

SENESCO TECHNOLOGIES INC  
Form 10-Q  
February 14, 2008

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

**FORM 10-Q**

(Mark One)

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

**For the quarterly period ended December 31, 2007**

**OR**

**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. 001-31326**

**SENESCO TECHNOLOGIES, INC.**

(exact name of registrant as specified in its charter)

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**Delaware**

(State or other jurisdiction of incorporation or organization)

**84-1368850**

(IRS Employer Identification No.)

**303 George Street, Suite 420**

**New Brunswick, New Jersey 08901**

(Address of principal executive offices)

**(732) 296-8400**

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the 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:  x

No:  o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer (as defined in Rule 12b-2 of the Exchange Act).

Large accelerated filer  o

Accelerated filer  o

Non-accelerated filer  x

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes:  o

No:  x

As of January 31, 2008, 17,581,582 shares of the issuer's common stock, par value \$0.01 per share, were outstanding.



SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

TABLE OF CONTENTS

	<b>Page</b>
<u>PART I.</u>	
<u>FINANCIAL INFORMATION.</u>	
<u>Item 1.</u>	
<u>Financial Statements (Unaudited)</u>	1
<u>CONDENSED CONSOLIDATED BALANCE SHEETS</u> <u>as of December 31, 2007 and June 30, 2007</u>	2
<u>CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS</u> <u>For the Three Months Ended December 31, 2007 and 2006,</u> <u>For the Six Months Ended December 31, 2007 and 2006,</u> <u>and From Inception on July 1, 1998 through December 31, 2007</u>	3
<u>CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY</u> <u>From Inception on July 1, 1998 through December 31, 2007</u>	4
<u>CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS</u> <u>For the Six Months Ended December 31, 2007 and 2006,</u> <u>and From Inception on July 1, 1998 through December 31, 2007</u>	8
<u>NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS</u>	9
<u>Item 2.</u>	
<u>Management's Discussion and Analysis of Financial</u> <u>Condition and Results of Operations</u>	20
<u>Overview</u>	20
<u>Liquidity and Capital Resources</u>	28
<u>Changes to Critical Accounting Policies and Estimates</u>	32
<u>Results of Operations</u>	33
<u>Item 3.</u>	
<u>Quantitative and Qualitative Disclosures about Market Risk</u>	41
<u>Item 4.</u>	
<u>Controls and Procedures</u>	41
<u>PART II.</u>	
<u>OTHER INFORMATION.</u>	
<u>Item 1A.</u>	
<u>Risk Factors</u>	42
<u>Item 2.</u>	
<u>Unregistered Sales of Equity Securities and Use of Factors</u>	55
<u>Item 4.</u>	
<u>Submission of Matters to a Vote of Security Holders</u>	58
<u>Item 6.</u>	
<u>Exhibits</u>	60
<u>SIGNATURES</u>	61



**PART I. FINANCIAL INFORMATION.**

**Item 1. Financial Statements.**

Certain information and footnote disclosures required under United States generally accepted accounting principles have been condensed or omitted from the following consolidated financial statements pursuant to the rules and regulations of the Securities and Exchange Commission. However, Senesco Technologies, Inc., a Delaware corporation, and its wholly owned subsidiary, Senesco, Inc., a New Jersey corporation (collectively, Senesco or the Company), believe that the disclosures are adequate to assure that the information presented is not misleading in any material respect.

The results of operations for the interim periods presented herein are not necessarily indicative of the results to be expected for the entire fiscal year.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY(A DEVELOPMENT STAGE COMPANY)CONDENSED CONSOLIDATED BALANCE SHEETS

	<b>December 31, 2007</b>	<b>June 30, 2007</b>
	<b>(unaudited)</b>	
<b><u>ASSETS</u></b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$ 5,135,644	\$ 408,061
Short-term investments	500,000	250,000
Prepaid expenses and other current assets	52,959	104,526
<b>Total Current Assets</b>	<b>5,688,603</b>	<b>762,587</b>
Property and equipment, net	5,444	7,526
Intangibles, net	2,896,958	2,544,447
Deferred financing costs	748,949	
Security deposit	7,187	7,187
<b>TOTAL ASSETS</b>	<b>\$ 9,347,141</b>	<b>\$ 3,321,747</b>
<b><u>LIABILITIES AND STOCKHOLDERS EQUITY</u></b>		
<b>CURRENT LIABILITIES:</b>		
Accounts payable	\$ 552,026	\$ 109,258
Accrued expenses	368,570	377,359
Deferred revenue	4,167	16,667
<b>Total Current Liabilities</b>	<b>924,763</b>	<b>503,284</b>
Convertible note, net of discount	257,560	
Grant payable	99,728	99,728
Other liability	26,129	29,196
<b>TOTAL LIABILITIES</b>	<b>1,308,180</b>	<b>632,208</b>
<b>STOCKHOLDERS EQUITY:</b>		
Preferred stock, \$0.01 par value; authorized 5,000,000 shares, no shares issued		
Common stock, \$0.01 par value; authorized 100,000,000 shares, issued and outstanding 17,581,852 and 17,473,694, respectively	175,819	174,737
Capital in excess of par	35,161,399	28,136,342
Deficit accumulated during the development stage	(27,298,257)	(25,621,540)
<b>TOTAL STOCKHOLDERS EQUITY</b>	<b>8,038,961</b>	<b>2,689,539</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS EQUITY</b>	<b>\$9,347,141</b>	<b>\$3,321,747</b>

See Notes to Condensed Consolidated Financial Statements.





SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY(A DEVELOPMENT STAGE COMPANY)CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(unaudited)

	For the Three Months Ended December 31, 2007	For the Three Months Ended December 31, 2006	For the Six Months Ended December 31, 2007	For the Six Months Ended December 31, 2006	From Inception on July 1, 1998 through December 31, 2007
Revenue	\$ 6,250	\$ 181,250	\$ 377,500	\$ 262,500	\$ 1,095,833
Operating Expenses:					
General and administrative	585,851	1,103,594	974,910	1,486,879	20,409,103
Research and development	392,254	239,395	745,149	548,743	8,938,318
Total Operating Expenses	978,105	1,342,989	1,720,059	2,035,622	29,347,421
Loss From Operations	(971,855)	(1,161,739)	(1,342,559)	(1,773,122)	(28,251,588)
Sale of state income tax loss, net					586,442
Other noncash income					321,259
Interest income, net	25,227	26,102	32,106	37,020	411,894
Amortization of debt discount and financing costs	(283,207)		(298,428)		(298,428)
Interest expense on convertible notes	(64,836)		(67,836)		(67,836)
Net Loss	\$ (1,294,671)	\$ (1,135,637)	\$ (1,676,717)	\$ (1,736,102)	\$ (27,298,257)
Basic and Diluted Net Loss Per Common Share	\$ (0.07)	\$ (0.07)	\$ (0.10)	\$ (0.11)	
Basic and Diluted Weighted Average Number of Common Shares Outstanding	17,474,870	17,257,791	17,474,282	16,369,220	

See Notes to Condensed Consolidated Financial Statements.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY(A DEVELOPMENT STAGE COMPANY)CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITYFROM INCEPTION ON JULY 1, 1998 THROUGH DECEMBER 31, 2007

(unaudited)

	Common Stock		Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Total
	Shares	Amount			
Common stock outstanding	2,000,462	\$ 20,005	\$ (20,005)		
Contribution of capital			85,179		\$ 85,179
Issuance of common stock in reverse merger on January 22, 1999 at \$0.01 per share	3,400,000	34,000	(34,000)		
Issuance of common stock for cash on May 21, 1999 at \$2.63437 per share	759,194	7,592	1,988,390		1,995,982
Issuance of common stock for placement fees on May 21, 1999 at \$0.01 per share	53,144	531	(531)		
Issuance of common stock for cash on January 26, 2000 at \$2.867647 per share	17,436	174	49,826		50,000
Issuance of common stock for cash on January 31, 2000 at \$2.87875 per share	34,737	347	99,653		100,000
Issuance of common stock for cash on February 4, 2000 at \$2.934582 per share	85,191	852	249,148		250,000
Issuance of common stock for cash on March 15, 2000 at \$2.527875 per share	51,428	514	129,486		130,000
Issuance of common stock for cash on June 22, 2000 at \$1.50 per share	1,471,700	14,718	2,192,833		2,207,551

(continued)

See Notes to Condensed Consolidated Financial Statements.



SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY(A DEVELOPMENT STAGE COMPANY)CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITYFROM INCEPTION ON JULY 1, 1998 THROUGH DECEMBER 31, 2007

(unaudited)

	Common Stock		Capital in	Deficit	Total
	Shares	Amount	Excess of Par Value	Accumulated During the Development Stage	
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2000			\$ (260,595)		\$ (260,595)
Fair market value of options and warrants vested during the year ended June 30, 2000			1,475,927		1,475,927
Fair market value of options and warrants vesting during the year ended June 30, 2001			308,619		308,619
Issuance of common stock and warrants for cash from November 30, 2001 through April 17, 2002 at \$1.75 per unit	3,701,430	\$ 37,014	6,440,486		6,477,500
Issuance of common stock and warrants associated with bridge loan conversion on December 3, 2001	305,323	3,053	531,263		534,316
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2002			(846,444)		(846,444)
Fair market value of options and warrants vested during the year ended June 30, 2002			1,848,726		1,848,726
Fair market value of options and warrants vested during the year ended June 30, 2003			848,842		848,842
Issuance of common stock and warrants for cash from January 15, 2004 through February 12, 2004 at \$2.37 per unit	1,536,922	15,369	3,627,131		3,642,500
Allocation of proceeds to warrants			(2,099,090)		(2,099,090)

(continued)

See Notes to Condensed Consolidated Financial Statements.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY(A DEVELOPMENT STAGE COMPANY)CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITYFROM INCEPTION ON JULY 1, 1998 THROUGH DECEMBER 31, 2007

(unaudited)

	Common Stock		Capital in	Deficit	
	Shares	Amount	Excess of	Accumulated	Total
			Par Value	During the	
				Development	
				Stage	
Reclassification of warrants			\$ 1,913,463		\$ 1,913,463
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2004			(378,624)		(378,624)
Fair market value of options and warrants vested during the year ended June 30, 2004			1,826,514		1,826,514
Options and warrants exercised during the year ended June 30, 2004 at exercise prices ranging from \$1.00 - \$3.25	370,283	\$ 3,704	692,945		696,649
Issuance of common stock and warrants for cash on May 9, 2005 at \$2.11 per unit	1,595,651	15,957	3,350,872		3,366,829
Allocation of proceeds to warrants			(1,715,347)		(1,715,347)
Reclassification of warrants			1,579,715		1,579,715
Commissions, legal and bank fees associated with issuance on May 9, 2005			(428,863)		(428,863)
Options and warrants exercised during the year ended June 30, 2005 at exercise prices ranging from \$1.50 to \$3.25	84,487	844	60,281		61,125
Fair market value of options and warrants vested during the year ended June 30, 2005			974,235		974,235

(continued)

See Notes to Condensed Consolidated Financial Statements.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY(A DEVELOPMENT STAGE COMPANY)CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITYFROM INCEPTION ON JULY 1, 1998 THROUGH DECEMBER 31, 2007

(unaudited)

	Common Stock		Capital in	Deficit	
	Shares	Amount	Excess of Par Value	Accumulated During the Development Stage	Total
Fair market value of options and warrants granted and vested during the year ended June 30, 2006			\$ 677,000		\$ 677,000
Warrants exercised during the year ended June 30, 2006 at an exercise price of \$0.01	10,000	\$ 100			100
Issuance of common stock and warrants for cash on October 11, 2006 at \$1.135 per unit	1,986,306	19,863	2,229,628		2,249,491
Commissions, legal and bank fees associated with issuance on October 11, 2006			(230,483)		(230,483)
Fair market value of options and warrants vested during the year ended June 30, 2007			970,162		970,162
Warrants exercised during the year ended June 30, 2007 at an exercise price of \$0.01	10,000	100			100
Fair market value of options and warrants vested during the six months ended December 31, 2007			408,303		408,303
Allocation of proceeds from issuance of convertible notes and warrants from September 21, 2007 through December 20, 2007			6,550,000		6,550,000
Issuance of common stock on December 31, 2007 in lieu of cash payment	108,158	1,082	66,754		67,836
Net loss				\$ (27,298,257)	(27,298,257)
Balance at December 31, 2007	17,581,852	\$ 175,819	\$ 35,161,399	\$ (27,298,257)	\$ 8,038,961

See Notes to Condensed Consolidated Financial Statements.





SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY(A DEVELOPMENT STAGE COMPANY)CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(unaudited)

					From Inception
					on July 1, 1998
			For the Six Months Ended		through
			December 31,		December 31,
	2007		2006		2007
Cash flows from operating activities:					
Net loss	\$	(1,676,717)	\$	(1,736,102)	\$ (27,298,257)
Adjustments to reconcile net loss to net cash (used in) operating activities:					
Noncash capital contribution					85,179
Noncash conversion of accrued expenses into equity					131,250
Noncash income related to change in fair value of warrant liability					(321,259)
Issuance of common stock and warrants for interest		67,836			77,152
Issuance of stock options and warrants for services		146,189		847,000	8,944,964
Depreciation and amortization		44,042		15,595	407,883
Amortization of convertible note discount and deferred financing costs		298,427			298,427
(Increase) decrease in operating assets:					
Accounts receivable				(75,000)	
Prepaid expense and other current assets		51,567		74,765	(52,959)
Security deposit					(7,187)
Increase (decrease) in operating liabilities:					
Accounts payable		442,768		52,882	552,026
Accrued expenses		(24,656)		(88,603)	352,703
Deferred revenue		(12,500)		(12,500)	4,167
Other liability		(3,067)		(2,611)	26,129
Net cash (used in) operating activities		(666,111)		(924,574)	(16,799,782)
Cash flows from investing activities:					
Patent costs		(394,471)		(281,937)	(3,140,178)
Redemption (purchase) of investments, net		(250,000)		(750,000)	(500,000)
Purchase of property and equipment				(1,482)	(170,107)
Net cash (used in) investing activities		(644,471)		(1,033,419)	(3,810,285)
Cash flows from financing activities:					
Proceeds from grant					99,728
Proceeds from issuance of bridge notes					525,000
Proceeds from issuance and exercises of common stock and warrants				2,019,108	19,082,818
Proceeds from issuance of convertible note and warrants, net of \$450,000 paid to holder		6,550,000			6,550,000

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Deferred financing costs		(511,835)			(511,835)
Net cash provided by financing activities		6,038,165		2,019,108	25,745,711
Net increase in cash and cash equivalents		4,727,583		61,115	5,135,644
Cash and cash equivalents at beginning of period		408,061		318,473	
Cash and cash equivalents at end of period	\$	5,135,644	\$	379,588	\$ 5,135,644
Supplemental disclosure of cash flow information:					
Cash paid during the period for interest	\$		\$		\$ 22,317
Supplemental schedule of noncash financing activity:					
Conversion of bridge notes into stock	\$		\$		\$ 534,316
Allocation of convertible debt proceeds to warrants and beneficial conversion feature	\$	6,550,000	\$		\$ 6,550,000
Warrants issued for financing costs	\$	277,979	\$		\$ 277,979

See Notes to Condensed Consolidated Financial Statements.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(unaudited)

**Note 1 Basis of Presentation:**

The financial statements included herein have been prepared by Senesco Technologies, Inc. (the Company), without audit, pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and footnote disclosures normally included in financial statements prepared in accordance with United States generally accepted accounting principles have been condensed or omitted pursuant to such rules and regulations. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2007.

In the opinion of the Company's management, the accompanying unaudited condensed consolidated financial statements contain all adjustments, consisting solely of those which are of a normal recurring nature, necessary to present fairly its financial position as of December 31, 2007, the results of its operations for the three-month and six-month periods ended December 31, 2007 and 2006, cash flows for the six-month periods ended December 31, 2007 and 2006, and the results of its operations and cash flows for the period from inception on July 1, 1998 through December 31, 2007.

Interim results are not necessarily indicative of results for the full fiscal year.

**Note 2 Liquidity:**

The operations of the Company to date have required significant cash expenditures. As shown in the accompanying financial statements, the Company has a history of losses with a deficit accumulated during the development stage from inception through December 31, 2007 of \$27,298,257. The future capital requirements of the Company will depend on the results of its research and development activities, preclinical studies and competitive and technological advances.

On August 1, 2007 and August 29, 2007, the Company entered into agreements to issue convertible notes and warrants which will provide working capital in the gross amount of up to \$10,000,000 to fund its operations for approximately two years. On September 21, 2007, October 16, 2007 and December 20, 2007 the Company issued a convertible notes in the aggregate gross amount of \$7,000,000 and 10,550,000 five year warrants, one-half at an exercise price of \$1.01 and one-half at an exercise price of \$0.90. The Company will issue convertible notes and warrants and will receive \$1,500,000 on the date the Company enters into a supply agreement with a third party manufacturer for sufficient quantity and quality of nano-particle for encapsulation of Factor 5A gene to be used in toxicology and proof of concept human studies under a United States Food and Drug Administration, (the FDA), accepted Investigational New Drug application, (an IND Application, and \$1,500,000 on the date the Company enters into a supply agreement with a third party manufacturer to provide sufficient quantity and quality of



Factor 5A DNA to carry out toxicology and proof of concept human studies under a FDA accepted IND Application.

As of December 31, 2007, the Company has cash and investments in the amount of \$5,635,644, which the Company estimates will cover its expenses for approximately the next thirteen months.

The American Stock Exchange requires the Company to meet minimum financial requirements in order to maintain its listing. Specifically, the Company is required to maintain a minimum net worth of \$6,000,000 under the continued listing requirements of the American Stock Exchange. The Company had previously received a notice of noncompliance from the American Stock Exchange. The Company submitted a plan to the American Stock Exchange discussing how it intends to regain compliance with the continued listing requirements. The American Stock Exchange has accepted the Company's plan and has given the Company until March 1, 2008 to effectuate the plan and regain compliance with the continued listing requirements. As of December 31, 2007, the Company believes that it has regained compliance with the American Stock Exchange's continued listing requirements.

**Note 3 Intangible Assets:**

The Company conducts research and development activities, the cost of which is expensed as incurred, in order to generate patents that can be licensed to third parties in exchange for license fees and royalties. Because the patents are the basis of the Company's future revenue, certain patent costs are capitalized. The capitalized patent costs represent the outside legal fees incurred by the Company to submit and undertake all necessary efforts to have such patent applications issued as patents.

The length of time that it takes for an initial patent application to be approved is generally between four to six years, however, due to the unique nature of each patent application, the actual length of time may vary. If a patent application is denied, the associated cost of that application would be written off. However, the Company has not had any patent applications denied as of the date of this Report on Form 10-Q. Additionally, should a patent application become impaired during the application process, the Company would write down or write off the associated cost of that patent application.

Issued patents and agricultural patents pending are being amortized over a period of 17 years, the life of the patent.

The Company assesses the impairment in value of intangible assets whenever events or circumstances indicate that their carrying value may not be recoverable. Factors the Company considers important which could trigger an impairment review include the following:

- significant negative industry trends;
  
- significant underutilization of the assets;

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- significant changes in how the Company uses the assets or its plans for their use; and
- changes in technology and the emergence of competing technology.

If the Company's review determines that the future discounted cash flows related to these assets will not be sufficient to recover their carrying value, the Company will reduce the carrying values of these assets down to its estimate of fair value and continue amortizing them over their

remaining useful lives. To date, the Company has not recorded any impairment of intangible assets.

**Note 4 Loss Per Share:**

Net loss per common share is computed by dividing the net loss by the weighted average number of common shares outstanding during the period. As of December 31, 2007, shares to be issued upon the exercise of options and warrants aggregating 19,281,261 at an average price of \$1.55, and as December 31, 2006, shares to be issued upon the exercise of options and warrants aggregating 9,100,877 at an average price of \$2.62 are not included in the computation of diluted loss per share as the effect is anti-dilutive. Additionally, at December 31, 2007, 7,777,777 shares to be issued upon the conversion of convertible notes at a fixed conversion rate of \$0.90 are not included in the computation of diluted loss per share as the effect is anti-dilutive.

**Note 5 Share-Based Transactions:**

The terms and vesting schedules for share-based awards vary by type of grant and the employment status of the grantee. Generally, the awards vest based upon time-based conditions.

The fair value of each stock option and warrant granted has been determined using the Black-Scholes model. The material factors incorporated in the Black-Scholes model in estimating the value of the options and warrants include the following:

	Three Months Ended December 31,		Six Months Ended December 31,	
	2007	2006	2007	2006
Estimated life in years	6	6-10	6	6-10
Risk-free interest rate (1)	3.4%-4.1%	4.2%-4.7%	3.4%-4.1%	4.2%-4.7%
Volatility	100%	70%-148%	100%	70%-148%
Dividend paid	None	None	None	None

(1) Represents the interest rate on a U.S. Treasury security with a maturity date corresponding to that of the option term.

The ultimate values of the options will depend on the future price of the Company's common stock, par value \$0.01 (the Common Stock), which cannot be forecast with reasonable accuracy.

A summary of changes in the stock option plan for the six month period ended December 31, 2007 is as follows:

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	Number of Options	Weighted-Average Exercise Price
Outstanding at July 1, 2007	2,646,000	\$ 2.33
Granted	1,069,600	\$ 0.99
Exercised		
Canceled		
Outstanding at December 31, 2007	3,715,600	\$ 1.95
Exercisable at December 31, 2007	2,773,336	\$ 2.25



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A summary of changes to the non-vested stock options for the six month period ended December 31, 2007 is as follows:

	Number of Options	Weighted-Average Grant-Date Fair Value
Non-vested stock options at July 1, 2007	249,666	\$ 1.07
Granted	1,069,600	\$ 0.76
Vested	(377,002)	\$ (0.82)
Forfeited		
Non-vested stock options at December 31, 2007	942,264	\$ 0.78

As of December 31, 2007, the aggregate intrinsic value of stock options outstanding was \$0, with a weighted-average remaining term of 6.5 years. The aggregate intrinsic value of stock options exercisable at that same date was \$0, with a weighted-average remaining term of 5.4 years. As of December 31, 2007, the Company has 1,856,700 shares available for future stock option grants.

As of December 31, 2007, total compensation expense not yet recognized related to stock option grants amounted to approximately \$428,000, which will be recognized over the next 24 months and an additional \$418,000 which may be recognized as certain target goal under the Company's Long-Term Incentive Program are met over the next 36 months.

### *Short-Term Incentive Program*

On December 13, 2007, upon recommendation of the Company's Compensation Committee, the Board adopted a Short-Term Equity Incentive Program for each of Bruce C. Galton, John E. Thompson, Ph.D, Joel Brooks, Richard Dondero and Sascha Fedyszyn. The Programs are intended to ensure the achievement of certain goals of the Company, continuity of the Company's executive management, and to align the interests of the executive management with those of the shareholders.

Pursuant to and as defined in the Short-Term Equity Incentive Program, each executive would be awarded shares of the Company's Common Stock, or options to acquire shares of the Company's Common Stock, if the Company achieves certain target goals relating to research, financing, licensing, investor relations and other administrative items during the fiscal year ending June 30, 2008.

The number of eligible shares and options to be awarded to the executive is based upon the following weightings:

1. 45% of eligible shares and options for contributions relating to the Company's Multiple Myeloma project;
2. 25% of eligible shares and options for contributions relating to the Company's current financing;

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3. 15% of eligible shares and options for contributions relating to the Company's licensing and licensing support activities;
4. 5% of eligible shares and option for contributions relating to the Company's audits and Securities and Exchange filings;
5. 4% of the eligible shares and options for contributions relating to the administration of the Company's intellectual property;
6. 3% of the eligible shares and options for contributions relating to the Company's investor relations program;

7. 1% of the eligible shares and options for contributions relating to the administration of the Company's website;
8. 1% of the eligible shares and options for contributions relating to the administration and monitoring of the requirements of the American Stock Exchange; and
9. 1% of the eligible shares and options for contributions relating to planning for future financing requirements.

If the target goals are achieved by the Company, the executive officers would be awarded the following number of shares and options for the Fiscal year ended June 30, 2008:

	Number of Shares	Number of Options (1)
Bruce C. Galton	50,225	
John E. Thompson, Ph.D.		52,676
Joel Brooks	37,275	
Richard Dondero		71,924
Sascha P. Fedyszyn	25,200	
<b>Total</b>	<b>112,700</b>	<b>124,600</b>

(1) Such options are exercisable at a strike price of \$0.99, which represents the closing price of the common stock on December 12, 2007.

As of December 31, 2007, the Company has determined that the achievement of the target goals is probable. The total amount of compensation expense in connection with the short-term incentive program in the amount of \$206,269 is being recorded ratably over the six and one-half month period from December 13, 2007 through June 30, 2008. For the six months ended December 31, 2007, the Company recorded \$15,867 of such expense.

*Long-Term Incentive Program*

On December 13, 2007, upon recommendation of the Company's Compensation Committee, the Board adopted a Long-Term Equity Incentive Program for each of Bruce C. Galton, John E. Thompson, Ph.D, Joel Brooks, Richard Dondero and Sascha P. Fedyszyn. The Programs are intended to ensure the achievement of certain goals of the Company, continuity of the Company's executive management, and to align the interests of the executive management with those of the shareholders.

Pursuant to and as defined in the Long-Term Equity Incentive Program, each executive would be awarded shares of the Company's Common Stock and options to acquire shares of the Company's Common Stock if the Company achieves certain target goals relating to its Multiple Myeloma research project over the next three fiscal years.

The number of eligible shares and options to be awarded to the executive is based upon the following weightings:

1. 20% of the eligible shares upon the execution of a research agreement to conduct a phase I/II clinical trial at a research facility;
2. 20% of the eligible shares upon the filing and acceptance by the FDA of an investigational new drug application; and
3. 60% of the eligible shares upon the successful completion of a FDA approved phase I/II clinical trial .

If the target goals are achieved by the Company, the executive officers would be awarded the following number of shares and options :

	Goal 1	Goal 2	Goal 3
<b>Number of Shares</b>			
Bruce C. Galton	25,000	25,000	75,000
Joel Brooks	10,000	10,000	30,000
Sascha P. Fedyszyn	10,000	10,000	30,000
Total number of shares	45,000	45,000	135,000
<b>Number of Options (1)</b>			
John E. Thompson, Ph.D.	50,000	50,000	150,000
Richard Dondero	60,000	60,000	180,000
Total number of options	110,000	110,000	330,000

(1) Such options are exercisable at a strike price of \$0.99, which represents the closing price of the common stock on December 12, 2007.

#### **Note 6 Revenue Recognition:**

The Company receives certain nonrefundable upfront fees in exchange for the transfer of its technology to licensees. Upon delivery of the technology, the Company has no further obligations to the licensee with respect to the basic technology transferred and, accordingly, recognizes revenue at that time. The Company may, however, receive additional payments from its licensees in the event such licensees achieve certain development or commercialization milestones in their particular field of use. Other nonrefundable upfront fees and milestone payments, where the milestone payments are a function of time as opposed to achievement of specific achievement-based milestones, are deferred and amortized ratably over the estimated research period of the license.

#### **Note 7 Convertible Note and Stockholders Equity:**

On August 1, 2007 and August 29, 2007, the Company entered into binding Securities Purchase Agreements with YA Global Investments L.P. ( YA Global ) and Stanford Venture Capital Holdings, Inc. ( Stanford ), respectively, to sell to each of YA Global and Stanford up to \$5,000,000 of secured convertible notes and accompanying warrants for an aggregate gross proceeds of \$10,000,000. The convertible notes convert into the Company's common stock at a fixed price of \$0.90 per share subject to certain adjustments (the Fixed Conversion Price ), for a period of two years immediately following the signing date, provided that the Company has achieved the following milestones by January 31, 2008:

(i) successful completion of animal

studies, other than toxicology studies, necessary for the advancement of Factor 5A1 in human clinical trials, (ii) the engagement of a contract research organization for human clinical studies of Factor 5A1, and (iii) the signing of at least one (1) corporate partnership or license agreement after August 1, 2007 with an agricultural company utilizing the Company's proprietary platform. As of January 31, 2008, the Company has completed all of the three required milestones. After the second anniversary of the signing date, the convertible notes may convert into shares of the Company's common stock at the lower of the fixed conversion price or 80% of the lowest daily volume-weighted average price (the "VWAP"), of the common stock during the five trading days prior to the conversion date. The maturity date of each of the convertible notes for YA Global and Stanford is December 30, 2010 and December 31, 2010, respectively. Currently, at the fixed conversion price, the number of shares of common stock issuable upon conversion of the convertible notes outstanding and to be issued and exercise of warrants outstanding and to be issued represents, in the aggregate, 24,994,445 shares, plus an estimated additional 2,000,000 shares for the payment of interest in stock under the convertible notes.

The convertible notes accrue interest on their outstanding principal balances at an annual rate of 8%. The Company has the option to pay interest in cash or, upon certain conditions, common stock. If the Company pays interest in common stock, the stock will be valued at a 10% discount to the average daily VWAP for the five day trading period prior to the interest payment date (the "Interest Shares").

At the Company's option, it can redeem a portion of, or all of, the principal owed under the convertible notes by providing the investors with at least 30 business days' written notice, provided that, at the time of receipt of the notice, either: (A)(i) the VWAP of the common stock exceeds 130% of the Fixed Conversion Price for at least 20 of 30 prior trading days and (ii) there is an effective registration statement for the resale of the common stock that will be issued under the redemption or (B) it redeems a portion, or all, of the principal owed at a 20% premium above the principal then outstanding and any accrued interest thereupon. If the Company redeems all or any of the principal outstanding under the convertible notes, it will pay an amount equal to the principal being redeemed plus accrued interest.

If there is an effective registration statement for the resale of the shares underlying the convertible notes or if such shares become 144(k) eligible, the Company will have the option to force the investors to convert 50% and 100% of its then-outstanding convertible notes if its common stock price exceeds 150% and 175% of the Fixed Conversion Price, respectively, for any 20 out of 30 trading days; provided that such forced conversion meets certain conditions (the "Call Option"). If the Company exercises its Call Option prior to the third anniversary of the signing date, it will issue additional warrants to the investor equal to 50% of the number of shares underlying the convertible note subject to the forced conversion. These warrants will be exercisable at the fixed conversion price and will have the same maturity as the other warrants issued under the YA Global financing.

The Company's obligations under the convertible notes are secured by all of its and its subsidiary's assets and intellectual property, as evidenced by certain Security Agreements and certain Patent Security Agreements by and between the Company and each of YA Global and Stanford. Pursuant to a subordination agreement, YA Global is the senior secured creditor.

YA Global and Stanford will also be issued warrants to purchase an aggregate of 5,550,000 and 8,333,333, respectively, of the Company's Common Stock, exercisable six months and one day from the date of issuance until their expiration on the date that is five years from the date of issuance. The warrants will be issued in two series. Generally, the Series A warrants may be issued prior to stockholder approval, while the Series B warrants are only issued after stockholder approval. The exercise price of the Series A warrants is \$1.01 per share, and the exercise price of the Series B warrants is \$0.90 per share, subject to certain adjustments. The warrants provide a right of cashless exercise if, at the time of exercise, there is no effective registration statement registering the resale of the shares underlying the warrants.

The conversion rate of each convertible note and the exercise price of the Series B warrants are subject to adjustment for certain events, including dividends, stock splits, combinations and the sale of the Company's Common Stock or securities convertible into or exercisable for the Company's Common Stock at a price less than the then applicable conversion or exercise price.

The investors have a right of first refusal on any future funding that involves the issuance of the Company's capital stock for so long as a portion of the convertible notes is outstanding.

Pursuant to the Registration Rights Agreement, the Company filed an initial registration statement on October 12, 2007 to register 3,333,333 shares of common stock issuable to YA Global, and such registration statement became effective on November 1, 2007. The Company filed another registration statement to register an additional 891,667 shares of common stock issuable to YA Global. If the shares issuable to YA Global remain outstanding after all shares under the registration statements have been sold, the Company may be required to file additional registration statements for those shares. These registration rights will cease once the shares issuable to YA Global on January 22, 2008 are eligible for sale by the investor without restriction under Rule 144(k). Upon certain events, the Company has agreed to pay as partial liquidated damages an amount equal to 1.0% of the aggregate purchase price paid by the investors for any convertible debentures then held by the investors, but these payments may not exceed 12% of the aggregate purchase price paid by the investors. The maximum liquidated damages payable under the Registration Rights Agreement is \$600,000. The Company has not recorded an estimated registration rights liability as the Company anticipates that it will fulfill its obligations under the Registration Rights Agreement.

The total gross proceeds from the issuance of the convertible notes and warrants will be \$10,000,000 before payment of 3.25% of the purchase price in commissions to Wainwright & Co., Inc. (the Placement Agent). The Company will issue to the Placement Agent warrants to purchase 7% of the purchase price, or 777,777 shares, of the Company's Common Stock with similar terms to the warrants that will be issued to the investors. The Company paid YA Global and Stanford a non-refundable structuring/due diligence fee of \$30,000 each. The Company has also agreed to pay YA Global and Stanford a commitment fee of 5% and 7%, respectively, of its purchase price, which is paid proportionately at each closing.

*Specifics of YA Global Financing*

Pursuant to the YA Global Securities Purchase Agreement, the Company has issued three convertible notes in the aggregate amount of \$5,000,000 and two Series A warrants in the amount of 1,387,500 shares each on September 21, 2007 and October 16, 2007 and a Series B warrant in the amount of 2,775,000 shares on December 20, 2007.

The gross proceeds, less \$280,000 paid to YA Global, of \$4,720,000 from the issuance of convertible notes and warrants have been allocated between the convertible notes and warrants based upon their fair values using the Black-Scholes model. Additional amounts were allocated to the beneficial conversion feature based upon the effective conversion price compared to the fair value of the common stock on the date of issuance of the convertible notes and warrants. The material factors incorporated in the Black-Scholes model in estimating the value of the warrants include the following:

Estimated life in years	5
Risk-free interest rate (1)	3.5% - 4.4%
Volatility	100%
Dividend paid	None

At December 31, 2007, net proceeds of \$4,720,000 were allocated to the warrants and beneficial conversion feature and recorded as equity.

The convertible notes and warrants issued to YA Global are subject to a maximum cap of 30,500,000 on the number of shares of common stock that can be issued upon the conversion of the convertible notes and the exercise of the warrants.

*Specifics of Stanford Financing*

On December 20, 2007, the Company issued a convertible note in the amount of \$2,000,000 and Series A warrants in the amount of 2,500,000 shares and Series B warrants in the amount of 2,500,000 shares.

The gross proceeds, less \$170,000 paid to Stanford, of \$1,830,000 from the issuance of the convertible note and warrants have been allocated between the convertible note and warrants based upon their fair values using the Black-Scholes model. Additional amounts were allocated to the beneficial conversion feature based upon the effective conversion price compared to the fair value of the common stock on the date of issuance of the convertible notes and warrants. The material factors incorporated in the Black-Scholes model in estimating the value of the warrants include the following:

Estimated life in years	5
Risk-free interest rate (1)	3.5%
Volatility	100%
Dividend paid	None



At December 31, 2007, net proceeds of \$1,830,000 were allocated to the warrants and beneficial conversion feature and recorded as equity.

Pursuant to the Stanford Securities Purchase Agreement, the Company will issue and sell to Stanford:

1. a convertible note and warrants in the amount of \$1,500,000 on the date the Company enters into a supply agreement with a third party manufacturer for sufficient quantity and quality of nano-particle for encapsulation of Factor 5A gene to be used in toxicology and proof of concept human studies under an FDA accepted IND Application;
2. a convertible note and warrants in the amount of \$1,500,000 on the date the Company enters into a supply agreement with a third party manufacturer to provide sufficient quantity and quality of Factor 5A DNA to carry out toxicology and proof of concept human studies under a FDA accepted IND Application.

The convertible notes and warrants issuable to Stanford will be subject to a maximum cap of 31,888,888 on the number of shares of common stock that can be issued upon the conversion of the convertible notes and the exercise of the warrants.

As of December 31, 2007, the outstanding balance of the Convertible Notes were \$257,560, which is comprised of notes with an aggregate face amount of \$7,000,000 less unamortized debt discount of \$6,742,440.

Debt discount associated with the Convertible Notes is amortized to interest expense over the remaining life of the Convertible Notes. Upon conversion of the Convertible Notes into Common Stock, any unamortized debt discount relating to the portion converted will be charged to equity. Total charges to interest for amortization of debt discount were \$244,837 and \$257,560 for the three month and six month periods ended December 31, 2007.

The costs associated with the issuances in the amount of \$789,817 have been recorded as deferred financing costs and are being amortized ratably over the term of the convertible notes.

#### **Note 8 Income Taxes:**

No provision for income taxes has been made in the three months and six month periods ended December 31, 2007 and 2006 given the Company's losses in 2007 and 2006 and available net operating loss carryforwards. A benefit has not been recorded as the realization of the net operating losses is not assured and the timing in which the Company can utilize its net operating loss carryforwards in any year or in total may be limited by provisions of the Internal Revenue Code regarding changes in ownership of corporations.

In July 2006, the Financial Accounting Standards Board issued FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes an interpretation of FASB Statement No. 109 ( FIN 48 ). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an entity's financial statements in accordance with FASB Statement No. 109, Accounting for Income Taxes . FIN 48 prescribes a recognition threshold and measurement attribute for financial statement disclosure of tax positions taken or expected to be taken on a tax return. Additionally, FIN 48 provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. The Company adopted FIN 48 effective July 1, 2007 and there was no material effect on our results of operations or financial position.



**Note 9 Subsequent Event:**

On February 14, 2008, the Company amended its non-exclusive financial advisory agreement with Stanford Group Company, which was originally entered into on October 11, 2006. The amendment extended the term of the agreement through June 30, 2012 and expanded the services to be provided to the Company. As compensation for the term extension and expansion of services, previously issued warrants were amended. The exercise prices of the 1,500,000 shares of Common Stock underlying the warrants, 750,000 of which had an exercise price of \$2.00 and 750,000 of which had an exercise price of \$1.50, were reduced to \$1.00. Additionally, the expiration dates of December 2009 and January 2010 were each extended through June 30, 2012. The agreement may be terminated by either party upon sixty days written notice.

**Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.**

The following discussion and analysis should be read in conjunction with our condensed consolidated financial statements and the related notes thereto included in this Quarterly Report on Form 10-Q. The discussion and analysis may contain forward-looking statements that are based upon current expectations and entail various risks and uncertainties. Our actual results and the timing of events could differ materially from those anticipated in the forward-looking statements as a result of various factors, including those set forth under Factors That May Affect Our Business, Future Operating Results and Financial Condition and elsewhere in this report.

**Overview**

*Our Business*

We are a development stage biotechnology company whose primary business is to develop and license our patented and patent-pending genes, primarily eucaryotic translation initiation Factor 5A, or Factor 5A, and deoxyhypusine synthase, or DHS, and related technologies for inhibition, i.e. siRNA, in human health applications, to:

- develop novel approaches to treat inflammatory and/or apoptotic related diseases in humans; and
- develop novel approaches to treat cancer, a group of diseases in which apoptosis does not occur normally;

In agricultural applications we are developing and licensing Factor 5A, DHS and Lipase to enhance the quality and productivity of fruits, flowers, vegetables and agronomic crops through the control of cell death, referred to as senescence, and growth in plants.

*Human Health Applications*

We believe that our gene technology could have broad applicability in the human health field, by either inhibiting or accelerating apoptosis. Inhibiting apoptosis may be useful in preventing or treating a wide range of inflammatory and ischemic diseases attributed to premature apoptosis. Accelerating apoptosis may be useful in treating certain forms of cancer because the body's immune system is not able to force cancerous cells to undergo apoptosis via normal mechanisms.

We have commenced preclinical *in-vivo* and *in-vitro* research to determine the ability of Factor 5A to regulate key execution genes, pro-inflammatory cytokines, receptors, and transcription factors, which are implicated in numerous apoptotic diseases.

Certain preclinical human health results to date include:

- demonstrated significant tumor regression and diminished rate of tumor growth of multiple myeloma tumors in SCID mice treated with Factor 5A encapsulated in nanoparticles.
- increasing the median survival by approximately 250% in a tumor model of mice injected with melanoma cancer cells;

- inducing apoptosis in both human cancer cell lines derived from tumors and in lung tumors in mice;
- inducing apoptosis of cancer cells in a human multiple myeloma cell line;
- measuring VEGF reduction in mouse lung tumors as a result of treatment with our genes;
- reducing the amounts of p24 and IL-8 by approximately 50 percent in a HIV-1 infected human cell line;
- increasing the survival, while maintaining functionality, of mouse pancreatic islet cells isolated for transplantation. Preliminary animal studies have shown that siRNA to Factor 5A administered prior to harvesting beta islet cells from a mouse has a significant impact not only on the survival of the beta islet cells, but also on the retention of the cells functionality when compared to the untreated beta islet cells. Additional studies have also shown that the treated beta islet cells survive a pro-inflammatory cytokine challenge, while maintaining their functionality with respect to insulin production;
- demonstrating that the efficacy of our technology is comparable to that of existing approved anti-inflammatory prescription drugs in reducing certain inflammatory cytokines in mice; and
- increasing the survival rate of mice in a lethal challenge sepsis model. Additionally, a broad spectrum of systemic pro-inflammatory cytokines were down-regulated, while not effecting the anti-inflammatory cytokine IL-10.

#### Inhibiting Apoptosis

We believe that down-regulation of our proprietary Factor 5A gene may have potential application as a means for controlling the effect of a broad range of diseases that are attributable to premature apoptosis, ischemia, or inflammation. Apoptotic diseases include glaucoma, heart disease, and certain inflammatory diseases such as Crohn's disease, sepsis and diabetic retinopathy, among others. We are engaged in preclinical research on certain inflammatory diseases. Using small inhibitory RNA's, or siRNA's, against the apoptosis isoform of Factor 5A to inhibit its expression, we have reduced pro-inflammatory cytokine formation and formation of receptors for lipopolysaccharide, or LPS, interferon-gamma and TNF-alpha. We have also determined that inhibiting the apoptosis isoform of Factor 5A down-regulates MAPK, NFkB and JAK1 and decreases the inflammatory cytokines formed through these pathways. Additionally, we have shown in a mouse study that our siRNA is comparable to a steroid and to a prescription anti-TNF drug in its ability to reduce cytokine response to LPS. *In-vivo* mouse studies have shown that the siRNA against Factor 5A (i) protects thymocyte cells from apoptosis and decreases formation of myeloperoxidase, or MPO, TNF-a, MIP-1alpha, and IL-1 in the lungs of mice challenged with LPS; and (ii) increases the survival rate in which sepsis was induced by a lethal injection of LPS and reduced blood serum levels of inflammatory proteins, such as IL-1, IL-2, IL-6, IL-12, TNF-a, IFNg and MIP-1alpha, while not effecting IL-10, an anti-inflammatory cytokine. The siRNA's against Factor 5A are currently being tested in several preclinical *in-vivo* inflammatory disease models. Other experiments utilizing siRNA to Factor 5A include inhibition of cell death, or apoptosis, during the processing of mouse pancreatic beta islet cells for transplantation; the inhibition of early inflammatory changes associated with type-2 diabetes in

an in-vivo rat model; and the inhibition of viral replication in a human cell line infected with HIV-1.

Proteins required for cell death include p53, interleukins, TNF-a and other cytokines, and caspases. Expression of these cell death proteins is required for the execution of apoptosis. We have found that downregulating Factor 5A by treatment with siRNA, inhibits the expression of p53, a major cell death transcription factor that in turn controls the formation of a suite of other cell death proteins. In addition, down-regulation of Factor 5A up-regulates Bcl-2, a major suppressor of apoptosis.

#### Accelerating Apoptosis

In pre-clinical studies, we have also established that up-regulation of Factor 5A isoform induces cell death in cancer cells through both the p53 (intrinsic) and cell death receptor (extrinsic) apoptotic pathways. Tumors arise when cells that have been targeted by the immune system to undergo apoptosis are unable to do so because of an inability to activate the apoptotic pathways. Just as the Factor 5A gene appears to facilitate expression of the entire suite of genes required for programmed cell death in plants, the Factor 5A gene appears to regulate expression of a suite of genes required for programmed cell death in human cells. Because the Factor 5A gene appears to function at the initiation point of the apoptotic pathways, both intrinsic and extrinsic, we believe that our gene technology has potential application as a means of combating a broad range of cancers. Through in-vitro studies, we have found that up-regulating Factor 5A results in: (i) the up-regulation of p53; (ii) increases inflammatory cytokine production; (iii) increases cell death receptor formation; and (iv) increases caspase activity. These features, coupled with a simultaneous down-regulation Bcl-2, result in apoptosis of cancer cells. In-vitro studies up-regulation of Factor 5A also down-regulates VEGF, a growth factor which allows tumors to develop additional vascularization needed for growth beyond a small mass of cells.

#### *Human Health Research Program*

Our human health research program, which has consisted of pre-clinical in-vitro and in-vivo experiments designed to assess the role and method of action of the Factor 5A genes in human diseases, is performed by approximately 16 third party researchers at our direction, at the University of Waterloo, Mayo Clinic, the University of Colorado, and the University of Virginia.

Our preclinical research has yielded data that we have presented to various biopharmaceutical companies that may be prospective licensees for the development and marketing of potential applications for our technology.

Our planned future pre-clinical research and development initiatives for human health include:

- Multiple Myeloma. Advance our technology for the potential treatment of multiple myeloma with the goal of initiating a clinical trial. In connection with the potential clinical trial, we have engaged a clinical research organization, or CRO, to assist us through the process. Together with the CRO, we will also be finalizing our evaluation of





potential delivery systems for our technology in the animal model, contracting for the supply of pharmaceutical grade materials to be used in toxicology and human studies, and ultimately filing an investigational new drug application, or IND application, with the U.S. Food and Drug Administration, or FDA, for their review and consideration in order to initiate a clinical trial. We estimate that it will take approximately eighteen to twenty four months to complete this program.

- Pancreatic Islets isolated for transplantation. Additional in-vitro experiments will test human beta islet cells. The human cells will be tested for survival and functionality, insulin activity post processing and cytokine challenge.
- HIV-1. We will continue in-vitro studies utilizing different siRNA delivery systems in order to increase the transfection efficiency of the siRNA to Factor 5A to determine further decreases in HIV replication and may seek animal models to test.
- Delivery Systems. Studies have been initiated to evaluate a number of delivery systems in an effort to maximize the efficacy of eIF-5A.
- Lung Inflammation. Optimization of the delivery and dose of the siRNA to Factor 5A to the lungs is the direction of our planned future experiments. Mouse model systems may be used to illustrate the siRNA to Factor 5A's ability to reduce morbidity and mortality in lung inflammation, caused by the up-regulation of pro-inflammatory cytokines induced by flu causing pathogens.
- Diabetic Retinopathy. We have received encouraging results from our initial studies, which have shown a decrease in key cytokines related to retinopathy, such as TNF, VEGF, and iNOS. This study has been placed on hold due to budget constraints. This study will resume at such time when our budget will allow.
- Other. We may look at other disease states in order to determine the role of Factor 5A.



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In order to pursue the above research initiatives, as well as other research initiatives that may arise, we have recently completed private placements of \$10 million of convertible notes and common stock warrants. We have already issued and received the net proceeds from \$7 million of the convertible notes and common stock warrants. The remaining \$3 million from the private placements will be received upon the occurrence of the following development milestones:



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- \$1.5 million on the date that we enter into a supply agreement with a third party manufacturer for sufficient quantity and quality of nano-particle for encapsulation of Factor 5A gene to be used in toxicology and proof of concept human studies; and
- \$1.5 million on the date that we enter into a supply agreement with a third party manufacturer to provide sufficient quantity and quality of Factor 5A DNA to carry out toxicology and proof of concept human studies under an FDA accepted IND application.



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However, it may be necessary for us to raise a significant amount of additional working capital in the future to continue to pursue some of the above and new initiatives. If we are unable to raise the necessary funds or meet the corporate and scientific milestones provided for in the













private placements, we may be required to significantly curtail the future development of some of our research initiative and we will be unable to pursue other possible research initiatives.



We may further expand our research and development program beyond the initiatives listed above to include other research centers.





*Agricultural Applications*

Our agricultural research focuses on the discovery and development of certain gene technologies, which are designed to confer positive traits on fruits, flowers, vegetables, forestry species and agronomic crops. To date, we have isolated and characterized the senescence-induced Lipase gene, DHS, and Factor 5A in certain species of plants. Our goal is to modulate the expression of these genes in order to achieve such traits as extended shelf life, increased biomass, increased yield and increased resistance to environmental stress and disease, thereby demonstrating proof of concept in each category of crop.

Certain agricultural results to date include:

- longer shelf life of perishable produce;
- increased biomass and seed yield;
- greater tolerance to environmental stresses, such as drought and soil salinity;
- greater tolerance to certain fungal and bacterial pathogens;
- more efficient use of fertilizer; and
- advancement to field trials in banana, lettuce, trees and bedding plants.

We have licensed this technology to various strategic partners and have entered into a joint venture, and we intend to continue to license this technology, as the opportunities present themselves, to additional strategic partners and/or enter into additional joint ventures. Together with our commercial partners, we are currently working with lettuce, turfgrass, canola, corn, soybean, cotton, banana, alfalfa, rice and certain species of trees and bedding plants, and we have obtained proof of concept for enhanced post harvest shelf life, seed yield, biomass, and resistance to disease in several of these plant species. We have ongoing field trials of certain trees and bananas with our respective partners. The first and second round of banana field trials have shown that our technology extends the shelf life of banana fruit by 100%. In addition to the post harvest shelf life benefits, an additional field trial generated encouraging disease tolerance data, specific to Black Sigatoka (Black Leaf Streak Disease), for banana plants. Additional field trials for banana plants are ongoing for Black Sigatoka. Commercialization by our partners may require a combination of traits in a crop, such as both post harvest shelf life and disease resistance, or other traits. Our near-term research and development initiatives include modulating the expression of DHS and Factor 5A genes in these plants and propagation and then propagation and phenotype testing of such plants.



Our ongoing research and development initiatives for agriculture include assisting our license and joint venture partners to:



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- further develop and implement the DHS and Factor 5A gene technology in lettuce, melon, banana, canola, cotton, turfgrass, bedding plants, rice, alfalfa, corn, soybean and trees; and

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- test the resultant crops for new beneficial traits such as increased yield, increased tolerance to environmental stress, disease resistance and more efficient use of fertilizer.





*Commercialization Strategy*

In order to address the complexities associated with marketing and distribution in the worldwide market, we have adopted a multi-faceted commercialization strategy, in which we have entered into and plan to enter into, as the opportunities present themselves, additional licensing agreements or other strategic relationships with a variety of companies or other entities on a crop-by-crop basis. We anticipate revenues from these relationships in the form of licensing fees and royalties from our partners, usage fees in the case of the agreement with Poet, or sharing gross profits in the case of the joint venture with Rahan Meristem. In addition, we anticipate payments from our partners upon our achievement of certain research and development benchmarks. This commercialization strategy allows us to generate revenue at various stages of product development, while ensuring that our technology is incorporated into a wide variety of crops. Our optimal partners combine the technological expertise to incorporate our technology into their product line along with the ability to successfully market the enhanced final product, thereby eliminating the need for us to develop and maintain a sales force.

Through January 31, 2008, we have entered into nine license agreements and one joint venture with established agricultural biotechnology companies or, in the case of Poet, an established ethanol company.

Because the agricultural market is dominated by privately held companies or subsidiaries of foreign owned companies, market size and market share data for the crops under our license and development agreements is not readily available. Additionally, because we have entered into confidentiality agreements with our license and development partners, we are unable to report the specific financial terms of the agreements as well as any market size and market share data that our partners may have disclosed to us regarding their companies.

Generally, projects with our license and joint venture partners begin by our partners transforming seed or germplasm to incorporate our technology. Those seeds or germplasm are then grown in our partners' greenhouse. After successful greenhouse trials, our partners will transfer the plants to the field for field trials. After completion of successful field trials, our partners may have to apply for and receive regulatory approval prior to initiation of any commercialization activities.

Generally, the approximate time to complete each sequential development step is as follows:

Seed Transformation	approximately 1 to 2 years
Greenhouse	approximately 1 to 2 years
Field Trials	approximately 2 to 5 years

The actual amount of time spent on each development phase depends on the crop, its growth cycle and the success of the transformation achieving the desired results. As such, the amount of time for each phase of development could vary, or the time frames may change.

The development of our technology with Poet is different than our other licenses in that we are modifying certain production inputs for ethanol. That process involves modifying the inputs, testing such inputs in Poet's production process and, if successful, implementing such inputs in Poet's production process on a plant by plant basis.

The current status of each of our projects with our partners is as follows:

Project	Partner	Current Status
Banana	Rahan Meristem	
Shelf Life		Field trials
Disease		Field trials
Lettuce	Harris Moran	Field trial data under evaluation
Melon	Harris Moran	Seed transformation
Trees	ArborGen	
Growth		Field trials
Alfalfa	Cal / West	Greenhouse
Corn	Monsanto	Just initiated
Cotton	Bayer	Just initiated
Canola	Bayer	Seed transformation
Rice	Bayer	Just initiated
Soybean	Monsanto	Just initiated
Turfgrass	The Scotts Company	Greenhouse
Bedding Plants	The Scotts Company	Greenhouse
Ethanol	Poet	Modify inputs

Commercialization by our partners may require a combination of traits in a crop, such as both shelf life and disease resistance, or other traits.

Based upon our commercialization strategy, we anticipate that there may be a significant period of time before plants enhanced using our technology reach consumers and we begin to receive royalties. Thus, we have not begun to actively market our technology directly to consumers, but rather, we have sought to establish ourselves within the industry through presentations at industry conferences, our website and direct communication with prospective licensees.



We plan to employ the same partnering strategy in both the human health and agricultural target markets. Our preclinical research has yielded data that we have presented to various biopharmaceutical companies that may be prospective licensees for the development and marketing of potential applications of our technology. Consistent with our commercialization strategy, we intend to attract other companies interested in strategic partnerships or licensing our technology, which may result in additional license fees, revenues from contract research and other related revenues. Additionally, we have selected multiple myeloma as a target indication to develop and bring into clinical trials and may select additional human health indications to bring into clinical trials on our own. Successful future operations will depend on our ability to transform our research and development activities into commercially feasible technology.

*Patent and Patent Applications*

To date, we have been granted sixteen patents by the United States Patent and Trademark Office, or PTO, and thirteen patents from foreign countries, twenty-six of which are for use of our technology in agricultural applications and three of which relates to human health applications.

In addition to our twenty-nine patents, we have a wide variety of patent applications, including divisional applications and continuations-in-part, in process with the PTO and internationally. We intend to continue our strategy of enhancing these new patent applications through the addition of data as it is collected.

**Liquidity and Capital Resources***Overview*

As of December 31, 2007, our cash balance and investments totaled \$5,635,644, and we had working capital of \$4,763,840. As of December 31, 2007, we had a federal tax loss carryforward of approximately \$18,674,000 and a state tax loss carry-forward of approximately \$11,055,000 to offset future taxable income. We cannot assure you that we will be able to take advantage of any or all of such tax loss carryforwards, if at all, in future fiscal years.

*Contractual Obligations*

The following table lists our cash contractual obligations as of December 31, 2007:

Contractual Obligations	Total	Payments Due by Period			
		Less than 1 year	1 - 3 years	4 - 5 years	More than 5 years
Research and Development Agreements (1)	\$ 663,485	\$ 663,485	\$	\$	\$
Facility, Rent and Operating Leases (2)	\$ 270,332	\$ 78,052	\$ 158,840	\$ 33,440	\$
Employment, Consulting and Scientific Advisory Board Agreements (3)	\$ 571,380	\$ 531,996	\$ 39,384	\$	\$
Total Contractual Cash Obligations	\$ 1,505,197	\$ 1,273,533	\$ 198,224	\$ 33,440	\$

- (1) Certain of our research and development agreements disclosed herein provide that payment is to be made in Canadian dollars and, therefore, the contractual obligations are subject to fluctuations in the exchange rate.
- (2) The lease for our office space in New Brunswick, New Jersey is subject to certain escalations for our proportionate share of increases in the building's operating costs.
- (3) Certain of our employment and consulting agreements provide for automatic renewal, which is not reflected in the table, unless terminated earlier by the parties to the respective agreements.

We expect our capital requirements to increase significantly over the next several years as we commence new research and development efforts. Our future liquidity and capital funding requirements will depend on numerous factors, including, but not limited to, the levels and costs of our research and development initiatives and the cost and timing of the expansion of our business development and administrative staff.

Effective September 1, 2007, we extended our research and development agreement with the University of Waterloo for an additional one-year period through August 31, 2008, in the amount of CAD \$631,050 or approximately USD \$630,000. Research and development expenses under this agreement for the three months ended December 31, 2007 and 2006 aggregated USD \$176,536 and \$129,439, respectively. Research and development expenses under this agreement for the six months ended December 31, 2007 and 2006 aggregated USD \$368,792 and \$295,939, respectively, and USD \$4,265,096 for the cumulative period from inception through December 31, 2007.

#### *Capital Resources*

Since inception, we have generated revenues of \$1,095,833 in connection with the initial fees and milestone payments received under our license and development agreements. We have not been profitable since inception, we will continue to incur additional operating losses in the future, and we will require additional financing to continue the development and subsequent commercialization of our technology. While we do not expect to generate significant revenues from the licensing of our technology for the next one to three years, or longer, we may enter into additional licensing or other agreements with marketing and distribution partners that may result in additional license fees, receive revenues from contract research, or other related revenue.

#### *Financings*

On August 1, 2007 and August 29, 2007, we entered into binding Securities Purchase Agreements with YA Global Investments, referred to herein as YA Global, and Stanford Venture Capital Holdings, Inc., referred to herein as Stanford, respectively, to sell to each of YA Global and Stanford up to \$5,000,000 of secured convertible notes and accompanying warrants for an aggregate gross proceeds of \$10,000,000. The convertible notes convert into our common stock at a fixed price of \$0.90 per share subject to certain adjustments, referred to herein as the Fixed Conversion Price, for a period of two years immediately following the signing date, provided that we have achieved the following milestones by January 31, 2008: (i) successful completion of animal studies, other than toxicology studies, necessary for the advancement of Factor 5A1 in human clinical trials, (ii) the engagement of a contract research organization for human clinical studies of Factor 5A1, and (iii) the signing of at least one (1) corporate partnership or license agreement after August 1, 2007 with an agricultural company utilizing our proprietary platform. As of January 31, 2008, we have completed all of the three required milestones. After the second anniversary of the signing date, the convertible notes may convert into shares of our common stock at the lower of the fixed conversion price or 80% of the lowest daily volume-weighted average price, referred to herein as the VWAP, of our common stock during the five trading days prior to the conversion date. The maturity date of each of the convertible notes for YA Global and Stanford is December 30, 2010 and December 31, 2010, respectively. Currently, at the fixed conversion price, the number of shares of our common stock issuable upon conversion of the convertible notes and exercise of warrants represents, in the aggregate, 24,994,445 shares, plus an estimated additional 2,000,000 shares for the payment of interest in stock under the convertible notes.

The convertible notes accrue interest on their outstanding principal balances at an annual rate of 8%. We have the option to pay interest in cash or, upon certain conditions, common stock. If we pay interest in our common stock, the stock will be valued at a 10% discount to the average daily VWAP for the five day trading period prior to the interest payment date, referred to herein as the Interest Shares.

At our option, we can redeem a portion of, or all of, the principal owed under the convertible notes by providing the investors with at least 30 business days' written notice, provided that, at the time of receipt of the notice, either: (A)(i) the VWAP of our common stock exceeds 130% of the Fixed Conversion Price for at least 20 of 30 prior trading days and (ii) there is an effective registration statement for the resale of our common stock that will be issued under the redemption or (B) we redeem a portion, or all, of the principal owed at a 20% premium above the principal then outstanding and any accrued interest thereupon. If we redeem all or any of the principal outstanding under the convertible notes, we will pay an amount equal to the principal being redeemed plus accrued interest.

If there is an effective registration statement for the resale of the shares underlying the convertible notes or if such shares become 144(k) eligible, we will have the option to force the investors to convert 50% and 100% of our then-outstanding convertible notes if our common stock price exceeds 150% and 175% of the Fixed Conversion Price, respectively, for any 20 out of 30 trading days; provided that such forced conversion meets certain conditions, referred to herein as the Call Option. If we exercise our Call Option prior to the third anniversary of the signing date, we will issue additional warrants to the investors equal to 50% of the number of shares underlying the convertible notes subject to the forced conversion. These warrants will be exercisable at the fixed conversion price and will have the same maturity as the other warrants issued under the YA Global Financing.

Our obligations under the convertible notes are secured by all of our and our subsidiary's assets and intellectual property, as evidenced by the Security Agreements and the Patent Security Agreements. Pursuant to a subordination agreement, YA Global is the senior secured creditor.

YA Global and Stanford have been and will be issued warrants to purchase an aggregate of 5,550,000 and 8,333,333, respectively, of our common stock, exercisable six months and one day from the date of issuance until their expiration on the date that is five years from the date of issuance. The warrants have been and will be issued in two series. The exercise price of the Series A warrants is \$1.01 per share, and the exercise price of the Series B warrants is \$0.90 per share, subject to certain adjustments. The warrants provide a right of cashless exercise if, at the time of exercise, there is no effective registration statement registering the resale of the shares underlying the warrants.

The conversion rate of each convertible note and the exercise price of the Series B warrants are subject to adjustment for certain events, including dividends, stock splits, combinations and the sale of our common stock or securities convertible into or exercisable for our common stock at a price less than the then applicable conversion or exercise price.

The investors have a right of first refusal on any future funding that involves the issuance of our capital stock for so long as a portion of the convertible notes are outstanding.

The total gross proceeds from the issuance of the convertible notes and warrants will be \$10,000,000 before payment of 3.25% of the purchase price in commissions to Wainwright & Co., Inc., referred to herein as the Placement Agent. We will issue to the Placement Agent warrants to purchase 7% of the purchase price, or 777,777 shares, of our common stock with similar terms to the warrants that have been and will be issued to the investors. We have paid YA Global and Stanford a non-refundable structuring/due diligence fee of \$30,000 each. We have also agreed to pay YA Global and Stanford a commitment fee of 5% and 7%, respectively, of its purchase price, which is paid proportionately at each closing.

*Specifics of YA Global Financing*

Pursuant to the YA Global Securities Purchase Agreement, we have issued three convertible notes in the aggregate amount of \$5,000,000 and two Series A warrants in the amount of 1,387,500 shares each on September 21, 2007 and October 16, 2007 and a Series B warrant in the amount of 2,775,000 shares on December 20, 2007.

The convertible notes and warrants issued to YA Global are subject to a maximum cap of 30,500,000 on the number of shares of our common stock that can be issued upon the conversion of the convertible notes and the exercise of the warrants.

*Specifics of Stanford Financing*

On December 20, 2007, we issued a convertible note in the amount of \$2,000,000 and Series A warrants in the amount of 2,500,000 shares and Series B warrants in the amount of 2,500,000 shares.

Pursuant to the Stanford Securities Purchase Agreement, we will issue and sell to Stanford:

1. A convertible note and warrants in the amount of \$1,500,000 on the date we enter into a supply agreement with a third party manufacturer for sufficient quantity and quality of nano-particle for encapsulation of Factor 5A gene to be used in toxicology and proof of concept human studies under an FDA accepted IND Application;
2. A convertible note and warrants in the amount of \$1,500,000 on the date we enter into a supply agreement with a third party manufacturer to provide sufficient quantity and quality of Factor 5A DNA to carry out toxicology and proof of concept human studies under a FDA accepted IND Application.

The convertible notes and warrants issuable to Stanford will be subject to a maximum cap of 31,888,888 on the number of shares of our common stock that can be issued upon the conversion of the convertible notes and the exercise of the warrants.

The costs associated with the issuances to YA Global and Stanford in the amount of \$789,817 have been recorded as deferred financing costs and are being amortized ratably over the term of the convertible notes.





We anticipate that, based upon our current cash and investments and the additional \$3,000,000 proceeds from the issuance of convertible notes and warrants, we will be able to fund our operations for the next twenty-one months. If we are unable to issue the additional \$3,000,000 of convertible notes and warrants, we will be able to fund our operations for the next thirteen months. Over the next twelve months, we plan to fund our research and development and commercialization activities by:

- utilizing our current cash balance and investments;
- achieving some of the milestones set forth in our current licensing agreements;
- through the execution of additional licensing agreements for our technology; and
- through the issuance of convertible notes under the recently completed transaction with YA Global and Stanford Financial.

We cannot assure you that we will be able to raise money through any of the foregoing transactions, or on favorable terms, if at all.

#### **Changes to Critical Accounting Policies and Estimates**

There have been no changes to our critical accounting policies and estimates as set forth in our Annual Report on Form 10-K for the fiscal year ended June 30, 2007.

**Results of Operations**Three Months Ended December 31, 2007 and Three Months Ended December 31, 2006

The net loss for the three-month period ended December 31, 2007 and 2006 was \$1,294,671 and \$1,135,637, respectively, an increase of \$159,034, or 14.0%. This increase in net loss was primarily the result of a decrease in revenue and an increase in expenses associated with the outstanding convertible notes that were issued during the current fiscal year, which was partially offset by a decrease in operating expenses.

*Revenue*

Total revenues consisted of initial fees and milestone payments on our agricultural development and license agreements. During the three-month period ended December 31, 2007, revenue of \$6,250 consisted of the amortized portion of previous milestone payments received in connection with certain license agreements. During the three-month period ended December 31, 2006, revenue of \$181,250 consisted of initial fees, milestone payments and the amortized portion of previous milestone payments received in connection with certain development and license agreements.

We anticipate that we will continue to receive milestone payments in connection with our current agricultural license agreements while we continue to pursue our goal of attracting other companies to license our technologies in various other crops. Additionally, we anticipate that we will receive royalty payments from our license agreements if our partners commercialize their crops containing our technology. However, it is difficult for us to determine our future revenue expectations because we are a development stage biotechnology company. As such, the timing and outcome of our experiments, the timing of signing new partners and the timing of our partners moving through the development process into commercialization is difficult to accurately predict.

*Operating Expenses*

	2007		Three Months Ended December 31, 2006		Change	%
			(in thousands, except % values)			
General and administrative	\$	586	\$	1,104	\$ (518)	(46.9)%
Research and development		392		239	153	64.0 %
Total operating expenses	\$	978	\$	1,343	\$ (365)	(27.2)%

We expect operating expenses to increase over the next twelve months as we anticipate that research and development expenses will increase as we continue to expand our research and development activities.

*General and Administrative Expenses*

	<b>Three Months Ended December 31,</b>				
	<b>2007</b>	<b>2006</b>		<b>Change</b>	<b>%</b>
	<b>(in thousands, except % values)</b>				
Stock-based compensation	\$ 67	\$ 744	\$ (677)		(91.0)%
Payroll and benefits	177	150	27		(18.0)%
Investor relations	160	110	50		45.5 %
Professional fees	113	40	73		182.5 %
Depreciation and amortization	22	9	13		144.4 %
Other general and administrative	47	51	(4)		(7.8)%
<b>Total general and administrative</b>	<b>\$ 586</b>	<b>\$ 1,104</b>	<b>\$ (518)</b>		<b>(46.9)%</b>

- Stock-based compensation for the three months ended December 31, 2007 consists primarily of the amortized portion of the Black-Scholes value of options and warrants granted to directors, employees and consultants. During the three-month period ended December 31, 2007, there were 351,000 options or warrants granted to such directors, employees and consultants.

Stock-based compensation for the three months ended December 31, 2006 consists of the Black-Scholes value of \$683,000 of warrants extended and repriced in connection with a financial advisory agreement entered into on October 11, 2006 and the amortized portion of the Black-Scholes value of options and warrants granted to directors, employees and consultants. During the three-month period ended December 31, 2006, there were 242,500 options or warrants granted to such directors, employees and consultants

- Payroll and benefits increased primarily as a result of salary and health insurance rate increases and a payments to certain employees for vacation time not used during the calendar year ended December 31, 2007.
- Investor relations increased as a result of an increase in the cost of the annual report due to additional required disclosures. Also, during the three month period ended December 31, 2007, a proxy solicitor was retained to assist with the voting for our 2007 annual meeting.
- Professional fees increased primarily as a result of an increase in legal and accounting fees primarily due to an increase in the fees related to the audit, review and filing of our securities filings.
- Depreciation and amortization increased primarily as a result of an increase in amortization of patent costs. We began amortizing the cost of our pending patent applications during the three month period ended March 31, 2007. Therefore such amortization was not included in depreciation and amortization during the three month period ended December 31, 2006.

We expect general and administrative expenses to modestly increase over the next twelve months primarily due to an increase in legal and accounting fees related to the increased regulatory environment surrounding our business.

#### Research and Development Expenses

	2007	Three Months Ended December 31,		Change	%
		2006	(in thousands, except % values)		
Stock-based compensation	\$ 16	\$ 16	\$		%
Other research and development	376	223	153		68.6%
Total research and development	\$ 392	\$ 239	\$ 153		64.0%

- Stock-based compensation consists primarily of the amortized portion of Black-Scholes value of options and warrants granted to research and development consultants and employees. During the three-month periods ended December 31, 2007 and 2006 there were 45,000 and 88,000 options granted to such consultants and employees.

- Other research and development costs increased primarily as a result of an expansion of our human health programs, including our cancer research program, the banana field trials and the weakness of the United States currency against the Canadian currency.

The breakdown of our research and development expenses between our agricultural and human health research programs is as follows:

	2007	Three Months Ended December 31,		2006	%
		(in thousands, except % values)	%		
Agricultural	\$ 172	44%	\$ 158		66%
Human health	220	56%	81		34%
Total research and development	\$ 392	100%	\$ 239		100%

Our agricultural research expenses increased during the three-month period ended December 31, 2007 primarily as a result of an increase in the budget for the banana field trials and an unfavorable exchange rate variance in connection with our research agreement at the University of Waterloo.

Our human health expenses increased during the three-month period ended December 31, 2007 as we have initiated certain research projects that were not in progress during the three month period ended December 31, 2006. We expect the percentage of human health research programs to continue to increase as a percentage of the total research and development expenses as we continue our current research projects and begin new human health initiatives.



*Amortization of debt discount and financing costs and interest expense on convertible notes*

From September 2007 through December 2007, we issued convertible notes in the aggregate face amount of \$7 million and warrants. The proceeds from the convertible notes and warrants were recorded as equity and the discount on such convertible notes is being amortized over the term of the convertible notes.

The convertible notes bear interest at a rate of 8% per annum, payable quarterly in cash or common stock.

Below is a summary of the convertible notes as of December 31, 2007:

<b>Date Issued</b>	<b>Face Amount</b>	<b>Unamortized Amount</b>	<b>Maturity Date</b>	<b>Future Quarterly Amortization</b>
Sept. 21, 2007	\$ 1,500,000	\$ 1,372,901	Dec. 30, 2010	\$ 114,504
Oct. 16, 2007	\$ 1,500,000	\$ 1,402,597	Dec. 30, 2010	\$ 116,883
Dec. 20, 2007	\$ 2,000,000	\$ 1,983,471	Dec. 30, 2010	\$ 165,289
Dec. 20, 2007	\$ 2,000,000	\$ 1,983,471	Dec. 31, 2010	\$ 165,289
<b>Total</b>	<b>\$ 7,000,000</b>	<b>\$ 6,742,440</b>		<b>\$ 561,965</b>

Costs related to the issuance of the convertible notes and warrants in the amount of \$789,817, which include \$277,979 of non-cash charges for warrants issued to the placement agent, have been recorded as deferred financing costs and are being amortized over the term of the convertible notes. The expected future quarterly amortization of the deferred financing costs will be \$62,409.

Six Months Ended December 31, 2007 and Six Months Ended December 31, 2006

The net loss for the six-month period ended December 31, 2007 and 2006 was \$1,676,717 and \$1,736,102, respectively, a decrease of \$59,385, or 3.4%. This decrease in net loss was primarily the result of an increase in revenue and a decrease in operating expenses, which was partially offset by an increase in expenses associated with the outstanding convertible notes that were issued during the current fiscal year.

*Revenue*

Total revenues consisted of initial fees and milestone payments on our agricultural development and license agreements. During the six-month period ended December 31, 2007, revenue of \$377,500 consisted of initial payments and the amortized portion of previous milestone payments received in connection with certain license agreements. During the six-month period ended December 31, 2006, revenue of \$262,500 consisted of initial fees, milestone payments and the amortized portion of previous milestone payments received in connection with certain development and license agreements.

We anticipate that we will continue to receive milestone payments in connection with our current agricultural license agreements while we continue to pursue our goal of attracting other companies to license our technologies in various other crops. Additionally, we anticipate that we



will receive royalty payments from our license agreements if our partners commercialize their crops containing our technology. However, it is difficult for us to determine our future revenue expectations because we are a development stage biotechnology company. As such, the timing and outcome of our experiments, the timing of signing new partners and the timing of our partners moving through the development process into commercialization is difficult to accurately predict.

#### *Operating Expenses*

	2007	Six Months Ended December 31, 2006		Change	%
		(in thousands, except		% values)	
General and administrative	\$ 975	\$ 1,487	\$ (512)	(34.4)%	
Research and development	745	549	196	35.7%	
Total operating expenses	\$ 1,720	\$ 2,036	\$ (316)	(15.5)%	

We expect operating expenses to increase over the next twelve months as we anticipate that research and development expenses will increase as we continue to expand our research and development activities.

#### *General and Administrative Expenses*

	2007	Six Months Ended December 31, 2006		Change	%
		(in thousands, except		% values)	
Stock-based compensation	\$ 115	\$ 813	\$ (698)	(85.9)%	
Payroll and benefits	332	304	28	(9.2)%	
Investor relations	211	161	50	31.1%	
Professional fees	171	90	81	90.0%	
Depreciation and amortization	44	16	28	175.0%	
Other general and administrative	102	103	(1)	(1.0)%	
Total general and administrative	\$ 975	\$ 1,487	\$ (512)	(34.4)%	

- Stock-based compensation for the six months ended December 31, 2007 consists primarily of the amortized portion of the Black-Scholes value of options and warrants granted to directors, employees and consultants. During the six-month period ended December 31, 2007, there were 351,000 options or warrants granted to such directors, employees and consultants.

Stock-based compensation for the six months ended December 31, 2006 consists of the Black-Scholes value of \$683,000 of warrants extended and repriced in connection with a financial advisory agreement entered into on October 11, 2006 and the amortized portion of the Black-Scholes value of options and warrants granted to directors, employees and consultants. During the six-month period ended December 31, 2006, there were 242,500 options or warrants granted to such directors, employees and consultants.



- Payroll and benefits increased primarily as a result of salary and health insurance rate increases and a payments to certain employees for vacation time not used during the calendar year ended December 31, 2007.
- Investor relations increased as a result of an increase in the cost of the annual report due to additional required disclosures. Also, during the six month period ended December 31, 2007, a proxy solicitor was retained to assist with the voting for our 2007 annual meeting.
- Professional fees increased primarily as a result of an increase in legal and accounting fees primarily due to an increase in the fees related to the audit, review and filing of our securities filings.
- Depreciation and amortization increased primarily as a result of an increase in amortization of patent costs. We began amortizing the cost of our pending patent applications during the three month period ended March 31, 2007. Therefore such amortization was not included in depreciation and amortization during the six month period ended December 31, 2006.

We expect general and administrative expenses to modestly increase over the next twelve months primarily due to an increase in legal and accounting fees related to the increased regulatory environment surrounding our business.

*Research and Development Expenses*

	2007	Six Months Ended December 31, 2006		Change	%
		(in thousands, except % values)			
Stock-based compensation	\$ 31	\$ 34	\$ (3)	(8.8)%	
Other research and development	714	515	199	38.6%	
Total research and development	\$ 745	\$ 549	\$ 196	35.7%	

- Stock-based compensation consists primarily of the amortized portion of Black-Scholes value of options and warrants granted to research and development consultants and employees. During the six-month periods ended December 31, 2007 and 2006 there were 45,000 and 88,000 options granted to such consultants and employees.
- Other research and development costs increased primarily as a result of an expansion of our human health programs, including our cancer research program, the banana field trials and the weakness of the United States. currency against the Canadian currency.

The breakdown of our research and development expenses between our agricultural and human health research programs is as follows:

	2007	Six Months Ended December 31,		2006	%
		%	(in thousands, except % values)		
Agricultural	\$ 357	48%	\$ 341	62%	
Human health	388	52%	208	38%	
Total research and development	\$ 745	100%	\$ 549	100%	

Our agricultural research expenses increased during the six-month period ended December 31, 2007 primarily as a result of an increase in the budget for the banana field trials and an unfavorable exchange rate variance in connection with our research agreement at the University of Waterloo.

Our human health expenses increased during the six-month period ended December 31, 2007 as we have initiated certain research projects that were not in progress during the three month period ended December 31, 2006. We expect the percentage of human health research programs to continue to increase as a percentage of the total research and development expenses as we continue our current research projects and begin new human health initiatives.

*Amortization of debt discount and financing costs and interest expense on convertible notes*

From September 2007 through December 2007, we issued convertible notes in the aggregate face amount of \$7 million and warrants. The proceeds from the convertible notes and warrants were recorded as equity and the discount on such convertible notes is being amortized over the term of the convertible notes.

The convertible notes bear interest at a rate of 8% per annum, payable quarterly in cash or common stock.

Below is a summary of the convertible notes as of December 31, 2007:

Date Issued	Face Amount	Unamortized Amount	Maturity Date	Future Quarterly Amortization
Sept. 21, 2007	\$ 1,500,000	\$ 1,372,901	Dec. 30, 2010	\$ 114,504
Oct. 16, 2007	\$ 1,500,000	\$ 1,402,597	Dec. 30, 2010	\$ 116,883
Dec. 20, 2007	\$ 2,000,000	\$ 1,983,471	Dec. 30, 2010	\$ 165,289
Dec. 20, 2007	\$ 2,000,000	\$ 1,983,471	Dec. 31, 2010	\$ 165,289
Total	\$ 7,000,000	\$ 6,742,440		\$ 561,965

Costs related to the issuance of the convertible notes and warrants in the amount of \$789,817, which include \$277,979 of non-cash charges for warrants issued to the placement agent, have been recorded as deferred financing costs and are being amortized over the term of the convertible notes. The expected future quarterly amortization of the deferred financing costs will be \$62,409.



Period From Inception on July 1, 1998 through December 31, 2007

From inception of operations on July 1, 1998 through December 31, 2007, we had revenues of \$1,095,833, which consisted of the initial license fees and milestone payments in connection with our various development and license agreements. We do not expect to generate significant revenues for approximately the next one to three years, during which time we will continue to engage in significant research and development efforts.

We have incurred losses each year since inception and have an accumulated deficit of \$27,298,257 at December 31, 2007. We expect to continue to incur losses as a result of expenditures on research and development and administrative activities.

**Item 3. Quantitative and Qualitative Disclosures about Market Risk.**

*Foreign Currency Risk*

Our financial statements are denominated in United States dollars and, except for our agreement with the University of Waterloo, which is denominated in Canadian dollars, all of our contracts are denominated in United States dollars. Therefore, we believe that fluctuations in foreign currency exchange rates will not result in any material adverse effect on our financial condition or results of operations. In the event we derive a greater portion of our revenues from international operations or in the event a greater portion of our expenses are incurred internationally and denominated in a foreign currency, then changes in foreign currency exchange rates could effect our results of operations and financial condition.

*Interest Rate Risk*

We invest in high-quality financial instruments, primarily money market funds, federal agency notes, corporate debt securities and United States treasury notes, with an effective duration of the portfolio of less than nine months, and no security with an effective duration in excess of one year, which we believe are subject to limited credit risk. We currently do not hedge our interest rate exposure. Due to the short-term nature of our investments, which we plan to hold until maturity, we do not believe that we have any material exposure to interest rate risk arising from our investments.

**Item 4. Controls and Procedures.**

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 31, 2007. Based on this evaluation, our chief executive officer and chief financial officer concluded that as of December 31, 2007, our disclosure controls and procedures were (1) designed to ensure that material information relating to us, including our consolidated subsidiaries, is made known to our chief executive officer and chief financial officer by others within those entities, particularly during the period in which this report was being prepared and (2) effective, in that they provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms; and (ii) accumulated and communicated to our management including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding disclosures.

No change in our internal controls over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three-month ended December 31, 2007 that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

**PART II. OTHER INFORMATION.**

**Item 1A. Risk Factors.**

The more prominent risks and uncertainties inherent in our business are described below. However, additional risks and uncertainties may also impair our business operations. If any of the following risks actually occur, our business, financial condition or results of operations may suffer.

**Risks Related to Our Business**

*We have a limited operating history and have incurred substantial losses and expect future losses.*

We are a development stage biotechnology company with a limited operating history and limited assets and capital. We have incurred losses each year since inception and have an accumulated deficit of \$27,298,257 at December 31, 2007. We have generated minimal revenues by licensing our technology for certain crops to companies willing to share in our development costs. However, our technology may not be ready for commercialization for several years. We expect to continue to incur losses for the next several years because we anticipate that our expenditures on research and development, and administrative activities will significantly exceed our revenues during that period. We cannot predict when, if ever, we will become profitable.

*Our independent auditors have expressed substantial doubt about our ability to continue as a going concern.*

In their audit opinion issued in connection with our consolidated balance sheets as of June 30, 2007 and 2006 and our related consolidated statements of operations, stockholders' equity, and cash flows for the three year period ending June 30, 2007, our auditors have expressed substantial doubt about our ability to continue as a going concern given our recurring net losses, negative cash flows from operations, planned spending levels and the limited amount of funds on our balance sheet. We have prepared our financial statements on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities and commitments in the normal course of business. The consolidated financial statements do not include any adjustments that might be necessary should we be unable to continue in existence.

*We may need additional capital to fund our operations until we are able to generate a profit.*

Our operations to date have required significant cash expenditures. Our future capital requirements will depend on the results of our research and development activities, preclinical studies and competitive and technological advances.

We have entered into definitive agreements to issue convertible notes and warrants for aggregate gross proceeds of \$5,000,000 to YA Global, of which all \$5,000,000 have been issued. We have also entered into definitive agreements to issue convertible notes and warrants to Stanford, of



which \$2,000,000 have been issued.

The remaining \$3,000,000 of convertible notes and warrants to be issued pursuant to the Stanford financing will be issued as follows:

(i) \$1,500,000 on the date we enter into a supply agreement with a third party manufacturer for sufficient quantity and quality of nano-particle for encapsulation of Factor 5A gene to be used in toxicology and proof of concept human studies under a FDA accepted IND application; and (ii) \$1,500,000 on the date we enter into a supply agreement with a third party manufacturer to provide sufficient quantity and quality of Factor 5A DNA to carry out toxicology and proof of concept human studies under a FDA accepted IND application. However, we can not assure you that we will meet the funding milestones. In addition, the YA Global financing and the Stanford financing are secured by all of our assets. If we default under the convertible debentures, the investors may foreclose on our assets and our business. As a result, we may need to obtain more funding in the future through collaborations or other arrangements with research institutions and corporate partners or public and private offerings of our securities, including debt or equity financing. We may not be able to obtain adequate funds for our operations from these sources when needed or on acceptable terms. Future collaborations or similar arrangements may require us to license valuable intellectual property to, or to share substantial economic benefits with, our collaborators. If we raise additional capital by issuing additional equity or securities convertible into equity, our stockholders may experience dilution and our share price may decline. Any debt financing may result in restrictions on our spending.

If we are unable to raise additional funds, we will need to do one or more of the following:

- delay, scale-back or eliminate some or all of our research and product development programs;
- license third parties to develop and commercialize products or technologies that we would otherwise seek to develop and commercialize ourselves;
- attempt to sell our company;
- cease operations; or
- declare bankruptcy.

We believe that at the projected rate of spending and the additional \$3,000,000 proceeds from the issuance of the convertible notes, we should have sufficient cash and investments to maintain our present operations for the next 21 months. However, if we do not receive the additional \$3,000,000 proceeds from the issuance of the convertible notes and warrants, we should have sufficient cash and investments to maintain our present operations for the next 13 months.

***We depend on a single principal technology and, if our technology is not commercially successful, we will have no alternative source of revenue.***

Our primary business is the development and licensing of technology to identify, isolate, characterize and promote or silence genes which control the death of cells in humans and plants. Our future revenue and profitability critically depend upon our ability to successfully develop apoptosis and senescence gene technology and later license or market such technology. We have conducted experiments on certain crops with favorable results and have conducted certain



preliminary cell-line and animal experiments, which have provided us with data upon which we have designed additional research programs. However, we cannot give any assurance that our technology will be commercially successful or economically viable for any crops or human health applications.

In addition, no assurance can be given that adverse consequences might not result from the use of our technology such as the development of negative effects on humans or plants or reduced benefits in terms of crop yield or protection. Our failure to obtain market acceptance of our technology or of our current or potential licensees to successfully commercialize such technology would have a material adverse effect on our business.

*We outsource all of our research and development activities and, if we are unsuccessful in maintaining our alliances with these third parties, our research and development efforts may be delayed or curtailed.*

We rely on third parties to perform all of our research and development activities. Our research and development efforts take place at the University of Waterloo in Ontario, Canada, where our technology was discovered, the University of Colorado, Mayo Clinic, the University of Virginia, and with our commercial partners. At this time, we do not have the internal capabilities to perform our research and development activities. Accordingly, the failure of third-party research partners to perform under agreements entered into with us, or our failure to renew important research agreements with these third parties, may delay or curtail our research and development efforts.

*We have significant future capital needs and may be unable to raise capital when needed, which could force us to delay or reduce our research and development efforts.*

As of December 31, 2007, we had cash and highly-liquid investments valued at \$5,635,644 and working capital of \$4,763,840. Using our available reserves as of December 31, 2007, we believe that we can operate according to our current business plan for the next 13 months. However, with the potential additional gross proceeds of \$3,000,000 from the issuance of additional convertible notes and warrants, we believe that we can operate according to our current business plan for the next 21 months. To date, we have generated minimal revenues and anticipate that our operating costs will exceed any revenues generated over the next several years. Therefore, we will be required to raise additional capital in the future in order to operate according to our current business plan, and this funding may not be available on favorable terms, if at all. If we are unable to raise additional funds, we will need to do one or more of the following:

- delay, scale back or eliminate some or all of our research and development programs;
- license third parties to develop and commercialize our technology that we would otherwise seek to develop and commercialize ourselves;
- seek strategic alliances or business combinations, or attempt to sell our company; or
- cease operations.

In addition, in connection with any funding, if we need to issue more equity securities than our certificate of incorporation currently authorizes, or more than 20% of the shares of our common stock outstanding, we may need stockholder approval. If stockholder approval is not



obtained or if adequate funds are not available, we may be required to curtail operations significantly or to obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to certain of our technologies, product candidates, products or potential markets. Investors may experience dilution in their investment from future offerings of our common stock. For example, if we raise additional capital by issuing equity securities, such an issuance would reduce the percentage ownership of existing stockholders. In addition, assuming the exercise of all options and warrants outstanding and the conversion of the notes into common stock, as of December 31, 2007, we had 8,428,999 shares of common stock authorized but unissued and unreserved, which may be issued from time to time by our board of directors without stockholder approval. The total number of shares that may be issued under the financing is subject to certain caps as more fully described in this Form 10-Q. Furthermore, we may need to issue securities that have rights, preferences and privileges senior to our common stock. Failure to obtain financing on acceptable terms would have a material adverse effect on our liquidity.

Since our inception, we have financed all of our operations through private equity financings. Our future capital requirements depend on numerous factors, including: