

SOLIGENIX, INC.  
Form 10-Q  
November 13, 2009

---

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

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES  
EXCHANGE ACT OF 1934.

For the Quarterly Period Ended September 30, 2009

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES  
EXCHANGE ACT OF 1934.

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 000-16929

SOLIGENIX, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of  
incorporation or organization)

41-1505029

(I.R.S. Employer  
Identification Number)

29 Emmons Drive, Suite  
C-10

08540

Princeton, NJ  
(Address of principal executive  
offices)

(Zip Code)

(609) 538-8200

(Issuer's telephone number,  
including area code)

Indicate by check whether the registrant (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 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 whether the registrant has submitted electronically and posted on its corporate Web Site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes  No

Edgar Filing: SOLIGENIX, INC. - Form 10-Q

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of “accelerated filer” and “large accelerated filer” in Rule 112b-2 of the Exchange Act (Check one).

Large accelerated filer  Accelerated filer  Non-accelerated filer  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

At November 10, 2009, 185,501,158 shares of the registrant's common stock (par value, \$.001 per share) were outstanding.

---

Table of Contents

Item	Description	Page
Part I	FINANCIAL INFORMATION	
1.	Consolidated Financial Statements	3
2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	16
3.	Quantitative and Qualitative Disclosure About Market Risk	24
4.	Controls and Procedures	24
Part II	OTHER INFORMATION	
2.	Unregistered Sales of Equity Securities and Use of Proceeds	25
5.	Exhibits	25

## PART I. - FINANCIAL INFORMATION

## ITEM 1 - FINANCIAL STATEMENTS

Soligenix, Inc.  
Consolidated Balance Sheets

	September 30, 2009 (Unaudited)	December 31, 2008
Assets		
Current assets:		
Cash and cash equivalents	\$ 7,487,317	\$ 1,475,466
Grants receivable	762,246	278,316
Inventory, net	109,043	82,182
Prepaid expenses	162,994	86,837
Total current assets	8,521,600	1,922,801
Office and laboratory equipment, net	25,609	21,217
Intangible assets, net	1,431,648	1,418,717
Total assets	\$ 9,978,857	\$ 3,362,735
Liabilities and shareholders' equity		
Current liabilities:		
Accounts payable	\$ 1,491,008	\$ 1,015,005
Accrued compensation	222,835	370,614
Total current liabilities	1,713,843	1,385,619
Commitments and contingencies		
Shareholders' equity:		
Preferred stock; 5,000,000 shares authorized; none issued or outstanding	-	-
Common stock, \$.001 par value; 400,000,000 shares authorized; 185,501,158 shares and 118,610,704 shares issued and outstanding in 2009 and 2008, respectively	185,501	118,610
Additional paid-in capital	115,987,637	104,176,253
Accumulated deficit	(107,908,124)	(102,317,747)
Total shareholders' equity	8,265,014	1,977,116
Total liabilities and shareholders' equity	\$ 9,978,857	\$ 3,362,735

The accompanying notes are an integral part of these financial statements.

Soligenix, Inc.  
 Consolidated Statements of Operations  
 For the Three Months Ended September 30,  
 (Unaudited)

	2009	2008
Revenues, principally from grants	\$ 766,645	\$ 605,736
Cost of revenues	(584,329)	(538,182)
Gross profit	182,316	67,554
Operating expenses:		
Research and development	1,109,333	60,238
General and administrative	617,735	410,336
Stock-based compensation - research and development	25,314	39,584
Stock-based compensation - general and administrative	90,922	36,792
Total operating expenses	1,843,304	546,950
Loss from operations	(1,660,988)	(479,396)
Other income:		
Interest income, net	611	3,695
Net loss	\$ (1,660,377)	\$ (475,701)
Basic and diluted net loss per share	\$ (0.01)	\$ -
Basic Basic and diluted weighted average common shares outstanding	168,093,600	102,767,174

The accompanying notes are an integral part of these financial statements.

Soligenix, Inc.  
 Consolidated Statements of Operations  
 For the Nine Months Ended September 30,  
 (Unaudited)

	2009	2008
Revenues, principally from grants	\$ 1,629,277	\$ 1,771,620
Cost of revenues	(1,255,503)	(1,459,206)
Gross profit	373,774	312,414
Operating expenses:		
Research and development	3,835,246	1,403,841
General and administrative	1,728,400	1,812,972
Stock based compensation - research and development	157,391	118,750
Stock based compensation - general and administrative	261,331	110,378
Total operating expenses	5,982,368	3,445,941
Loss from operations	(5,608,594)	(3,133,527)
Other income:		
Interest income, net	18,217	29,948
Net loss	\$ (5,590,377)	\$ (3,103,579)
Basic and diluted net loss per share	\$ (0.03)	\$ (0.03)
Basic and diluted weighted average common shares outstanding	161,446,898	100,478,733

The accompanying notes are an integral part of these financial statements.

Soligenix, Inc.  
 Consolidated Statements of Changes in Shareholders' Equity  
 For the Nine Months Ended September 30, 2009  
 (Unaudited)

	Common Stock Shares	Par Value	Additional Paid-In Capital	Accumulated Deficit	Total
Balance, December 31, 2008	118,610,704	\$118,610	\$104,176,253	(\$102,317,747)	\$1,977,116
Issuance of common stock from private placements, net of expenses of \$347,000	38,266,602	38,267	6,388,995		6,427,262
Issuance of common stock for collaboration and supply agreement to Sigma Tau	25,000,000	25,000	4,375,000		4,400,000
Issuance of common stock pursuant to equity line agreement	554,427	554	84,446		85,000
Issuance of common stock to vendors	2,500,000	2,500	297,500		300,000
Issuance of common stock warrants to vendors			127,712		127,712
Issuance of common stock to former employee	569,425	570	119,009		119,579
Stock-based compensation expense			418,722		418,722
Net loss				( 5,590,377)	(5,590,377)
Balance, September 30, 2009	185,501,158	\$185,501	\$115,987,637	(\$107,908,124)	\$8,265,014

The accompanying notes are an integral part of these financial statements.

Soligenix, Inc.  
Consolidated Statements of Cash Flows  
For the Nine Months Ended September 30,  
(Unaudited)

	2009	2008
Operating activities:		
Net loss	\$ (5,590,377)	\$ (3,103,579)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization and depreciation	126,411	107,804
Stock or warrants issued in exchange for services	427,712	394,161
Stock-based compensation	418,722	229,128
Stock issued to former employee	119,579	-
Change in operating assets and liabilities:		
Grants receivable	(483,930)	(106,810)
Inventory	(26,861)	(83,182)
Prepaid expenses	(74,657)	(9,452)
Accounts payable	476,003	514,452
Accrued compensation	(147,778)	(67,784)
Total adjustments	835,201	978,317
Net cash used in operating activities	(4,755,176)	(2,125,262)
Investing activities:		
Acquisition of intangible assets	(132,754)	(191,350)
Proceeds from sale of equipment	-	500
Purchase of office equipment	(10,981)	(3,900)
Net cash used in investing activities	(143,735)	(194,750)
Financing activities:		
Net proceeds from sale of common stock	10,825,762	658,600
Proceeds from sale of common stock pursuant to equity line	85,000	127,500
Net cash provided by financing activities	10,910,762	786,100
Net increase (decrease) in cash and cash equivalents	6,011,851	(1,533,912)
Cash and cash equivalents at beginning of period	1,475,466	2,220,128
Cash and cash equivalents at end of period	\$ 7,487,317	\$ 686,216
Non-cash transactions:		
Non-cash stock payment to an institutional investor	\$ -	\$ 270,000



The accompanying notes are an integral part of these financial statements.

7

---

Soligenix, Inc.  
Notes to Consolidated Financial Statements

Note 1. Nature of Business

Basis of Presentation

Soligenix, Inc. (the “Company”), formerly known as DOR BioPharma, Inc., is a late-stage biopharmaceutical company that was incorporated in 1987 and is focused on developing products to treat the life-threatening side effects of cancer treatments and serious gastrointestinal diseases where there remains an unmet medical need, as well as developing several biodefense vaccines. The Company maintains two active business segments: BioTherapeutics and BioDefense. Soligenix’s BioTherapeutics business segment intends to develop orBec® (oral beclomethasone dipropionate, or oral BDP) and other biotherapeutic products, including LPMTM-Leuprolide. Soligenix’s BioDefense business segment intends to convert its ricin toxin and botulinum toxin vaccine programs from early stage development to advanced development and manufacturing.

The Company generates revenues from the National Institutes of Health under three active BioDefense grants and its Named Patient Access Program (“NPAP”) partners for orBec®.

The Company is subject to risks common to companies in the biotechnology industry including, but not limited to, development of new technological innovations, dependence on key personnel, protections of proprietary technology, compliance with FDA regulations, litigation, and product liability.

The consolidated financial statements are presented on the basis of accounting principles generally accepted in the United States of America. The accompanying consolidated financial statements included herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and footnote disclosures normally included in financial statements have been condensed or omitted from this report, as is permitted by such rules and regulations; however, the Company believes that the disclosures are adequate to make the information presented not misleading. The unaudited consolidated financial statements and related disclosures have been prepared with the presumption that users of the interim financial information have read or have access to the audited financial statements for the preceding fiscal year. Accordingly, these financial statements should be read in conjunction with the audited consolidated financial statements and the related notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008. Results for interim periods are not necessarily indicative of results for the full year. The Company has experienced significant quarterly fluctuations in operating results and it expects those fluctuations will continue.

Liquidity

As of September 30, 2009, the Company had cash and cash equivalents of \$7,487,317 as compared to \$1,475,466 as of December 31, 2008, representing an increase of \$6,011,851. This total was augmented in October 2009 by the receipt of \$1 million from our North American collaboration partner Sigma-Tau Pharmaceuticals, inc. in connection with the initiation of our confirmatory Phase 3 clinical trial of orBec® for the treatment of acute gastrointestinal Graft-versus-Host disease (“GI GVHD”). As of September 30, 2009, the Company had working capital of \$6,807,757 as compared to working capital of \$537,182 as of December 31, 2008, representing an increase of \$6,270,575. The increase was the result of the execution of our collaboration agreement and ensuing sale of our common stock to our commercialization partner Sigma-Tau of \$4.5 million, plus the \$10.8 million in proceeds from the sale of our common stock and warrants to accredited investors, less the cash used in operating activities over the period.

Edgar Filing: SOLIGENIX, INC. - Form 10-Q

For the nine months ended September 30, 2009, the Company's cash used in operating activities was \$4,755,176, as compared to \$2,125,262 for the same period in 2008. The increase in spending was attributable to the preparation and conduct of the confirmatory Phase 3 clinical trial of orBec® in the treatment of GI GVHD.

Management's business strategy can be outlined as follows:

- complete the pivotal Phase 3 confirmatory clinical trial for orBec® in the treatment of acute GI GVHD;
- identify a development and marketing partner for orBec® for territories outside of North America, as we have granted an exclusive license to Sigma-Tau to commercialize orBec® in the U.S., Canada and Mexico; Sigma-Tau will pay us a 35% royalty (inclusive of drug supply) on net sales in these territories as well as pay for commercialization expenses, including launch activities;
  - conduct a Phase 2 clinical trial of orBec® for the prevention of acute GVHD;
- evaluate and initiate additional clinical trials to explore the effectiveness of oral BDP in other therapeutic indications involving inflammatory conditions of the gastrointestinal ("GI") tract such as radiation enteritis, radiation injury and Crohn's disease;
  - reinitiate development of our other BioTherapeutics products, including LPM™ Leuprolide;
- continue to secure additional government funding for each of our BioDefense programs, RiVax™ and BT-VACC™, through grants, contracts and procurements;
- convert our biodefense vaccine programs from early stage development to advanced development and manufacturing with the potential to collaborate and/or partner with other companies in the biodefense area;
  - make orBec® available worldwide through NPAP for the treatment of acute GI GVHD;
  - acquire or in-license new clinical-stage compounds for development; and
- explore other business development and acquisition strategies under which we may be considered to be an attractive acquisition candidate by another company.

Based on the Company's current rate of cash outflows, cash on hand, the timely collection of milestone payments under collaboration agreements, proceeds from our grant programs, and potential minimal proceeds from the Fusion Capital transaction, management believes that its current cash will be sufficient to meet the anticipated cash needs for working capital and capital expenditures into the first quarter of 2011.

The Company's plans with respect to its liquidity management include the following:

- The Company has \$9.7 million in active grant funding still available to support its ricin and botulinum toxin vaccine programs in 2009 and beyond. Additionally, the Company has submitted additional grant applications for further support of these programs and others with various funding agencies, and received encouraging feedback to date on the likelihood of funding.
- The Company has continued to use equity instruments to provide a portion of the compensation due to vendors and collaboration partners and expects to continue to do so for the foreseeable future.
- As discussed further in Note 5, the Company has approximately \$7.8 million in available capacity under its Fusion Capital equity facility. Although the Company has historically drawn amounts in modest amounts under this agreement, the Company could draw more within certain contractual parameters.
- The Company may seek additional capital in the private and/or public equity markets to continue its operations, respond to competitive pressures, develop new products and services, and to support new strategic partnerships. The Company is currently evaluating additional equity financing opportunities and may execute them when appropriate. However, there can be no assurances that the Company can consummate such a transaction, or consummate a transaction at favorable pricing.

## Note 2. Summary of Significant Accounting Policies

### Principles of Consolidation

The consolidated financial statements include Soligenix, Inc., and its wholly- and majority-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated as a result of consolidation.

### Segment Information

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated on a regular basis by the chief operating decision maker, or decision making group, in deciding how to allocate resources to an individual segment and in assessing the performance of the segment.

### Grants Receivable

Receivables consist of unbilled amounts due from grants from the National Institutes of Health of the U.S. Federal Government for costs incurred prior to the period end.

### Intangible Assets

One of the most significant estimates or judgments that the Company makes is whether to capitalize or expense patent and license costs. The Company makes this judgment based on whether the technology has alternative future uses, as defined in Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 730, Research and Development. Based on this consideration, the Company capitalizes payments made to legal firms that are engaged in filing and protecting rights to intellectual property and rights for our current products in both the domestic and international markets. The Company believes that patent rights are one of its most valuable assets. Patents and patent applications are a key component of intellectual property, especially in the early stage of product development, as their purchase and maintenance gives the Company access to key product development rights from Soligenix's academic and industrial partners. These rights can also be sold or sub-licensed as part of its strategy to partner its products at each stage of development as the intangible assets have alternative future use. The legal costs incurred for these patents consist of work designed to protect, preserve, maintain and perhaps extend the lives of the patents. The Company capitalizes such costs and amortizes intangibles over a period of 11 to 16 years.

The Company capitalized \$132,754 and \$191,350 in patent related costs during the nine months ended September 30, 2009 and 2008, respectively.

### Impairment of Long-Lived Assets

Office and laboratory equipment and intangible assets are evaluated and reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The Company recognizes impairment of long-lived assets in the event the net book value of such assets exceeds the estimated future undiscounted cash flows attributable to such assets. If the sum of the expected undiscounted cash flows is less than the carrying value of the related asset or group of assets, a loss is recognized for the difference between the fair value and the carrying value of the related asset or group of assets. Such analyses necessarily involve significant judgment.

The Company did not record any impairment of intangible assets for the nine months ended September 30, 2009 or 2008.



## Inventory

Inventories are stated at the lower of cost or market. Cost is determined using the first-in, first-out (FIFO) method and includes the cost of materials and overhead. All inventory for this period is finished goods and consists of orBec® treatments. The Company records an allowance as needed for excess inventory. During the year ended December 31, 2008 an allowance of \$100,000 was provided. This allowance will be evaluated on a quarterly basis and adjustments will be made as required. The Company did not make an adjustment to this allowance during the nine months ended September 30, 2009.

## Fair Value of Financial Instruments

Accounting principles generally accepted in the U.S. require that fair values be disclosed for the Company's financial instruments. The carrying amounts of the Company's financial instruments, which include grants receivable and current liabilities, are considered to be representative of their respective fair values.

## Revenue Recognition

The Company's revenues are generated from NIH grants and NPAP sales of orBec®. The revenue from NIH grants are based upon subcontractor costs and internal costs incurred that are specifically covered by the grants, plus a facilities and administrative rate that provides funding for overhead expenses. Revenues are recognized when expenses have been incurred by subcontractors or when the Company incurs internal expenses that are related to the grant. Revenue from NPAP sales of orBec® are recognized when the product is shipped. The NPAP revenues are recorded when the product is shipped.

## Research and Development Costs

Research and development costs are charged to expense when incurred. Research and development includes costs such as clinical trial expenses, contracted research and license agreement fees with no alternative future use, supplies and materials, salaries and employee benefits, equipment depreciation and allocation of various corporate costs. Purchased in-process research and development expense represents the value assigned or paid for acquired research and development for which there is no alternative future use as of the date of acquisition.

## Stock-Based Compensation

The fair value of options in accordance with FASB ASC 718, Stock Compensation, was estimated using the Black-Scholes option-pricing model and the following weighted-average assumptions:

- a dividend yield of 0%;
- an expected life of 4 years;
- volatilities of 125% and 120% for 2009 and 2008, respectively;
- and average risk-free interest rates of 3.8% and 3.7% in 2009 and 2008, respectively.

The Company estimates these values based on the assumptions that have been historically available. The fair value of each option grant made during 2009 and 2008 was estimated on the date of each grant using the Black-Scholes option pricing model and amortized ratably over the option's vesting periods, which approximates the service period. The Company awarded 750,000 and 2,812,500 stock options for the three and nine months ended September 30, 2009, respectively, while 50,000 stock options were granted during the nine months ended September 30, 2008. No stock options were granted during the three months ended September 30, 2008..

Stock compensation expense for options granted to non-employees has been determined in accordance with FASB ASC 718, Stock Compensation, and FASB ASC 505-50, Equity-Based Payments to Non-Employees, and represents the fair value of the consideration received, or the fair value of the equity instruments issued, whichever may be more reliably measured. For options that vest over future periods, the fair value of options granted to non-employees is amortized as the options vest. The option's price is re-measured using the Black-Scholes model at the end of each three month reporting period.

Upon exercise, shares are issued from the amended 2005 equity incentive plan and increase the number of shares the Company has outstanding. There were no stock option exercises during the nine months ended September 30, 2009 or during the year ended December 31, 2008. There were forfeitures or expirations of 210,000 stock options during the nine months ended September 30, 2009 and forfeitures of 779,800 stock options during the year ended December 31, 2008. The intrinsic value of the stock options outstanding at September 30, 2009 was zero.

From time to time, the Company issues common stock to vendors, consultants, and employees as compensation for services performed. These shares are typically issued as restricted stock, unless issued to non-affiliates under the 2005 Equity Incentive Plan, where the stock may be issued as unrestricted. The restricted stock can only have the restrictive legend removed if the shares underlying the certificate are sold pursuant to an effective registration statement, which the Company must file and have approved by the SEC, if the shares underlying the certificate are sold pursuant to Rule 144, provided certain conditions are satisfied, or if the shares are sold pursuant to another exemption from the registration requirements of the Securities Act of 1933, as amended.

Stock-based compensation expense recognized during the period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period.

Stock options are issued with an exercise price equal to the market price on the date of issuance. Stock options issued to directors are fully vested upon issuance. Stock options issued to employees generally vest 25% upfront, then 25% each year for a period of three years. Stock options vest over each three month period from the date of issuance to the end of the three year period. These options have a ten year life for as long as the individuals remain employees or directors. In general when an employee or director terminates their position the options will expire within six months, unless otherwise extended by the Board.

The intrinsic value was calculated as the difference between the Company's common stock closing price on the OTC BB at September 30, 2009 and the exercise price of the stock option issued multiplied by the number of shares underlying the stock options. The Company's common stock price at September 30, 2009 was \$0.28.

#### Income Taxes

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. A valuation allowance is established when it is more likely than not that all or a portion of a deferred tax asset will not be realized. A review of all available positive and negative evidence is considered, including the Company's current and past performance, the market environment in which the Company operates, the utilization of past tax credits, and the length of carryback and carryforward periods. Deferred tax assets and liabilities are measured utilizing tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. No current or deferred income taxes have been recognized through September 30, 2009 due to the net operating losses incurred by the Company since its inception. Additionally, the Company has not recorded a liability for unrecognized tax benefits or uncertain tax positions at September 30, 2009 or 2008.

#### Earnings Per Share



Edgar Filing: SOLIGENIX, INC. - Form 10-Q

Basic earnings per share (EPS) excludes dilution and is computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding for the period. Diluted EPS reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock that shared in the earnings of the entity. Since there is a large number of options and warrants outstanding, fluctuations in the actual market price can have a variety of results for each period presented.

	Three Months Ended September 30, 2009			Three Months Ended September 30, 2008		
	Net Loss	Shares	EPS	Net Loss	Shares	EPS
Basic & Diluted EPS	(\$1,660,377)	168,093,600	(\$0.01)	(\$475,701)	102,767,174	-
	Nine Months Ended September 30, 2009			Nine Months Ended September 30, 2008		
	Net Loss	Shares	EPS	Net Loss	Shares	EPS
Basic & Diluted EPS	(\$5,590,377)	161,446,898	(\$0.03)	(\$3,103,579)	100,478,733	(\$0.03)

Options and warrants outstanding at September 30, 2009 and 2008 were 19,047,539 and 9,620,039 of options, and 42,097,874 and 20,657,219 of warrants, respectively. The weighted average exercise price of the Company's stock options and warrants outstanding at September 30, 2009 were \$0.25 and \$0.24, respectively. No options and warrants were included in the 2009 and 2008 computations of diluted earnings per share because their effect would be anti-dilutive as a result of losses in each of those years.

#### Use of Estimates and Assumptions

The preparation of financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect the reported amounts in the financial statements and accompanying notes. Actual results could differ from those estimates.

#### Recently Issued Accounting Standards

In June 2009, the FASB issued ASC 105, Generally Accepted Accounting Principles, which establishes the FASB Accounting Standards Codification as the sole source of authoritative generally accepted accounting principles. The Codification supersedes existing GAAP for nongovernmental entities. Pursuant to the provisions of FASB ASC 105, the Company has updated references to GAAP in its financial statements issued for the period ended September 30, 2009 and thereafter. The implementation of these standards did not have any effect on the Company's consolidated financial statements.

In June 2009, the FASB issued SFAS No. 167, Amendments to FASB Interpretation No. 46(R). SFAS No. 167 is a revision to FASB Interpretation No. 46 (Revised December 2003), Consolidation of Variable Interest Entities, and changes how a reporting entity determines when an entity that is insufficiently capitalized or is not controlled through voting (or similar rights) should be consolidated. The determination of whether a reporting entity is required to consolidate another entity is based on, among other things, the other entity's purpose and design and the reporting entity's ability to direct the activities of the other entity that most significantly impact the other entity's economic performance. SFAS No. 167 will require a reporting entity to provide additional disclosures about its involvement with variable interest entities and any significant changes in risk exposure due to that involvement. A reporting entity will be required to disclose how its involvement with a variable interest entity affects the reporting entity's financial statements. SFAS No. 167 will be effective at the start of a reporting entity's first fiscal year beginning after November 15, 2009, or January 1, 2010, for a calendar year-end entity. Early application is not permitted. The Company is evaluating if the adoption of this standard will have a material impact on its financial statements.

Effective April 1, 2009, the Company adopted FASB ASC 855-10, Subsequent Events - Overall. FASB ASC 855-10 incorporates into authoritative accounting literature certain guidance that already existed within generally accepted auditing standards, but the rules concerning recognition and disclosure of subsequent events will remain essentially unchanged. Subsequent events guidance addresses events which occur after the balance sheet date but before the issuance of financial statements. Under FASB ASC 855-10, an entity must record the effects of subsequent events that provide evidence about conditions that existed at the balance sheet date and must disclose but not record the effects of subsequent events which provide evidence about conditions that did not exist at the balance sheet date. The Company adopted FASB ASC 855-10 and it did not have an impact on the Company's consolidated financial statements. There were no recognized or non-recognized subsequent events occurring after September 30, 2009 that required accounting or disclosure in accordance with FASB ASC 855-10. Subsequent events were evaluated to November 13, 2009, the date the financial statements of the Company were issued.

#### Note 3. Intangible Assets

The following is a summary of intangible assets which consists of licenses and patents:

Edgar Filing: SOLIGENIX, INC. - Form 10-Q

	Weighted Average Amortization Period (years)	Cost	Accumulated Amortization	Net Book Value
September 30, 2009				
Licenses	11.5	\$ 462,234	\$ 154,710	\$ 307,524
Patents	8.8	2,003,355	879,231	1,124,124
Total	9.3	\$2,465,589	\$1,033,941	\$1,431,648
December 31, 2008				
Licenses	11.7	\$ 462,234	\$ 142,994	\$ 319,240
Patents	9.0	1,870,603	771,126	1,099,477
Total	9.5	\$2,332,837	\$914,120	\$1,418,717

Amortization expense was \$44,000 and \$119,824 for the three and nine months ended September 30, 2009, respectively. Amortization expense was \$35,437 and \$99,859 for the three and nine months ended September 30, 2008, respectively.

Based on the balance of licenses and patents at September 30, 2009, the annual amortization expense for each of the succeeding five years is estimated to be as follows:

	Amortization Expense
2010	\$ 165,000
2011	170,000
2012	175,000
2013	180,000
2014	185,000

License fees and royalty payments are expensed annually as incurred as the Company does not attribute any future benefits to them other than within that period.

Note 4. Income Taxes

Deferred tax assets consist of the following:

	September 30, 2009	December 31, 2008
Net operating loss carry forwards	\$ 32,025,000	\$ 26,300,000
Orphan drug and research and development credit carry forwards	2,000,000	2,000,000
Other	3,300,000	3,300,000
Total	37,325,000	31,600,000
Valuation allowance	(37,325,000)	(31,600,000)
Net deferred tax assets	\$ -	\$ -

At December 31, 2008, the Company had net operating loss carry forwards (NOLs) of approximately \$76,000,000 for Federal and state tax purposes, portions of which are currently expiring each year until 2028. In addition, the Company had \$2,000,000 of various tax credits that start expiring from December 2009 to December 2028. The Company may be able to utilize its NOLs to reduce future federal and state income tax liabilities. However, these NOLs are subject to various limitations under Internal Revenue Code (IRC) Section 382. IRC Section 382 limits the use of NOLs to the extent there has been an ownership change of more than 50 percentage points. In addition, the

NOL carryforwards are subject to examination by the taxing authority and could be adjusted or disallowed due to such exams. Although the Company has not undergone an IRC Section 382 analysis, it is possible that the utilization of the NOLs may be limited.

The Company and one or more of its subsidiaries files income tax returns in the U.S. Federal jurisdiction, and various state and local jurisdictions. The Company is no longer subject to income tax assessment for years before 2004. However, since the Company has incurred net operating losses in every tax year since inception, all its income tax returns are subject to examination by the Internal Revenue Service and state authorities for purposes of determining the amount of net operating loss carryforward that can be used to reduce taxable income.

The net changes in the valuation allowance for nine months ended September 30, 2009 and the year ended December 31, 2008 were an increase of approximately \$5,725,000 and \$1,600,000, respectively, resulting primarily from net operating losses generated. As a result of the Company's continuing tax losses, it has recorded a full valuation allowance against its net deferred tax assets.

The Company has no tax provision for the periods ended September 30, 2009 and 2008 due to losses and full valuation allowances against deferred tax assets.

## Note 5. Shareholders' Equity

### Preferred Stock

The Company has 5,000,000 shares of preferred stock authorized, none of which are issued or outstanding.

### Common Stock

The following items represent transactions in the Company's common stock for the nine months ended September 30, 2009:

- In eight separate transactions during the nine months ended September 30, 2009, the Company issued an aggregate of 554,427 shares of common stock under its existing Fusion Capital equity facility. The Company received an aggregate of \$85,000 in proceeds which approximated the shares' fair market value on the date of issuance.
- On September 28, 2009, the Company received \$4,390,200 from the completed private placement of common stock and warrants to accredited investors. Under the terms of the agreements, the Company sold 17,352,567 common shares together with five year warrants to purchase up to 8,676,284 shares of the Company's common stock at \$0.278 per share, for an aggregate price of \$4,390,200, or \$0.253 per share, representing the market price as determined by the five-day average closing price of the Company's common stock prior to the date of the agreements. The expiration date of the warrants can be accelerated if the Company's common stock meets certain price thresholds and the Company would receive additional gross proceeds of approximately \$2,412,000 if they are all exercised. The Company's North American collaboration partner, Sigma-Tau Pharmaceuticals, Inc., led this offering with an investment of \$1 million.
  - In August 2009, 569,425 shares of the Company's common stock were issued to the former controller, treasurer and secretary of the Company in partial settlement of certain compensation and severance liabilities pursuant to the employee's employment agreement. The aggregate number of shares is subject to future adjustment for a six month period following the separation date should the market price fall below the original issuance price. The former employee was granted standard piggyback registration rights with respect to those shares. Compensation expense of \$119,579 was recorded in General & Administrative Expense for the three and nine months ended September 30, 2009 related to this issuance, representing the fair market value of the shares at the date of issuance.
- On March 6, 2009, the Company issued 2,500,000 shares of common stock pursuant to the \$400,000 (\$300,000 of which was issued on this date) common stock equity investment agreement with its clinical trials management partner, Numoda Corporation ("Numoda"). These shares were priced at the then current market price of \$0.12 per share. The remaining \$100,000 investment will be completed in January 2010 and will either be paid in cash or in 833,334 shares of common if the market price falls below \$0.12. The investment follows the collaboration between the Company and Numoda announced on June 30, 2008 and represents partial payment by the Company under its collaboration agreement. The Company recognized \$400,000 of research and development costs during March 2009 as a result of this transaction.
- On February 11, 2009, the Company entered into a collaboration and supply agreement with Sigma-Tau for the commercialization of orBec®. In connection with the execution of the collaboration agreement, the Company entered into a common stock purchase agreement with Sigma-Tau pursuant to which the Company sold 25,000,000 shares of common stock to Sigma-Tau for \$0.18 per share, representing an aggregate price of \$4,500,000. The purchase price was equal to one hundred fifty percent (150%) of the average trading price of the Company's common stock over the five trading days prior to February 11, 2009. As part of the transaction, the Company granted Sigma-Tau certain demand and piggy-back registration rights.

- On January 20, 2009, the Company received \$2,384,200 from the completed private placement of common stock and warrants to accredited investors. Under the terms of the agreement, the Company sold 20,914,035 common shares together with five year warrants to purchase up to 20,914,035 shares of the Company's common stock at \$0.14 per share, for an aggregate price of \$2,384,200, or \$0.114 per share, representing a premium to the Company's common stock market price on the date of the agreements. The expiration date of the warrants can be accelerated if the Company's common stock meets certain price thresholds and the Company would receive additional gross proceeds of approximately \$2,900,000 if they are all exercised.

In February 2008, the Company entered into a common stock purchase agreement with Fusion Capital Fund II, LLC ("Fusion Capital"). The Fusion Capital equity facility allows the Company to require Fusion Capital to purchase between \$80,000 and \$1.0 million of the Company's common stock every two business days, up to an aggregate of \$8.0 million over approximately a 25-month period depending on certain conditions, including the quoted market price of the Company's common stock on such date. As part of the agreement, the Company issued Fusion Capital 1,275,000 shares of common stock as a commitment fee. In connection with the execution of the common stock purchase agreement, Fusion Capital made an initial purchase of 2,777,778 common shares and received a four year warrant to purchase 1,388,889 shares of common stock for \$0.22 per share, representing an aggregate price of \$500,000. The Company issued an additional 75,000 shares of common stock as a commitment fee in connection with this \$500,000 purchase.

If the Company's stock price exceeds \$0.15, then the amount required to be purchased may be increased under certain conditions as the price of the Company's common stock increases. The Company cannot require Fusion Capital to purchase any shares of the Company's common stock on any trading days that the market price of the Company's common stock is less than \$0.10 per share. Furthermore, for each additional purchase by Fusion, additional commitment shares in commensurate amounts up to a total of 1,275,000 shares will be issued based upon the relative proportion of purchases compared to the total commitment maximum of 18.5 million shares. The total issuance of common stock related to commitment shares for 2008 was 1,369,125 shares, which were issued to Fusion Capital and consisted of 1,275,000 shares as a commitment fee, 75,000 shares as a commitment fee for the \$500,000 invested, and 19,125 shares for the commitment fee shares on the equity line draws totaling \$127,500.

During the year ended December 31, 2008, the Company issued 993,084 shares of common stock under the Fusion Capital equity facility. In connection with these issuances the Company received \$127,500 in proceeds which approximated the shares' fair market value on the dates of issuance.

#### Warrants

During 2009, the Company issued 1,200,000 warrants to purchase common stock shares to consultants in exchange for their services. In January 2009, 50,000 warrants were issued to Strategic Outsourcing Solutions, LLC which had an exercise price of \$0.10. In February 2009, 1,000,000 warrants were issued to George B. McDonald, M.D. which had an exercise price of \$0.11. In June 2009, 150,000 warrants were issued to Griffin Securities Inc. which had an exercise price of \$0.198. Expense charges of \$127,712 were recorded during the nine months ended September 30, 2009.

#### Note 6. Commitments and Contingencies

The Company has commitments of approximately \$3.3 million at September 30, 2009 in connection with a collaboration agreement with Numoda for the execution of our upcoming confirmatory Phase 3 clinical trial of orBec® that began in September 2009 and is expected to complete in the first half of 2011.

The Company has several licensing agreements with consultants and universities, which upon clinical or commercialization success may require the payment of milestones and/or royalties if and when achieved. However,

there can be no assurance that clinical or commercialization success will occur.

On March 4, 2007, the Company entered into an investment banking agreement with RBC Capital Markets (“RBC”). As a result of the Company’s transactions with Sigma-Tau, RBC claims that it is entitled to certain compensation under such agreement up to \$1.6 million. The Company disputes that RBC is entitled to any compensation for the Sigma-Tau transactions and will vigorously defend any lawsuit filed by RBC.

In February 2007, the Company’s Board of Directors authorized the issuance of the following shares to Dr. Schaber, Mr. Myriantopoulos, Dr. Brey and certain other employees and a consultant, upon the completion of a transaction, or series or a combination of related transactions negotiated by the Company’s Board of Directors whereby, directly or indirectly, a majority of the Company’s capital stock or a majority of its assets are transferred from the Company and/or its stockholders to a third party: 1,000,000 common shares to Dr. Schaber; 750,000 common shares to Mr. Myriantopoulos; 200,000 common shares to Dr. Brey; and 450,000 common shares to employees and a consultant shall be issued.

Employees with employment contracts have severance agreements that will provide separation benefits from the Company if they are involuntarily separated from employment.

## Note 7. Business Segments

The Company maintains two active business segments: BioTherapeutics and BioDefense. Each segment includes an element of overhead costs specifically associated with its operations, with its corporate shared services group responsible for support functions generic to both operating segments.

	Three Months Ended September 30,	
	2009	2008
Revenues, Principally from Grants		
BioDefense	\$ 742,645	\$ 565,118
BioTherapeutics	24,000	40,618
Total	\$ 766,645	\$ 605,736
Loss from Operations		
BioDefense	\$ 66,348	\$ 23,403
BioTherapeutics	(1,113,629)	(305,920)
Corporate	(613,707)	(196,879)
Total	\$ (1,660,988)	\$ (479,396)
Amortization and Depreciation Expense		
BioDefense	\$ 24,594	\$ 17,462
BioTherapeutics	20,594	14,679
Corporate	1,188	1,159
Total	\$ 46,376	\$ 33,300
Interest Income, Net		
Corporate	\$ 611	\$ 3,695
Stock-Based Compensation		
BioDefense	\$ 7,484	\$ 19,517
BioTherapeutics	17,830	20,067
Corporate	90,922	36,792
Total	\$ 116,236	\$ 76,376



		Nine Months Ended September 30,	
	2009		2008
Revenues, Principally from Grants			
BioDefense	\$	1,577,277	\$ 1,731,002
BioTherapeutics		52,000	40,618
Total	\$	1,629,277	\$ 1,771,620
Loss from Operations			
BioDefense	\$	(50,824)	\$ (151,938)
BioTherapeutics		(3,740,515)	(1,353,831)
Corporate		(1,817,255)	(1,627,758)
Total	\$	(5,608,594)	\$ (3,133,527)
Amortization and Depreciation Expense			
BioDefense	\$	69,159	\$ 61,160
BioTherapeutics		53,957	42,671
Corporate		3,295	3,973
Total	\$	126,411	\$ 107,804
Interest Income, Net			
Corporate	\$	18,217	\$ 29,948
Stock-Based Compensation			
BioDefense	\$	58,898	\$ 58,550
BioTherapeutics		98,493	60,200
Corporate		261,331	110,378
Total	\$	418,722	\$ 229,128
		As of September 30, 2009	As of December 31, 2008
Identifiable Assets			
BioDefense	\$	1,552,802	\$ 1,221,901
BioTherapeutics		671,092	310,535
Corporate		7,754,963	1,830,299
Total	\$	9,978,857	\$ 3,362,735

## ITEM 2 – MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL AND RESULTS OF OPERATIONS

The following discussion and analysis provides information to explain our results of operations and financial condition. You should also read our unaudited consolidated interim financial statements and their notes included in this Form 10-Q, and our audited consolidated financial statements and their notes and other information included in our Annual Report on Form 10-K for the year ended December 31, 2008. This report contains forward-looking statements. Forward-looking statements within this Form 10-Q are identified by words such as “believes,” “anticipates,” “expects,” “intends,” “may,” “will” “plans” and other similar expression, however, these words are not the exclusive means of identifying such statements. In addition, any statements that refer to expectations projections or other characterizations of future events or circumstances are forward-looking statements. These forward-looking statements are subject to significant risks, uncertainties and other factors, which may cause actual results to differ materially from those expressed in, or implied by, these forward-looking statements. Except as expressly required by the federal securities laws, we undertake no obligation to publicly update or revise any forward-looking statements to reflect events or, circumstances or developments occurring subsequent to the filing of this Form 10-Q with the SEC or for any other reason and you should not place undue reliance on these forward-looking statements. You should carefully review and consider the various disclosures the Company makes in this report and our other reports filed with the SEC that attempt to advise interested parties of the risks, uncertainties and other factors that may affect our business.

### Overview:

#### Business Overview and Strategy

Soligenix, Inc., formerly known as DOR BioPharma, Inc., was incorporated in Delaware in 1987. We are a late-stage research and development biopharmaceutical company focused on developing products to treat the life-threatening side effects of cancer treatment and serious gastrointestinal diseases where there remains an unmet medical need, as well as developing several biodefense vaccines. We maintain two active business segments: BioTherapeutics and BioDefense. Our BioTherapeutics business segment intends to develop orBec® (oral beclomethasone dipropionate, or oral BDP) and other biotherapeutic products, including LPMTM-Leuprolide. Our BioDefense business segment intends to convert its ricin toxin, botulinum toxin, and anthrax vaccine programs from early stage development to advanced development and manufacturing.

Our business strategy can be outlined as follows:

- complete the pivotal Phase 3 confirmatory clinical trial for orBec® in the treatment of acute gastrointestinal Graft-versus-Host disease (“GI GVHD”);
- identify a development and marketing partner for orBec® for territories outside of North America, as we have granted an exclusive license to Sigma-Tau to commercialize orBec® in the U.S., Canada and Mexico; Sigma-Tau will pay us a 35% royalty (inclusive of drug supply) on net sales in these territories as well as pay for commercialization expenses, including launch activities;
  - conduct and complete a Phase 2 clinical trial of orBec® for the prevention of acute GVHD;
- evaluate and initiate additional clinical trials to explore the effectiveness of oral BDP in other therapeutic indications involving inflammatory conditions of the gastrointestinal tract such as radiation enteritis, radiation injury and Crohn’s disease;
  - reinstate development of our other biotherapeutics products, including LPMTM Leuprolide;
- continue to secure additional government funding for each of our BioDefense programs, RiVax™ and BT-VACCTM, through grants, contracts and procurements;
- convert our biodefense vaccine programs from early stage development to advanced development and manufacturing with the potential to collaborate and/or partner with other companies in the biodefense area;

- make orBec® available worldwide through the NPAP for the treatment of acute GI GVHD;
  - acquire or in-license new clinical-stage compounds for development; and
- explore other business development and acquisition strategies under which we may be considered to be an attractive acquisition candidate by another company.

Our principal executive offices are located at 29 Emmons Drive, Suite C-10, Princeton, New Jersey 08550 and our telephone number is (609) 538-8200.

## BioTherapeutics Overview

### orBec® and Oral BDP

orBec® represents a first-of-its-kind oral, locally acting therapy tailored to treat the gastrointestinal manifestation of GI GVHD, the organ system where GVHD is most frequently encountered and highly problematic. orBec® is intended to reduce the need for systemic immunosuppressive drugs to treat acute GI GVHD. The active ingredient in orBec® is BDP, a highly potent, topically active corticosteroid that has a local effect on inflamed tissue. BDP has been marketed in the U.S. and worldwide since the early 1970's as the active pharmaceutical ingredient in a nasal spray and in a metered-dose inhaler for the treatment of patients with allergic rhinitis and asthma. orBec® is specifically formulated for oral administration as a single product consisting of two tablets; one tablet is intended to release BDP in the upper sections of the GI tract, and the other tablet is intended to release BDP in the lower sections of the GI tract.

Based on data from the prior Phase 3 study of orBec®, the current confirmatory Phase 3 study is a highly powered, double-blind, randomized, placebo-controlled, multi-center trial and will seek to enroll an estimated 166 patients. The primary endpoint is the treatment failure rate at Study Day 80. This endpoint was successfully measured as a secondary endpoint (p-value 0.005) in the previous Phase 3 study as a key measure of durability following a 50-day course of treatment with orBec® (i.e., 30 days following cessation of treatment).

In addition to issued patents and pending worldwide patent applications held by or exclusively licensed to us, orBec® also benefits from orphan drug designations in the U.S. and in Europe for the treatment of GI GVHD, as well as an orphan drug designation in the U.S for the treatment of chronic GI GVHD. Orphan drug designations provide for 7 and 10 years of post-approval market exclusivity in the U.S and Europe, respectively.

### Historical Background

Two prior randomized, double-blind, placebo-controlled Phase 2 and 3 clinical trials support orBec®'s ability to provide clinically meaningful outcomes when compared with the current standard of care, including a lowered exposure to systemic corticosteroids following allogeneic transplantation. Currently, there are no approved products to treat GI GVHD. The first trial was a 60-patient Phase 2 single-center clinical trial conducted at the Fred Hutchinson Cancer Research Center. The second trial was a 129-patient pivotal Phase 3 multi-center clinical trial of orBec® conducted at 16 leading bone marrow/stem cell transplantation centers in the US and France. Although orBec® did not achieve statistical significance in the primary endpoint of its pivotal trial, namely median time-to-treatment failure through Day 50 (p-value 0.1177), orBec® did achieve statistical significance in other key secondary endpoints such as the proportion of patients free of GVHD at Day 50 (p-value 0.05) and Day 80 (p-value 0.005) and the median time-to-treatment failure through Day 80 (p-value 0.0226), as well as a 66% reduction in mortality among patients randomized to orBec® at 200 days post-transplant with only 5 patient (8%) deaths in the orBec® group compared to 16 patient (24%) deaths in the placebo group (p-value 0.0139). Within one year after randomization in the pivotal Phase 3 trial, 18 patients (29%) in the orBec® group and 28 patients (42%) in the placebo group died (46% reduction in mortality, p-value 0.04).

In the Phase 2 study, the primary endpoint was the clinically relevant determination of whether GI GVHD patients at Day 30 (the end of treatment) had a durable GVHD treatment response as measured by whether or not they were able to consume at least 70% of their estimated caloric requirement. The GVHD treatment response at Day 30 was 22 of 31 (71%) vs. 12 of 29 (41%) in the orBec® and placebo groups, respectively (p-value 0.02). Additionally, the GVHD treatment response at Day 40 (10 days post cessation of therapy) was 16 of 31 (52%) vs. 5 of 29 (17%) in the orBec® and placebo groups, respectively (p-value 0.007).

Based on the data from Phase 2 and the Phase 3 studies, on September 21, 2006, we filed a new drug application (“NDA”) for our lead product orBec® with the U.S. Food and Drug Administration (“FDA”) for the treatment of acute GI GVHD. On October 18, 2007, we received a not approvable letter from the FDA in response to our NDA for orBec® for the treatment of acute GI GVHD. In the letter, the FDA requested additional clinical trial data to demonstrate the safety and efficacy of orBec®. The FDA also requested nonclinical and chemistry, manufacturing and controls information as part of this letter.

We recently reached agreement with the FDA on the design of a confirmatory, pivotal Phase 3 clinical trial evaluating our lead product orBec® for the treatment of acute GI GVHD. The agreement was made under the FDA’s Special Protocol Assessment (“SPA”) procedure. An agreement via the SPA procedure is an agreement with the FDA that a Phase 3 clinical trial design (e.g., endpoints, sample size, control group and statistical analyses) is acceptable to support a regulatory submission seeking new drug approval. After the study begins, the FDA can only change a SPA for very limited reasons. If and/or when the confirmatory Phase 3 trial is successful, we will file a complete response to the FDA action letter. This response is expected to be designated a class II response with a corresponding FDA review time frame of 6 months.

Further, in June 2009, we received Protocol Assistance feedback from the European Medicines Agency (EMA) on the design of the Phase 3 clinical trial for orBec®. The EMA agreed that should the new confirmatory Phase 3 study produce positive results, the data would be sufficient to support a marketing authorization in all 27 European Union member states. In doing so, the EMA agreed to the primary endpoint and the other principal design features of the new study.

We have entered into a collaboration agreement with Numoda Corporation for the execution of our upcoming confirmatory Phase 3 clinical trial of orBec®. Collaborating with Numoda will allow us to take advantage of a scope of services including using their industry benchmarking capabilities to develop an operational and financial plan including the use of a proprietary management and oversight capabilities process. Barring any unforeseen modifications to the Phase 3 clinical program, Numoda will guarantee the agreed clinical trial budget against cost overruns. As part of the collaboration, Numoda has agreed to accept payment in our common stock in exchange for a portion of its services in connection with the conduct of the confirmatory Phase 3 clinical trial. To date, we have issued 2,847,222 shares of common stock to Numoda in partial payment for its services. Working with Numoda, we also will be able to take full advantage of early reporting of results to potential licensing partners and others. The confirmatory Phase 3 trial has been initiated and is expected to complete in the first half of 2011.

On July 12, 2007, we announced that patient enrollment commenced in a randomized, double blind, placebo-controlled, Phase 2 clinical trial of orBec® for the prevention of acute GVHD after allogeneic HCT with myeloablative conditioning regimens. The trial is being conducted by Paul Martin, M.D., at the FHCRC in Seattle, Washington and is being supported, in large part, by an NIH grant. We will not receive any direct monetary benefit from this grant, but if successful, this funded trial could serve to increase the value of our orBec®/oral BDP program. The Phase 2 trial will seek to enroll up to 138 (92 orBec® and 46 placebo) patients. The primary endpoint of the trial is the proportion of subjects who develop acute GVHD with severity sufficient to require systemic immunosuppressive treatment on or before day 90 after transplantation. Patients in this study will begin dosing at the start of the conditioning regimen and continue through day 75 following HCT. This trial is expected to complete in the first half of 2010.

#### Mortality Results

	Phase 3 Trial		Phase 2 Trial	
	orBec®	Placebo	orBec®	Placebo
Number of patients randomized	62	67	31	29
Number (%) who died	5 (8%)	16 (24%)	3 (10%)	6 (21%)
Hazard ratio (95% confidence interval)	0.33 (0.12, 0.89)		0.47 (0.12, 1.87)	
Death with infection*	3 (5%)	9 (13%)	2 (6%)	5 (17%)
Death with relapse*	3 (5%)	9 (13%)	1 (3%)	4 (14%)

\*Some patients died with both infection and relapse of their underlying malignancy.

In this Phase 3 clinical trial, survival at the pre-specified endpoint of 200 days post-transplantation showed a clinically meaningful and statistically significant result. According to the manuscript, “the risk of mortality during the 200-day post-transplantation period was 67% lower with orBec® treatment compared to placebo treatment (hazard ratio 0.33;

95% CI: 0.12, 0.89; p-value 0.03, Wald chi-square test).” The most common proximate causes of death by transplantation day-200 were relapse of the underlying malignancy and infection. Relapse of the underlying hematologic malignancy had contributed to the deaths of 9/67 patients (13.4%) in the placebo arm and 3/62 patients (4.8%) in the BDP arm. Infection contributed to the deaths of 9/67 patients (13.4%) in the placebo arm and 3/62 (4.8%) in the BDP arm. Acute or chronic GVHD was the proximate cause of death in 3/67 patients (4.5%) in the placebo arm and in 1/62 (1.6%) in the BDP arm.

A retrospective analysis of survival at 200 days post-transplantation in the supportive Phase 2 clinical trial showed consistent response rates with the Phase 3 trial; three patients (10%) who had been randomized to orBec® had died, compared with six deaths (21%) among patients who had been randomized to placebo, leading to a reduced hazard of day-200 mortality, although not statistically significantly different. Detailed analysis of the likely proximate cause of death showed that mortality with infection or with relapse of underlying malignancy were both reduced in the same proportion after treatment with orBec® compared to placebo. By transplantation day-200, relapse of hematologic malignancy had contributed to the deaths of 1 of 31 patients (3%) in the orBec® arm and 4 of 29 patients (14%) in the placebo arm. Infection contributed to the deaths of 2 of 31 patients (6%) in the orBec® arm and 5 of 29 patients (17%) in the placebo arm.

In this Phase 3 trial, orBec® achieved these mortality results despite the fact that there were more “high risk of underlying cancer relapse” patients in the orBec® group than in the placebo group: 40, or 65%, versus 29, or 43%, respectively. There was also an imbalance of non-myeloablative patients in the orBec® treatment group, 26, or 42%, in the orBec® group versus 15, or 22%, in the placebo group, putting the orBec® group at a further disadvantage. In addition, a subgroup analysis also revealed that patients dosed with orBec® who had received stem cells from unrelated donors had a 94% reduction in the risk of mortality 200 days post-transplantation.

Among the data reported in the January 2007 issue of Blood, the peer-reviewed Journal of the American Society of Hematology, orBec® showed continued survival benefit when compared to placebo one year after randomization in the pivotal Phase 3 clinical trial. Overall, 18 patients (29%) in the orBec® group and 28 patients (42%) in the placebo group died within one year of randomization (46% reduction in mortality, p-value 0.04). Results from the Phase 2 trial also demonstrated enhanced long-term survival benefit with orBec® versus placebo. In that study, at one year after randomization, 6 of 31 patients (19%) in the orBec® group had died while 9 of 29 patients (31%) in the placebo group had died (45% reduction in mortality, p-value 0.26). Pooling the survival data from both trials demonstrated that the survival benefit of orBec® treatment was sustained long after orBec® was discontinued and extended well beyond 3 years after the transplantation. As of September 25, 2005, median follow-up of patients in the two trials was 3.5 years (placebo patients) and 3.6 years (orBec® patients), with a range of 10.6 months to 11.1 years. The risk of mortality was 37% lower for patients randomized to orBec® compared with placebo (p-value 0.03).

#### Safety and Adverse Events

The frequencies of severe adverse events, adverse events related to study drug, and adverse events resulting in study drug discontinuation were all comparable to that of the placebo group in both trials. Patients who remained on orBec® until Day 50 in the Phase 3 study had a higher likelihood of having biochemical evidence of abnormal hypothalamic-pituitary-adrenal axis function compared to patients on placebo. This effect was far less pronounced than those seen in patients on high dose prednisone.

#### Commercialization and Market

We anticipate the market potential for orBec® for the treatment of acute GI GVHD to be approximately 50 percent of the more than 10,000 allogeneic bone marrow and stem cell transplantations that occur each year in the U.S.

On February 11, 2009, we entered into a collaboration and supply agreement with Sigma-Tau for the commercialization of orBec®. Sigma-Tau is a pharmaceutical company that develops novel therapies for the unmet

needs of patients with rare diseases. Pursuant to this agreement, Sigma-Tau has an exclusive license to commercialize orBec® in the U.S., Canada and Mexico (the “Territory”). Sigma-Tau is obligated to make payments upon the attainment of significant milestones, as set forth in the agreement. The first milestone payment of \$1 million was made in connection with the enrollment of the first patient in our confirmatory Phase 3 clinical trial of orBec® for the treatment of acute GI GVHD. Total additional milestone payments due from Sigma-Tau for orBec® under the agreement could reach up to \$9 million. Sigma-Tau will pay us a 35% royalty (inclusive of drug supply) on net sales in the Territory as well as pay for commercialization expenses, including launch activities. In connection with the execution of the collaboration and supply agreement, we entered into a common stock purchase agreement with Sigma-Tau pursuant to which we sold 25 million shares of our common stock to Sigma-Tau for \$0.18 per share, for an aggregate price of \$4,500,000. The purchase price is equal to one hundred fifty percent (150%) of the average trading price of our common stock over the five trading days prior to February 11, 2009. On November 26, 2008, prior to entering the collaboration agreement, we sold Sigma-Tau 16,666,667 common shares at \$0.09 per share (the market price at the time) for proceeds of \$1,500,000 in exchange for the exclusive right to negotiate a collaboration deal with us until March 1, 2009.

## About GVHD

GVHD occurs in patients following allogeneic bone marrow transplantation in which tissues of the host, most frequently the gut, liver, and skin, are attacked by lymphocytes from the donor (graft) marrow. Patients with mild to moderate GI GVHD present to the clinic with early satiety, anorexia, nausea, vomiting and diarrhea. If left untreated, symptoms of GI GVHD persist and can progress to necrosis and exfoliation of most of the epithelial cells of the intestinal mucosa, frequently a fatal condition. Approximately 50% of the more than 10,000 annual allogeneic transplantation patients in the U.S. will develop some form of acute GI GVHD.

GI GVHD is one of the most common causes for the failure of bone marrow transplantation. These procedures are being increasingly utilized to treat leukemia and other cancer patients with the prospect of eliminating residual disease and reducing the likelihood of relapse. orBec® represents a first-of-its-kind oral, locally acting therapy tailored to treat the gastrointestinal manifestation of GVHD, the organ system where GVHD is most frequently encountered and highly problematic. orBec® is intended to reduce the need for systemic immunosuppressives to treat acute GI GVHD. Currently used systemic immunosuppressives utilized to control GI GVHD substantially inhibit the highly desirable Graft-versus-Leukemia (“GVL”) effect of bone marrow transplantations, leading to high rates of aggressive forms of relapse, as well as substantial rates of mortality due to opportunistic infection.

## About Allogeneic Bone Marrow/Hematopoietic Cell Transplantation (HCT)

Allogeneic HCT is considered a potentially curative option for many leukemias as well as other forms of blood cancer. In an allogeneic HCT procedure, hematopoietic stem cells are harvested from a closely matched relative or unrelated person, and are transplanted into the patient following either high-dose chemotherapy or intense immunosuppressive conditioning therapy. The curative potential of allogeneic HCT is now partly attributed to the GVL or Graft-versus-Tumor effects of the newly transplanted donor cells to recognize and destroy malignant cells in the recipient patient.

The use of allogeneic HCT has grown substantially over the last decade due to advances in human immunogenetics, the establishment of unrelated donor programs, the use of cord blood as a source of hematopoietic stem cells and the advent of non-myeloablative conditioning regimens, or mini-transplants, that avoid the side effects of high-dose chemotherapy. Based on the latest statistics available, it is estimated that there are more than 10,000 allogeneic HCT procedures annually in the U.S. and a comparable number in Europe. Estimates as to the current annual rate of increase in these procedures are as high as 20%. High rates of morbidity and mortality occur in this patient population. Clinical trials are also underway testing allogeneic HCT for treatment of some metastatic solid tumors such as breast cancer, renal cell carcinoma, melanoma and ovarian cancer. Allogeneic transplantation has also been used as curative therapy for several genetic disorders, including immunodeficiency syndromes, inborn errors of metabolism, thalassemia and sickle cell disease. The primary toxicity of allogeneic HCT, however, is GVHD in which the newly transplanted donor cells damage cells in the recipient’s gastrointestinal tract, liver and skin.

## Future Potential Indications of orBec® and Oral BDP

Based on its pharmacological characteristics, orBec® may have utility in treating other conditions of the gastrointestinal tract having an inflammatory component. We have an issued U.S. patent 6,096,731 claiming the use of oral BDP as a method for preventing and treating the tissue damage that is associated with both GI GVHD following HCT, as well as GVHD which also occurs following organ allograft transplantation. We initiated a Phase 2 trial of orBec® in the prevention of acute GVHD in the third quarter of 2007 which is expected to complete in the first half of 2010. We expect to begin a Phase 2 clinical trial in chronic GI GVHD in the second half of 2010. In addition, we are exploring the possibility of testing oral BDP (the active ingredient in orBec®) for local inflammation associated with Crohn’s Disease, Lymphocytic Colitis, Irritable Bowel Syndrome, Ulcerative Colitis, among other indications.



SGX201

On December 8, 2008, we announced that the FDA has completed its review and cleared the Investigational New Drug (“IND”) application for SGX201, a time-release formulation of oral BDP, for the prevention of acute radiation enteritis. Consequently, we are able to initiate a Phase 1/2 clinical trial in acute radiation enteritis, expected to occur in the second half of 2009. On January 6, 2009, we also announced that SGX201 also received “Fast Track” designation from the FDA. Fast Track is a designation that the FDA reserves for a drug intended to treat a serious or life-threatening condition and one that demonstrates the potential to address an unmet medical need for the condition. Fast track designation is designed to facilitate the development and expedite the review of new drugs. For instance, should events warrant, we will be eligible to submit an NDA for SGX201 on a rolling basis, permitting the FDA to review sections of the NDA prior to receiving the complete submission. Additionally, NDAs for Fast Track development programs ordinarily will be eligible for priority review, which implies an abbreviated review time of six months.

SGX201 contains BDP, a highly potent, topically active corticosteroid that has a local effect on inflamed tissue. BDP has been marketed in the U.S. and worldwide since the early 1970s as the active pharmaceutical ingredient in inhalation products for the treatment of patients with allergic rhinitis and asthma. BDP is also the active ingredient in orBec®, currently in Phase 3 and Phase 2 development by Soligenix for the treatment and prevention of GI GVHD, respectively. SGX201 is a time-release formulation of BDP specifically designed for oral use.

We plan to initiate a Phase 1/2 clinical trial in acute radiation enteritis in the second half of 2009. Patients with rectal cancer who are scheduled to undergo concurrent radiation and chemotherapy prior to surgery will be enrolled in four dose groups. The objectives of the study are to evaluate the safety and maximal tolerated dose of escalating doses of SGX201, as well as the preliminary efficacy of SGX201 for prevention of signs and symptoms of acute radiation enteritis. This program is supported in part by a \$500,000 two-year Small Business Innovation Research (“SBIR”) grant awarded by the NIH.

#### About Acute Radiation Enteritis

External radiation therapy is used to treat most types of cancer, including cancer of the bladder, uterine, cervix, rectum, prostate, and vagina. During delivery of treatment, some level of radiation will also be delivered to healthy tissue, including the bowel, leading to acute and chronic toxicities. The large and small bowels are very sensitive to radiation and the larger the dose of radiation the greater the damage to normal bowel tissue. Radiation enteritis is a condition in which the lining of the bowel becomes swollen and inflamed during or after radiation therapy to the abdomen, pelvis, or rectum. Most tumors in the abdomen and pelvis need large doses, and almost all patients receiving radiation to the abdomen, pelvis, or rectum will show signs of acute enteritis.

Patients with acute enteritis may have nausea, vomiting, abdominal pain and bleeding, among other symptoms. Some patients may develop dehydration and require hospitalization. With diarrhea, the gastrointestinal tract does not function normally, and nutrients such as fat, lactose, bile salts, and vitamin B12 are not well absorbed.

Symptoms will usually resolve within 2-6 weeks after therapy has ceased. Radiation enteritis is often not a self-limited illness, as over 80% of patients who receive abdominal radiation therapy complain of a persistent change in bowel habits. Moreover, acute radiation injury increases the risk of development of chronic radiation enteropathy, and overall 5% to 15% of the patients who receive abdominal or pelvic irradiation will develop chronic radiation enteritis.

There are over 100,000 patients in the U.S. annually who receive abdominal or pelvic external beam radiation treatment for cancer who are at risk of developing acute and chronic radiation enteritis.

#### SGX202

On September 12, 2007, we announced that our academic partner, the Fred Hutchinson Cancer Research Center (“FHCRC”), received a \$1 million grant from the NIH to conduct preclinical studies of oral beclomethasone dipropionate (oral BDP, also the active ingredient in orBec®) for the treatment of GI radiation injury. While we will not receive any monetary benefit from this grant, we will benefit if this work is successful and it will enhance the value of our oral BDP programs. The purpose of the studies funded by the grant, entitled “Improving Gastrointestinal Recovery after Radiation,” is to evaluate the ability of three promising clinical-grade drugs, including oral BDP, given alone or in combination, that are likely to significantly mitigate the damage to the gastrointestinal epithelium caused by exposure to high doses of radiation using a well-established dog model. The GI tract is highly sensitive to ionizing radiation and the destruction of epithelial tissue is one of the first effects of radiation exposure. The rapid loss of epithelial cells leads to inflammation and infection that are often the primary cause of death in acute radiation injury. This type of therapy, if successful, would benefit cancer patients undergoing radiation, chemotherapy, or victims of nuclear-terrorism. In most radiation scenarios, injury to the hematopoietic (blood) system and gastrointestinal tract are the main determinants of survival. The studies will compare overall survival and markers of intestinal cell regeneration when the drug regimens are added to supportive care intended to boost proliferation of blood cells. The principal investigator of the study is George E. Georges, M.D., Associate Member of the FHCRC. Our rights to the use of SGX202 are through our license with George McDonald.

#### Additional Programs

##### LPMTM - Leuprolide

Our Lipid Polymer Micelle (“LPM™”) oral drug delivery system is a proprietary platform technology designed to allow for the oral administration of peptide drugs that are water-soluble but poorly permeable through the gastrointestinal tract. We have previously demonstrated in preclinical animal models that the LPM™ technology is adaptable to oral delivery of peptide drugs and that high systemic levels after intestinal absorption can be achieved with the peptide hormone drug leuprolide. The LPM™ system utilizes a lipid based delivery system that can incorporate the peptide of interest in a thermodynamically stable configuration called a “reverse micelle” that, through oral administration, can promote intestinal absorption. Reverse micelles are structures that form when certain classes of lipids come in contact with small amounts of water. This results in a drug delivery system in which a stable clear dispersion of the water soluble drug can be evenly dispersed within the lipid phase. LPM™ is thought to promote intestinal absorption due to the ability of the micelles to open up small channels through the epithelial layer of the intestines that allow only molecules of a certain dimension to pass through while excluding extremely large molecules such as bacteria and viruses. The reverse micelles also structurally prevent the rapid inactivation of peptides by enzymes in the upper gastrointestinal tract via a non-specific enzyme inhibition by surfactant(s) in the formulation.

In preclinical studies, the LPM™ delivery technology significantly enhanced the ability of leuprolide to pass through the intestinal epithelium in comparison to leuprolide alone. Leuprolide is a synthetic peptide agonist of gonadotropin releasing hormone, which is used in the treatment of prostate cancer in men and endometriosis in women. Leuprolide exhibits poor intestinal absorption from an aqueous solution with the oral bioavailability being less than 5%. Utilizing LPM™ in rats and dogs, the bioavailability of leuprolide averaged 30% compared to 2.2% for the control oral solution. Based on these promising preclinical data, we anticipate preparing for a Phase 1 study in humans to confirm these findings.

An oral version of leuprolide may provide a significant advantage over the currently marketed “depot” formulations. Leuprolide is one of the most widely used anti-cancer agents for advanced prostate cancer in men. Injectable forms of leuprolide marketed under trade names such as Lupron® and Eligard® had worldwide sales of approximately \$1.8

billion in 2006. Injectable leuprolide is also widely used in non-cancer indications, such as endometriosis in women (a common condition in which cells normally found in the uterus become implanted in other areas of the body), uterine fibroids in women (noncancerous growths in the uterus) and central precocious puberty in children (a condition causing children to enter puberty too soon). Leuprolide is currently available only in injectable, injectable depot and subcutaneous implant routes of delivery which limits its use and utility.

## BioDefense Overview

### RiVax™

RiVax™ is our proprietary vaccine developed to protect against exposure to ricin toxin, and is the first and only ricin toxin vaccine to be clinically tested in humans. Ricin is a potent glycoprotein toxin derived from the beans of castor plants. It can be cheaply and easily produced, is stable over long periods of time, is toxic by several routes of exposure and thus has the potential to be used as a biological weapon against military and/or civilian targets. As a bioterrorism agent, ricin could be disseminated as an aerosol, by injection, or as a food supply contaminant. The potential use of ricin toxin as a biological weapon of mass destruction has been highlighted in a recent FBI Bioterror report released in November 2007 entitled *Terrorism 2002-2005*, which states that "Ricin and the bacterial agent anthrax are emerging as the most prevalent agents involved in WMD investigations" ([http://www.fbi.gov/publications/terror/terrorism2002\\_2005.pdf](http://www.fbi.gov/publications/terror/terrorism2002_2005.pdf)). The Centers for Disease Control ("CDC") has classified ricin as a Category B biological agent. Ricin works by first binding to glycoproteins found on the exterior of a cell, and then entering the cell and inhibiting protein synthesis leading to cell death. Once exposed to ricin toxin, there is no effective therapy available to reverse the course of the toxin. Currently, there is no FDA approved vaccine to protect against the possibility of ricin toxin being used in a terrorist attack, or its use as a weapon on the battlefield, nor is there a known antidote for ricin toxin exposure.

We have announced positive Phase 1 clinical trial results for RiVax™ which demonstrated that the vaccine is well tolerated and induces antibodies in humans that neutralize the ricin toxin. The functional activity of the antibodies was confirmed by animal challenge studies in mice which survived exposure to ricin toxin after being injected with serum samples from the volunteers. The outcome of the study was published in the *Proceedings of the National Academy of Sciences*. A second Phase 1 trial is currently underway utilizing an adjuvanted formulation and is expected to complete in the first half of 2010.

The initial Phase 1 clinical trial was conducted by Dr. Ellen Vitetta at the University of Texas Southwestern Medical Center ("UTSW") at Dallas, Soligenix's academic partner on the RiVax™ program. The National Institutes of Health ("NIH") has awarded us two grants: one for \$6.4 million and one for \$5.2 million for a total of \$11.6 million for the development of RiVax™ covering process development, scale-up and cGMP manufacturing, and preclinical toxicology testing pursuant to the FDA's "animal rule," which has supported our research from 2004 to present.

The development of RiVax™ has progressed significantly. In September 2006, in addition to an earlier grant of \$6.4 million, we received a grant of approximately \$5.2 million from NIAID, a division of the NIH, for the continued development of RiVax™, a recombinant vaccine against ricin toxin. This RiVax™ grant will provide approximately \$5.2 million over a three year period to fund the development of animal models which will be used to correlate human immune response to the vaccine with protective efficacy in animals. This is necessary for ultimate licensure by the FDA, when human efficacy vaccine trials are not possible. This grant also supports the further biophysical characterization of the vaccine containing a well-characterized adjuvant that is needed to enhance the immune response to recombinant proteins. These studies will be required to assure that the vaccine is stable and potent over a period of years. A prototype version of RiVax™ has been evaluated in a Phase 1 clinical trial and was shown to be safe and effective, while also inducing ricin neutralizing antibodies as confirmed in subsequent animal studies.

On September 21, 2009, we announced that we were awarded a \$9.4 Million grant from NIAID. The grant will fund, over a five-year period, the development of formulation and manufacturing processes for vaccines, including RiVax™, that are stable at elevated temperatures. The grant will also fund the development of improved thermostable adjuvants expected to result in rapidly acting vaccines that can be given with fewer injections over

shorter intervals. The development of heat-stable vaccines will take advantage of combining several novel formulation processes with well characterized adjuvants that have been evaluated in numerous vaccine field trials. The formulation and process technology funded by the grant will be applied to the further development of RiVax™, a subunit vaccine for prevention of ricin toxin lethality and morbidity. The grant will also address the development of manufacturing processes and animal model systems necessary for the preclinical characterization of vaccine formulations. Further, the grant will fund the concurrent development of at least one other protein subunit vaccine, which is currently expected to be an anthrax vaccine. This could lead to new subunit vaccines that would bypass current cold chain requirements for storage and distribution. Vaccines to be stored in the Strategic National Stockpile (SNS) and used under emergency situations for biodefense are expected to have long-term shelf life.

On April 29, 2008, we announced the initiation of a comprehensive program to evaluate the efficacy of RiVax™, in non-human primates. This study is taking place at the Tulane University Health Sciences Center and will provide data that will further aid in the interpretation of immunogenicity data obtained in the human vaccination trials. The study was initiated in the second quarter of 2008.

On January 29, 2008, we announced that we successfully achieved a two-year milestone in the long-term stability program of the key ingredient of RiVax™, a recombinant subunit vaccine against ricin toxin. The results of the two-year analysis, undertaken as part of the formal stability program, demonstrate that the immunogen component of RiVax™, a recombinant derivative of the ricin A chain, is stable under storage conditions for at least two years without loss of its natural configuration or the appearance of any detectable degradation products. A vaccine is considered by many to be the best way to prospectively protect populations at risk of exposure against ricin toxin. As this vaccine would potentially be added to the Strategic National Stockpile and dispensed in the event of a terrorist attack, the activity of the vaccine must be maintained over a period of years under stockpile storage conditions.

On November 15, 2007, we announced that we entered into a Cooperative Research and Development Agreement with the Walter Reed Army Institute of Research ("WRAIR") to provide additional means to characterize the immunogenic protein subunit component of RiVax™, our preventive vaccine against ricin toxin. The agreement will be carried out at the Division of Biochemistry at WRAIR and will encompass basic studies to reveal the underlying protein structure that is important in inducing human immune responses to ricin toxin. Ricin toxin is an easy to manufacture toxin that poses a serious threat as a bioweapon, primarily by inhalation. Some of the features that are critical to induce protective immune responses by vaccination with RiVax™ include structural determinants in the core and the surface of the protein. The purpose of the agreement is to obtain data to correlate protein structure with induction of protective immunity and long-term stability of the protein. These studies will involve comparison to structures of similar natural and recombinant proteins. RiVax™ induces antibodies that appear primarily in the blood of animals and humans. Some of these antibodies recognize determinants on the protein that are dependent on the conformation of the protein and may be involved in biological activity. Overall, antibodies in the blood are correlated to protection against exposure when the toxin enters the circulatory system or when it comes into contact with lung surfaces, where the major effects lead to severe inflammation, tissue necrosis and death. RiVax™ induces such antibodies in humans as well as other animal species. Lieutenant Colonel Charles B. Millard, Ph.D., Director of the Division of Biochemistry at WRAIR, will lead the studies to be conducted at WRAIR, which will include X-ray crystal analysis to determine the structural parameters of the RiVax™ vaccine. We will not receive any monetary benefits from this agreement. We will take part in evaluating the data that is found by WRAIR's studies, which they are funding. If successful, this will enhance the value of our RiVax™ product and assist with continuing the progression of the program.

In July 2007, we announced that the Office of Orphan Products Development ("OOPD") of the FDA has awarded a development grant for the further clinical evaluation of RiVax™. The grant was awarded to UTSW to further the development of RiVax™. We will not receive any monetary benefits from this grant; however, the successful completion of this work will enhance the value of our RiVax™ program and continue to move it forward. The principal investigator for the project is Dr. Vitetta, Director of the Cancer Immunobiology Center at UTSW. The award totals approximately \$940,000 for three years and is to be used for the evaluation of an adjuvant for use with the vaccine.

Typically, awards made by the OOPD are to support clinical trials for development of products that address rare diseases or medicines that would be used in numerically small populations. UTSW began a second Phase 1 human clinical trial with an adjuvanted formulation of RiVax™ in August of 2008 and which is expected to complete in the first half of 2010.

## BT-VACC™

Our botulinum toxin vaccine, called BT-VACC™, originated from the research of Dr. Lance Simpson at Thomas Jefferson University in Philadelphia, Pennsylvania. The vaccine is being developed as an oral or intranasal formulation to be given as a primary immunization series or as oral or nasal booster to individuals who have been primed with an injected vaccine. Botulinum toxin is the product of the bacteria *Clostridium botulinum*. Botulinum toxin is the most poisonous natural substance known to man. Botulinum toxin causes acute, symmetric, descending flaccid paralysis due to its action on peripheral cholinergic nerves. Paralysis typically presents 12 to 72 hours after exposure. Death results from paralysis of the respiratory muscles. Current treatments include respiratory support and passive immunization with antibodies which must be administered before symptoms occur, which leaves little time post-exposure for effective treatment.

In the context of oral and nasal formulations, we are developing a multivalent vaccine against botulinum neurotoxins serotypes A, B and E, which account for almost all human cases of disease. We have identified lead antigens against Serotypes A, B and E consisting of the Hc50 fragment of the botulinum toxin. Typically, vaccines given by mucosal routes are not immunogenic because they do not attach to immune inductive sites. In the case of the combination BT-VACC™, both the A and the B antigens were capable of attaching to cells in the mucosal epithelium and inducing an immune response with similar magnitude to the injected vaccine. Our preclinical data suggests that a bivalent formulation of serotypes A and B is completely effective at low, mid and high doses as an intranasal vaccine and completely effective at the higher dose level orally in animal models. The animals were given a small quantity of the bivalent combination vaccine containing each of the type A and type B antigens (10 micrograms) three times a day at two week intervals. All of the animals developed equivalent immune responses to A and B types in the serum. Importantly, they were then protected against exposure to each of the native toxin molecules given at 1000 fold the dose that causes lethality. The immune responses were also comparable to the same vaccines when given by intramuscular injection.

In July 2007, we announced that the first results from testing of a multivalent form of BT-VACC™ were published in the journal *Infection and Immunity* (Ravichandran et al., 2007, *Infection and Immunity*, v. 75, p. 3043). These results are the first to describe the protective immunity elicited by a multivalent vaccine that is active by the mucosal route. The vaccine consists of a combination of three non-toxic subunits of botulinum toxin that induced protection against the corresponding versions of the natural toxins. The results published in *Infection and Immunity* show that non-toxic subunits (protein components of the natural toxin) of three of the serotypes of botulinum toxin that cause almost all instances of human disease, namely serotypes A, B, and E, can be combined and delivered via nasal administration. The combination vaccine induced antibodies in the serum of mice and protected against subsequent exposure to high doses of a combination of the natural A, B, and E serotype neurotoxins. The combination vaccine also can induce protection when given mucosally as a booster to animals that have been given a primary vaccine injection.

## Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the U.S. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses, and related disclosure of contingent assets and liabilities. We evaluate these estimates and judgments on an on-going basis.

## Intangible Assets

One of the most significant estimates or judgments that we make is whether to capitalize or expense patent and license costs. We make this judgment based on whether the technology has alternative future uses, as defined in FASB ASC 730, Research and Development. Based on this consideration, we capitalized all outside legal and filing costs incurred

in the procurement and defense of patents.

These intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable or if the underlying program is no longer being pursued. If the sum of the expected undiscounted cash flows is less than the carrying value of the related asset or group of assets, a loss is recognized for the difference between the fair value and the carrying value of the related asset or group of assets.

We capitalize and amortize intangibles over a period of 11 to 16 years. We capitalize legal costs associated with the protection and maintenance of our patents and rights for our current products in both the domestic and international markets. As a late stage research and development company with drug and vaccine products in an often lengthy clinical research process, we believe that patent rights are one of our most valuable assets. Patents and patent applications are a key currency of intellectual property, especially in the early stage of product development, as their purchase and maintenance gives us access to key product development rights from our academic and industrial partners. These rights can also be sold or sub-licensed as part of our strategy to partner our products at each stage of development. The legal costs incurred for these patents consist of work designed to protect, preserve, maintain and perhaps extend the lives of the patents. Therefore, our policy is to capitalize these costs and amortize them over the remaining useful life of the patents. We capitalize intangible assets' alternative future use as referred to in FASB ASC 350, Intangibles – Goodwill and Other and FASB ASC 730, Research and Development.

#### Research and Development Costs

Research and Development costs are charged to expense when incurred. Research and development includes costs such as clinical trial expenses, contracted research and license agreement fees with no alternative future use, supplies and materials, salaries and employee benefits, equipment depreciation and allocation of various corporate costs. Purchased in-process research and development expense represents the value assigned or paid for acquired research and development for which there is no alternative future use as of the date of acquisition.

#### Revenue Recognition

Our revenues are generated from NIH grants and from NPAP sales of orBec®. The revenue from government grants are based upon subcontractor costs and internal costs covered by the grant, plus a facilities and administrative rate that provides funding for overhead expenses. These revenues are recognized when expenses have been incurred by subcontractors or when we incur internal expenses that are related to the grant. NPAP revenues are recorded when the product is shipped.

#### Stock-Based Compensation

Stock compensation expense for options granted to non-employees has been determined in accordance with FASB ASC 718, Stock Compensation, and FASB ASC 505-50, Equity-Based Payments to Non-Employees, and represents the fair value of the consideration received, or the fair value of the equity instruments issued, whichever may be more reliably measured. For options that vest over future periods, the fair value of options granted to non-employees is amortized as the options vest. The option's price is remeasured using the Black-Scholes model at the end of each quarterly reporting period.

As stock options are exercised, common stock share certificates are issued via electronic transfer or physical share certificates by our transfer agent. Upon exercise, shares are issued from the amended 2005 equity incentive plan and increase the number of shares we have outstanding. There were no stock option exercises during the nine months ended September 30, 2009 or during the year ended December 31, 2008. There were forfeitures or expirations of 10,000 and 125,000 stock options during the three and nine months ended September 30, 2009, respectively, and expirations of 100,000 and 579,000 stock options during the same periods in the prior year. The intrinsic value of the stock options was zero.



From time to time, we issue common stock to vendors, consultants, and employees as compensation for services performed. These shares are typically issued as restricted stock, unless issued to non-affiliates under the 2005 Equity Incentive Plan, where the stock may be issued as unrestricted. The restricted stock can only have the restrictive legend removed if the shares underlying the certificate are sold pursuant to an effective registration statement, which we must file and have approved by the SEC, if the shares underlying the certificate are sold pursuant to Rule 144, provided certain conditions are satisfied, or if the shares are sold pursuant to another exemption from the registration requirements of the Securities Act of 1933, as amended.

Stock-based compensation expense recognized during the period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period.

Stock options are issued with an exercise price equal to the market price on the date of issuance. Stock options issued to directors are fully vested upon issuance. Stock options issued to employees generally vest 25% upfront, then 25% each year for a period of three years. Stock options vest over each three month period from the date of issuance to the end of the three year period. These options have a ten year life for as long as the individuals remain employees or directors. In general, when an employee or director terminates their position the options will expire within six months unless otherwise extended by the Board.

The intrinsic value was calculated as the difference between our common stock closing price on the OTC BB at September 30, 2009 and the exercise price of the stock option issued multiplied by the number of shares underlying the stock options. Our common stock price at September 30, 2009 was \$0.28.

## Material Changes in Results of Operations

## Three and Nine Months Ended September 30, 2009 Compared to 2008

For the three months ended September 30, 2009, we had a net loss of \$1,660,377 as compared to a net loss of \$475,701 for same period in the prior year, representing an increase of \$1,184,676, or 249%. For the nine months ended September 30, 2009, we had a net loss of \$5,590,377 as compared to a net loss of \$3,103,579 for the same period in the prior year, representing an increase of \$2,486,798, or 80%. These increases are primarily attributed to increased spending of \$1,049,095 and \$2,431,705 in research and development for the three and nine months ended September 30, 2009, respectively, over the same periods in 2008 related to the preparation and conduct of the confirmatory Phase 3 clinical trial of orBec® for the treatment of acute GI GVHD. For the nine months ended September 30, 2009, there was a decrease in general and administrative expenses of \$84,572, which reflects the \$270,000 expense recorded in first quarter 2008 related to the Fusion Capital commitment shares, offset by staffing increases this year. For the three months ended September 30, 2009, general and administrative expenses increased \$207,399 over the same period in 2008 primarily related to staffing related costs this year.

For the three and nine months ended September 30, 2009, revenues and associated costs relate to NIH grants awarded in September 2004 and September 2006 and from the NPAP sales of orBec®. The NIH grants support the research and development of our ricin and botulinum vaccines. For the three months ended September 30, 2009, we had revenues of \$766,645 as compared to \$605,736 for the same period in the prior year, representing an increase of \$160,909, or 27%. For the nine months ended September 30, 2009, we had revenues of \$1,629,277 as compared to \$1,771,620 for the same period in the prior year, representing a decrease of \$142,343, or 8%. During the three and nine months ended September 30, 2009, we recorded \$24,000 and \$52,000, respectively, from our NPAP sales of orBec® and are included in the above revenue figures. Our overall revenue was lower in 2009 versus 2008 due to lower draw-downs from our NIH grants. We incurred costs related to that revenue for the three months ended September 30, 2009 and 2008 of \$584,329 and \$538,182, respectively, representing a decrease of \$46,147, or 9%. Such costs for the nine months ended September 30, 2009 and 2008 were \$1,255,503 and \$1,459,206, respectively, representing a decrease of \$203,703, or 14%. These costs relate to payments made to subcontractors in connection with research performed in support of the grants.

Our gross profit for the three months ended September 30, 2009 was \$182,316 as compared to \$67,554 for the same period in the prior year, representing an increase of \$114,762, or 170%. Our gross profit for the nine months ended September 30, 2009 was \$373,774 as compared to \$312,414 for the same period in the prior year, representing an increase of \$61,360, or 20%. The increase was primarily due to an increase in subcontracted reimbursed costs related to the grants.

Research and development spending increased by \$1,049,095, or 1,742%, to \$1,109,333 for the three months ended September 30, 2009 as compared to \$60,238 for the same period in 2008. Research and development spending increased by \$2,431,405, or 173%, to \$3,835,246 for the nine months ended September 30, 2009 as compared to \$1,403,841 for the same period in 2008. During the first nine months of 2009, we incurred expenses of \$3,098,211 in connection with the preparation and conduct of the confirmatory Phase 3 clinical trial of orBec® for the treatment of GI GVHD. Our primary vendor for such services was Numoda Corporation, which represented approximately \$2,268,000 of these expenses.

General and administrative expenses increased by \$207,399, or 51%, to \$617,735 for the three months ended September 30, 2009, as compared to \$410,336 for the same period in 2008. General and administrative expenses decreased marginally by \$84,572, or 5%, to \$1,728,400 for the nine months ended September 30, 2009, as compared to \$1,812,972 for the same period in 2008. The decrease for the nine month period was primarily due to the nonrecurring \$270,000 charge in March 2008 resulting from the Fusion Capital equity transaction commitment shares.

Stock-based compensation expenses related to research and development decreased \$14,270, or 36%, to \$25,314 for the three months ended September 30, 2009, as compared to \$39,584 for the same period in 2008. Stock-based compensation expenses related to research and development increased \$38,641, or 33%, to \$157,391 for the nine months ended September 30, 2009, as compared to \$118,750 for the same period in 2008. These increases were related to stock options that were issued to employees hired in 2009 and for options issued in the last quarter of 2008 that began vesting in 2009.

Stock-based compensation expenses related to general and administrative increased \$54,130, or 147%, to \$90,922 for the three months ended September 30, 2009, as compared to \$36,792 for the same period in 2008. Stock-based compensation expenses related to general and administrative increased \$150,953, or 137%, to \$261,331 for the nine months ended September 30, 2009, as compared to \$110,378 for the same period in 2008. These increases were related to stock options that were issued to employees hired in 2009 and for options issued in the last quarter of 2008 that began vesting in 2009.

Net interest income for the three months ended September 30, 2009 was \$611 as compared to \$3,695 for the same period in the prior year, representing a decrease of \$3,084, or 83%. Net interest income for the nine months ended September 30, 2009 was \$18,217 as compared to \$29,948 for the same period in the prior year, representing a decrease of \$11,731, or 39%. This decrease is due to lower prevailing interest rates available on our cash balances in 2009 as compared to 2008.

## Financial Condition

### Cash and Working Capital

As of September 30, 2009, we had cash and cash equivalents of approximately \$7,487,000 as compared to \$1,475,000 as of December 31, 2008, representing a \$6,012,000 or 408% increase over prior year. This total was augmented in October 2009 by the receipt of \$1 million from our North American collaboration partner Sigma-Tau Pharmaceuticals, inc. in connection with the initiation of our confirmatory Phase 3 clinical trial of orBec® for the treatment of GI GVHD. As of September 30, 2009, we had working capital of approximately \$6,808,000 as compared to working capital of \$537,000 as of December 31, 2008, representing an increase of \$6,271,000. The increase was the result of the execution of our collaboration agreement and ensuing sale of our common stock to our commercialization partner Sigma-Tau of \$4.5 million, plus the \$10.8 million in proceeds from the sale of our common stock and warrants to accredited investors, less the cash used in operating activities over the period. We have used equity instruments to provide a portion of the compensation due to our employees, vendors and collaboration partners, and expect to continue to do so in the foreseeable future.

For the nine months ended September 30, 2009, our cash used in operating activities was approximately \$4,755,000, compared to \$2,125,000 for the same period in 2008, representing an increase of \$2,630,000 or 123%. This increase primarily relates to the preparation and conduct of our confirmatory Phase 3 clinical trial of orBec® for the treatment of acute GI GVHD.

Our business strategy can be outlined as follows:

- complete the pivotal Phase 3 confirmatory clinical trial for orBec® in the treatment of acute GI GVHD;
- identify a development and marketing partner for orBec® for territories outside of North America, as we have granted an exclusive license to Sigma-Tau to commercialize orBec® in the U.S., Canada and Mexico; Sigma-Tau will pay us a 35% royalty (inclusive of drug supply) on net sales in these territories as well as pay for commercialization expenses, including launch activities;
  - conduct and complete a Phase 2 clinical trial of orBec® for the prevention of acute GVHD;
- evaluate and initiate additional clinical trials to explore the effectiveness of oral BDP in other therapeutic indications involving inflammatory conditions of the gastrointestinal (“GI”) tract such as radiation enteritis, radiation injury and Crohn’s disease;
  - reinstate development of our other BioTherapeutics products, including LPMTM Leuprolide;
- continue to secure additional government funding for each of our BioDefense programs, RiVax™ and BT-VACCTM, through grants, contracts and procurements;
- convert our biodefense vaccine programs from early stage development to advanced development and manufacturing with the potential to collaborate and/or partner with other companies in the biodefense area;
  - make orBec® available worldwide through the NPAP for the treatment of acute GI GVHD;
    - acquire or in-license new clinical-stage compounds for development; and
- explore other business development and acquisition strategies under which we may be considered to be an attractive acquisition candidate by another company.

Based on our current rate of cash outflows, cash on hand, the timely collection of milestone payments under collaboration agreements, proceeds from our grant programs and potential minimal proceeds from the Fusion Capital transaction, we believe that our current cash will be sufficient to meet the anticipated cash needs for working capital and capital expenditures into the first quarter of 2011.

Our plans with respect to our liquidity management include the following:

- We have \$9.7 million in active grant funding still available to support our ricin and botulinum toxin vaccine programs in 2009 and beyond. Additionally, we have submitted additional grant applications for further support of these programs and others with various funding agencies, and received encouraging feedback to date on the likelihood of funding.
- We have continued to use equity instruments to provide a portion of the compensation due to vendors and collaboration partners and expect to continue to do so for the foreseeable future.
- We have approximately \$7.8 million in available capacity under our Fusion Capital equity facility. Although we have historically drawn amounts in modest amounts under this agreement, we could draw more within certain contractual parameters.
- We may seek additional capital in the private and/or public equity markets to continue our operations, respond to competitive pressures, develop new products and services, and to support new strategic partnerships. We are currently evaluating additional equity financing opportunities and may execute them when appropriate. However, there can be no assurances that we can consummate such a transaction, or consummate a transaction at favorable pricing.

#### Expenditures

Under existing product development agreements and license agreements pursuant to letters of intent and option agreements, we expect our expenditures for the next 12 months to be approximately \$4.1 million, not inclusive of BioDefense programs, or programs covered under existing NIH or orphan grants. We anticipate grant revenues in the next 12 months to offset research and development expenses for the development of our ricin and botulinum toxin vaccines in the amount of approximately \$1,534,000, with \$363,000 of that total amount contributing towards our overhead expenses.

The table below details our costs for research and development by program and amount reimbursed under grants for the nine months ended September 30:

	2009	2008
Research & Development Expenses		
orBec®	\$ 3,098,212	\$ 884,341
RiVax™	573,575	249,318
BT-VACCTM	151,228	154,795
Oraprine™	4,500	4,000
LPM™-Leuprolide	7,731	111,387
Total	\$ 3,835,246	\$ 1,403,841
Reimbursed under Grants		
orBec®	\$ 32,024	\$ 110,551
RiVax™	1,223,479	1,266,049
BT-VACCTM	-	82,606
Total	\$ 1,255,503	\$ 1,459,206
Grand Total	\$ 5,090,749	\$ 2,863,047

## Commitments

We have commitments of approximately \$3.3 million as of September 30, 2009 in connection with a collaboration agreement with Numoda for the execution of our confirmatory Phase 3 clinical trial of orBec® that began in September 2009 and is expected to complete in first half of 2011.

We have several licensing agreements with consultants and universities, which upon clinical or commercialization success may require the payment of milestones and/or royalties if and when achieved. However, there can be no assurance that clinical or commercialization success will occur.

On April 1, 2009, we entered into a sub-lease agreement through March 31, 2012 for office space in Princeton, New Jersey. We were required to provide 4 months of rent as a security deposit. The rent for the first 18 months will be approximately \$7,500 per month, or \$17.00 per square foot. This rent increases to approximately \$7,650 per month, or \$17.50 per square foot, for the remaining 18 months.

On April 24, 2008, we signed a three year lease for a copier.

On March 4, 2007, we entered into an investment banking agreement with RBC Capital Markets (“RBC”). As a result of our transactions with Sigma-Tau, RBC claims that it is entitled to certain compensation under such agreement up to \$1.6 million. We dispute that RBC is entitled to any compensation for the Sigma-Tau transactions and will vigorously defend any lawsuit filed by RBC.

In February 2007, our Board of Directors authorized the issuance of the following shares to Dr. Schaber, Mr. Myriantopoulos, Dr. Brey and certain other employees and a consultant, upon the completion of a transaction, or series or a combination of related transactions negotiated by our Board of Directors whereby, directly or indirectly, a majority of our capital stock or a majority of its assets are transferred from us and/or our stockholders to a third party: 1,000,000 common shares to Dr. Schaber; 750,000 common shares to Mr. Myriantopoulos; 200,000 common shares to Dr. Brey; and 450,000 common shares to employees and a consultant shall be issued.

Employees with employment contracts have severance agreements that will provide separation benefits from the Company if they are involuntarily separated from employment.

We have future obligations over the next five years as follows:

Year	Research and Development	Property and Other Leases	Total
2009	\$ 740,910	\$ 23,512	\$764,422
2010	2,775,420	95,398	2,870,818
2011	155,000	92,699	247,699
2012	155,000	22,950	177,950
2013	75,000	-	75,000
Total	\$3,901,330	\$234,559	\$4,135,889

### ITEM 3 - QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because the majority of our investments are in short-term marketable securities. Due to the nature of our short-term investments, we believe that we are not subject to any material market risk exposure. We do not have any foreign currency or other derivative financial instruments.

### ITEM 4 - CONTROLS AND PROCEDURES

#### Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this quarterly report (the "Evaluation Date"). Based on such evaluation, our principal executive officer and principal financial officer have concluded that, as of the Evaluation Date, our disclosure controls and procedures are effective.

#### Changes in Internal Controls

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) identified in connection with the evaluation of our internal controls that occurred during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, such controls.

PART II - OTHER INFORMATION.

ITEM 2 – UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

In August 2009, 569,425 shares of the Company's common stock were issued to the former controller, treasurer and secretary of the Company in partial settlement of certain compensation and severance liabilities pursuant to the employee's employment agreement. The aggregate number of shares is subject to future adjustment for a six month period following the separation date should the market price fall below the original issuance price. The former employee was granted standard piggyback registration rights with respect to those shares. The issuance of shares was exempt from registration pursuant to Section 4(2) of the Securities Act of 1933, as amended, because the former employee had knowledge of all material information about the Company.

ITEM 5 - EXHIBITS

EXHIBIT NO.	DESCRIPTION
31.1 13(a)-14(a) (under Section 302 of the Sarbanes-Oxley Act of 2002).	Certification of Chief Executive Officer pursuant to Exchange Act rule
31.2 13(a)-14(a) (under Section 302 of the Sarbanes-Oxley Act of 2002).	Certification of Chief Financial Officer pursuant to Exchange Act rule
32.1 Sarbanes-Oxley Act of 2002.	Certification of Chief Executive Officer pursuant to Section 906 of the
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.



SIGNATURES

In accordance with the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SOLIGENIX, INC.

November 13, 2009	by /s/ Christopher J. Schaber Christopher J. Schaber, Ph.D. President and Chief Executive Officer (Principal Executive Officer)
November 13, 2009	by /s/ Evan Myrianthopoulos Evan Myrianthopoulos Chief Financial Officer (Principal Financial Officer)
November 13, 2009	by /s/ Christopher P. Schnittker Christopher P. Schnittker, CPA Vice President of Administration and Controller (Principal Accounting Officer)

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
31.1	Certification of Chief Executive Officer pursuant to Exchange Act rule 13(a)-14(a) (under Section 302 of the Sarbanes-Oxley Act of 2002).
31.2	Certification of Chief Financial Officer pursuant to Exchange Act rule 13(a)-14(a) (under Section 302 of the Sarbanes-Oxley Act of 2002).
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

