee Interlocks and Insider Participation

Our compensation committee is comprised of Dr. Hung, Mr. Richman, and Mr. Seaman. None of the committee members has ever been an employee of Opexa Therapeutics, Inc. None of our executive officers serve as a member of the board of directors or compensation committee of any entity that has any executive officer serving as a member of our Board of Directors or compensation committee.

Code of Ethics for the CEO, CFO, and Senior Financial Officers

In 2005, in accordance with SEC rules, the then audit committee and the Board of Directors adopted the Policy on Whistleblower Protection and Code of Ethics. The Board of Directors believes that these individuals must set an exemplary standard of conduct, particularly in the areas of accounting, internal accounting control, auditing and finance. This code sets forth ethical standards to which the designated officers must adhere and other aspects of accounting, auditing and financial compliance. The Code of Ethics is available on our website at www.opexatherapeutics.com.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and officers, and persons who own more than 10% of a registered class of our equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of equity securities of our common stock. Theses people are required by SEC regulations to furnish us with copies of all such reports they file. To our knowledge, based solely on our review of the copies of such reports furnished to us and written representations from certain insiders that no other reports were required, we complied with all Section 16(a) filing requirements applicable to our insiders.

Audit Committee Report

The Audit Committee of the Board currently consists of Mr. Jorden, Mr. Richman and Mr. Seaman, all of which are independent, non-employee directors.

The Audit Committee operates under a written charter adopted by the Board of Directors, which is evaluated annually. The charter of the Audit Committee is available on the Company's website at http://www.opexatherapeutics.com under the heading "Investor Info". The Audit Committee selects, evaluates and, where deemed appropriate, replaces the Company's independent auditors. The Audit Committee also pre-approves all audit services, engagement fees and terms, and all permitted non-audit engagements, except for certain de minimus amounts.

Management is responsible for the Company's internal controls and the financial reporting process. The Company's independent auditors are responsible for performing an independent audit of the Company's consolidated financial statements in accordance with auditing standards generally accepted in the United States of America and issuing a report on the Company's consolidated financial statements. The Audit Committee's responsibility is to monitor and oversee these processes.

In this context, the Audit Committee has reviewed the Company's audited financial statements for fiscal 2008 and has met and held discussions with management and Malone & Bailey, PC, the Company's independent auditors. Management represented to the Audit Committee that the Company's consolidated financial statements for fiscal 2008 were prepared in accordance with accounting principles generally accepted in the United States of America, and the Audit Committee discussed the consolidated financial statements with the independent auditors. The Audit Committee also discussed with Malone & Bailey, PC matters required to be discussed by Statement on Auditing Standards No. 61 (Communications with Audit Committees).

Malone & Bailey, PC also provided to the Audit Committee the written disclosure required by Independence Standards Board Standard No. 1 (Independence Discussions with Audit Committees), and the Audit Committee discussed with Malone & Bailey, PC the accounting firm's independence.

Based upon the Audit Committee's discussion with management and Malone & Bailey, PC, and the Audit Committee's review of the representation of management and the report of Malone & Bailey, PC to the Audit Committee, the Audit Committee recommended to the Board of Directors that the audited consolidated financial statements be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008, filed with the Securities and Exchange Commission.

Submitted by the Audit Committee of the Board of Directors of Opexa Therapeutics, Inc.

David E. Jorden, Michael S. Richman, Scott B. Seaman

ITEM 11. EXECUTIVE COMPENSATION.

Compensation Discussion and Analysis

Objectives of Our Executive Compensation Program

The compensation committee of our Board (the "Compensation Committee") administers our executive compensation program. The Compensation Committee is composed entirely of independent directors.

The general philosophy of our executive compensation program is to align executive compensation with the Company's business objectives and the long-term interests of our stockholders. To that end, the Compensation Committee believes executive compensation packages provided by the Company to its executives, including the named executive officers, should include both cash and stock-based compensation that reward performance as measured against established goals. In addition, the Company strives to provide compensation that is competitive with other biopharmaceutical and biotechnology companies and that will allow us to attract, motivate, and retain qualified executives with superior talent and abilities.

Our executive compensation is designed to reward achievement of the Company's corporate goals. In 2008, our corporate goals included, but were not limited to: (i) advancement of the Company's clinical development program; (ii) advancing the Company's research and development programs; (iii) obtaining additional financing as needed; and (iv) realizing financial goals. This focus allows us to reward our executives for their roles in creating value for our stockholders.

The Role of the Compensation Committee

The Compensation Committee has the primary authority to determine the Company's compensation philosophy and to establish compensation for the Company's executive officers. The Compensation Committee oversees the Company's compensation and benefit plans and policies; administers the Company's stock option plans; reviews the compensation components provided to Opexa's officers, employees, and consultants; grants options to purchase common stock Opexa's officers, employees, and consultants; and reviews and makes recommendations to the Board regarding all forms of compensation to be provided to the members of the Board.

The Compensation Committee generally sets the initial compensation of each executive. The Compensation Committee annually reviews and in some cases adjusts compensation for executives. Although, the Chief Executive Officer provides recommendations to the Compensation Committee regarding the compensation of the other executive officers, the Compensation Committee has full authority over all compensation matters relating to executive officers.

Elements of Executive Compensation

Although the Compensation Committee has not adopted any formal guidelines for allocating total compensation between equity compensation and cash compensation, it strives to maintain a strong link between executive incentives and the creation of stockholder value. Therefore, the Company emphasizes incentive compensation in the form of stock options rather than base salary.

Executive compensation consists of the following elements:

Base Salary. Base salaries for our executives are generally established based on the scope of their responsibilities, taking into account competitive market compensation paid by other companies for similar positions and recognizing cost of living considerations. Prior to making its recommendations and determinations, the Compensation Committee reviews each executive's:

- historical pay levels;
- past performance; and
- expected future contributions.

The Compensation Committee does not use any particular indices or formulae to arrive at each executive's recommended pay level.

Equity Awards. We also use long-term incentives in the form of stock options. Employees and executive officers generally receive stock option grants at the commencement of employment and periodically receive additional stock option grants, typically on an annual basis. We believe that stock options are instrumental in aligning the long-term interests of the Company's employees and executive officers with those of the stockholders because such individuals realize gains only if the stock price increases. Stock options also help to balance the overall executive compensation program, with base salary providing short-term compensation and stock options rewarding executives for long-term increases in stockholder value.

Options are generally granted through our June 2004 Compensatory Stock Option Plan that authorizes us to grant options to purchase shares of common stock to our employees, directors, and consultants. The Compensation Committee reviews and approves stock option awards to executive officers in amounts that are based upon a review and assessment of:

- competitive compensation data;
- individual performance;
- each executive's existing long-term incentives; and
- retention considerations.

Periodic stock option grants are made at the discretion of the Compensation Committee to eligible employees and, in appropriate circumstances, the Compensation Committee considers the recommendations of members of management, such as the Chief Executive Officer. In 2008, each named executive officer was awarded stock options in the amounts indicated in the section entitled Grants of Plan-Based Awards. Stock options are granted with an exercise price equal to the fair market value of our common stock on the day of grant and typically vest ratably over a three year period.

Section 162(m) Policy

Section 162(m) of the Internal Revenue Code limits the tax deductibility by a corporation of compensation in excess of $1 million paid to its Chief Executive Officer and any other of its four most highly compensated executive officers. However, compensation which qualifies as "performance-based" is excluded from the $1 million limit if, among other requirements, the compensation is payable only upon attainment of pre-established, objective performance goals under a plan approved by the corporation's stockholders.

It is our policy to qualify, to the extent reasonable, our executive officers' compensation for deductibility under applicable tax law. However, we intend to retain the flexibility necessary to provide total cash compensation in line with competitive practice, our compensation philosophy, and our best interests. It therefore may from time to time pay compensation to our executive officers that may not be deductible.

Compensation Committee Report

The Compensation Committee of the Board is composed of three independent directors as defined under the Marketplace Rules of The Nasdaq Capital Market ("Nasdaq"). The Compensation Committee operates under a written charter adopted by the Board. The members of the Compensation Committee are David Hung, Michael Richman, and Scott Seaman. We believe that each member of the Compensation Committee meets the director independence requirements set forth in the applicable Securities and Exchange Commission ("Commission") rules and Nasdaq Marketplace Rules.

The Compensation Committee administers Opexa's June 2004 Compensatory Stock Option Plan; reviews compensation components to be provided to Opexa's officers, employees, and consultants; grants options to purchase common stock and restricted stock to Opexa's officers, employees, and consultants; and reviews and makes recommendations to the Board regarding all forms of compensation to be provided to the members of the Board. The Compensation Committee believes it has fulfilled its responsibilities under its charter for the fiscal year ended December 31, 2008.

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) for the fiscal year ended December 31, 2008 with management. Based upon this review and discussion, the Compensation Committee recommended to the Board that the Compensation Discussion and Analysis be included in Opexa's Annual Report on Form 10-K for the fiscal year ended December 31, 2008.

Submitted by the Compensation Committee of the Board of Directors of Opexa Therapeutics, Inc.

David Hung, Michael S. Richman, Scott B. Seaman

Executive Officer Compensation

Summary Compensation Table

The following tables set forth certain information regarding our CEO and each of our most highly-compensated executive officers whose total annual salary and bonus for the fiscal years ending December 31, 2008 and 2007 exceeded $100,000.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Other Compensation ($)[6]	Options Awards ($)[7]	Total ($)
Neil K. Warma[1]	2008	195,100	—	62,487	72,869	330,456
CEO, President, Director	2007	—	—	—	—	—
David B. McWilliams[2]	2008	148,959	—	—	700,059	849,018
CEO, President, Director	2007	275,000[8]	—	—	411,807	686,807
Jim C. Williams[3]	2008	225,750[9]	—	—	161,466	387,216
Chief Operating Officer	2007	225,750[9]	—	—	449,024	674,774
Lynne Hohlfeld[4]	2008	175,000[10]	—	—	135,135	310,135
CFO and Secretary	2007	175,000[10]	—	—	102,700	277,700
Donna R. Rill[5]	2008	141,886[11]	—	—	110,402	252,288
Senior V.P. of Operations	2007	137,940	10,000	—	234,598	382,538

(1) Served as president and chief executive officer since June 2008.
(2) Served as president and chief executive officer from August 2004 to June 2008.
(3) Served as an executive officer from June 2007 to February 2009.
(4) Served as chief financial officer from June 2006 to March 2009.
(5) Named as an executive officer in June 2007.
(6) Other compensation includes costs of moving and temporary housing.
(7) Reflects the dollar amount recognized for financial statement reporting purposes for the year ended December 31, 2008 in accordance with FAS 123(R) (but disregarding forfeiture estimates related to service-based vesting conditions) and, accordingly, includes amounts from options granted prior to 2006.
(8) Mr. McWilliams' salary was increased to $288,750 effective April 1, 2007. However, the increase in salary was accrued but not paid. As of December 31, 2008, the outstanding amount due Mr. McWilliams was $17,188.
(9) Dr. Williams' salary was increased to $237,038 effective April 1, 2007 and to $248,890 effective April 1, 2008. However, the increase in salary was accrued but not paid. As of December 31, 2008, the outstanding amount due Dr. Williams was $28,643. On February 6, 2009, Dr. Williams exchanged the outstanding salary due for a fully vested stock option to purchase 28,643 shares of Opexa common stock at an exercise price of $0.47 per share.
(10) Ms. Hohlfeld's salary was increased to $183,750 effective April 1, 2007 and to $192,938 effective April 1, 2008. However, the increase in salary was accrued but not paid. As of December 31, 2008, the outstanding amount due Ms. Hohlfeld was $22,203.
(11) Ms. Rill's salary was increased to $151,114 effective April 1, 2008. However, the increase in salary was accrued but not paid. As of December 31, 2008, the outstanding amount due Ms. Rill was $8,396. On February 6, 2009, Ms. Rill exchanged the outstanding salary due for a fully vested stock option to purchase 8,396 shares of Opexa common stock at an exercise price of $.47 per share.

Executive Employment Agreements

The Company entered into a three year employment agreement on June 16, 2008 with Neil K. Warma pursuant to which he will serve as president and chief executive officer. Pursuant to the agreement, Mr. Warma is paid $285,000 for the first twelve month period, $335,000 for the second twelve month period and $385,000 for the third twelve month period. In addition, Mr. Warma is entitled to the following: (i) an annual cash bonus of up to 50% of his base salary based upon milestones to be agreed upon; (ii) a one-time payment of $50,000 cash and 25,000 shares of the Company's common stock to be issued if and when the closing bid price of the Company's common stock equals or exceeds $4.00 for twenty consecutive trading days; and (iii) a ten-year stock option to purchase 250,000 shares of common stock with an exercise price of $1.01 per share that vests 50,000 shares immediately and the balance quarterly in equal amounts over three years. In addition, the Company provided Mr. Warma with relocation assistance and the Company's standard benefits and insurance coverage as generally provided to its management. If employment is terminated by the Board without cause, Mr. Warma will receive 12 months base salary plus a payment equal to 30% of base salary and including any earned but unpaid bonus. In addition, vesting of stock options will accelerate in full if the effective date of the termination is at least two years after commencement of employment or vesting will be accelerated for a twelve month period if termination is prior to two years of employment. Upon the effectiveness of a change in control, Mr. Warma will receive 18 months of salary and a payment equal to 45% of base salary. All vesting of options will accelerate in full.

The Company entered into a one year employment agreement with Donna Rill on May 9, 2008, effective April 1, 2008 through March 31, 2009, at an annual salary of $151,114 pursuant to which Ms. Rill served as vice-president of operations of the Company. On January 16, 2009 Ms. Rill was promoted to senior vice president of the Company at an annual salary of $200,000. The employment agreement may be terminated at any time voluntarily by her or without cause by the Board. If employment is terminated by the Board without cause, Ms. Rill will receive six months base salary and any and all stock options granted to Ms. Rill prior to termination will be accelerated for a twelve month period. Ms. Rill shall have one year to exercise any vested stock options. In the event of a change of control, any and all stock options granted to Ms. Rill prior to such change of control will be accelerated to become vested and Ms. Rill shall have one year to exercise any vested stock options.

Grants of Plan Based Awards in 2008

The following table presents each grant of stock options in 2008 to the individuals named in the summary compensation table above.

Name	Grant Date	Number of Securities Underlying Options	Exercise Price of Option Awards	Grant Date Fair Value of Options
Neil K. Warma	06/16/08	250,000(1)	$1.01	$216,866
David B. McWilliams	05/06/08	8,700(2)	$1.09	$ 7,950
	06/26/08	39,000(3)	$1.17	$ 39,133
Jim C. Williams	05/06/08	10,300(4)	$1.09	$ 9,411
	06/26/08	23,000(5)	$1.17	$ 23,079
Lynne Hohlfeld	05/06/08	8,000(4)	$1.09	$ 7,310
	06/26/08	21,000(6)	$1.17	$ 21,072
Donna R. Rill	05/06/08	3,000(4)	$1.09	$ 2,741
	06/26/08	33,000(7)	$1.17	$ 33,113

(1) 50,000 options vest upon date of grant, balance of 200,000 options vest quarterly over three years.
(2) Accelerated vesting on 6/16/2008 upon retirement from the Company.
(3) Vest immediately on date of grant.
(4) Fully vested at 12/31/2008.

(5) Accelerated vesting on 2/13/2009 upon retirement from the Company.
(6) 17,500 shares forfeited upon departure from the Company in March 2009.
(7) Vest quarterly over three years from date of grant.

Each of the options in the foregoing table was granted under the Company's June 2004 Compensatory Stock Option Plan.

Outstanding Equity Awards at Fiscal Year-End

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Neil K. Warma	83,334	166,666	1.01	06/16/18
David B. McWilliams	37,000	—	30.00	08/31/09
	5,000	—	30.00	01/21/10
	120,000	—	5.00	05/02/16
	41,000	—	5.47	06/18/17
	8,700	—	1.09	05/06/18
	39,000	—	1.17	06/26/18
	5,000	5,000	1.17	06/26/18
Jim C. Williams	12,500	—	30.00	11/06/09
	9,375	3,125	7.00	12/05/10
	28,583	14,292	5.00	04/20/16
	10,000	20,000	5.47	06/18/17
	10,300	—	1.09	05/06/18
	3,833	19,167	1.17	06/26/18
Lynne Hohlfeld	15,000	7,500	5.00	04/20/16
	8,333	4,167	8.25	07/12/16
	10,667	21,333	5.47	06/18/17
	8,000	—	1.09	05/06/18
	3,500	17,500	1.17	06/26/18
Donna R. Rill	6,000	—	30.00	11/06/09
	4,500	1,500	7.00	12/05/10
	15,587	7,793	5.00	04/20/16
	10,667	21,333	5.47	06/18/17
	3,000	—	1.09	05/06/18
	5,500	27,500	1.17	06/26/18

Director Compensation

The following table presents summary information for the year ended December 31, 2008 regarding the compensation of the non-employee members of our board of directors. Mr. Jorden was appointed to the board on August 12, 2008. Mr. Bailey resigned from the board effective December 10, 2008 and Mr. Randall resigned from the board effective February 19, 2009.

Name	Fees Earned or Paid in Cash ($)	Restricted Stock and Options Awards ($)[1]	Total ($)
Gregory H. Bailey[2]	— [3]	72,966	72,966
David Hung[4]	— [5]	93,077	93,077
David E. Jorden[6]	— [7]	10,877	10,877
David B. McWilliams[8]	—	7,367	7,367
Lorin J. Randall[9]	27,000	22,699	49,699
Michael S.Richman[10]	— [7]	70,486	70,486
Scott B. Seaman[11]	— [7]	69,630	69,630

(1) Reflects the dollar amount recognized for financial statement reporting purposes for the year ended December 31, 2008 in accordance with FAS 123R (but disregarding forfeiture estimates related to service-based vesting conditions) and, accordingly, includes amounts from options granted prior to 2006. See the information appearing under the heading entitled "Stock Options and Warrants" in footnote number 11 to our consolidated financial statements included as part of our Annual report on Form 10-KSB for the year ended December 31, 2006 for certain assumptions made in the valuation of options granted in the years ended December 31, 2006, 2005, and 2004.

(2) 50,000 option awards outstanding at fiscal year end.

(3) In exchange for board compensation fees due, 31,000 shares of restricted common stock were issued on May 5, 2008; of which 13,300 shares of common stock vested on the date of grant and the balance of 17,700 restricted shares were to vest on December 31, 2008, however since Dr. Bailey resigned from the board on December 10, 2008, the 17,700 shares were forfeited.

(4) 55,000 option awards outstanding at fiscal year end.

(5) In exchange for board compensation fees due, 31,900 shares of restricted common stock were issued on May 5, 2008; of which 12,400 shares of common stock vested on the date of grant and the balance of 19,500 restricted shares vested on December 31, 2008.

(6) 20,000 shares of common stock underlying options outstanding at fiscal year end.

(7) Mr. Jorden, Mr. Richman and Mr. Seaman elected to exchange board compensation fees due as of December 31, 2008 for stock options on February 6, 2009. Stock options equal to one share of common stock for each dollar due, fully vested and exercisable for a term of ten years were granted to Mr. Jorden, Mr. Richman and Mr. Seaman at an exercise price of $ $0.47 per share.

(8) 10,000 shares of common stock underlying options outstanding at fiscal year end.

(9) 30,000 shares of common stock underlying options outstanding at fiscal year end.

(10) 66,400 shares of common stock underlying options outstanding at fiscal year end.

(11) 66,900 shares of common stock underlying options outstanding at fiscal year end.

No options were exercised during the fiscal year ended December 31, 2008.

The following table presents the fair value of each grant of stock options in 2008 to non-employee members of our board of directors, computed in accordance with FAS 123R:

Name	Grant Date	Number of Securities Underlying Options	Exercise Price of Option Awards	Grant Date Fair Value of Options
Gregory H. Bailey	06/26/08	10,000	$1.17	$ 9,823
David Hung	06/26/08	10,000	$1.17	$ 9,823
David E. Jorden	08/19/08	20,000	$1.55	$26,105
David B. McWilliams	06/26/08	10,000	$1.17	$ 9,823
Lorin J. Randall	06/26/08	10,000	$1.17	$ 9,823
Michael S. Richman	05/06/08	11,400	$1.09	$10,417
	06/26/08	10,000	$1.17	$ 9,823
Scott B. Seaman	05/06/08	11,900	$1.09	$10,873
	06/26/08	10,000	$1.17	$ 9,823

Compensation of Directors

Mr. Warma who is a director and an officer does not receive any compensation for his services as a member of our board of directors. We reimburse our directors for travel and lodging expenses in connection with their attendance at board and committee meetings. In summary, Board members receive the following fees:

Annual retainer	$12,000
For each Board meeting attended in person	$ 1,500
For each Board meeting attended that is held over the telephone	$ 750
For each non-chair committee member for each committee meeting attended	$ 750
For each committee meeting attended by the chair of that committee	$ 1,000

In addition, on June 26, 2008 Dr. Hung, Mr. McWilliams, Mr. Randall, Mr. Richman and Mr. Seaman were each granted a ten year option to purchase 10,000 shares of our common stock an exercise price of $1.17 of which 5,000 shares vest immediately and 5,000 shares will vest on the first anniversary of the date of grant. On August 19, 2008, Mr. Jorden was granted an initial ten year option to purchase 20,000 shares of our common stock at an exercise price of $1.55.

In January 2009, the board elected to suspend cash payments for board compensation for the first six months of 2009.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The following table sets forth, as of March 13, 2009, the number and percentage of outstanding shares of our common stock owned by: (a) each person who is known by us to be the beneficial owner of more than 5% of our outstanding shares of common stock; (b) each of our directors; (c) the named executive officers as defined in Item 402 of Regulation S-K; and (d) all current directors and executive officers, as a group. As of March 23, 2009, there were 12,245,858 shares of common stock issued and outstanding.

Beneficial ownership has been determined in accordance with Rule 13d-3 under the Exchange Act. Under this rule, certain shares may be deemed to be beneficially owned by more than one person (if, for example, persons share the power to vote or the power to dispose of the shares). In addition, shares are deemed to be beneficially owned by a person if the person has the right to acquire shares (for example, upon exercise of an option or warrant) within 60 days of the date as of which the information is provided. In computing the percentage ownership of any person, the amount of shares is deemed to include the amount of shares beneficially

owned by such person by reason of such acquisition rights. As a result, the percentage of outstanding shares of any person as shown in the following table does not necessarily reflect the person's actual voting power at any particular date.

To our knowledge, except as indicated in the footnotes to this table and pursuant to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them.

Name and Address of Beneficial Owner[1]	Number of Shares Owned	Percentage of Class
Beneficial Owners of more than 5%:		
Albert and Margaret Alkek Foundation[2]	1,260,219[3]	9.999%
LBI Group Inc.[4]	1,285,433[5]	9.999%
Charles E. Sheedy[6]	1,058,108[7]	8.30%
SF Capital Partners Ltd.[8]	851,514[9]	6.68%
Alkek & Williams Ventures Ltd.[10]	812,630[11]	6.43%
Officers and Directors:		
David E. Jorden	1,003,547[12]	7.91%
Scott B. Seaman[10]	984,374[13]	7.71%
David B. McWilliams	269,094[14]	2.15%
David Hung	112,110[15]	*
Neil K. Warma	106,043[16]	*
Michael S. Richman	90,650[17]	*
Donna R. Rill	76,009[18]	*
All directors and executive officers as a group (7 persons)**	2,641,827[19]	19.61%

* Indicates less than 1%

(1) Unless otherwise indicated, the mailing address of the beneficial owner is c/o Opexa Therapeutics, Inc., 2635 North Crescent Ridge Drive, The Woodlands, Texas 77381.

(2) 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. The mailing address of the beneficial owner is 1100 Louisiana, Suite 5250, Houston, Texas 77002.

(3) Consisting of: (i) 22,222 shares of common stock underlying Series C Warrants exercisable at $30.00 per share, (ii) 85,379 shares of common stock underlying an April 2006 Warrant, and (iii) 250,000 shares of common stock underlying Series E Warrants. Excludes 164,621 shares of common stock underlying an

April 2006 Warrant and 135,951 shares of Company common stock underlying a Series F Warrant because the Foundation is contractually prohibited from exercising either 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) 333,333 shares of common stock held by DLD Family Investments, LLC; (ii) 17,778 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by DLD Family Investments, LLC; (iii) 110,000 shares of common stock underlying a Warrant 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) 26,667 shares of common stock held by Mr. Arnold; (vii) 8,889 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by Mr. Arnold; (viii) 10,000 shares of common stock underlying a Warrant held by Mr. Arnold; (ix) 10,000 shares of common stock held by Mr. Bailey; (x) 5,000 shares of common stock underlying a Warrant held by Mr. Bailey; (xi) 416,537 shares of common stock held by Ventures; (xii) 18,223 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by Ventures; (xiii) 125,000 shares of common stock underlying a Warrant held by Ventures; (xiv) 200,000 shares of common stock underlying Series E warrants held by Ventures; (xv) 52,870 shares of common stock underlying Series F warrants held by Ventures; (xvi) 43,655 shares of common stock held by Mr. Seaman; (xvii) 5,334 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by Mr. Seaman; (xviii) 7,500 shares of common stock underlying a Warrant held by Mr. Seaman; (xix) 10,000 shares of common stock underlying Series E warrants held by Mr. Seaman and (xx) 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.

(4) Lehman Brothers Holdings Inc. exercises sole voting and dispositive power over all of the shares of common stock beneficially owned by LBI Group Inc. The information in this footnote is primarily based on information reported on the Schedule 13G filed with the SEC on August 19, 2008 by LBI Group Inc. The mailing address of the beneficial owner is 399 Park Avenue, New York, NY 10022.

(5) Consisting of 609,758 shares of common stock underlying Series F Warrants. Excludes 65,917 shares of Company common stock underlying Series F warrants that LBI Group Inc. is contractually prohibited from exercising 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.

(6) Charles E. Sheedy exercises sole voting and dispositive power over all of the shares of common stock beneficially owned. The information in this footnote is primarily based on information reported on the Schedule 13G filed with the SEC on August 22, 2008 by Charles E. Sheedy. The mailing address of the beneficial owner is 909 Fannin Street, Suite 2907, Houston, Texas 77010.

(7) Consisting of: (i) 50,000 shares of common stock underlying a Warrant; (ii) 150,000 shares of common stock underlying Series E warrants; and (iii) 304,054 shares of common stock underling Series F warrants.

(8) Michael A. Roth and Brian J. Stark exercise joint voting and dispositive power over all of the shares of common stock beneficially owned by SF Capital Partners Ltd., but Messrs Roth and Stark disclaim beneficial ownership of such shares. The information in this footnote is primarily based on a Schedule 13G reported with the SEC on February 17, 2009 and other information provided to us. The mailing address of SF Capital Partners Ltd. is c/o Stark Offshore Management, LLC, 3600 South Lake Drive, St. Francis, WI 53235.

(9) Consisting of 500,000 shares of common stock issuable upon the exercise of a Warrant dated April 11, 2006 held by SF Capital Partners Ltd.

(10) Chaswil, Ltd. is the investment manager of Ventures and holds voting power and investment power with respect to Company securities held by Ventures pursuant to a written agreement. Scott B. Seaman is a principal of Chaswil, Ltd. and has shared voting power and shared investment power over all of the shares of common stock beneficially owned by Ventures. The information in this footnote is primarily based on the Foundation 13D and other information provided to us. The mailing address of the beneficial owner is 1100 Louisiana, Suite 5250, Houston, Texas 77002.

(11) Consisting of: (i) 18,223 shares of common stock underlying Series C warrants exercisable at $30.00 per share; (ii) 125,000 shares of common stock underlying a Warrant, (iii) 200,000 shares of common stock underlying Series E warrants and (iv) 52,870 shares of common stock underlying Series F warrants.

(12) Consisting of: (i) 60,000 shares of shares of common stock underlying warrants; (ii) 102,500 shares of common stock underlying Series E warrants; (iii) 270,000 shares of common stock underlying Series F warrants; and (iv) 13,547 shares of common stock underlying stock options.

(13) Consisting of: (i) 90,150 shares underlying stock options;; (ii) 18,223 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by Ventures; (iii) 125,000 shares of common stock underlying the Warrants held by Ventures; (iv) 200,000 shares of common stock underlying Series E warrants held by Ventures; (v) 52,870 shares of common stock underlying Series F Warrants held by Ventures; (vi) 5,334 shares of common stock underlying Series C warrants exercisable at $30.00 per share; (vii) 7,500 shares of common stock underlying the Warrants; (viii) 10,000 shares of common stock underlying Series E warrants; and (ix) 15,105 shares of common stock underlying Series F warrants. (See footnote 10 for additional discussion of the information set forth in clauses (i) through (v) of the preceding sentence.) Pursuant to the Foundation 13D, this does not include the following shares which Mr. Seaman has determined he does not have beneficial ownership or disclaimed beneficial ownership: (i) 902,618 shares of common stock held by the Foundation; (ii) 22,223 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by the Foundation; (iii) 250,000 shares of common stock underlying a Warrant held by the Foundation; (iv) 250,000 shares of common stock underlying Series E warrants held by the Foundation and (v) 250,000 shares of common stock underlying Series F warrants held by the Foundation. (See footnote 3 for additional discussion of the information set forth in clauses (i) through (v) of the preceding sentence.) The mailing address of the beneficial owner is 1100 Louisiana, Suite 5250, Houston, Texas 77002.

(14) Consisting of: (i) 255,700 shares of common stock underlying stock options and (ii) 6,968 shares of common stock underlying Series C warrants exercisable at $30.00 per share.

(15) Consisting of: (i) 15,105 shares of common stock underlying Series F warrants and (ii) 50,000 shares of common stock underlying stock options.

(16) Consisting of (i) 3,021 shares of common stock underlying Series F warrants; and (ii) 100,001 shares of common stock underlying stock options.

(17) Consisting of 90,650 shares of common stock underlying stock options.

(18) Consisting of 73,399 shares of common stock underlying stock options.

(19) Consisting of: (a) the following held by Mr. Jorden (i) 60,000 shares of shares of common stock underlying warrants; (ii) 102,500 shares of common stock underlying Series E warrants; (iii) 270,000 shares of common stock underlying Series F warrants; and (iv) 13,547 shares of common stock underlying stock options; (b) the following held by Mr. Seaman or which Mr. Seaman may be deemed to have voting and investment power: (i) 90,150 shares underlying stock options; (ii) 18,223 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by Ventures; (iii) 125,000 shares of common stock underlying the Warrants held by Ventures; (iv) 200,000 shares of common stock underlying Series E warrants held by Ventures; (v) 52,870 shares of common stock underlying Series F Warrants held by Ventures; (vi) 5,334 shares of common stock underlying Series C warrants exercisable at $30.00 per share; (vii) 7,500 shares of common stock underlying the Warrants; (viii) 10,000 shares of common stock underlying Series E warrants; and (ix) 67,975 shares of common stock underlying Series F warrants; (c) the following held by Mr. McWilliams (i) 255,700 shares of common stock underlying stock options and (ii) 6,968 shares of our common stock underlying Series C warrants exercisable at $30.00 per share; (d) the following held by Dr. Hung (i) 15,105 shares of common stock underlying Series F warrants and (ii) 50,000 shares of common stock underlying stock options held by Dr. Hung; (e) the following held by Mr. Warma

(i) 3,021 shares of common stock underlying Series F warrants and (ii) 100,001 shares of common stock underlying stock options held by Mr. Warma; (f) 90,650 shares underlying stock options held by Mr. Richman and (g) 76,009 shares of common stock underlying stock options held by Ms. Rill.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE.

Certain Relationships and Related Transactions

None

Director Independence

Director	Independent[1]	Audit Committee	Nominating and Corporate Governance Committee
David Hung	X		X
David E. Jorden	X	X	X
David B. McWilliams			
Michael S. Richman	X	X	
Scott B. Seaman	X	X	X
Neil K. Warma			

(1) As defined by applicable SEC rule and the listing standards of the Nasdaq Capital Market.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The following table presents the estimated aggregate fees billed and to be billed by Malone & Bailey, PC for services performed during our last two fiscal years.

	Years Ended December 31,	
	2008	2007
Audit fees[1]	$67,415	$175,466
Tax fees	5,600	3,505
All other fees	11,785	15,370
	$84,800	$194,341

(1) "Audit fees" include professional services rendered for (i) the audit of our annual financial statements for the fiscal years ended December 31, 2007 and 2008, (ii) the reviews of the financial statements included in our quarterly reports on Form 10-Q for such years and (iii) the issuance of consents and other matters relating to registration statements filed by us.

PART IV

ITEM 15. EXHIBITS FINANCIAL STATEMENT SCHEDULES.

(a) 1. Financial Statements of the Company

INDEX TO FINANCIAL STATEMENTS

Audited Financial Statements for years ended December 31, 2008, 2007 and 2006 and the period from January 22, 2003 (Inception) through December 31, 2008

2. Financial Statement Schedules

The required information is included in the Consolidated Financial Statements or Notes thereto.

3. List of Exhibits

Exhibit 2.1 Stock Purchase Agreement effective as of May 5, 2004 (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed June 4, 2004).

Exhibit 2.2 Agreement and Plan of Reorganization (incorporated by reference to Exhibit 2.1 to the Company's Current Report on 8-K filed October 8, 2004).

Exhibit 3.1 Articles of Amendment and Restatement of the Articles of Incorporation (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on June 19, 2006).

Exhibit 3.3 Amended and Restated By-laws (incorporated by reference to Exhibit 2.2 to the Company's Registration Statement on Form 10-SB (File No. 000-25513), initially filed March 8, 1999).

Exhibit 4.1 Form of Common Stock Certificate (incorporated by reference to Exhibit 2.3 to the Company's Registration Statement on Form 10-SB (File No. 000-25513), initially filed March 8, 1999).

Exhibit 4.2 Form of Series E Warrant (incorporated by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K filed December 20, 2007).

Exhibit 4.3 Warrant Agent Agreement for Series E Warrant (incorporated by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K filed February 14, 2008).

Exhibit 4.4 Form of Underwriters' Warrant Agreement (incorporated by reference to Exhibit 4.4 to the Company's Current Report on Form 8-K filed February 14, 2008).

Exhibit 4.5 Form of Underwriters' Warrant to Acquire Warrants Agreement (incorporated by reference to Exhibit 4.5 to the Company's Current Report on Form 8-K filed February 14, 2008).

Exhibit 10.1	June 2004 Compensatory Stock Option Plan (incorporated by reference to Exhibit B to the Company's Definitive Information Statement filed on June 29, 2004).
Exhibit 10.2	Amended and Restated Employment Agreement dated June 15, 2006, between the Company and David McWilliams (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-QSB filed August 14, 2006).
Exhibit 10.3	Amendment to Employment Agreement dated May 9, 2008, between the Company and David McWilliams (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed May 13, 2008).
Exhibit 10.4	Employment Agreement dated May 9, 2008, between the Company and Lynne Hohlfeld (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed May 13, 2008).
Exhibit 10.5	Employment Agreement dated May 9, 2008, between the Company and Jim C. Williams, Ph.D (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed May 13, 2008).
Exhibit 10.6	Employment Agreement dated May 9, 2008, between the Company and Donna R. Rill (incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q filed May 13, 2008).
Exhibit 10.7	Employment Agreement dated June 16, 2008, between the Company and Neil K. Warma (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on June 18, 2008).
Exhibit 10.12	Form of Warrant Agreement (incorporated by reference to Exhibit 10.13 to the Company's Annual Report on Form 10-KSB filed April 15, 2005).
Exhibit 10.13	License Agreement dated September 5, 2001 between the Company and Baylor College of Medicine (incorporated by reference to Exhibit 10.14 to the Company's Annual Report on Form 10-KSB filed April 15, 2005).
Exhibit 10.14	Second Amended and Restated License Agreement with University of Chicago (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed August 3, 2007).
Exhibit 10.17	Form of Series C Common Stock Purchase Warrant (incorporated by reference to Exhibit 10.17 to Form SB-2 filed July 19, 2005).
Exhibit 10.18	Securities Purchase Agreement dated June 17, 2005 by and among the Company and the Investors named therein (incorporated by reference to Exhibit 10.18 to Form SB-2 filed July 19, 2005).
Exhibit 10.19	Registration Rights Agreement dated June 17, 2005 by and among the purchasers of common stock named therein (incorporated by reference to Exhibit 10.19 to Form SB-2 filed July 19, 2005).
Exhibit 10.20	Securities Purchase Agreement dated June 30, 2005 by and among the Company and the purchasers of common stock named therein (incorporated by reference to Exhibit 10.20 to Form SB-2 filed July 19, 2005).
Exhibit 10.21	Securities Purchase Agreement dated July 15, 2005 by and among the Company and the Investors named therein (incorporated by reference to Exhibit 10.21 to Form SB-2 filed July 19, 2005).
Exhibit 10.22	Registration Rights Agreement dated July 15, 2005 by and among the Company and the Investors named therein (incorporated by reference to Exhibit 10.22 to Form SB-2 filed July 19, 2005).

Exhibit 10.23	License Agreement dated January 13, 2006 by the Company and Shanghai Institute for Biological Services (incorporated by reference to Exhibit 10.23 to Amendment No. 1 to Form SB-2 filed February 9, 2006).
Exhibit 10.24	Lease dated August 19, 2005 by the Company and Dirk D. Laukien (incorporated by reference to Exhibit 10.13 to the Company's Annual Report on Form 10-KSB filed March 31, 2006).
Exhibit 10.25	Form of Warrant Agreement issued to brokers in connection with 2005 offerings (incorporated by reference to Exhibit 10.25 to Amendment No. 2 to Form SB-2 filed April 11, 2006).
Exhibit 10.26	Purchase Agreement dated April 11, 2006 by and among the Company and the Investors named herein (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed April 18, 2006).
Exhibit 10.28	Form of Warrant issued in connection with April 2006 financing (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed April 18, 2006).
Exhibit 10.29	Form of Broker Stock Purchase Warrant issued to MDB Capital Group LLC (incorporated by reference to Exhibit 10.5 of the Company's Current Report on Form 8-K filed April 18, 2006).
Exhibit 10.30	Second Amended and Restated License Agreement dated July 31, 2007 between the Company and the University of Chicago (incorporated by reference to Exhibit 10.1 of the Company's Report on Form 8-K filed August 3,, 2007).
Exhibit 10.31	Unit Purchase Agreement dated August 8, 2008 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed August 12, 2008).
Exhibit 10.32	Registration Rights Agreement dated August 8, 2008 (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed August 12, 2008).
Exhibit 10.33	Form of Warrant issued in connection with August 8, 2008 financing (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed August 12, 2008).
Exhibit 31.1*	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
Exhibit 32.1*	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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* Filed herewith

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SIGNATURES

OPEXA THERAPEUTICS, INC.

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

Date: April 14, 2009

Pursuant to the requirements of the Securities Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacity and on the dates indicated.

Signature	Title	Date
/S/ NEIL K. WARMA **Neil K. Warma**	President and Chief Executive Officer *(Principal Executive Officer)* Acting Chief Financial Officer *(Principal Financial and Accounting Officer)*	April 14, 2009
/S/ DAVID HUNG **David Hung**	Director	April 14, 2009
/S/ DAVID E. JORDEN **David Jorden**	Director	April 14, 2009
/S/ DAVID B. MCWILLIAMS **David B. McWilliams**	Director	April 14, 2009
/S/ MICHAEL S. RICHMAN **Michael Richman**	Director	April 14, 2009
/S/ SCOTT B. SEAMAN **Scott B. Seaman**	Director	April 14, 2009

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors
Opexa Therapeutics, Inc.
(a development stage company)
The Woodlands, Texas

We have audited the accompanying balance sheets of Opexa Therapeutics, Inc. (a development stage company), as of December 31, 2008 and 2007 and the related statements of expenses, changes in stockholders' equity and cash flows for the years ended December 31, 2008, 2007 and 2006 and the period from January 22, 2003 (Inception) through December 31, 2008. These financial statements are the responsibility of Opexa's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatements. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Opexa as of December 31, 2008 and 2007 and the results of its operations and its cash flows for the years ended December 31, 2008, 2007 and 2006 in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 2 to the financial statements, the accompanying financial statements have been prepared assuming that Opexa will continue as a going concern. Opexa requires significant amount of cash in its operations and does not have sufficient cash to fund its operations for the next twelve months, which raises substantial doubt about its ability to continue as a going concern. Management's plans regarding those matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ MALONE & BAILEY, PC
www.malone-bailey.com
Houston, Texas

April 14, 2009

OPEXA THERAPEUTICS, INC.
(a development stage company)

BALANCE SHEETS

	December 31, 2008	December 31, 2007
Assets		
Current assets:		
Cash and cash equivalents	$ 1,243,187	$ 2,645,482
Other current assets	86,705	355,266
Total current assets	1,329,892	3,000,748
Property & equipment, net accumulated depreciation of $847,244 and $614,079, respectively	1,166,530	1,370,647
Total assets	$ 2,496,422	$ 4,371,395
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 482,838	$ 938,442
Accounts payable—related parties	161,714	54,091
Accrued expenses	199,272	1,022,461
Current maturity of loan payable	62,423	60,360
Total current liabilities	906,247	2,075,354
Long term liabilities:		
Loan payable	102,778	162,456
Total liabilities	1,009,025	2,237,810
Commitments and contingencies	—	—
Stockholders' equity:		
Convertible preferred stock, no par value, 10,000,000 shares authorized, none issued and outstanding	—	—
Common stock, $0.50 par value, 100,000,000 shares authorized, 12,245,858 and 6,696,784 shares issued and outstanding	6,122,888	3,348,351
Additional paid in capital	84,929,481	76,498,054
Deficit accumulated during the development stage	(89,564,972)	(77,712,820)
Total stockholders' equity	1,487,397	2,133,585
Total liabilities and stockholders' equity	$ 2,496,422	$ 4,371,395

See accompanying summary of accounting policies and notes to financial statements

OPEXA THERAPEUTICS, INC.
(a development stage company)

STATEMENTS OF EXPENSES
Years ended December 31, 2008, 2007 and 2006 and the
Period from January 22, 2003 (Inception) to December 31, 2008

	2008	2007	2006	Inception through 2008
Research and development	$ 8,388,734	$ 13,071,856	$ 7,850,373	$ 62,146,271
General and administrative	3,341,415	3,418,306	5,461,047	20,966,190
Depreciation	234,325	232,955	174,117	752,535
Loss on disposal of assets	2,831	13,192	2,376	498,332
Operating loss	(11,967,305)	(16,736,309)	(13,487,913)	(84,363,328)
Interest income	100,235	477,605	688,299	1,354,061
Other income and expense, net	34,901	(5,000)	46,450	106,904
Gain on derivative liability	—	—	104,978	—
Gain on extinguishment of debt	—	1,612,440	—	1,612,440
Interest expense	(19,983)	(16,103)	(984)	(8,275,049)
Net loss	$(11,852,152)	$(14,667,367)	$(12,649,170)	$(89,564,972)
Basic and diluted loss per share	$ (1.12)	$ (2.19)	$ (2.35)	N/A
Weighted average shares outstanding	10,551,321	6,696,784	5,390,910	N/A

See accompanying summary of accounting policies and notes to financial statements

OPEXA THERAPEUTICS, INC.
(a development stage company)

STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY
Period from January 22, 2003 (Inception) through December 31, 2008

	Common Stock		Additional Paid in Capital	Accumulated Deficit	Total
	Shares	Par			
Shares issued for cash	525,000	$ 262,500	$ (261,500)	$ —	$ 1,000
Shares repurchased and cancelled	(170,625)	(85,313)	84,988	—	(325)
Discount related to:					
beneficial conversion feature	—	—	28,180	—	28,180
warrants attached to debt	—	—	28,180	—	28,180
Net loss	—	—	—	(126,003)	(126,003)
Balances at December 31, 2003	354,375	177,187	(120,152)	(126,003)	(68,968)
Shares issued for:					
cash	2,250	1,125	7,875	—	9,000
services	206,500	103,250	745,750	—	849,000
license	24,269	12,135	414,940	—	427,075
reverse merger with Sportan	99,740	49,870	(197,603)	—	(147,733)
acquisition of Opexa	250,000	125,000	23,625,000	—	23,750,000
additional shares attached to convertible debt	16,100	8,050	280,316	—	288,366
conversion of convertible notes	60,750	30,375	217,995	—	248,370
Shares cancelled	(8,000)	(4,000)	4,000	—	—
Discount related to:					
beneficial conversion feature	—	—	855,849	—	855,849
warrants attached to debt	—	—	1,848,502	—	1,848,502
Option expense	—	—	123,333	—	123,333
Net loss	—	—	—	(31,411,736)	(31,411,736)
Balances at December 31, 2004	1,005,984	502,992	27,805,805	(31,537,739)	(3,228,942)
Shares issued for:					
cash, net of offering costs	389,451	194,725	5,151,492	—	5,346,217
convertible debt	611,026	305,513	7,343,933	—	7,649,446
debt	2,300	1,150	159,850	—	161,000
license	29,194	14,597	1,853,787	—	1,868,384
services	24,000	12,000	1,000,400	—	1,012,400
Discount related to:					
beneficial conversion feature	—	—	831,944	—	831,944
warrants attached to debt	—	—	1,433,108	—	1,433,108
Option expense	—	—	2,487,741	—	2,487,741
Warrant expense	—	—	2,373,888	—	2,373,888
Transition of warrants from equity instruments to liability instruments	—	—	(10,658,496)	—	(10,658,496)
Net loss	—	—	—	(14,856,724)	(14,856,724)
Balances at December 31, 2005	2,061,955	1,030,977	39,783,452	(46,394,463)	(5,580,034)
Shares issued for:					
cash, net of offering costs	4,600,000	2,300,000	18,853,519	—	21,153,519
debt	34,829	17,374	162,626	—	180,000
Option expense	—	—	2,749,617	—	2,749,617
Warrant expense	—	—	1,568,966	—	1,568,966
Net loss	—	—	—	(12,649,170)	(12,649,170)
Balances at December 31, 2006	6,696,784	3,348,351	63,118,180	(59,043,633)	7,422,898
Cumulative change in derivative liability	—	—	10,658,496	(4,001,820)	6,656,676
Option expense	—	—	1,876,103	—	1,876,103
Warrant expense	—	—	845,275	—	845,275
Net loss	—	—	—	(14,667,367)	(14,667,367)
Balances at December 31, 2007	6,696,784	3,348,351	76,498,054	(77,712,820)	2,133,585
Shares issued for:					
cash, net of offering costs	5,503,874	2,751,937	5,899,642	—	8,651,579
services	45,200	22,600	26,365	—	48,965
Issuance of warrants for cash	—	—	603,850	—	603,850
Option expense	—	—	1,901,570	—	1,901,570
Net loss	—	—	—	(11,852,152)	(11,852,152)
Balances at December 31, 2008	12,245,858	$6,122,888	$ 84,929,481	$(89,564,972)	$ 1,487,397

See accompanying summary of accounting policies and notes to financial statements

OPEXA THERAPEUTICS, INC.
(a development stage company)

STATEMENTS OF CASH FLOWS
Years ended December 31, 2008, 2007 and 2006 and the Period from January 22, 2003 (Inception) to December 31, 2008

	2008	2007	2006	Inception through 2008
Cash flows from operating activities				
Net loss	$(11,852,152)	$(14,667,367)	$(12,649,170)	$(89,564,972)
Adjustments to reconcile net loss to net cash used in operating activities				
Stock payable for acquired research and development	—	—	112,440	112,440
Stock issued for acquired research and development	—	—	—	26,286,589
Stock issued for services	48,965	—	—	1,910,365
Stock issued for debt in excess of principal	—	—	—	109,070
Amortization of discount on notes payable due to warrants and beneficial conversion feature	—	—	—	6,313,205
Unrealized gain on marketable securities	—	25,912	(25,912)	—
(Gain) on derivative liability	—	—	(104,978)	—
(Gain) on extinguishment of debt	—	(1,612,440)	—	(1,612,440)
Depreciation	234,325	232,955	174,117	752,535
Debt financing costs	—	—	—	365,910
Option and warrant expense	1,901,571	2,721,378	4, 318,583	13,926,494
Loss on disposition of fixed assets	2,831	13,192	2,376	498,332
Changes in:				
Accounts payable	(347,980)	123,670	359,397	194,912
Marketable securities	—	2,926,184	(2,926,184)	—
Prepaid expenses	268,561	117,615	(340,876)	(503,378)
Accrued expenses	(823,189)	887,392	(105,240)	72,617
Net cash used in operating activities	(10,567,069)	(9,231,509)	(11,185,447)	(41,138,321)
Cash flows from investing activities				
Purchase of property & equipment	(33,040)	(255,417)	(619,147)	(1,339,511)
Net cash used in investing activities	(33,040)	(255,417)	(619,147)	(1,339,511)
Cash flows from financing activities				
Common stock and warrants sold for cash, net of offering costs	9,255,429	—	21,153,520	35,765,166
Common stock repurchased and canceled	—	—	—	(325)
Proceeds from debt	—	137,286	110,322	8,102,199
Repayments on notes payable	(57,615)	(24,792)	—	(146,021)
Net cash provided by financing activities	9,197,814	112,494	21,263,842	43,721,019
Net change in cash and cash equivalents	(1,402,295)	(9,374,432)	9,459,248	1,243,187
Cash and cash equivalents at beginning of period	2,645,482	12,019,914	2,560,666	—
Cash and cash equivalents at end of period	$ 1,243,187	$ 2,645,482	$ 12,019,914	$ 1,243,187
Cash paid for:				
Income tax	$ —	$ —	$ —	$ —
Interest	19,984	16,103	11,038	47,125
NON-CASH TRANSACTIONS				
Issuance of common stock to Sportan shareholders	—	—	—	147,733
Issuance of common stock for accrued interest	—	—	—	525,513
Conversion of notes payable to common stock	—	—	—	6,407,980
Conversion of accrued liabilities to common stock	—	—	180,000	197,176
Conversion of accounts payable to note payable	—	—	—	93,364
Discount on convertible notes relating to:				
—warrants	—	—	—	3,309,790
—beneficial conversion feature	—	—	—	1,715,973
—stock attached to notes	—	—	—	1,287,440

See accompanying summary of accounting policies and notes to financial statements

OPEXA THERAPEUTICS, INC.
(a development stage company)

NOTES TO FINANCIAL STATEMENTS

NOTE 1—SUMMARY OF ACCOUNTING POLICIES

Opexa Therapeutics, Inc. ("Opexa") was incorporated in Texas in March 1991 as a bio-pharmaceutical company engaged in developing autologous personalized cell therapies. During the development stage, Opexa acquired the worldwide license to technology developed at Argonne National Laboratory, a U.S. Department of Energy Laboratory operated by the University of Chicago ("Argonne"). This is an exclusive license to a stem cell technology in which adult multi-potent stem cells are derived from monocytes obtained from the patient's own blood (the "License"). A patent application was filed in November 2003 with the United States Patent and Trade Office regarding the technology involved in the License.

In June 2004, PharmaFrontiers Corp. ("Pharma") was acquired by Sportan United Industries, Inc. ("Sportan") in a transaction accounted for as a reverse acquisition. Pharma's shareholders were issued 6,386,439 Sportan shares in exchange for 100 percent of the outstanding common shares of Pharma. Immediately following the transaction, Sportan changed its name to Pharma and 7,383,838 shares were outstanding.

On October 7, 2004, Opexa acquired all of the outstanding stock of Opexa Pharmaceuticals, Inc., an entity that has the exclusive worldwide license from Baylor College of Medicine to an individualized T-cell therapeutic vaccine, Tovaxin®, for the treatment of multiple sclerosis (MS). The acquisition was accounted for under the purchase method, where all of Opexa Pharmaceuticals, Inc.'s assets were restated to their fair market value on the acquisition date. The 250,000 shares of Opexa were valued at their then fair value of $23,750,000 or $95.00 per share. The results of operations for Opexa from November 6, 2004 through December 31, 2005 are included in the Statements of Operations and the Statements of Cash Flows.

The following table summarizes the estimated fair values of the assets acquired and the liabilities assumed at the date of acquisition:

Current assets	$ 55,387
Property, plant and equipment, net	639,160
Acquired in process research and development	23,991,128
Current liabilities assumed	(935,675)
Total allocation of purchase price	$23,750,000

Management considered a number of factors in determining the estimated fair value of $23,991,128 for the acquired in process research and development, including the results of an independent valuation performed by a third-party valuation specialist. The purchase price represents Opexa Pharmaceuticals' incomplete research and development programs that had not yet reached technological feasibility and had no alternative future uses as of the acquisition date and, therefore, was expensed upon acquisition within our Consolidated Statements of Expenses.

Development Stage Company. Opexa is considered to be in the Development stage as defined in Statement of Financial Accounting Standards No. 7. Opexa has had no revenues to date.

Basis of Presentation. In June 2006, Opexa (i) changed its name to Opexa Therapeutics, Inc. from Pharma and (ii) effected a one-for-ten reverse common stock split. All references to number of shares and per share amounts reflect such split as if it occurred on the first day of the first period presented. The financial statements include the accounts of Opexa and its wholly-owned subsidiary, Opexa Pharmaceuticals, Inc. through December 31, 2006. All inter-company accounts and transactions have been eliminated.

Reclassifications. Certain prior year amounts have been reclassified to conform with the current year presentation.

Use of Estimates in Financial Statement Preparation. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash, Cash Equivalents and Marketable Securities. For purposes of the statements of cash flows, cash equivalents include all highly liquid investments with original maturities of three months or less. Marketable securities include investments with maturities greater than three months but less than one year. The primary objectives for the fixed income investment portfolio are liquidity and safety of principal. Investments are made with the objective of achieving the highest rate of return consistent with these two objectives. Opexa's investment policy limits investments to certain types of instruments issued by institutions primarily with investment grade credit ratings and places restrictions on maturities and concentration by type and issuer.

Long-lived Assets. Property and equipment are stated on the basis of historical cost less accumulated depreciation. Depreciation is provided using the straight-line method over the estimated useful lives of the assets. Major renewals and improvements are capitalized, while minor replacements, maintenance and repairs are charged to current operations. Impairment losses are recorded on long-lived assets used in operations when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amount.

Income Taxes. Income tax expense is based on reported earnings before income taxes. Deferred income taxes reflect the impact of temporary differences between assets and liabilities recognized for financial reporting purposes and such amounts recognized for tax purposes, and are measured by applying enacted tax rates in effect in years in which the differences are expected to reverse.

Stock-Based Compensation. On January 1, 2006, Opexa began recording compensation expense associated with stock options and other forms of equity compensation in accordance with Statement of Financial Accounting Standards No. 123R, "Share-Based Payment", as interpreted by SEC Staff Accounting Bulletin No. 107. Prior to January 1, 2006, Opexa had accounted for stock options according to the provisions of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees", and related interpretations, and therefore no related compensation expense was recorded for awards granted with no intrinsic value. Opexa adopted the modified prospective transition method provided for under SFAS No. 123R, and, consequently, has not retroactively adjusted results from prior periods. Under this transition method, compensation cost associated with stock options recognized in the first quarter of fiscal 2006 includes the quarterly amortization related to the remaining unvested portion of all stock option awards granted prior to January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions of SFAS No. 123.

The following table illustrates the effect on net loss and net loss per share if Opexa had applied the fair value provisions of FASB Statement No. 123 to stock-based employee compensation prior to January 1, 2006:

	Inception Through 2008
Net loss as reported	$(89,564,972)
Add: stock based compensation determined under intrinsic value method	2,611,074
Less: stock based compensation determined under fair value based method	(4,417,377)
Pro forma net loss	$(91,371,275)

Research and Development. Research and development expenses include salaries, related employee expenses, clinical trial expenses, research expenses, consulting fees, and laboratory costs. All costs for research and development activities are expensed as incurred. Opexa expenses the costs of licenses of patents and the prosecution of patents until the issuance of such patents and the commercialization of related products is reasonably assured. Research and development expense for the years ended December 31, 2008, 2007, and 2006 was $8,388,734, $13,071,856 and $7,850,373, respectively.

Accounting for Derivative Instruments. Statement of Financial Accounting Standard ("SFAS") No. 133, "Accounting for Derivative Instruments and Hedging Activities," as amended, requires all derivatives to be recorded on the balance sheet at fair value. Opexa's derivatives are separately valued and accounted for on our balance sheet. Fair values for securities traded in the open market and derivatives are based on quoted market prices. Where market prices are not readily available, fair values are determined using market based pricing models incorporating readily observable market data and requiring judgment and estimates.

The pricing model Opexa used for determining fair values of its derivatives is the Black-Scholes option-pricing model. Valuations derived from this model are subject to ongoing internal and external verification and review. The model uses market-sourced inputs such as interest rates, exchange rates and option volatilities. Selection of these inputs involves management's judgment and may impact net income.

In December 2006, the FASB issued FASB Staff Position No. EITF 00-19-2, "Accounting for Registration Payment Arrangements" (EITF 00-19-2). EITF 00-19-2 addresses an issuer's accounting for registration payment arrangements. It specifies that the contingent obligation to make future payments or otherwise transfer consideration under a registration payment arrangement, whether issued as a separate agreement or included as a provision of a financial instrument or other agreement, should be separately recognized and measured in accordance with FASB Statement No. 5, Accounting for Contingencies. The guidance in EITF 00-19-2 amends FASB Statements No. 133, "Accounting for Derivative Instruments and Hedging Activities", and No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity", and FASB Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others", to include scope exceptions for registration payment arrangements. EITF 00-19-2 also requires additional disclosure regarding the nature of any registration payment arrangements, alternative settlement methods, the maximum potential amount of consideration and the current carrying amount of the liability, if any. EITF 00-19-2 is effective immediately for registration payment arrangements and the financial instruments subject to those arrangements that are entered into or modified subsequent to the date of issue of this EITF. For registration payment arrangements and financial instruments subject to those arrangements that were entered into prior to the issuance of this EITF, this is effective for financial statements issued for fiscal years beginning after December 15, 2006, and interim periods within those fiscal years.

Recently Issued Accounting Pronouncements. In June 2007, the Emerging Issues Task Force (EITF) issued EITF Issue No. 07-3, "Accounting for Nonrefundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities" ("EITF 07-3"). EITF 07-3 provides guidance concerning the accounting for non-refundable advance payments for goods and services that will be used in future research and development activities and requires that they be expensed when the research and development activity has been performed and not at the time of payment. The provisions of EITF 07-3 are effective for the Company as of January 1, 2008, with a cumulative-effect adjustment to retained earnings as of the beginning of the year of adoption. The adoption of EITF 07-3 did not have a material impact on Opexa's results from operations or financial position.

In June 2008, the FASB ratified EITF Issue 07-5, "Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock" ("EITF 07-5"). Paragraph 11(a) of Statement of Financial Accounting Standard No 133, "Accounting for Derivatives and Hedging Activities" ("SFAS 133") specifies that a contract that would otherwise meet the definition of a derivative, but is both (a) indexed to its own stock and (b) classified in stockholders' equity in the statement of financial position would not be considered a derivative financial instrument. EITF 07-5 provides a new two-step model to be applied in determining whether a financial instrument or an embedded feature is indexed to an issuer's own stock, including evaluating the instrument's contingent exercise and settlement provisions, and thus able to qualify for the SFAS 133 paragraph 11(a) scope exception. It also clarifies the impact of foreign-currency-denominated strike prices and market-based employee stock option valuation instruments on the evaluation. EITF 07-5 will be effective for the first annual reporting period beginning after December 15, 2008, and early adoption is prohibited. Opexa evaluated all of its financial instruments and determined that the warrants associated with the August 2008 financing qualified for treatment under EITF 07-5. As of January 1, 2009, Opexa adjusted its financial statements to reflect the adoption of the EITF 07-5. Opexa reclassified the fair value on these warrants as of January 1, 2009 in the amount of $220,835 from additional paid in capital to derivative liabilities and the cumulative effect of the change in accounting principle in the amount of $1,755,622 is recognized as an adjustment to the opening balance of retained earnings.

There were various other accounting standards and interpretations issued during 2009 and 2008, none of which are expected to have a material impact on the Opexa's financial position, operations or cash flows.

NOTE 2—GOING CONCERN

Opexa incurred a net loss of approximately $11.9 million for the year ended December 31, 2008 and has an accumulated deficit of approximately $89.6 million. The cash balance of $1.2 million as of December 31, 2008 is not sufficient to fund the Company's operations for the next twelve months. These conditions raise substantial doubt as to Opexa's ability to continue as a going concern. Management continues to seek means to raise additional capital through sales of equity and partnering arrangements. The financial statements do not include any adjustments that might be necessary if Opexa is unable to continue as a going concern.

NOTE 3—RESTRUCTURING

In November 2008, Opexa implemented a restructuring plan to terminate the one-year open label extension of the TERMS Phase IIb Clinical Trial of Tovaxin® therapy for multiple sclerosis (OLTERMS). The trial was enrolled with patients that had previously completed one year in the TERMS, Tovaxin Phase IIb multi-center, randomized, double blind, placebo-controlled trial. The Company terminated OLTERMS to conserve financial resources for clinical data analysis, future clinical trial planning and seeking a development partner for Tovaxin. As a result of this restructuring, the Company reduced its staff of 29 to 12 people. Personnel-related severance and benefits payments of $77,075 were paid in 2008.

NOTES TO FINANCIAL STATEMENTS

NOTE 4—MARKETABLE SECURITIES

Opexa considers all highly liquid investments with an original maturity of three months or less, when purchased, to be cash equivalents. Investments with maturities in excess of three months but less than one year are classified as short-term investments and are stated at fair market value.

At December 31, 2008, Opexa invested approximately $1.2 million in a money market account with an average market yield of 0.8%. Interest income of $100,235 was recognized for the year ended December 31, 2008 in the statements of expenses.

At December 31, 2007, Opexa invested approximately $2.6 million in a money market account with an average market yield of 4.8%. Interest income of $477,605 was recognized for the twelve months ended December 31, 2007 in the statements of expense.

NOTE 5—PROPERTY AND EQUIPMENT

Property and equipment consisted of the following at December 31, 2008 and 2007:

Description	Life	2008	2007
Computer equipment	3 years	$ 155,018	$ 155,018
Office furniture and equipment	3-10 years	328,368	319,427
Software	3-5 years	90,689	88,919
Laboratory equipment	3-10 years	984,809	972,525
Leasehold improvements	10 years	454,890	448,837
Subtotal		2,013,774	1,984,726
Less: accumulated depreciation		(847,244)	(614,079)
Property and equipment, net		$1,166,530	$1,370,647

Property and equipment is carried at cost less accumulated depreciation. Depreciation is calculated by the straight-line method over the estimated useful life of three to ten years, depending upon the type of equipment, except for leasehold improvements which are amortized using the straight-line method over the remaining lease term or the life of the asset, whichever is shorter. The cost of repairs and maintenance is charged as an expense as incurred. Depreciation expense totaled $234,325, $232,955 and $174,117 in fiscal 2008, 2007 and 2006, respectively.

NOTE 6—INCOME TAXES

Opexa uses the liability method, where deferred tax assets and liabilities are determined based on the expected future tax consequences of temporary differences between the carrying amounts of assets and liabilities for financial and income tax reporting purposes.

At December 31, 2008, for federal income tax and alternative minimum tax reporting purposes, Opexa had approximately $78,002,822 of unused net operating losses available for carryforward to future years. The benefit from carryforward of such net operating losses will expire in various years through 2026. Under the provisions of Section 382 of the Internal Revenue Code, the benefit from utilization of approximately $5,650,429 of net operating losses incurred prior to October 7, 2004 was significantly limited as a result of the change of control that occurred in connection with Opexa's acquisition of Opexa Pharmaceuticals, Inc. The benefit could be subject to further limitations if significant future ownership changes occur in Opexa.

At December 31, 2008, deferred tax assets consisted of the following:

NOL @ 12/31/08	$(78,002,822)
Estimated tax rate	X 34%
Deferred tax asset	(26,520,959)
Valuation allowance	26,520,959
Net deferred tax asset	$ —

NOTE 7—LOAN PAYABLE

Loan payable consists of an equipment line of up to $250,000 with Wells Fargo of which $165,201 and $222,816 were outstanding as of December 31, 2008 and 2007, respectively. This loan has an interest rate of 7.61% per annum, matures in May 2011 and is secured by Opexa's furniture and equipment purchased with the loan proceeds. For the years ended December 31, 2008, 2007 and 2006, Opexa recognized interest expenses of $15,233, $14,631 and $0, respectively.

NOTE 8—COMMITMENTS AND CONTINGENCIES

Office Lease

In October 2005, Opexa entered into a ten-year lease for its office and research facilities. The facility including the property is leased for a term of ten years with two options for an additional five years each at the then prevailing market rate. Future minimum lease payments under the non-cancellable operating lease are $139,782 for 2009, $147,540 for 2010, $147,540 for 2011 and $584,343 for years 2012 to 2015. Rent expense was $136,153 for each of the years ended December 31, 2008, 2007 and 2006.

License Agreement

In July 2007, Opexa entered into a second amended and restated license agreement with the University of Chicago that requires Opexa to make milestone payments of up to $1,350,000 if certain late stage clinical trial and FDA approval milestones are achieved. Opexa has determined that these payments are not probable at this time and thus no liability has been recorded as of December 31, 2008.

NOTE 9—EQUITY

During 2003, equity related transactions were as follows:

- 525,000 shares of common stock were sold for $1,000.
- 170,625 shares were reacquired for $325 and canceled.
- Additional contributions to capital of $56,360 resulted from the discounted value to notes payable due to warrants and beneficial conversion features attached to convertible notes was issued in 2003.

During 2004, equity related transactions were as follows:

- 2,250 shares of common stock were sold for $9,000.
- 206,500 shares of common stock valued at their then fair value of $849,000 were issued to employees and consultants for their services.

- 24,269 shares of common stock valued at their then fair value of $427,075 were issued to the University of Chicago per the terms of a license agreement. See Note 12 for details.
- 99,740 shares of common stock were issued for net liabilities of $147,733 pursuant to the 2004 reorganization.
- 250,000 shares of common stock valued at their then fair value of $23,750,000 were issued to Opexa Pharmaceuticals, Inc., shareholders. See Note 13 for details.
- 16,100 shares of common stock with a relative fair value of $288,366 were issued to note holders as their additional shares for their subscription investment.
- 60,750 shares of common stock were issued to note holders for the conversion of $248,370 of principal and interest from convertible notes.
- 8,000 shares of common stock were cancelled pursuant to the terms of an employment separation agreement.
- Additional contributions to capital of $2,704,351 resulted from the discounted value to notes payable from warrants and beneficial conversion features attached to convertible notes.
- Employee stock option compensation expense was $123,333 for 2004.

During 2005, equity related transactions were as follows:

- 389,451 shares of common stock with warrants to purchase 1,070,993 shares were sold for $5,841,769. The relative fair value of the common stock is $1,103,714 and the relative fair value of the warrants is $4,738,055. Offering costs of $495,552 related to shares issued were charged to additional paid in capital.
- 45,168 shares of common stock with a relative fair value of $999,074 were issued to note holders as their additional shares for their subscription investment.
- 565,858 shares of common stock were issued to note holders for the conversion of $6,124,859 of principal and $525,513 interest from convertible notes.
- 2,300 shares of common stock valued at their fair value of $161,000 were issued to note holders for the conversion of $51,930 of principal and interest from the notes.
- 29,194 shares of common stock were issued to the University of Chicago per the terms of a license agreement. These shares were recorded at $1,868,384.
- 24,000 shares of common stock valued at their fair value of $1,012,400 were issued to consultants for their services.
- Additional contributions to capital of $2,265,052 relating to the discounted value to notes payable from warrants, beneficial conversion features attached to convertible notes.
- Employee stock option compensation expense was $2,487,741 for 2005.
- Non-employee stock option compensation expense was $2,373,888 for 2005.
- Transition of warrants from equity instruments to liability instruments in the amount of $10,658,496 was recorded. See Note 11 for details.

During 2006, equity related transactions were as follows:

- In March 2006, 34,829 shares of common stock were issued to settle an outstanding accounts payable in the amount of $180,000.
- In April 2006, Opexa sold 4,600,000 shares of its common stock and warrants to purchase 2,300,000 shares of Opexa's common stock for $23,000,000. Opexa paid $1,846,481 for the commissions and fees related to this offering and granted to its brokers warrants to purchase 213,720 shares of common stock at an exercise price of $5.00 per share. These warrants are not callable and have a cashless exercise option.
- Employee stock option compensation expense was $2,749,617 for 2006.
- Non-employee stock option compensation expense was $1,568,966 for 2006.

During 2007, equity related transactions were as follows:

- Employee stock option compensation expense was $1,876,103 for 2007.
- Non-employee stock option compensation expense was $845,275 for 2007.

During 2008, equity related transactions were as follows:

- In February 2008, Opexa sold 3,500,000 shares of common stock and 4,025,000 Series E warrants in a public offering for approximately $7.6 million. Opexa paid approximately $1.2 million for the underwriter discounts, commissions and other expenses related to this offering and granted to the underwriter warrants to purchase 350,000 shares of common stock at a price of $2.40 per share and an option to acquire 350,000 Series E warrants at a price of $0.18 per Series E warrant.
- In August, Opexa's common stock in a private offering to certain institutional and accredited investors for approximately $3.0 million. Opexa paid approximately $100,000 in expenses related to this offering.
- 45,200 shares of restricted common stock valued at $48,965 were issued to board members as compensation for their board services.
- Employee stock option compensation expense was $1,467,364 for 2008.
- Non-employee stock option compensation expense was $434,207 for 2008.

NOTE 10—OPTIONS AND WARRANTS

In 2004, Opexa adopted the 2004 Stock Option Plan ("the Plan") for the granting of stock options to employees and consultants of Opexa. Options granted under the Plan may be either incentive stock options or nonqualified stock options. The Board of Directors has discretion to determine the number, term, exercise price and vesting of all grants.

Employee Options:

During 2004, options to purchase 96,500 shares were granted to employees at exercise prices ranging from $30.00 to $50.00. These options have terms of five years and vest from one to three years. Fair value of $5,623,186 was recorded using the Black-Scholes method of option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2004 include (1) discount rate of 2%, (2) option life of 5 years, (3) expected volatility of 75.1% and (4) zero expected dividends.

During 2005, options to purchase 63,050 shares were granted to employees at an exercise price of $7.00. These options have terms of ten years and vest in four years. Fair value of $261,879 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2005 include (1) discount rate of 2%, (2) option life of 10 years, (3) expected volatility of 175.4% and (4) zero expected dividends.

During 2005, options to purchase 4,167 shares were forfeited and cancelled.

During 2006, options to purchase 389,160 shares of common stock were granted by Opexa to its employees at exercise prices ranging from $5.00 to $9.40. These options have terms from five to ten years and vest from one to three years. Fair value of $3,126,168 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2006 include (1) discount rate range of 4.72% to 5.22%, (2) option life of 5 to 10 years, (3)expected volatility range of 401.3% to 429.9% and (4) zero expected dividends.

During 2006, options to purchase 14,133 shares were forfeited.

Opexa recorded $2,749,617 stock-based compensation expense to the management and employees during 2006.

During 2007, options to purchase 224,400 shares of common stock were granted by Opexa to its employees at exercise prices ranging from $3.96 to $5.47. These options have terms of ten years and vest annually over a three year period. Fair value of $958,011 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2007 include (1) discount rate range of 4.22% to 5.07%, (2) option life is a term with the expected term of 5 to 6 years, (3) expected volatility range of 95.4% to 103.9% and (4) zero expected dividends.

During 2007, options to purchase 17,345 shares were forfeited.

Opexa recorded $1,876,103 stock-based compensation expense to the management and employees during 2007.

During 2008, options to purchase 469,100 shares of common stock were granted by Opexa to its employees at exercise prices ranging from $1.09 to $1.17. These options have terms of ten years and have vesting ranges from 8 months to three years. Fair value of $433,164 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2008 include (1) discount rate range of 3.15% to 3.73%, (2) option life is a term with the expected term of 5.5 to 6 years, (3) expected volatility of 115.3% and (4) zero expected dividends.

During 2008, options to purchase 104,578 shares were forfeited.

Opexa recorded $1,467,364 stock-based compensation expense to the management and employees during 2008.

Non-Employee Options:

During 2004, options to purchase 20,000 shares were granted to consultants at exercise prices ranging from $30.00 to $50.00. These options have terms of five years and vest from one to three years. Fair value of

$1,011,770 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2004 include (1) discount rate of 2% (2) option life of 5 years, (3) expected volatility of 75.1% and (4) zero expected dividends.

During 2005, options to purchase 71,060 shares were granted to consultants. Using the Black-Scholes fair value for 2005 was $1,552,936 option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2005 include (1) discount rate of 2%, (2) option life of 5 years, (3) expected volatility of 175.4% and (4) zero expected dividends.

During 2005, options to purchase 10,000 shares were forfeited and cancelled.

During 2006, options to purchase 156,500 shares of common stock were granted by Opexa to its consultants, directors and exiting directors at the exercise prices ranging from $5.20 to $9.80. These warrants have a term of ten years and vest from one to three years. Fair value of $1,496,375 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2006 include (1) discount rate range of 4.7% – 5.2%, (2) option life of 10 years, (3) expected volatility range of 401.3% to 429.9% and (4) zero expected dividends.

During 2006, options to purchase 5,000 shares expired.

Opexa recorded $1,568,966 stock-based compensation expense to the consultants, directors and exiting directors during 2006.

During 2007, options to purchase 69,500 shares of common stock were granted by Opexa to its consultants, directors and exiting directors at the exercise prices ranging from $3.95 to $5.47. These options have a term of ten years, and have vesting dates that vary from either full or partial vesting at date of grant to full vesting at the first and second year anniversary of the date of grant. Fair value of $268,675 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2007 include (1) discount rate range of 4.20% to 5.07%, (2) option life is a term with the expected term of 5.75 years, (3) expected volatility range of 95.4% to 95.9% and (4) zero expected dividends.

Opexa recorded $845,275 stock-based compensation expense to the consultants and directors during 2007.

During 2008, options to purchase 171,300 shares of common stock were granted by Opexa to its consultants, directors and exiting directors at the exercise prices ranging from $0.88 to $1.55. These options have a term of ten years, and have vesting dates that vary from either full or partial vesting at date of grant to full vesting at the first year anniversary of the date of grant. Fair value of $179,340 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2008 include (1) discount rate range of 3.07% to 3.44%, (2) option life is a term with the expected term of 5.5 years, (3) expected volatility range of 115.3% to 116.5% and (4) zero expected dividends.

During 2008, options to purchase 22,000 shares were forfeited.

Opexa recorded $434,207 stock-based compensation expense to the consultants and directors during 2007.

Broker and Investor Warrants:

During 2003, warrants to purchase 15,000 shares were granted to investors related to the convertible notes.

During 2004, warrants to purchase 142,800 shares were granted to investors related to the convertible notes.

During 2005, warrants to purchase 46,084 shares of common stock were issued to several brokerage firms as the offering costs and commissions for Opexa's financing activities at an exercise price of $1.50. These warrants have a fair value of $2,197,162 and vest immediately.

During 2005, warrants to purchase 2,386,984 shares were granted to investors related to the convertible notes.

During 2005 warrants to purchase 254,362 shares were forfeited.

In April 2006, warrants to purchase 213,720 shares of common stock were granted by Opexa to the brokers in connection with the $23,000,000 equity financing, at an exercise price of $5.00. These warrants have a term of three years and vest immediately. Fair value of $1,077,778 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for warrants issued during the year ended December 31, 2006 include (1) discount rate of 5.22%, (2) warrant life of 3 years, (3) expected volatility of 429.9% and (4) zero expected dividends.

During 2006, warrants to purchase 2,765,043 shares were granted to investors related to the April 2006 financing. These warrants have a term of five years and vest immediately. Fair value of $11,729,982 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for warrants issued during the year ended December 31, 2006 include (1) discount rate of 4.86%, (2) warrant life of 5 years, (3) expected volatility of 429.9% and (4) zero expected dividends.

During 2006 warrants to purchase 1,644,908 shares were forfeited.

During 2007, there were no warrants granted to investors.

During 2008, Series E warrants to purchase 4,025,000 shares of common stock were issued by Opexa to the investors and underwriters in connection with the February 2008 public offering, at an exercise price of $2.00. These warrants vest immediately and have a fair value of $603,750. During 2008 Opexa issued warrants to the underwriter of the February 2008 public offering to purchase 350,000 shares of common stock at a price of $2.40 per share and an option to acquire 350,000 Series E warrants at a price of $0.18 per Series E warrant. These warrants are classified as equity and are immediately exercisable. Fair value of $350,061 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for options issued during the year ended December 31, 2008 include (1) discount rate of 2.93%, (2) warrant life is a term with the expected term of 5 years, (3) expected volatility of 97. 7% and (4) zero expected dividends.

During August 2008, in connection with a private financing, Opexa issued warrants to purchase 2,003,874 shares of its common stock to certain institutional and accredited investors. The warrants expire four years from issuance, are first exercisable after six months of the closing of the financing and are exercisable at $1.78 per share. These warrants are classified as equity. Fair value of $1,976,457 was recorded using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model for warrants issued during the year ended December 31, 2008 include (1) discount rate of 3.27%, (2) warrant life is a term with the expected term of 4 years, (3) expected volatility of 116.5% and (4) zero expected dividends.

At December 31, 2008, the aggregate intrinsic value of the outstanding options and the exercisable options was $-0- and $-0-, respectively. Summary information regarding options and warrants is as follows:

	Options	Weighted Average Exercise Price	Warrants	Weighted Average Exercise Price
Outstanding at December 31, 2005	236,443	24.82	2,336,506	28.68
Year ended December 31, 2006:				
Granted	545,660	6.65	2,978,763	6.29
Forfeited and canceled	(19,133)	38.76	(1,644,908)	8.61
Outstanding at December 31, 2006	762,970	11.48	3,670,361	19.51
Year ended December 31, 2007:				
Granted	293,900	5.28	—	—
Forfeited and canceled	(17,345)	7.74	—	—
Outstanding at December 31, 2007	1,039,525	9.79	3,670,361	19.51
Year ended December 31, 2008:				
Granted	640,400	1.10	6,728,874	1.96
Forfeited and canceled	(126,578)	6.53	—	—
Outstanding at December 31, 2008	1,553,347	$ 6.47	10,399,235	$ 8.15

Summary of options outstanding and exercisable as of December 31, 2008 is as follows:

Range of Exercise Prices	Weighted Average Remaining Contractual Life (years)	Number of Options Outstanding	Number of Options Exercisable
$ 0.88 to 4.99	9.31	630,332	283,524
5.00 to 9.99	6.39	763,605	627,035
10.00 to 14.99	0.68	23,250	23,250
15.00 to 19.99	1.54	810	810
30.00 to 40.00	0.89	135,350	133,475
$ 0.88 to 40.00	7.01	1,553,347	1,068,094

Summary of warrants outstanding and exercisable as of December 31, 2008 is as follows:

Range of Exercise Prices	Weighted Average Remaining Contractual Life (years)	Number of Warrants Outstanding	Number of Warrants Exercisable
$ 1.78 to 4.99	3.98	6,728,874	4,025,000
5.00 to 9.99	2.11	2,513,720	2,513,720
15.00 to 30.00	1.46	1,156,641	1,156,641
$ 1.78 to 30.00	3.25	10,399,235	7,695,361

NOTE 11—DERIVATIVE INSTRUMENTS

In June 2006, Opexa evaluated the application of SFAS 133 and EITF 00-19 for all of its financial instruments and it was determined that certain of the warrants to purchase common stock issued by Opexa associated with the bridge note exchange and private placement offerings in June 2005 and July 2005 were derivatives that Opexa was required to account for as free-standing derivative instruments under GAAP. These three series of warrants were considered at the time to be derivatives because the liquidated damage provision in the registration rights agreement covering each warrant resulted in the conclusion that it was more economic to issue registered shares than to issue unregistered shares and pay the penalty. Because issuing registered shares is outside of Opexa's control, Opexa concluded the warrants should be accounted for as derivative liabilities under SFAS 133 and EITF 00-19. As a result, Opexa reported the value of these derivatives as current liabilities on its balance sheet and reported changes in the value of these derivatives as non-operating gains or losses on its statements of operations in the consolidated financial statements beginning with the year ended December 31, 2005 and re-measured and reported on a quarterly basis thereafter based on the Black-Scholes Pricing Model.

In December 2006, the FASB issued FASB Staff Position No. EITF 00-19-2, "Accounting for Registration Payment Arrangements" (EITF 00-19-2). EITF 00-19-2 addresses an issuer's accounting for registration payment arrangements. It specifies that the contingent obligation to make future payments or otherwise transfer consideration under a registration payment arrangement, whether issued as a separate agreement or included as a provision of a financial instrument or other agreement, should be separately recognized and measured in accordance with FASB Statement No. 5, "Accounting for Contingencies". The guidance in EITF 00-19-2 amends FASB Statements No. 133, "Accounting for Derivative Instruments and Hedging Activities", and No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity", and FASB Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, including Indirect Guarantees of Indebtedness of Others", to include scope exceptions for registration payment arrangements. EITF 00-19-2 also requires additional disclosure regarding the nature of any registration payment arrangements, alternative settlement methods, the maximum potential amount of consideration and the current carrying amount of the liability, if any. This EITF is effective immediately for registration payment arrangements and the financial instruments subject to those arrangements that are entered into or modified subsequent to the date of issue of this EITF. For registration payment arrangements and financial instruments subject to those arrangements that were entered into prior to the issuance of EITF 00-19-2, this is effective for financial statements issued for fiscal years beginning after December 15, 2006, and interim periods within those fiscal years.

Opexa evaluated the application of EITF 00-19-2 for all its financial instruments and determined that certain warrants to purchase common stock issued by Opexa associated with the bridge note exchange and private placement offerings in June 2005 and July 2005 no longer qualified to be classified as derivative liabilities. In addition, Opexa accounts for registration rights agreement penalties as contingent liabilities, applying the accounting guidance of Financial Accounting Standard No. 5, "Accounting for Contingencies" ("FAS 5"). This accounting is consistent with views established by the FASB Staff Positions FSP EITF 00-19-2 "Accounting for Registration Payment Arrangements", which was issued December 21, 2006. Accordingly, Opexa recognizes the damages when it becomes probable that they will be incurred and amounts are reasonably estimable.

4,600,000 shares of common stock and 2,513,720 warrants to purchase common stock are subject to a registration payment arrangement that provides if a resale registration statement is not effective for any period after April 13, 2007, the warrant holders may exercise their warrants on a cashless basis during the period the resale registration statement is not effective. If Opexa fails to register, achieve effectiveness of registration or maintain effectiveness of registration of shares underlying the warrants and shares, they are required to make certain liquidated damage payments of 1.5% of the aggregate amount of proceeds of the offering per month for

every month in default with a maximum of 24%. Opexa does not believe these payments are probable and thus no contingent liability has been recorded.

1,272,356 shares of common stock and 1,714,410 shares of common stock issuable upon the exercise of common stock purchase warrants issued in June 2005 and July 2005 are subject to a registration payment arrangement that provides if a resale registration statement is not effective for any period after the first anniversary of the warrant, the warrant holders may exercise their warrants on a cashless basis during the period the resale registration statement is not effective. If Opexa fails to register, achieve effectiveness of registration or maintain effectiveness of registration of shares underlying the warrants and shares, they are required to make certain liquidated damage payments of 1.0% of the aggregate amount of proceeds of the offering per month for the first calendar month of registration default and 2% for every month in default after the first month. Opexa does not believe these payments are probable and thus no contingent liability has been recorded.

The impact of implementing EITF 00-19-2 for the year ended December 31, 2007 resulted in a cumulative effect of a change in accounting principle with a decrease in the derivative liability of $6,656,677 and a decrease to beginning retained earnings of $4,001,819 reversing gains posted to date and a reclassification of the original value of the warrants from liability to equity of $10,658,496.

For the years ended December 31, 2006 and 2005 the impact of the application of SFAS 133 and EITF 00-19 on the balance sheets and the statements of operations and the period from inception through December 31, 2006 is as follows:

	As of 12/31/2005	As of 12/31/2006	Gain (Loss) Year Ended 12/31/2005	Gain (Loss) Year Ended 12/31/2006	Gain (Loss) Inception Through 12/31/2006
Series A Warrants	$ —	$ —	$ 332,440	$ —	$ 332,440
Series B Warrants	264,957	—	640,882	264,957	905,839
Series C Warrants	6,496,698	6,656,677	2,923,519	(159,979)	2,763,540
Totals	$6,761,655	$6,656,677	$3,896,841	$ 104,978	$4,001,819

NOTE 12—LICENSES AND GAIN ON EXTINGUISHMENT OF DEBT

University of Chicago License Agreement

In 2004, Opexa entered into an agreement with the University of Chicago ("University") for the worldwide license to technology developed at Argonne National Laboratory, a U.S. Department of Energy Laboratory operated by the University. The license was later amended granting Opexa an exclusive, non-transferable worldwide license to the University's stem cell technology. In consideration for the license and amendment, Opexa paid the University a total of $232,742 and issued the University 53,462 shares of common stock valued at $2,295,461. Opexa also agreed to pay the University $1.5 million and to issue the University 21,623 shares of Opexa common stock. In April 2007, the $1.5 million cash payment obligation was extended until July 31, 2007 and the obligation to issue shares of Opexa's common stock was extended until July 31, 2007, with $112,440 accrued as of June 30, 2007.

On July 31, 2007, Opexa entered into a second amended and restated license agreement with the University of Chicago that eliminated the obligations under the prior agreement for the payment of $1.5 million due July 31, 2007 and the obligation to issue 21,623 shares of Opexa common stock. These obligations were recorded as an intangible asset, with the liabilities recorded as a notes payable—current portion of $1.5 million and a stock payable of $112,440. As a result of the amendment and restatement of the license agreement with the University of Chicago $1,612,440 was reported as a gain on extinguishment of liability. Opexa applied the accounting guidance of Financial Accounting Standard No. 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities" ("FAS 140") and EITF 96-19 "Debtor's Accounting for a Modification or Exchange of Debt Instruments".

Shanghai Institute for Biological Science License Agreement

In January 2006, Opexa acquired an exclusive worldwide license for the intellectual property rights and research results of an autologous T cell vaccine for rheumatoid arthritis from the Shanghai Institute for Biological Science, China Academy of Science of the People's Republic of China. In exchange for a payment of $125,000 and an agreed running royalty from the sale of commercialized products, Opexa receives all information and data related to all clinical trials on all patient controls and patients with rheumatoid arthritis with the T cell vaccine. This includes all clinical, cell procurement and manufacturing protocols, complete patient data sheets, all laboratory materials, methods and results and manufacturing records and documents and any other data related to the intellectual property. The first payment under the license occurred in April 2006 upon the delivery of materials pursuant to the terms of the licensing agreement.

Costs associated with the acquisition of these two licenses had no separate economic value and were expensed to research and development in the period acquired.

NOTE 13—SUBSEQUENT EVENT

Effective April 14, 2009, the Company closed on an initial tranche of a private offering of secured convertible notes and warrants (the "Units") for gross proceeds of approximately $1.1 million. The notes mature 24 months from their initial funding and are secured by all of the Company's tangible and intangible assets excluding those particular fixed assets securing the Company's equipment line with Wells Fargo, N.A. The notes accrue interest at a 10% rate, compounded annually, and are payable at maturity in either cash or common stock (at the same conversion price as below) at the Company's option. Subject to the satisfaction of certain conditions, the notes are mandatorily convertible, at the Company's option, during their term at $.50/share. The required conditions are: (1) the Company enters into an agreement that will fund a Phase IIb or Phase III clinical trial for the further development of the Company's product known as Tovaxin, (2) the Company's common stock trades at a price greater than or equal to $1.00 per share for twenty consecutive trading days, and (3) the Company has an effective registration statement on file with the Securities and Exchange Commission for the re-sale of the shares of common stock issuable upon conversion of the notes . The warrants have a four year term and are exercisable for 50% of the number of shares that the note is convertible into at an exercise price of $ 0.75 per share. In connection with the offering, the Company has agreed to pay commissions equal to 10% of the Units sold and will issue broker warrants to acquire the number of shares of common stock equal to 7% of the aggregate number of broker warrant shares and shares of common stock issuable upon conversion of the broker notes. The Company will reimburse the broker for its costs associated with the placement of the Units.

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