

**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)

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: ☒

No: ☐

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 ☐

Accelerated filer ☐

Non-accelerated filer ☒

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

Yes: ☐

No: ☒

As of 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

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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

	<u>December 31,</u> <u>2007</u> <u>(unaudited)</u>	<u>June 30,</u> <u>2007</u>
<u>ASSETS</u>		
CURRENT ASSETS:		
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
Total Current Assets	5,688,603	762,587
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
TOTAL ASSETS	\$ 9,347,141	\$ 3,321,747

LIABILITIES AND STOCKHOLDERS' EQUITY

CURRENT LIABILITIES:

Accounts payable	\$ 552,026	\$ 109,258
Accrued expenses	368,570	377,359
Deferred revenue	4,167	16,667
Total Current Liabilities	924,763	503,284
Convertible note, net of discount	257,560	—
Grant payable	99,728	99,728
Other liability	26,129	29,196
TOTAL LIABILITIES	1,308,180	632,208

STOCKHOLDERS' EQUITY:

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)
TOTAL STOCKHOLDERS' EQUITY	8,038,961	2,689,539
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$9,347,141	\$3,321,747

See Notes to Condensed Consolidated Financial Statements.

SENECO 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	

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

	<u>Common Stock</u>		<u>Capital in</u>	<u>Deficit</u>	
	<u>Shares</u>	<u>Amount</u>	<u>Excess of</u>	<u>Accumulated</u>	<u>Total</u>
			<u>Par Value</u>	<u>During the</u>	
				<u>Development</u>	
				<u>Stage</u>	
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' EQUITY
FROM INCEPTION ON JULY 1, 1998 THROUGH DECEMBER 31, 2007
(unaudited)

	<u>Common Stock</u>		<u>Capital in</u>	<u>Deficit</u>	
	<u>Shares</u>	<u>Amount</u>	<u>Excess of</u>	<u>Accumulated</u>	<u>Total</u>
			<u>Par Value</u>	<u>During the</u>	
				<u>Development</u>	
				<u>Stage</u>	
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' EQUITY
FROM INCEPTION ON JULY 1, 1998 THROUGH DECEMBER 31, 2007
(unaudited)

	<u>Common Stock</u>		<u>Capital in Excess of Par Value</u>	<u>Deficit Accumulated During the Development Stage</u>	<u>Total</u>
	<u>Shares</u>	<u>Amount</u>			
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' EQUITY
FROM 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			
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.

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

	For the Six Months Ended December 31,		From Inception on July 1, 1998 through December 31, 2007
	2007	2006	
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
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;
- 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

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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:

	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

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

	Weighted-Average	
	Number of Options	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:

- 45% of eligible shares and options for contributions relating to the Company's Multiple Myeloma project;
- 25% of eligible shares and options for contributions relating to the Company's current financing;
- 15% of eligible shares and options for contributions relating to the Company's licensing and licensing support activities;
- 5% of eligible shares and option for contributions relating to the Company's audits and Securities and Exchange filings;
- 4% of the eligible shares and options for contributions relating to the administration of the Company's intellectual property;
- 3% of the eligible shares and options for contributions relating to the Company's investor relations program;

- 1% of the eligible shares and options for contributions relating to the administration of the Company's website;
- 1% of the eligible shares and options for contributions relating to the administration and monitoring of the requirements of the American Stock Exchange; and
- 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	—
Total	112,700	124,600

(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 .

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

	<u>Goal 1</u>	<u>Goal 2</u>	<u>Goal 3</u>
Number of Shares			
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
Number of Options (1)			
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.

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.

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:

- \$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.

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:

- 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
- 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.

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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.

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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.

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

	Three Months Ended December 31,			
	2007	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

	Three Months Ended December 31,			
	2007	2006	Change	%
	(in thousands, except % values)			
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)%
Total general and administrative	\$ 586	\$ 1,104	\$ (518)	(46.9)%

- 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.

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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

	Three Months Ended December 31,			
	2007	2006	Change	%
	(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:

	Three Months Ended December 31,			
	2007	%	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.

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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.

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

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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

	Six Months Ended December 31,			
	2007	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

	Six Months Ended December 31,			
	2007	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

	Six Months Ended December 31,			
	2007	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	<u>\$ 745</u>	<u>\$ 549</u>	<u>\$ 196</u>	<u>35.7%</u>

- 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:

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

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	<u>\$ 7,000,000</u>	<u>\$ 6,742,440</u>		<u>\$ 561,965</u>

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.

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.

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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

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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:

- the scope of our research and development;
- our ability to attract business partners willing to share in our development costs;
- our ability to successfully commercialize our technology;
- competing technological and market developments;
- our ability to enter into collaborative arrangements for the development, regulatory approval and commercialization of other products; and
- the cost of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights.

Our business depends upon our patents and proprietary rights and the enforcement of these rights. Our failure to obtain and maintain patent protection may increase competition and reduce demand for our technology.

As a result of the substantial length of time and expense associated with developing products and bringing them to the marketplace in the biotechnology and agricultural industries, obtaining and maintaining patent and trade secret protection for technologies, products and processes is of vital importance. Our success will depend in part on several factors, including, without limitation:

- our ability to obtain patent protection for our technologies and processes;
- our ability to preserve our trade secrets; and
- our ability to operate without infringing the proprietary rights of other parties both in the United States and in foreign countries.

As of December 31, 2007, we have been issued sixteen patents by the PTO and thirteen patents from foreign countries. We have also filed numerous patent applications for our technology in the United States and in several foreign countries, which technology is vital to our primary business, as well as several Continuations in Part on these patent applications. Our success depends in part upon the grant of patents from our pending patent applications.

Although we believe that our technology is unique and will not violate or infringe upon the proprietary rights of any third party, we cannot assure you that these claims will not be made or if made, could be successfully defended against. If we do not obtain and maintain patent protection, we may face increased competition in the United States and internationally, which would have a material adverse effect on our business.

Since patent applications in the United States are maintained in secrecy until patents are issued, and since publication of discoveries in the scientific and patent literature tend to lag behind actual discoveries by several months, we cannot be certain that we were the first creator of the inventions covered by our pending patent applications or that we were the first to file patent applications for these inventions.

In addition, among other things, we cannot assure you that:

- our patent applications will result in the issuance of patents;
- any patents issued or licensed to us will be free from challenge and that if challenged, would be held to be valid;
- any patents issued or licensed to us will provide commercially significant protection for our technology, products and processes;
- other companies will not independently develop substantially equivalent proprietary information which is not covered by our patent rights;
- other companies will not obtain access to our know-how;
- other companies will not be granted patents that may prevent the commercialization of our technology; or
- we will not require licensing and the payment of significant fees or royalties to third parties for the use of their intellectual property in order to enable us to conduct our business.

Our competitors may allege that we are infringing upon their intellectual property rights, forcing us to incur substantial costs and expenses in resulting litigation, the outcome of which would be uncertain.

Patent law is still evolving relative to the scope and enforceability of claims in the fields in which we operate. We are like most biotechnology companies in that our patent protection is highly uncertain and involves complex legal and technical questions for which legal principles are not yet firmly established. In addition, if issued, our patents may not contain claims sufficiently broad to protect us against third parties with similar technologies or products, or provide us with any competitive advantage.

The PTO and the courts have not established a consistent policy regarding the breadth of claims allowed in biotechnology patents. The allowance of broader claims may increase the incidence and cost of patent interference proceedings and the risk of infringement litigation. On the other hand, the allowance of narrower claims may limit the value of our proprietary rights.

The laws of some foreign countries do not protect proprietary rights to the same extent as the laws of the United States, and many companies have encountered significant problems and costs in protecting their proprietary rights in these foreign countries.

We could become involved in infringement actions to enforce and/or protect our patents. Regardless of the outcome, patent litigation is expensive and time consuming and would distract

our management from other activities. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we could because they have substantially greater resources. Uncertainties resulting from the initiation and continuation of any patent litigation could limit our ability to continue our operations.

If our technology infringes the intellectual property of our competitors or other third parties, we may be required to pay license fees or damages.

If any relevant claims of third-party patents that are adverse to us are upheld as valid and enforceable, we could be prevented from commercializing our technology or could be required to obtain licenses from the owners of such patents. We cannot assure you that such licenses would be available or, if available, would be on acceptable terms. Some licenses may be non-exclusive and, therefore, our competitors may have access to the same technology licensed to us. In addition, if any parties successfully claim that the creation or use of our technology infringes upon their intellectual property rights, we may be forced to pay damages, including treble damages.

Our security measures may not adequately protect our unpatented technology and, if we are unable to protect the confidentiality of our proprietary information and know-how, the value of our technology may be adversely affected.

Our success depends upon know-how, unpatentable trade secrets, and the skills, knowledge and experience of our scientific and technical personnel. As a result, we require all employees to agree to a confidentiality provision that prohibits the disclosure of confidential information to anyone outside of our company, during the term of employment and thereafter. We also require all employees to disclose and assign to us the rights to their ideas, developments, discoveries and inventions. We also attempt to enter into similar agreements with our consultants, advisors and research collaborators. We cannot assure you that adequate protection for our trade secrets, know-how or other proprietary information against unauthorized use or disclosure will be available.

We occasionally provide information to research collaborators in academic institutions and request the collaborators to conduct certain tests. We cannot assure you that the academic institutions will not assert intellectual property rights in the results of the tests conducted by the research collaborators, or that the academic institutions will grant licenses under such intellectual property rights to us on acceptable terms, if at all. If the assertion of intellectual property rights by an academic institution is substantiated, and the academic institution does not grant intellectual property rights to us, these events could limit our ability to commercialize our technology.

As we evolve from a company primarily involved in the research and development of our technology into one that is also involved in the commercialization of our technology, we may have difficulty managing our growth and expanding our operations.

As our business grows, we may need to add employees and enhance our management, systems and procedures. We may need to successfully integrate our internal operations with the operations of our marketing partners, manufacturers, distributors and suppliers to produce and market commercially viable products. We may also need to manage additional relationships with various collaborative partners, suppliers and other organizations. Although we do not presently

conduct research and development activities in-house, we may undertake those activities in the future. Expanding our business may place a significant burden on our management and operations. We may not be able to implement improvements to our management information and control systems in an efficient and timely manner and we may discover deficiencies in our existing systems and controls. Our failure to effectively respond to changes may make it difficult for us to manage our growth and expand our operations.

We have no marketing or sales history and depend on third-party marketing partners. Any failure of these parties to perform would delay or limit our commercialization efforts.

We have no history of marketing, distributing or selling biotechnology products and we are relying on our ability to successfully establish marketing partners or other arrangements with third parties to market, distribute and sell a commercially viable product both here and abroad. Our business plan envisions creating strategic alliances to access needed commercialization and marketing expertise. We may not be able to attract qualified sub-licensees, distributors or marketing partners, and even if qualified, these marketing partners may not be able to successfully market agricultural products or human health applications developed with our technology. If our current or potential future marketing partners fail to provide adequate levels of sales, our commercialization efforts will be delayed or limited and we may not be able to generate revenue.

We will depend on joint ventures and strategic alliances to develop and market our technology and, if these arrangements are not successful, our technology may not be developed and the expenses to commercialize our technology will increase.

In its current state of development, our technology is not ready to be marketed to consumers. We intend to follow a multi-faceted commercialization strategy that involves the licensing of our technology to business partners for the purpose of further technological development, marketing and distribution. We are seeking business partners who will share the burden of our development costs while our technology is still being developed, and who will pay us royalties when they market and distribute products incorporating our technology upon commercialization. The establishment of joint ventures and strategic alliances may create future competitors, especially in certain regions abroad where we do not pursue patent protection. If we fail to establish beneficial business partners and strategic alliances, our growth will suffer and the continued development of our technology may be harmed.

Competition in the human health and agricultural biotechnology industries is intense and technology is changing rapidly. If our competitors market their technology faster than we do, we may not be able to generate revenues from the commercialization of our technology.

Many human health and agricultural biotechnology companies are engaged in research and development activities relating to apoptosis and senescence. The market for plant protection and yield enhancement products is intensely competitive, rapidly changing and undergoing consolidation. We may be unable to compete successfully against our current and future competitors, which may result in price reductions, reduced margins and the inability to achieve market acceptance for products containing our technology. Our competitors in the field of plant senescence gene technology are companies that develop and produce transgenic plants and

include major international agricultural companies, specialized biotechnology companies, research and academic institutions and, potentially, our joint venture and strategic alliance partners. These companies include: Icoria (formerly Paradigm Genetics); Mendel Biotechnology; Renessen LLC; Exelixis Plant Sciences, Inc.; Syngenta International AG; and Eden Bioscience, among others. Some of our competitors that are involved in apoptosis research include: Amgen; Centocor; Genzyme; OSI Pharmaceuticals, Inc.; Novartis; Introgen Therapeutics, Inc.; Genta, Inc.; and Vertex Pharmaceuticals, Inc. Many of these competitors have substantially greater financial, marketing, sales, distribution and technical resources than us and have more experience in research and development, clinical trials, regulatory matters, manufacturing and marketing. We anticipate increased competition in the future as new companies enter the market and new technologies become available. Our technology may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors, which will prevent or limit our ability to generate revenues from the commercialization of our technology.

Our business is subject to various government regulations and, if we are unable to obtain regulatory approval, we may not be able to continue our operations.

At present, the U.S. federal government regulation of biotechnology is divided among three agencies:

- the USDA regulates the import, field testing and interstate movement of specific types of genetic engineering that may be used in the creation of transgenic plants;
- the EPA regulates activity related to the invention of plant pesticides and herbicides, which may include certain kinds of transgenic plants; and
- the FDA regulates foods derived from new plant varieties.

The FDA requires that transgenic plants meet the same standards for safety that are required for all other plants and foods in general. Except in the case of additives that significantly alter a food's structure, the FDA does not require any additional standards or specific approval for genetically engineered foods, but expects transgenic plant developers to consult the FDA before introducing a new food into the marketplace.

Use of our technology, if developed for human health applications, will also be subject to FDA regulation. The FDA must approve any drug or biologic product before it can be marketed in the United States. In addition, prior to being sold outside of the U.S., any products resulting from the application of our human health technology must be approved by the regulatory agencies of foreign governments. Prior to filing a new drug application or biologics license application with the FDA, we would have to perform extensive clinical trials, and prior to beginning any clinical trial, we need to perform extensive preclinical testing which could take several years and may require substantial expenditures.

We believe that our current activities, which to date have been confined to research and development efforts, do not require licensing or approval by any governmental regulatory agency. However, federal, state and foreign regulations relating to crop protection products and human health applications developed through biotechnology are subject to public concerns and political circumstances, and, as a result, regulations have changed and may change substantially in the

future. Accordingly, we may become subject to governmental regulations or approvals or become subject to licensing requirements in connection with our research and development efforts. We may also be required to obtain such licensing or approval from the governmental regulatory agencies described above, or from state agencies, prior to the commercialization of our genetically transformed plants and human health technology. In addition, our marketing partners who utilize our technology or sell products grown with our technology may be subject to government regulations. If unfavorable governmental regulations are imposed on our technology or if we fail to obtain licenses or approvals in a timely manner, we may not be able to continue our operations.

Preclinical studies and clinical trials of our human health applications may be unsuccessful, which could delay or prevent regulatory approval.

Preclinical studies may reveal that our human health technology is ineffective or harmful, and/or clinical trials may be unsuccessful in demonstrating efficacy and safety of our human health technology, which would significantly limit the possibility of obtaining regulatory approval for any drug or biologic product manufactured with our technology. The FDA requires submission of extensive preclinical, clinical and manufacturing data to assess the efficacy and safety of potential products. Furthermore, the success of preliminary studies does not ensure commercial success, and later-stage clinical trials may fail to confirm the results of the preliminary studies.

Even if we receive regulatory approval, consumers may not accept products containing our technology, which will prevent us from being profitable since we have no other source of revenue.

We cannot guarantee that consumers will accept agricultural products containing our technology. Recently, there has been consumer concern and consumer advocate activism with respect to genetically engineered agricultural consumer products. The adverse consequences from heightened consumer concern in this regard could affect the markets for agricultural products developed with our technology and could also result in increased government regulation in response to that concern. If the public or potential customers perceive our technology to be genetic modification or genetic engineering, agricultural products grown with our technology may not gain market acceptance.

We depend on our key personnel and, if we are not able to attract and retain qualified scientific and business personnel, we may not be able to grow our business or develop and commercialize our technology.

We are highly dependent on our scientific advisors, consultants and third-party research partners. Our success will also depend in part on the continued service of our key employees and our ability to identify, hire and retain additional qualified personnel in an intensely competitive market. Although we have employment agreements with all of our key employees and a research agreement with Dr. Thompson, these agreements may be terminated upon short or no notice. We do not maintain key person life insurance on any member of management. The failure to attract and retain key personnel could limit our growth and hinder our research and development efforts.

Certain provisions of our charter, by-laws and Delaware law could make a takeover difficult.

Certain provisions of our certificate of incorporation and by-laws could make it more difficult for a third party to acquire control of us, even if the change in control would be beneficial to stockholders. Our certificate of incorporation authorizes our board of directors to issue, without stockholder approval, except as may be required by the rules of the American Stock Exchange, 5,000,000 shares of preferred stock with voting, conversion and other rights and preferences that could adversely affect the voting power or other rights of the holders of our common stock. Similarly, our by-laws do not restrict our board of directors from issuing preferred stock without stockholder approval.

In addition, we are subject to the Business Combination Act of the Delaware General Corporation Law which, subject to certain exceptions, restricts certain transactions and business combinations between a corporation and a stockholder owning 15% or more of the corporation's outstanding voting stock for a period of three years from the date such stockholder becomes a 15% owner. These provisions may have the effect of delaying or preventing a change of control of us without action by our stockholders and, therefore, could adversely affect the value of our common stock.

Furthermore, in the event of our merger or consolidation with or into another corporation, or the sale of all or substantially all of our assets in which the successor corporation does not assume outstanding options or issue equivalent options, our board of directors is required to provide accelerated vesting of outstanding options.

Increasing political and social turmoil, such as terrorist and military actions, increase the difficulty for us and our strategic partners to forecast accurately and plan future business activities.

Recent political and social turmoil, can be expected to put further pressure on economic conditions in the United States and worldwide. These political, social and economic conditions may make it difficult for us to plan future business activities.

Risks Related to Our Common Stock

Our management and other affiliates have significant control of our common stock and could significantly influence our actions in a manner that conflicts with our interests and the interests of other stockholders.

As of December 31, 2007, our executive officers, directors and affiliated entities together beneficially own approximately 66.6% of the outstanding shares of our common stock, assuming the exercise of options and warrants which are currently exercisable or will become exercisable within 60 days of December 31, 2007, held by these stockholders. As a result, these stockholders, acting together, will be able to exercise significant influence over matters requiring approval by our stockholders, including the election of directors, and may not always act in the best interests of other stockholders. Such a concentration of ownership may have the effect of delaying or preventing a change in control of us, including transactions in which our stockholders might otherwise receive a premium for their shares over then current market prices.

A significant portion of our total outstanding shares of common stock may be sold in the market in the near future, which could cause the market price of our common stock to drop significantly.

As of December 31, 2007, we had 17,581,852 shares of our common stock issued and outstanding, of which approximately 1,986,306 shares are registered pursuant to a registration statement on Form S-3, which was declared effective on November 27, 2006, and the remainder of which are either eligible to be sold under SEC Rule 144 or are in the public float. In addition, we have registered 2,701,715 shares of our common stock underlying warrants previously issued on the Form S-3 registration statement that was declared effective on November 27, 2006, and we registered 6,000,000 shares of our common stock underlying options granted or to be granted under our stock option plan. We have also filed a registration statement on October 12, 2007, which became effective on November 1, 2007, to register 3,333,333 shares of common stock underlying convertible notes. We have also filed another registration statement on January 22, 2008 to register an additional 891,667 shares of common stock underlying convertible notes. Consequently, sales of substantial amounts of our common stock in the public market, or the perception that such sales could occur, may have a material adverse effect on our stock price.

Our common stock has a limited trading market, which could limit your ability to resell your shares of common stock at or above your purchase price.

Our common stock is quoted on the American Stock Exchange and currently has a limited trading market. The American Stock Exchange requires us to meet minimum financial requirements in order to maintain our listing. We currently believe that we meet the continued listing requirements of the American Stock Exchange. However, we cannot assure you that we will continue to meet such standards. If we do not meet the continued listing standards,

we could be delisted. We cannot assure you that an active trading market will develop or, if developed, will be maintained. As a result, our stockholders may find it difficult to dispose of shares of our common stock and, as a result, may suffer a loss of all or a substantial portion of their investment.

If our common stock is delisted from the American Stock Exchange, we may not be able to list on any other stock exchange, and our common stock may be subject to the “penny stock” regulations which may affect the ability of our stockholders to sell their shares.

The American Stock Exchange requires us to meet minimum financial requirements in order to maintain our listing. We have received notices from the American Stock Exchange that we do not meet each of Section 1003(a)(ii) of the American Stock Exchange Company Guide with shareholders’ equity of less than \$4,000,000 and losses from continuing operations and/or net losses in three out of our four most recent fiscal years and Section 1003(a)(iii) of the American Stock Exchange Company Guide with shareholders’ equity less than \$6,000,000 and losses from continuing operations and/or net losses in the five most recent fiscal years. We have submitted a plan to the American Stock Exchange discussing how we intend to regain compliance with the continued listing requirements. The American Stock Exchange has accepted our plan and has given us until March 1, 2008 to effectuate the plan and regain compliance with the continued listing requirements. As of December 31, 2007, we believe that we are in compliance with the continued listing requirements. However, if we are unable to continue to be in compliance with the continued listing requirements, it is possible that we will be delisted. If we are delisted from the American Stock Exchange, our common stock likely will become a “penny stock.” In general, regulations of the SEC define a “penny stock” to be an equity security that is not listed on a national securities exchange or the NASDAQ Stock Market and that has a market price of less than \$5.00 per share or with an exercise price of less than \$5.00 per share, subject to certain exceptions. If our common stock becomes a penny stock, additional sales practice requirements would be imposed on broker-dealers that sell such securities to persons other than certain qualified investors. For transactions involving a penny stock, unless exempt, a broker-dealer must make a special suitability determination for the purchaser and receive the purchaser’s written consent to the transaction prior to the sale. In addition, the rules on penny stocks require delivery, prior to and after any penny stock transaction, of disclosures required by the SEC.

If our stock is not accepted for listing on the American Stock Exchange, we will make every possible effort to have it listed on the Over the Counter Bulletin Board, or the OTC Bulletin Board. If our common stock were to be traded on the OTC Bulletin Board, the Securities Exchange Act of 1934, as amended, and related SEC rules would impose additional sales practice requirements on broker-dealers that sell our securities. These rules may adversely affect the ability of stockholders to sell our common stock and otherwise negatively affect the liquidity, trading market and price of our common stock.

We believe that the listing of our common stock on a recognized national trading market, such as the American Stock Exchange, is an important part of our business and strategy. Such a listing helps our stockholders by providing a readily available trading market with current quotations. Without that, stockholders may have a difficult time getting a quote for the sale or purchase of our stock, the sale or purchase of our stock would likely be made more difficult and the trading volume and liquidity of our stock would likely decline. The absence of such a listing may adversely affect the acceptance of our common stock as currency or the value accorded it by other parties. In that regard, the absence of a listing on a recognized national trading market will also affect our ability to benefit from the use of our operations and expansion plans, including for use in licensing agreements, joint ventures, the development of strategic relationships and

acquisitions, which are critical to our business and strategy and none of which is currently the subject of any agreement, arrangement or understanding, with respect to any future financing or strategic relationship it may undertake. The delisting from the American Stock Exchange would result in negative publicity and would negatively impact our ability to raise capital in the future.

The market price of our common stock may fluctuate and may drop below the price you paid.

We cannot assure you that you will be able to resell the shares of our common stock at or above your purchase price. The market price of our common stock may fluctuate significantly in response to a number of factors, some of which are beyond our control. These factors include:

- quarterly variations in operating results;
- the progress or perceived progress of our research and development efforts;
- changes in accounting treatments or principles;
- announcements by us or our competitors of new technology, product and service offerings, significant contracts, acquisitions or strategic relationships;
- additions or departures of key personnel;
- future offerings or resales of our common stock or other securities;
- stock market price and volume fluctuations of publicly-traded companies in general and development companies in particular; and
- general political, economic and market conditions.

Because we do not intend to pay, and have not paid, any cash dividends on our shares of common stock, our stockholders will not be able to receive a return on their shares unless the value of our common stock appreciates and they sell their shares.

We have never paid or declared any cash dividends on our common stock and we intend to retain any future earnings to finance the development and expansion of our business. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. Therefore, our stockholders will not be able to receive a return on their investment unless the value of our common stock appreciates and they sell their shares.

Our stockholders may experience substantial dilution as a result of the conversion of outstanding convertible debentures, or the exercise of options and warrants to purchase our common stock.

As of December 31, 2007, we have granted options outside of our stock option plan to purchase 10,000 shares of our common stock and outstanding warrants to purchase 16,230,261 shares of our common stock. In addition, as of December 31, 2007, we have reserved 6,000,000 shares of our common stock for issuance upon the exercise of options granted pursuant to our stock option plan, 3,805,600 of which have been granted, 90,000 of which have been exercised since inception, 3,715,600 of which are outstanding, and 2,194,400 of which may be granted in the future. The exercise of these options and

warrants will result in dilution to our existing stockholders and could have a material adverse effect on our stock price. In addition, any shares issued in connection with the YA Global financing, as further discussed elsewhere in this Form 10-Q, or the Stanford financing can also have a dilutive effect and a possible material adverse effect on our stock price. The conversion price of the convertible debentures is subject to adjustment if certain milestones are not met, and the warrants are also subject to certain anti-dilution adjustments. The agreements with YA Global and Stanford provide for the potential issuance of up to 62,388,888 shares of our common stock.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

On August 1, 2007 and August 29, 2007, we entered into binding Securities Purchase Agreements with YA Global Investments L.P., 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 met all of the 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 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 issued and to be issued and exercise of warrants issued 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%. We have the option to pay interest in cash or, upon certain conditions, common stock. If we pay 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, 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 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 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 its 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 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.

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

YA Global and Stanford have been or 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 are being issued in two series, Series A warrants and Series B warrants. 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 is outstanding.

Pursuant to the Registration Rights Agreement, we 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. On January 22, 2008, we filed another registration statement to register 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, we may be required to file additional registration statements for those shares. These registration rights will cease once the shares issuable to YA Global are eligible for sale by the investor without restriction under Rule 144(k). Upon certain events, we have 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

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 will be issued to the investors. We have paid YA Global and will pay 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 Series A warrants in the amount of 2,775,000 shares underlying the warrants and Series B warrants in the amount of 2,775,000 shares underlying the warrants.

The convertible notes and warrants issued to YA Global will be 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

Pursuant to the Stanford Securities Purchase Agreement, we have issued a convertible note in the amount of \$2,000,000 and Series A warrants in the amount of 2,500,000 shares underlying the warrants and Series B warrants in the amount of 2,500,000 shares underlying the warrants.

We will issue and sell to Stanford an additional:

- (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 a 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 issued and 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.

Item 4. Submission of Matters to a Vote of Security Holders.

- (a) Our annual meeting of stockholders was held on December 13, 2007.
- (b) The following is a complete list of our directors as of December 13, 2007, each of whom was elected to a one-year term at the meeting, and whose term of office continued after the meeting.

Ruedi Stalder
Bruce C. Galton
John E. Thompson, Ph.D.
Christopher Forbes
Thomas C. Quick
David Rector
John Braca
Jack Van Hulst

- (c) There were 14,827,680 shares of common stock present at the meeting in person or by proxy, out of a total number of 17,473,694 shares of common stock issued and outstanding and entitled to vote at the meeting.

The proposals and results of the vote of the stockholders taken at the meeting by ballot and by proxy as solicited by us on behalf of our Board of Directors were as follows:

- (A) For the election of the nominees for our Board of Directors:

Nominee	For	Withheld
Ruedi Stalder	14,110,291	717,388
Bruce C. Galton	13,880,432	947,247
John E. Thompson, Ph.D.	14,304,049	523,630
Christopher Forbes	14,160,049	667,630
Thomas C. Quick	12,914,691	1,912,988
David Rector	14,230,049	597,630

John Braca	14,184,249	643,430
Jack Van Hulst	14,141,689	685,990

- (B) To approve the issuance and sale of up to \$2,000,000 of secured convertible notes in the third closing of the financing and the issuance and sale of up to an additional \$5,000,000 of the secured convertible notes and warrants in the second financing:

For	Against	Abstain	Broker Non-Votes
10,773,600	574,087	23,621	3,456,372

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- (C) To approve the potential issuance of 62,388,888 shares of our common stock resulting from: (i) certain adjustments to the exercise price of the Series B warrants and to the conversion price of the secured convertible notes pursuant to the antidilution adjustment provisions of the respective securities and the milestone adjustment provision of the secured convertible notes; and (ii) pursuant to the interest shares provision of the secured convertible notes:

For	Against	Abstain	Broker Non-Votes
10,649,566	697,720	24,022	3,456,372

- (D) To approve an amendment to our Certificate of Incorporation, as amended, to increase the total authorized shares of our common stock, \$0.01 par value per share, from sixty million shares to one hundred million shares:

For	Against	Abstain	Broker Non-Votes
10,708,202	632,117	30,989	3,456,372

- (E) For the proposal to ratify the appointment of McGladrey & Pullen, LLP as our independent registered public accounting firm for the fiscal year ending June 30, 2008:

For	Against	Abstain
14,742,415	51,342	33,923

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Item 6. Exhibits.

Exhibits.

- 3.1 Certificate of Amendment to the Amended and Restated Certificate of Incorporation (filed herewith).
- 10.1 Amendment No. 1 to financial advisory agreement by and between Stanford Group Company and Senesco Technologies, Inc. dated February 14, 2008 (filed herewith)
- 31.1 Certification of principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (filed herewith)
- 31.2 Certification of principal financial and accounting officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (filed herewith)
- 32.1 Certification of principal executive officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. 1350. (furnished herewith)
- 32.2 Certification of principal financial and accounting officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. 1350. (furnished herewith)

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SIGNATURES

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

SENESCO TECHNOLOGIES, INC.

DATE: February 14, 2008

By: /s/ Bruce C. Galton
Bruce C. Galton, President
and Chief Executive Officer
(Principal Executive Officer)

DATE: February 14, 2008

By: /s/ Joel Brooks
Joel Brooks, Chief Financial Officer
and Treasurer
(Principal Financial and Accounting Officer)

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CERTIFICATE OF AMENDMENT
OF THE
AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
SENESCO TECHNOLOGIES, INC.

*Pursuant to Sections 228 and 242
of the
Delaware General Corporation Law*

Senesco Technologies, Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "DGCL");

DOES HEREBY CERTIFY THAT:

FIRST: The name of the corporation (hereinafter, the "Corporation") is:

Senesco Technologies, Inc.

SECOND: The Amended and Restated Certificate of Incorporation of the Corporation was filed with the office of the Secretary of State of Delaware on January 22, 2007 (the "Charter").

THIRD: The Charter is hereby amended as follows:

(a) The first section of Article FOURTH of the Charter is hereby deleted in its entirety and replaced by the following new paragraph:

"The total number of shares of all classes of stock which the Corporation shall have authority to issue is One Hundred and Five Million (105,000,000) shares. The Corporation is authorized to issue two classes of stock designated "Common Stock" and "Preferred Stock," respectively. The total number of shares of Common Stock authorized to be issued by the Corporation is One Hundred Million (100,000,000), each such share of Common Stock having a \$0.01 par value. The total number of shares of Preferred Stock authorized to be issued by the Corporation is Five Million (5,000,000), each such share of Preferred Stock having a \$0.01 par value."

FOURTH: That the foregoing amendments have been duly adopted in accordance with the provisions of Sections 228 and 242 of the DGCL.

FIFTH: This Certificate of Amendment shall be deemed effective upon its filing with the Secretary of State of the State of Delaware.

IN WITNESS WHEREOF, this Certificate of Amendment of Certificate of Incorporation has been duly executed by the undersigned officer of the Corporation this 13th day of December, 2007.

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton
Name: Bruce C. Galton
Title: President and Chief Executive Officer

AMENDMENT NO. 1 TO
FINANCIAL ADVISORY AGREEMENT

This amendment (“Amendment”) is made as of February 14, 2008 by and between **STANFORD GROUP COMPANY** (“Stanford Group”) and **SENESCO TECHNOLOGIES, INC.** (the “Company”). Capitalized terms used without definition herein shall have the meaning ascribed to such terms in the Financial Advisory Agreement (as defined below).

WHEREAS, Stanford Group and the Company are parties to that certain Financial Advisory Agreement, dated as of October 11, 2006 (the “Financial Advisory Agreement”); and

WHEREAS, the parties hereto desire to amend the Financial Advisory Agreement as provided herein; and

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements hereinafter contained, the parties to this Amendment hereby agree as follows:

1. Except as set forth herein, the terms and provisions of the Financial Advisory Agreement shall continue unmodified and in full force and effect.
2. The introductory paragraph shall be deleted and replaced with the following:

This letter agreement (the “Agreement”) is to confirm our understanding that Stanford Group Company (“Stanford Group”) is engaged by Senesco Technologies, Inc., its successors, subsidiaries and affiliates (collectively, the “Company”) on a non-exclusive basis with respect to financial advisory, corporate finance, strategic financing and strategic alliance matters. Unless renewed by the parties, the term of this Agreement shall expire on June 30, 2012. This Agreement may be terminated (i) by either party, without cause, upon sixty (60) days’ written notice of termination to the other party; or (ii) by either party, if the other party breaches any of its obligations under this Agreement and fails to remedy such breach within ten (10) days after written notice of such breach is provided to the other party. Upon the execution of this letter by the Company, Stanford Group shall devote a commercially reasonable amount of business, time and attention to matters on which the Company shall request its services.

3. Section A shall be deleted and replaced in its entirety by the following:

Financial Advisory Services

During the term of this agreement, Stanford Group shall provide the Company with such regular and customary financial advisory services as are reasonably requested by the Company, provided that Stanford Group shall not be required to undertake duties not reasonably within the scope of the financial advisory services in which it is generally engaged. In performance of its duties, Stanford Group shall provide the Company with the benefit of its judgment. It is understood and acknowledged by the parties that the value of Stanford Group’s advice is not measurable in a quantitative manner and Stanford Group shall use its best efforts to render advice, upon the request of the Company, in good faith, as shall be determined by Stanford Group, Stanford Group shall use its best efforts to:

- (a) assist the Company in identifying its financing needs; help formulate a financing structure with respect to what is usual and standard practice in financings for organizations in similar circumstances;

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- (b) introduce the Company to appropriate institutional and/or retail investors for presentations (provided that in the event that an introduction, for such purpose, directly results in the consummation of any financing or strategic transactions, the Company shall compensate Stanford Group on terms consistent with prevailing market terms for such transactions);

- (c) introduce the Company to such other corporations, research institutions or individuals that may be beneficial in advancing the Company’s research or business goals;

- (d) provide the Company with any non-confidential industry related information that the Stanford group may have access to; and

- (e) introduce the Company to industry analysts; and

- (f) introduce the Company to individuals with access to industry conferences.

The Company acknowledges that Stanford Group and its affiliates are in the business of providing financial advisory services (of all types contemplated by this agreement) to others. Nothing herein contained shall be construed to limit or restrict Stanford Group or its affiliates in conducting such business with respect to others or in rendering such advice to others.

The Company recognizes and confirms that Stanford Group, in acting pursuant to this engagement will be using information in reports and other information provided by others, including, without limitation, information provided by, or on behalf of the Company, and that Stanford Group does not assume responsibility for, and may rely on, without independent verification of, the accuracy and completeness of any such reports and information. The Company hereby warrants that any information relating to the Company that is furnished to Stanford Group by the Company will be fair, accurate and complete and will not contain any material omissions or misstatements of fact. The Company agrees that any information or advice rendered by Stanford Group or its representatives in connection with this engagement is for the confidential use of the Company’s Board of Directors only in its evaluation of the matters for which Stanford Group has been engaged

and, except as otherwise required by law, the Company will not, and will not permit any third party, to disclose or otherwise refer to such advice or information in any manner without the prior written consent of Stanford Group.

4. Sections C.1.(a), C.1.(b) and C.1.(c) shall be deleted and replaced in their entirety by the following:

- “(a) warrants issued by the Company to Stanford and the Stanford Employees at an exercise price of \$3.25 shall be amended to an exercise price of \$1.01;
- (b) warrants issued by the Company to Stanford and the Stanford Employees at an exercise price of \$2.00 shall be amended to an exercise price of \$1.01; and
- (c) the term of all warrants issued by the Company to Stanford and the Stanford Employees shall be extended to June 30, 2012.”

5. The Company hereby represents and warrants that a registration statement registering under the Securities Act of 1933 (as amended) (the “Securities Act”) all shares of common stock issuable pursuant to all of the warrants discussed in Section C of the Financial Advisory Agreement has

been filed with the Securities and Exchange Commission, has been declared effective and remains effective as of the date hereof.

6. All warrants discussed in Section C of the Financial Advisory Agreement shall hereby be amended to include the following provision:

“If at the time of exercise, the Warrant Shares are not subject to an effective registration statement under the Securities Act, the Registered Holder may, at its option, elect to exercise this Warrant by delivering the purchase form and, in lieu of making payment of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise in cash or wire transfer, elect instead to receive upon such exercise the “Net Number” of shares of Common Stock determined according to the following formula:

$$\text{Net Number} = \frac{(A \times B) - (A \times C)}{B}$$

For purposes of the foregoing formula:

A = the total number of Warrant Shares with respect to which this Warrant is then being exercised.

B = the Closing Bid Price of the Common Stock on the date of exercise of the Warrant.

C = the Warrant Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

For purposes of this provision, the following definitions shall apply:

“Closing Bid Price” means the closing bid price of Common Stock as quoted on the Primary Market (as reported by Bloomberg Financial Markets through its “Volume at Price” function).

“Primary Market” means on any of (a) the American Stock Exchange, (b) New York Stock Exchange, (c) the Nasdaq Global Select Market, (d) the Nasdaq Global Market, (e) the Nasdaq Capital Market, or (e) the NASD Over-the-Counter Bulletin Board.”

7. If a provision contained in this Amendment is held to be invalid or unenforceable, this Amendment shall continue in full force and effect and shall be construed as if the invalid or unenforceable provision was omitted.
8. This Amendment shall be governed by, and shall be construed, interpreted and enforced in accordance with, the laws (excluding choice of law rules) of the State of New Jersey.
9. This Amendment may be executed in counterparts, all of which together constitute one Amendment binding on all of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the day and year first above written.

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton

Name: Bruce C. Galton

Title: President and Chief Executive Officer

STANFORD GROUP COMPANY

By: /s/ William R. Fusselmann

Name: William R. Fusselmann
Title: Managing Director

STANFORD VENTURE CAPITAL HOLDINGS, INC.

By: /s/ Daniel T. Bogar

Name: Daniel T. Bogar
Title: Managing Director

STANFORD INTERNATIONAL BANK, LTD.

By: /s/ James M. Davis

Name: James M. Davis
Title: Chief Financial Officer

STANFORD EMPLOYEES:

/s/ Ronald Stein
Ronald Stein

/s/ Daniel Bogar
Daniel Bogar

/s/ Osvaldo Pi
Osvaldo Pi

/s/ William Fusselmann
William Fusselmann

**CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Bruce C. Galton, President and Chief Executive Officer of Senesco Technologies, Inc., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Senesco Technologies, Inc.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) [Paragraph omitted in accordance with SEC transition instructions contained in SEC Release 34-47986]
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

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- a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 14, 2008

/s/ Bruce C. Galton

Bruce C. Galton
President and Chief Executive Officer
(principal executive officer)

**CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Joel Brooks, Chief Financial Officer and Treasurer of Senesco Technologies, Inc., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Senesco Technologies, Inc.
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) [Paragraph omitted in accordance with SEC transition instructions contained in SEC Release 34-47986]
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

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- a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 14, 2008

/s/ Joel Brooks

Joel Brooks
Chief Financial Officer and Treasurer
(principal financial and accounting officer)

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Senesco Technologies, Inc. for the period ended December 31, 2007 as filed with the Securities and Exchange Commission on the date hereof, the undersigned, Bruce C. Galton, President and Chief Executive Officer, hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

(1) The Quarterly Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and results of operations of Senesco Technologies, Inc.

Dated: February 14, 2008

/s/ Bruce C. Galton*

Bruce C. Galton
President and Chief Executive Officer
(principal executive officer)

* A signed original of this written statement required by Section 906 has been provided to us and will be retained by us and furnished to the Securities and Exchange Commission or its staff upon request.

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Senesco Technologies, Inc. for the period ended December 31, 2007 as filed with the Securities and Exchange Commission on the date hereof, the undersigned, Joel Brooks, Chief Financial Officer and Treasurer, hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

(1) The Quarterly Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and results of operations of Senesco Technologies, Inc.

Dated: February 14, 2008

/s/ Joel Brooks*

Joel Brooks

Chief Financial Officer and Treasurer

(principal financial and accounting officer)

* A signed original of this written statement required by Section 906 has been provided to us and will be retained by us and furnished to the Securities and Exchange Commission or its staff upon request.
