SENESCO TECHNOLOGIES INC
Form 10-Q
February 17, 2009
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended December 31, 2008

or

o **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	**84-1368850**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

303 George Street, Suite 420

New Brunswick, New Jersey 08901

(Address of principal executive offices)

(732) 296-8400

(Registrant s telephone number, including area code)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes: x No: o

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

Large accelerated filer o Accelerated filer o

Smaller reporting company x Non-accelerated filer o

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

Yes: o No: x

As of January 31, 2009, 19,027,719 shares of the issuer s common stock, par value $0.01 per share, were outstanding.

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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.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED BALANCE SHEETS

	December 31, 2008 (unaudited)	June 30, 2008
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 1,115,788	$ 5,676,985
Short-term investments	2,500,000	500,000
Prepaid expenses and other current assets	828,919	180,556
Total Current Assets	4,444,707	6,357,541
Property and equipment, net	3,893	5,459
Intangibles, net	3,515,565	3,213,543
Deferred financing costs	847,385	1,059,230
Security deposit	7,187	7,187
TOTAL ASSETS	$ 8,818,737	$ 10,642,960
LIABILITIES AND STOCKHOLDERS EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 468,280	$ 370,167
Accrued expenses	413,684	314,267
Total Current Liabilities	881,964	684,434
Convertible note, net of discount	609	57
Grant payable	99,728	99,728
Other liability	19,539	23,062
TOTAL LIABILITIES	1,001,840	807,281
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 19,027,719 and 18,375,117, respectively	190,277	183,751
Capital in excess of par	40,655,397	39,874,958
Deficit accumulated during the development stage	(33,028,777)	(30,223,030)
TOTAL STOCKHOLDERS EQUITY	7,816,897	9,835,679
TOTAL LIABILITIES AND STOCKHOLDERS EQUITY	$ 8,818,737	$ 10,642,960

See Notes to Condensed Consolidated Financial Statements.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(unaudited)

	For the Three Months Ended December 31, 2008	For the Three Months Ended December 31, 2007	For the Six Months Ended December 31, 2008	For the Six Months Ended December 31, 2007	From Inception on July 1, 1998 through December 31, 2008
Revenue	$	$ 6,250	$ 200,000	$ 377,500	$ 1,375,000
Operating Expenses:					
General and administrative	649,056	585,851	1,178,921	974,910	22,904,377
Research and development	579,286	392,254	1,083,672	745,149	11,041,267
Total Operating Expenses	1,228,342	978,105	2,262,593	1,720,059	33,945,644
Loss From Operations	(1,228,342)	(971,855)	(2,062,593)	(1,342,559)	(32,570,644)
Sale of state income tax loss, net					586,442
Other noncash income					321,259
Interest income, net	17,994	25,227	41,051	32,106	521,288
Amortization of debt discount and financing costs	(106,342)	(38,374)	(212,397)	(53,595)	(881,160)
Interest expense on convertible notes	(307,651)	(64,836)	(571,808)	(67,836)	(1,005,962)
Net Loss	$ (1,624,341)	$ (1,049,838)	$ (2,805,747)	$ (1,431,884)	$ (33,028,777)
Basic and Diluted Net Loss Per Common Share	$ (0.09)	$ (0.06)	$ (0.15)	$ (0.08)	
Basic and Diluted Weighted Average Number of Common Shares Outstanding	18,629,575	17,474,870	18,504,477	17,474,282	

See Notes to Condensed Consolidated Financial Statements.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS EQUITY

FROM INCEPTION ON JULY 1, 1998 THROUGH DECEMBER 31, 2008

(unaudited)

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

(continued)

See Notes to Condensed Consolidated Financial Statements.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS EQUITY

FROM INCEPTION ON JULY 1, 1998 THROUGH DECEMBER 31, 2008

(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 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)
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)

(continued)

See Notes to Condensed Consolidated Financial Statements.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS EQUITY

FROM INCEPTION ON JULY 1, 1998 THROUGH DECEMBER 31, 2008

(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 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
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

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See Notes to Condensed Consolidated Financial Statements

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS EQUITY

FROM INCEPTION ON JULY 1, 1998 THROUGH DECEMBER 31, 2008

(unaudited)

	Common Stock		Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Total
	Shares	Amount			
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 year ended June 30, 2008			1,536,968		1,536,968
Allocation of proceeds from issuance of convertible notes and warrants from September 21, 2007 through June 30, 2008			9,340,000		9,340,000
Issuance of common stock in lieu of cash payment for interest during the year ended June 30, 2008	345,867	3,458	430,696		434,154
Convertible notes converted into common stock during the year ended June 30, 2008	555,556	5,556	430,952		436,508
Fair market value of options and warrants vested during the six months ended December 31, 2008			215,157		215,157
Cashless exercise of warrants during the six months ended December 31, 2008 at an exercise price of $0.74	2,395	24	(24)		

Issuance of common stock in lieu of cash payment for interest during the six months ended December 31,2008	537,507	5,375	566,433		571,808
Issuance of common stock in connection with the Company s short term incentive plan during the six months ended December 31, 2008	112,700	1,127	(1,127)		
Net loss				$ (33,028,777)	(33,028,777)
Balance at December 31, 2008	19,027,719	$ 190,277	$ 40,655,397	$ (33,028,777)	$ 7,816,897

See Notes to Condensed Consolidated Financial Statements.

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SENESCO 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,
	2008	2007	2008
Cash flows from operating activities:			
Net loss	$ (2,805,747)	$ (1,431,884)	$ (33,028,777)
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	571,808	67,836	1,015,277
Share-based compensation expense	215,157	146,189	9,911,254
Depreciation and amortization	53,740	44,042	514,428
Amortization of convertible note discount and deferred financing costs	212,397	53,594	881,160
(Increase) decrease in operating assets:			
Accounts receivable			
Prepaid expense and other current assets	(648,363)	51,567	(828,919)
Security deposit			(7,187)
Increase (decrease) in operating liabilities:			
Accounts payable	98,113	442,768	468,280
Accrued expenses	99,417	(24,656)	413,684
Deferred revenue		(12,500)	
Other liability	(3,523)	(3,067)	19,539
Net cash (used in) operating activities	(2,207,001)	(666,111)	(20,746,091)
Cash flows from investing activities:			
Patent costs	(354,196)	(394,471)	(3,860,996)
Redemption (purchase) of investments, net	(2,000,000)	(250,000)	(2,500,000)
Purchase of property and equipment			(172,890)
Net cash (used in) investing activities	(2,354,196)	(644,471)	(6,533,886)
Cash flows from financing activities:			
Proceeds from grant			99,728
Proceeds from issuance of bridge notes			525,000
Proceeds from issuance of common stock, net and exercise of options and warrants			19,082,818
Proceeds from issuance of convertible note and warrants, net .		6,550,000	9,340,000
Deferred financing costs		(511,835)	(651,781)
Net cash provided by financing activities		6,038,165	28,395,765
Net (decrease) increase in cash and cash equivalents	(4,561,197)	4,727,583	1,115,788
Cash and cash equivalents at beginning of period	5,676,985	408,061	

Cash and cash equivalents at end of period	$	1,115,788	$	5,135,644	$ 1,115,788
Supplemental disclosure of cash flow information:					
Cash paid during the period for interest	$		$		$ 22,317
Supplemental schedule of noncash financing activity:					
Conversion of convertible notes into common stock, net	$		$		$ 500,000
Conversion of bridge notes into stock	$		$		$ 534,316
Allocation of convertible debt proceeds to warrants and beneficial conversion feature	$		$	6,550,000	$ 9,340,000
Warrants issued for financing costs	$		$	277,979	$ 639,645
Issuance of common stock for interest on convertible notes	$	571,808	$	67,836	$ 1,015,277

See Notes to Condensed Consolidated Financial Statements.

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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, 2008.

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, 2008, the results of its operations for the three-month and six-month periods ended December 31, 2008 and 2007, cash flows for the six-month periods ended December 31, 2008 and 2007, and the results of its operations and cash flows for the period from inception on July 1, 1998 through December 31, 2008.

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

Note 2 Liquidity:

There is substantial doubt about the Company s ability to continue as a going concern due to its limited assets and capital and recurring losses as explained in the following paragraph.

The Company has a limited operating history and limited assets and capital and has incurred losses each year since inception with a deficit accumulated during the development stage from inception on July 1, 1998 through December 31, 2008 of $33,028,777. The Company has generated minimal revenues by licensing its technology for certain crops to companies willing to share in its development costs. In addition, the Company s technology may not be ready for commercialization for several years. The Company expects to continue to incur losses for the next several years because it anticipates that its expenditures on research and development, and administrative activities will significantly exceed its revenues during that period. The Company cannot predict when, if ever, it will become profitable.

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

The Company plans to address these matters by raising capital through the placement of debt instruments or equity or both. However, the Company may not be able to obtain adequate

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funds for its operations when needed or on acceptable terms. If the Company is unable to raise additional funds, it will need to do one or more of the following:

- delay, scale-back or eliminate some or all of its research and product development programs;
- provide a license to third parties to develop and commercialize products or technologies that the Company would otherwise seek to develop and commercialize itself;
- seek strategic alliances or business combinations;
- attempt to sell the Company;
- cease operations; or
- declare bankruptcy.

As of December 31, 2008, the Company had cash and investments in the amount of $3,615,788, which consisted of money market funds and U.S. treasury bills. The Company estimates that such amount will cover its expenses for approximately the next seven months from December 31, 2008. The accompanying financial statements do not include any adjustment from the outcome of this uncertainty.

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, the 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 December 31, 2008. 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 patent applications pending are being amortized over a period of 17 years, the expected economic 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 appearance of competing technology.

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If the Company s review determines that the future discounted cash flows related to these assets will not be sufficient to recover their carrying value, the Company will reduce the carrying values of these assets down to its estimate of fair value and continue amortizing them over their remaining useful lives. To date, the Company has not recorded any impairment of intangible assets.

Note 4 - Loss Per Share:

Net loss per common share is computed by dividing the loss by the weighted-average number of common shares outstanding during the period. Shares to be issued upon the exercise of the outstanding options and warrants aggregating 23,866,268 and 19,281,261 as of December 31, 2008 and 2007, respectively, are not included in the computation of net loss per share, as their effect is anti-dilutive. Additionally, as of December 31, 2008, 10,555,556 shares to be issued upon the conversion of convertible notes at a fixed conversion price of $0.90 are not included in the computation of diluted net loss per share, as their 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,	
	2008	2007	2008	2007
Estimated life in years	3.5-5.5	6	3.5-5.5	6
Risk-free interest rate (1)	1.1% 2.1%	3.4% 4.1%	1.1%-2.1%	3.4%-4.1%
Volatility	100%	100%	100%	100%
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 economic 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, 2008 is as follows:

	Number of Options.		Weighted-Average Exercise Price.
Outstanding at July 1, 2008	3,715,600	$	1.95
Granted	585,084	$	0.60
Exercised			
Canceled			
Outstanding at December 31, 2008	4,300,684	$	1.77
Exercisable at December 31, 2008	3,417,684	$	2.00

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A summary of changes to the non-vested stock options for the six month period ended December 31, 2008 is as follows:

	Number of Options.	Weighted-Average Grant-Date Fair Value.
Non-vested stock options at July 1, 2008	937,264	$ 0.77
Granted	585,084	$ 0.46
Vested	(639,348)	$ (0.65)
Forfeited		
Non-vested stock options at December 31, 2008	883,000	$ 0.66

As of December 31, 2008, the aggregate intrinsic value of stock options outstanding was $171,650, with a weighted-average remaining term of 6.2 years. The aggregate intrinsic value of stock options exercisable at that same date was $77,550, with a weighted-average remaining term of 5.4 years. As of December 31, 2008, the Company has 5,137,200 shares available for future stock option grants.

As of December 31, 2008, total compensation expense not yet recognized related to stock option grants and restricted stock units amounted to approximately $267,000**,** which will be recognized over the next 24 months, and an additional $640,000 which may be recognized as achievement of certain target goals under the Company s Long-Term Incentive Program become probable over the next 27 months.

Short-Term Incentive Program

On November 19, 2008, 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, 2009.

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

1. 25% of eligible shares and options for contributions relating to the Company s Human Health Objectives;

2. 15% of eligible shares and options for contributions relating to the Company s Finance Objectives;

3. 20% of eligible shares and options for contributions relating to the Company s Agricultural Licensing Objectives;

4. 25% of eligible shares and options for contributions relating to the Company s Investor Relations, Intellectual Property and Website Administration; and

5. 15% of the eligible shares and options relating to the Company s Organizational Objectives.

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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 for the fiscal year ended June 30, 2009:

	Number of Shares	Number of Options (1)
Bruce C. Galton	66,000	
John E. Thompson, Ph.D.		48,000
Joel Brooks	28,000	
Richard Dondero		80,000
Sascha P. Fedyszyn	42,000	
Total	136,000	128,000

(1) Such options are exercisable at a strike price of $0.60, which represents the closing price of the common stock on November 18, 2008.

As of December 31, 2008, 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 $140,480 is being recorded ratably over the seven and one-half month period from November 19, 2008 through June 30, 2009. For the six months ended December 31, 2008, the Company recorded $28,096 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 the members of the executive management team. The Long-Term Equity Incentive Program is 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 executives is based upon the following weightings:

1. 20% of the eligible shares upon the execution of a research agreement to conduct a phase I/II clinical trial at a research facility;

2. 20% of the eligible shares upon the filing and acceptance by the FDA of an investigational new drug application; and

3. 60% of the eligible shares upon the successful completion of a FDA approved phase I/II clinical trial .

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

	Goal 1	Goal 2	Goal 3
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

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(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, 2008, the Company is not able to determine if the achievement of the target goals under the Long-Term Equity Incentive Program are probable and, therefore, has not yet begun to recognize any of the $640,000 compensation expense that was computed on the date of adoption of the Long-Term Equity Incentive Program. The Company will begin recognizing such compensation expense ratably over the remaining term of the Long-Term Equity Incentive Program at such time that the Company is able to determine that the achievement of the target goals are probable.

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 Notes and Stockholders Equity:

During the year ended June 30, 2008, the Company issued $5,000,000 of convertible notes and warrants to YA Global Investments L.P. (YA Global) and $5,000,000 of convertible notes and warrants to Stanford Venture Capital Holdings, Inc. (Stanford), 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), through August 1, 2009 and December 20, 2009, respectively, at which time 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.

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

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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 Rule 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.

The conversion rate of each convertible note is 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 are 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, underlying the convertible notes, issuable to YA Global, and such registration statement became effective on November 1, 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 common stock that can be issued upon the conversion of the convertible notes and the exercise of the warrants.

The convertible notes and warrants issued to Stanford are 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.

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Currently, at the fixed conversion price, the number of shares of common stock issuable upon conversion of the remaining $9,500,000 of convertible notes outstanding and shares of common stock to be issued upon exercise of the warrants outstanding at December 31, 2008 represents, in the aggregate, 24,438,888 shares, plus an estimated additional 1,800,000 shares (based upon the stock price at December 31, 2008) for the payment of interest in stock under the convertible notes.

As of December 31, 2008, the outstanding balance of the Convertible Notes were $609, which is comprised of notes with an aggregate face amount of $9,500,000 less unamortized debt discount of $9,499,391. Debt discount associated with the Convertible Notes is amortized to interest expense, using the effective yield method, 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 interest. Total charges to interest for amortization of debt discount were $133 and $419 for the three month and six month periods ended December 31, 2008.

The costs associated with the issuances in the amount of $1,291,427 have been recorded as deferred financing costs and are being amortized ratably over the term of the convertible notes. The balance of deferred financing costs as of December 31, 2008 amounted to $847,385.

Note 8 Income Taxes:

No provision for income taxes has been made in the three month and six month periods ended December 31, 2008 and 2007 given the Company s losses in 2008 and 2007 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.

Note 9 Effects of New Accounting Pronouncements Applicable to the Company

EITF Issue No. 07-1 Accounting for Collaborative Arrangements

This pronouncement defines a collaborative arrangement as a contractual arrangement that involves a joint operating activity that involves two or more parties who are both active participants in the activity and exposed to significant risks and rewards dependent on the commercial success of the activity. The pronouncement also defines how the costs incurred and revenues generated from transactions with third parties should be recorded and presented in each entity s income statement. This pronouncement is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years, and shall be applied retrospectively to all prior periods presented for all collaborative arrangements existing as of the effective date. The Company does not believe that this pronouncement will have any material effect on its financial statements.

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EITF Issue No. 07-3 Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities.

This pronouncement states that nonrefundable advance payments for future research and development activities should be deferred and capitalized. This pronouncement is effective for financial statements issued for fiscal years beginning after December 15, 2007, and interim periods within those fiscal years. Early application is not permitted. This pronouncement has not had a material effect on the Company s financial statements.

SFAS No. 157 Fair Value Measurements

In September 2006 the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 157, *Fair Value Measurements* (SFAS No. 157). SFAS No. 157 defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurement. SFAS No. 157 also emphasizes that fair value is a market-based measurement, not an entity-specific measurement, and sets out a fair value hierarchy with the highest priority being quoted prices in active markets. Under SFAS No. 157, fair value measurements are disclosed by level within that hierarchy. In February 2008, the FASB issued FASB Staff Position No. 157-2, *Effective Date of FASB Statement No. 157*, which permits a one-year deferral for the implementation of SFAS No. 157 with regard to nonfinancial assets and liabilities that are not recognized or disclosed at fair value in the financial statements on a recurring basis. The Company adopted SFAS No. 157 for the fiscal year beginning July 1, 2008, except for nonfinancial assets and nonfinancial liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis for which delayed application is permitted until our fiscal year beginning July 1, 2009. The adoption of the remaining provisions of SFAS No. 157 is not expected to have a material impact on the Company s financial position, results of operations or cash flows.

EITF Issue No. 07-5 Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity s Own Stock.

In June 2008, the FASB ratified EITF Issue No. 07-5, Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity s Own Stock (EITF 07-5). EITF 07-5 provides guidance on how to determine if certain instruments or embedded features are considered indexed to our own stock, including instruments similar to our convertible notes and warrants to purchase our stock. EITF 07-5 requires companies to use a two-step approach to evaluate an instrument s contingent exercise provisions and settlement provisions in determining whether the instrument is considered to be indexed to its own stock and exempt from the application of SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities . Although EITF 07-5 is effective for fiscal years beginning after December 15, 2008, any outstanding instrument at the date of adoption will require a retrospective application of the accounting through a cumulative effect adjustment to retained earnings upon adoption. The Company is currently evaluating the impact that adoption of EITF 07-5 will have on its consolidated financial statements.

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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

The primary business of Senesco Technologies, Inc., a Delaware corporation incorporated in 1999, and its wholly-owned subsidiary, Senesco, Inc., a New Jersey corporation incorporated in 1998, collectively referred to as Senesco, we, us or our, is to utilize our patented and patent-pending genes, primarily eucaryotic translation initiation Factor 5A, or Factor 5A, and deoxyhypusine synthase, or DHS, and related technologies for their inhibition in human health applications to develop novel approaches to treat inflammatory diseases and cancer.

In agricultural applications, we are developing and licensing Factor 5A, DHS and Lipase to enhance the quality and productivity of fruits, flowers, and vegetables and agronomic crops through the control of cell death, referred to herein 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 inducing apoptosis. Inhibiting apoptosis may be useful in preventing or treating a wide range of inflammatory and ischemic diseases attributed to premature apoptosis. Inducing apoptosis may be useful in treating certain forms of cancer because the cancerous cells have failed to initiate apoptosis on their own due to damaged or inhibited apoptotic pathways.

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:

- Performing efficacy, toxicological and dose-finding studies in mice for our potential multiple myeloma drug candidate, SNS-01. SNS-01 is a nano-encapsulated combination therapy of Factor 5A and an siRNA against Factor 5A. Our anti-myeloma efficacy study in severe combined immune-deficient mice with human multiple myeloma subcutaneous tumors tested SNS-01 dosages ranging from 0.15 mg/kg to 1.5 mg/kg. In these studies, mice treated with a dose of either 0.75 mg/kg or 1.5 mg/kg both showed a 91% reduction in tumor volume and a decrease in tumor weight of 87% and 95%, respectively. For mice

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that received smaller doses of either 0.38 mg/kg or 0.15 mg/kg, there was also a reduction in tumor volume (73% and 61%, respectively) and weight (74% and 36%, respectively). All of the treated mice, regardless of dose, survived. This therapeutic dose range provided the basis for an 8-day maximum tolerated dose study in which normal mice received two intravenous doses of increasing amounts of SNS-01 (from 2.2 mg/kg). Body weight, organ weight and serum levels of liver enzymes were used as clinical indices to assess toxicity. A dose between 2.2 mg/kg and 2.9 mg/kg was well tolerated with respect to these clinical indices, and the survival rate at 2.9 mg/kg was 80%. Those mice receiving above 2.9 mg/kg of SNS-01 showed evidence of morbidity and up to 80% mortality. The 2.9 mg/kg threshold, twice the upper end of the therapeutic dose range, was therefore determined to be the maximum tolerated dose in mice.

- demonstrated significant tumor regression and diminished rate of tumor growth of multiple myeloma tumors in SCID mice treated with Factor 5A technology encapsulated in nanoparticles;

- increased median survival by approximately 250% in a tumor model of mice injected with melanoma cancer cells;

- induced apoptosis in both human cancer cell lines derived from tumors and in lung tumors in mice;

- induced apoptosis of cancer cells in a human multiple myeloma cell line;

- measured VEGF reduction in mouse lung tumors as a result of treatment with our genes;

- decreased ICAM and activation of NFKB in cancer cells employing siRNA against Factor 5A;

- increased the survival, while maintaining functionality, of mouse pancreatic islet cells isolated for transplantation, using intraperitaneal administration of our technology. Initial animal studies have shown that our technology 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 shown that the treated beta islet cells survive a pro-inflammatory cytokine challenge, while maintaining their functionality with respect to insulin production. These further studies also revealed eIF-5A s involvement in the modulation of inducible nitric oxide synthase (iNOS), an important indicator of inflammation; and

- increased 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.

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Accelerating Apoptosis

The data from our pre-clinical studies indicate that the up-regulation of Factor 5A induces cell death in cancer cells through both the p53 (intrinsic) and cell death receptor (extrinsic) apoptotic pathways. Tumors arise when abnormal cells fail to undergo apoptosis due to an inability to activate their 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. Based on the results obtained through our *in-vitro* studies, we have found that up-regulating Factor 5A results in: (i) the up-regulation of p53; (ii) increased inflammatory cytokine production; (iii) increased cell death receptor formation; and (iv) increased caspase activity. These features, coupled with a simultaneous down-regulation Bcl-2, result in apoptosis of cancer cells. In addition, our *in-vitro* studies have shown that the 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.

Inhibiting Apoptosis

Our preclinical studies indicate that down-regulation of our proprietary Factor 5A gene may have potential application as a means for controlling the effects of a broad range of diseases that are attributable to premature cell death, ischemia, or inflammation. Such inflammatory diseases include glaucoma, heart disease, and other certain inflammatory diseases such as Crohn s disease, sepsis and diabetic retinopathy. We are engaged in preclinical research on certain inflammatory diseases. Using small inhibitory RNA s, or siRNA s, against Factor 5A to inhibit its expression, the results of our studies have indicated a reduction in pro-inflammatory cytokine formation and the formation of receptors for liposolysaccharide, or LPS, interferon-gamma and TNF-alpha. Our studies have also indicated that by inhibiting Factor 5A iNOS, MAPK, NFkB, JAK1 and ICAM are downregulated, which decreases the inflammatory cytokines formed through these pathways. Additionally, a mouse study has indicated that our siRNA is comparable to a steroid and to a prescription anti-TNF drug in its ability to reduce cytokine response to LPS. Other mouse studies have also indicated 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; (ii) increases the survival rate in which sepsis was induced by a lethal injection of LPS; and (iii) reduces 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. Other experiments utilizing siRNA to Factor 5A include inhibition of or apoptosis during the processing of mouse pancreatic beta islet cells for transplantation, the inhibition of early inflammatory changes associated with type-1 diabetes in an in-vivo rat model and the down-regulation of certain markers 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. Based on our studies, we believe that down-regulating Factor 5A by treatment with siRNA inhibits the expression of p53, a major cell death transcription factor that in turn controls the

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formation of a suite of other cell death proteins. In addition, we believe that the down-regulation of Factor 5A up-regulates Bcl-2, a suppressor of apoptosis.

Human Health Target Markets

We believe that our gene technology may 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, including diabetes, diabetic retinopathy and lung inflammation, among others. 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.

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. Additionally, we are using the proceeds of our recent financing to advance our research in multiple myeloma with the goal of initiating a Phase I clinical trial, and may select additional human health indications to bring into clinical trials on our own. We believe that the success of our future operations will likely depend on our ability to transform our research and development activities into a commercially feasible technology.

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 being performed by approximately thirteen (13) third party researchers, at our direction, at Mayo Clinic, the University of Virginia, and the University of Waterloo.

Our research and development expenses incurred on human health applications were approximately 71% and 52% of our total research and development expenses for the six months ended December 31, 2008 and 2007, respectively. Since inception, the proportion of our research and development expenses on human health applications has increased, as compared to our research and development expenses on agricultural applications. This change is primarily due to the fact that our research focus on human health has increased and some of our research costs for plant applications have shifted to our license partners.

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

- Multiple Myeloma. Our objective is to 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. We have also determined the delivery system for our technology, contracted for the supply of pharmaceutical grade materials to be used in toxicology and human studies, performed certain toxicity studies, and have contracted with a third party laboratory to conduct additional toxicoly studies. Together with the assistance of our CRO, we will have additional toxicology studies performed with the goal of

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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 less than twelve (12) months from December 31, 2008 to complete these objectives.

- Lung Inflammation. The objective of our planned future lung inflammation experiments is to optimize the delivery and dose of the siRNA to Factor 5A to the lungs. A mouse model system is currently being conducted to illustrate the siRNA to Factor 5A s ability to reduce morbidity and mortality of lung inflammation, caused by the up-regulation of pro-inflammatory cytokines induced by a pathogen.

- Other. We may continue to 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 completed private placements of $10 million of convertible notes and warrants in fiscal 2008. However, it will 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, we may be required to significantly curtail the future development of some of our research initiatives 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.

Human Health Competition

Our competitors in human health that are presently attempting to distribute their technology have generally utilized one of the following distribution channels:

- Entering into strategic alliances, including licensing technology to major marketing and distribution partners; or

- developing in-house production and marketing capabilities.

In addition, some competitors are established distribution companies, which alleviates the need for strategic alliances, while others are attempting to create their own distribution and marketing channels.

There are many large companies and development stage companies working in the field of apoptosis research including: Amgen, Centocor, Genzyme, OSI Pharmaceuticals, Inc., Novartis, Introgen Therapeutics, Inc., Genta, Inc., and Vertex Pharmaceuticals, Inc., amongst others.

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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 stresses 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 and trees.

The technology presently utilized by the industry for increasing the shelf life in certain flowers, fruits and vegetables relies primarily on reducing ethylene biosynthesis, and therefore only has application to the crops that are ethylene-sensitive. Because Factor 5A, DHS and Lipase are already present in all plant cells, our technology may be incorporated into crops by using either conventional breeding methods (non-genetically modified) or biotechnology techniques.

We have licensed this technology to various strategic partners and have entered into a joint venture. We may continue to license this technology, as the opportunities present themselves, to additional strategic partners and/or enter into additional joint ventures. Our commercial partners have licensed our technology for use in 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 initial field trials conducted with ArborGen over a three year period in certain species of trees have concluded and the trees have been harvested for wood quality assessment. Preliminary data from our joint field trials show significantly enhanced growth rates in some of the trees relative to controls. Additional field trials for enhanced growth rates and other traits are currently being performed with ArborGen.

To date, banana field trials have indicated 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

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Disease) for banana plants. Additional field trials for banana plants are ongoing for the combined traits of disease tolerance and shelf life extension.

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 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 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.

Agricultural Target Markets

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, royalties, usage fees, or the sharing of gross profits. In addition, we anticipate payments from certain of our partners, which are described in the *Agricultural Development and License Agreements* section of this Form 10-Q, 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.

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.

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Agricultural Development and License Agreements

Through January 31, 2008, we have eight (8) active license agreements and one joint collaboration with established agricultural biotechnology companies or, in the case of Poet, as more fully described below, an established ethanol company, as follows:

- In June 2002, we entered into a three-year worldwide exclusive development and option agreement with ArborGen, LLC to develop our technology in certain species of trees. In June 2006, ArborGen exercised their option to license our technology and in December 2006, converted the development and option agreement into a license agreement, referred to herein as the ArborGen Agreement. To date, the research being conducted by ArborGen has proceeded according to schedule. ArborGen has seen promising positive growth responses in greenhouse-grown seedlings. These initial greenhouse data led to the initiation of field trials by ArborGen in the second half of calendar year 2004. At the end of the 2005 growing season, certain trees which were enhanced by our technology had approximately double the increase in volume relative to control trees. Further field trials are ongoing to support these data and to analyze the growth rates of trees which incorporate our technology. Under the ArborGen Agreement, we have received an upfront payment and benchmark payments and we may receive additional benchmark payments upon achievement of certain development milestones and royalties upon commercialization.

- In September 2002, we entered into an exclusive development and license agreement with Cal/West Seeds, referred to herein as the Cal/West License, to commercialize our technology in certain varieties of alfalfa. The Cal/West License will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. The Cal/West License also grants Cal/West an exclusive option to develop our technology in various other forage crops. The Cal/West Seeds development effort successfully incorporated our technology into their alfalfa seed as of July 2004. Seed transformation and greenhouse trait analysis is ongoing. Under the Cal/West License, we have received an upfront payment and we may receive benchmark payments as certain development milestones are achieved and a royalty upon commercialization based upon the volume of alfalfa seed sold that contains our technology.

- In March 2004, we entered into an exclusive development and license agreement with The Scotts Company, referred to herein as the Scotts Agreement, to commercialize our technology in turfgrass and certain species of bedding plants. Scotts is working on incorporating our technology to enhance a variety of traits in these plants, including environmental stress resistance, disease resistance and enhanced bloom properties. We are collaborating with Scotts in the areas of ornamental bedding plants and turfgrass. A large-scale greenhouse evaluation of bedding plants was being conducted and additional greenhouse testing is planned. Transformation and initial tissue culture screening of events have been undertaken in turfgrass. In tissue culture, turfgrass containing our technology has grown more successfully than control turfgrass without our technology. Greenhouse testing of the grass containing our technology is the next planned development step. Under the Scotts Agreement, we have received an upfront payment and benchmark payments. In January 2006, the development and license agreement with

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Scotts was amended. Due to a change in the corporate financial policy at Scotts, Scotts requested that we defer certain milestone payments, which were to be made on a calendar year basis. We agreed and these payments have now been deferred and incorporated in the amount to be paid to us upon commercialization. Additionally, the commercialization fee has been increased. All other aspects of the agreement remain unchanged, and the project continues to move forward without interruption. We may also receive royalties upon commercialization from the net sales of turfgrass seed and bedding plants containing our technology.

- In October 2005, we entered into an agreement with Poet to license our proprietary gene technology to Poet to improve aspects of Poet s ethanol production capabilities. We are currently revising our work plan to incorporate our technology into those aspects of Poet s ethanol production. We will receive an annual payment for each Poet facility that incorporates our technology. If Poet incorporates our technology into each of its facilities, we would be entitled to receive an annual payment in excess of $1,000,000.

- On November 8, 2006, we entered into a license agreement with Bayer CropScience GmbH for the development and commercialization of canola. Under the terms of the agreement, we received an upfront payment, will receive milestone payments upon the achievement of certain development milestones and will receive commercialization fees based upon specified benchmarks. In August, 2008, Bayer CropScience GmbH successfully completed the first development milestone related to this license.

- On July 17, 2007, we entered into a license agreement with Bayer CropScience AG for the development and commercialization of cotton. Under the terms of the agreement, we received an upfront payment, will receive milestone payments upon the achievement of certain development milestones, and additionally, upon commercialization, a royalty on net sales.

- On August 6, 2007, we entered into a license agreement with Monsanto for the development and commercialization of corn and soy. Under the terms of the agreement, we received an upfront payment, will receive milestone payments upon the achievement of certain development milestones, and additionally, upon commercialization, a royalty on net sales.

- On September 11, 2007, we entered into a license agreement with Bayer CropScience AG for the development and commercialization of rice. Under the terms of the agreement, we received an upfront payment, will receive milestone payments upon the achievement of certain development milestones, and additionally, upon commercialization, a royalty on net sales.

In December 2008, the Development and License Agreement with the Harris Moran Seed Company (Harris Moran) was terminated by mutual agreement due to Harris Moran s recently announced corporate restructuring. Harris Moran has reported that its parent company, Limagrain, restructured its vegetable seed operations and that Harris Moran will now be part of a new business unit with Clause (France) and Marco Polo (Thailand). This restructuring has resulted in a consolidation of research and development efforts amongst Harris Moran and its sister companies that will not encompass our technology. Harris Moran made us aware of this

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shift in research and development focus and presented us with a letter on December 1, 2008 formally ending the relationship through the mutual agreement of the parties. Pursuant to the terms of the Development and License Agreement all rights to use our technology in lettuce and melon revert to us.

Joint Venture

On May 14, 1999, we entered into a agreement with Rahan Meristem Ltd., or Rahan Meristem, an Israeli company engaged in the worldwide export marketing of banana germplasm, referred to herein as the Rahan Joint Venture**.** In general, bananas are grown either for local domestic consumption or grown for export. According to the Food and Agriculture Organization of the United Nations, there were approximately 16 million metric tons of bananas exported in 2004. The level of production equates to the fruit of approximately 480 million banana plants. A percentage of these plants are replaced each year with new banana seedlings. Rahan Meristem accounts for approximately 10% of the worldwide export of enhanced banana seedlings.

We have contributed, by way of a limited, exclusive, worldwide license to the Rahan Joint Venture, access to our technology, discoveries, inventions and know-how, whether patentable or otherwise, pertaining to plant genes and their cognate expressed proteins that are induced during senescence for the purpose of developing, on a joint basis, genetically enhanced banana plants which will result in a banana that has a longer shelf life. Rahan Meristem has contributed its technology, inventions and know-how with respect to banana plants. Rahan Meristem and Senesco have equally shared the expense of field trials.

All aspects of the Rahan Joint Venture s research and development initiative are proceeding on time**.** Both the DHS and lipase genes have been identified and isolated in banana, and the Rahan Joint Venture is currently in the process of silencing these genes. Two Israeli field trials indicated that Senesco s proprietary technology extends the shelf life of the banana fruit up to 100%, while allowing the banana fruit to ripen normally. Later field trials have indicated what we believe are promising disease tolerance results and we are currently performing additional field trials to further assess disease tolerance. However, as the banana modified with our technology may be considered a genetically modified organism, or GMO, shelf life extension may have to be combined with disease tolerance to gain acceptance by the growers.

Agricultural Research Program

Our agricultural research and development is performed by three (3) researchers, at our direction, at the University of Waterloo, where the technology was developed. Additional agricultural research and development is performed by our partners in connection with the Scotts Agreement, the ArborGen License, the Cal/West License, the Bayer Licenses, the Monsanto License and through the Rahan Joint Venture.

The discoverer of our technology, John E. Thompson, Ph.D., is the Associate Vice President, Research and former Dean of Science at the University of Waterloo in Ontario, Canada, and is our Executive Vice President and Chief Scientific Officer. Dr. Thompson is also

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one of our directors and owns 3.0% of the outstanding shares of our common stock as of December 31, 2008. On September 1, 1998, we entered into, and have extended through August 31, 2009, a research and development agreement with the University of Waterloo and Dr. Thompson as the principal inventor. The Research and Development Agreement provides that the University of Waterloo will perform research and development under our direction, and we will pay for the cost of this work and make certain payments to the University of Waterloo. In return for payments made under the Research and Development Agreement, we have all rights to the intellectual property derived from the research.

Agricultural Competition

Our competitors in both human health and agriculture that are presently attempting to distribute their technology have generally utilized one or more of the following distribution channels:

- licensing technology to major marketing and distribution partners;
- entering into strategic alliances; or
- developing in-house production and marketing capabilities.

In addition, some competitors are established distribution companies, which alleviates the need for strategic alliances, while others are attempting to create their own distribution and marketing channels.

Our competitors in the field of delaying plant senescence are companies that develop and produce transformed plants with a variety of enhanced traits. Such companies include: Icora (formerly Paradigm Genetics); Mendel Biotechnology; Renessen LLC; Exelixis Plant Sciences, Inc.; Syngenta International AG; and Eden Bioscience, among others.

Agricultural Development Program

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

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

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

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

Project	Partner	Status
Banana	Rahan Meristem	
- Shelf Life		Field trials
- Disease Resistance		Field trials
Trees	Arborgen	
- Growth		Field trials
Alfalfa	Cal/West	Greenhouse
Corn	Monsanto	Proof of concept ongoing
Cotton	Bayer	Proof of concept ongoing
Canola	Bayer	Seed transformation
Rice	Bayer	Proof of concept ongoing
Soybean	Monsanto	Proof of concept ongoing
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. Thus, we have not begun to actively market our technology directly to consumers, rather, we have sought to establish ourselves within the industry through presentations at industry conferences, our website and direct communication with prospective licensees.

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. Successful future operations will depend on our ability to transform our research and development activities into a commercially feasible technology.

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Intellectual Property

We have nineteen (19) issued patents from the United States Patent and Trademark Office, or PTO, and twenty-three (23) issued patents from foreign countries, thirty-one (31) of which are for the use of our technology in agricultural applications and eleven (11) of which relate to human health applications.

In addition to our forty-two (42) 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.

Government Regulation

At present, the U.S. federal government regulation of biotechnology is divided among three agencies: (i) the U.S. Department of Agriculture regulates the import, field-testing and interstate movement of specific types of genetic engineering that may be used in the creation of transformed plants; (ii) the Environmental Protection Agency regulates activity related to the invention of plant pesticides and herbicides, which may include certain kinds of transformed plants; and (iii) the FDA regulates foods derived from new plant varieties. The FDA requires that transformed 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 transformed plant developers to consult the FDA before introducing a new food into the market place.

In addition, our ongoing preclinical research with cell lines and lab animal models of human disease is not currently subject to the FDA requirements that govern clinical trials. However, use of our technology, if developed for human health applications, will also be subject to FDA regulation. Generally, 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, we, or our licensees, may be required to obtain such licensing or approval from governmental regulatory agencies prior to the commercialization of our genetically transformed plants and the application of our human health technology.

We have nineteen (19) issued patents from the United States Patent and Trademark Office, or PTO, and twenty-thr

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Liquidity and Capital Resources

Overview

As of December 31, 2008, our cash balance and investments, which consisted of money market funds and U.S. treasury bills, totaled $3,615,788**,** and we had working capital of $3,562,743. As of December 31, 2008, we had a federal tax loss carryforward of approximately $21,940,000 and a state tax loss carry-forward of approximately $14,580,000 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, 2008:

		Payments Due by Period			
Contractual Obligations	**Total**	**Less than 1 year**	**1 - 3 years**	**4 - 5 years**	**More than 5 years**
Research and Development Agreements (1)	$ 2,150,525	$ 2,150,525	$	$	$
Facility, Rent and Operating Leases (2)	$ 192,280	$ 78,964	$ 113,316	$	$
Employment, Consulting and Scientific Advisory Board Agreements (3)	$ 514,511	$ 510,023	$ 4,488	$	$
Total Contractual Cash Obligations	$ 2,857,316	$ 2,739,512	$ 117,804	$	$

(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 have nineteen (19) issued patents from the United States Patent and Trademark Office, or PTO, and twenty-thr

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.

We have nineteen (19) issued patents from the United States Patent and Trademark Office, or PTO, and twenty-thr

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Effective September 1, 2008, we extended our research and development agreement with the University of Waterloo for an additional one-year period through August 31, 2009, in the amount of CAD $735,000 or approximately USD $700,000. Research and development expenses under this agreement aggregated USD $180,000 and USD $176,536 for the three month periods ended December 31, 2008 and 2007 and USD $349,518 and $368,792 for the six month periods ended December 31, 2008 and 2007 and USD $4,976,782 for the cumulative period from inception through December 31, 2008.

During the six months ended December 31, 2008, we made significant payments for services to be performed and for the manufacture of materials in connection with our toxicology studies and clinical trial totaling approximately $720,000, which have been included as prepaid expenses on our Balance Sheet as of December 31, 2008.

Capital Resources

Since inception, we have generated revenues of $1,375,000 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, revenues from contract research, or other related revenue.

We anticipate that, based upon our current cash and investments, as of December 31, 2008 we will be able to fund our operations for the next seven (7) 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 possible execution of additional licensing agreements for our technology; and
- through the placement of equity or debt instruments.

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

We have nineteen (19) issued patents from the United States Patent and Trademark Office, or PTO, and twenty-thr

We adopted Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standards No. 157, *Fair Value Measurements* (SFAS No. 157) for the fiscal year beginning July 1, 2008, except for nonfinancial assets and nonfinancial liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis for which delayed application is permitted until our fiscal year beginning July 1, 2009. The adoption of the

We have nineteen (19) issued patents from the United States Patent and Trademark Office, or PTO, and Twenty-thr

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remaining provisions of SFAS No. 157 is not expected to have a material impact on the Company s financial position, results of operations or cash flows.

Except for the adoption of SFAS No. 157, 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, 2008.

We have nineteen (19) issued patents from the United States Patent and Trademark Office, or PTO, and twenty-thr

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Results of Operations

Three Months Ended December 31, 2008 and Three Months Ended December 31, 2007

The net loss for the three month period ended December 31, 2008 was $1,624,341. The net loss for the three month period ended December 31, 2007 was $1,049,838. Such a change represents an increase in net loss of $574,503**,** or 54.7%. This increase in net loss was primarily the result of an increase in non-cash expenses associated with the outstanding convertible notes that were issued during the year ended June 30, 2008, and an increase in operating expenses.