RLI CORP Form 10-K February 25, 2011

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

X	ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d	OF THE SECURITIES EXCHANGE ACT
OF	1934	

For the fiscal year ended December 31, 2010

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 Number 001-09463

RLI CORP.

(Exact name of registrant as specified in its charter)

Illinois

37-0889946

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

9025	N	lorth	Lind	be	rgh	Drive,	P	eoria,	Illinois
								0.01	

(Address of principal executive offices)

61615 (Zip Code)

Registrant s telephone number, including area code (309) 692-1000

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

Title of each classCommon Stock \$1.00 par value

Name of each exchange on which registered New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: NONE

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

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

No o

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

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

Large accelerated filer x

Accelerated filer o

Non-accelerated filer o (Do not check if a smaller reporting company)

Smaller reporting company 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

The aggregate market value of the registrant's common stock held by non-affiliates of the Registrant as of June 30, 2010, based upon the closing sale price of the Common Stock on June 30, 2010 as reported on the New York Stock Exchange, was \$910,921,846. Shares of Common Stock held directly or indirectly by each reporting officer and director along with shares held by the Company ESOP have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of shares outstanding of the Registrant s Common Stock, \$1.00 par value, on February 9, 2011 was 21,026,645.

DOCUMENTS INCORPORATED BY REFERENCE.

Portions of the 2010 Financial Report to Shareholders for the year ended December 31, 2010, are incorporated by reference into Parts I and II of this document.

Portions of the Registrant s definitive Proxy Statement for the 2011 annual meeting of security holders to be held May 5, 2011, are incorporated herein by reference into Part III of this document.

Exhibit index is located on pages 61-62 of this document, which lists documents incorporated by reference herein.

PART I

Item 1. Business

RLI Corp. underwrites selected property and casualty insurance through major subsidiaries collectively known as RLI Insurance Group. We conduct operations principally through three insurance companies. RLI Insurance Company, our principal subsidiary, writes multiple lines insurance on an admitted basis in all 50 states, the District of Columbia and Puerto Rico. Mt. Hawley Insurance Company, a subsidiary of RLI Insurance Company (RLI Ins.), writes surplus lines insurance in all 50 states, the District of Columbia, Puerto Rico, the Virgin Islands and Guam. RLI Indemnity Company, a subsidiary of Mt. Hawley Insurance Company, has authority to write multiple lines of insurance on an admitted basis in 48 states and the District of Columbia. RIC has the authority to write fidelity and surety in North Carolina. We are an Illinois corporation that was organized in 1965. We have no material foreign operations.

We maintain an Internet website at http://www.rlicorp.com. We make available free of charge on our website our annual report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed with or furnished to the Securities and Exchange Commission as soon as reasonably practicable after such materials are filed or furnished. Information contained on our website is not intended to be incorporated by reference in this annual report and you should not consider that information a part of this annual report.

As a niche company, we offer specialty insurance coverages designed to meet specific insurance needs of targeted insured groups and underwrite for certain markets that are underserved by the insurance and reinsurance industry, such as our difference in conditions coverages or oil and gas surety bonds. We also provide types of coverages not generally offered by other companies, such as our stand-alone personal umbrella policy. The excess and surplus market, which unlike the standard admitted market is less regulated and more flexible in terms of policy forms and premium rates, provides an alternative for customers with hard-to-place risks. When we underwrite within the surplus lines market, we are selective in the line of business and type of risks we choose to write. Using our non-admitted status in this market allows us to tailor terms and conditions to manage these exposures more effectively than our admitted counterparts. Often the development of these specialty insurance coverages is generated through proposals brought to us by an agent or broker seeking coverage for a specific group of clients. Once a proposal is submitted, underwriters determine whether it would be a viable product based on our business objectives.

We distribute our property and casualty insurance through our wholly-owned branch offices that market to wholesale producers. We also market certain coverages to retail producers from several of our casualty, surety and property operations. We produce a limited amount of business under agreements with managing general agents under the direction of our product vice presidents. The majority of business is marketed through our branch offices located throughout the United States.

For the year ended December 31, 2010, the following table provides the geographic distribution of our risks insured as represented by direct premiums earned for all coverages. For the year ended December 31, 2010, no other state accounted for 1.5 percent or more of total direct premiums earned for all coverages.

State	I	Direct Premiums Earned (in thousands)	Percent of Total
California	\$	107,690	18.0%
New York		83,080	13.9%
Florida		72,956	12.2%
Texas		53,631	8.9%
New Jersey		23,620	3.9%
Illinois		18,153	3.0%
Louisiana		17,067	2.8%
Pennsylvania		15,536	2.6%
Hawaii		15,020	2.5%
Ohio		11,166	1.9%
Massachusetts		10,472	1.7%
Washington		10,455	1.7%
All Other		160,823	26.9%
Total direct premiums	\$	599,669	100.0%

In the ordinary course of business, we rely on other insurance companies to share risks through reinsurance. A large portion of the reinsurance is put into effect under contracts known as treaties and, in some instances, by negotiation on each individual risk (known as facultative reinsurance). We have quota share, excess of loss and catastrophe reinsurance contracts that protect against losses over stipulated amounts arising from any one occurrence or event. These arrangements allow us to pursue greater diversification of business and serve to limit the maximum net loss on catastrophes and large risks. Reinsurance is subject to certain risks, specifically market risk, which affects the cost of and the ability to secure these contracts, and credit risk, which is the risk that our reinsurers may not pay on losses in a timely fashion or at all. The following table illustrates, through premium volume, the degree to which we have utilized reinsurance during the past three years. For an expanded discussion of the impact of reinsurance on our operations, see Note 5 to our audited consolidated financial statements included in our 2010 Financial Report to Shareholders, attached as Exhibit 13 and incorporated by reference herein.

	Year Ended December 31,								
(in thousands)	2010		2009	2008					
PREMIUMS WRITTEN									
Direct & Assumed	\$ 636,316	\$	631,200	\$	681,169				
Reinsurance ceded	(151,176)		(161,284)		(167,713)				
Net	\$ 485,140	\$	469,916	\$	513,456				
PREMIUMS EARNED									
Direct & Assumed	\$ 647,306	\$	654,323	\$	701,042				
Reinsurance ceded	(153,924)		(162,362)		(172,278)				
Net	\$ 493,382	\$	491,961	\$	528,764				

Specialty Insurance Market Overview

The specialty insurance market differs significantly from the standard market. In the standard market, insurance rates and forms are highly regulated, products and coverage are largely uniform with relatively predictable exposures, and companies tend to compete for customers on the basis of price. In contrast, the specialty market provides coverage for risks that do not fit the underwriting criteria of the standard carriers. Competition tends to focus less on price and more on availability, service and other value-based considerations. While specialty market exposures may have higher insurance risks than their standard market counterparts, we manage these risks to achieve higher financial returns. To reach our financial and operational goals, we must have extensive knowledge and expertise in our markets. Most of our risks are underwritten on an individual basis and restricted limits, deductibles, exclusions and surcharges are employed in order to respond to distinctive risk characteristics. We operate in the excess and surplus insurance market, the specialty admitted insurance market and the specialty property reinsurance market.

Excess and Surplus Insurance Market

The excess and surplus market focuses on hard-to-place risks. Excess and surplus eligibility allows us to underwrite nonstandard market risks with more flexible policy forms and unregulated premium rates. This typically results in coverages that

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are more restrictive and more expensive than in the standard admitted market. The excess and surplus lines regulatory environment and production model also effectively filters submission flow and matches market opportunities to our expertise and appetite. In 2010, the excess and surplus market represented approximately \$23 billion, or 5 percent, of the entire \$478 billion domestic property and casualty industry, as measured by direct premiums written. Our excess and surplus operation wrote gross premiums of \$232.4 million, or 36 percent, of our total gross premiums written.

Specialty Admitted Insurance Market

We also write business in the specialty admitted market. Most of these risks are unique and hard to place in the standard market, but for marketing and regulatory reasons, they must remain with an admitted insurance company. The specialty admitted market is subject to greater state regulation than the excess and surplus market, particularly with regard to rate and form filing requirements, restrictions on the ability to exit lines of business, premium tax payments and membership in various state associations, such as state guaranty funds and assigned risk plans. For 2010, our specialty admitted operations wrote gross premiums of \$355.9 million, representing approximately 56 percent of our total gross premiums written for the year.

Specialty Property Reinsurance Market

We write business in the specialty property reinsurance market. This business can be written on an individual risk (facultative) basis or on a portfolio (treaty) basis. We write contracts on an excess of loss and a proportional basis. Contract provisions are written and agreed upon between the company and its client, another (re)insurance company. The business is typically more volatile as a result of unique underlying exposures and excess and aggregate attachments. This business requires specialized underwriting and technical modeling. For 2010, our specialty property reinsurance operations wrote gross written premiums of \$48.0 million, representing about 8 percent of our total gross written premiums for the year.

Business Segment Overview

Our segment data is derived using the guidance set forth in FASB Accounting Standards Codification (ASC) 280, Segment Reporting. As prescribed by the guidance, reporting is based on the internal structure and reporting of information as it is used by management. The segments of our insurance operations are casualty, property and surety. For additional information, see Note 11 to our audited consolidated financial statements included in our 2010 Financial Report to Shareholders, attached as Exhibit 13 and incorporated by reference herein.

Casualty Segment

General Liability

Our general liability business consists primarily of coverage for third party liability of commercial insureds including manufacturers, contractors, apartments, real estate investment trusts (REITs) and mercantile. In 2009, we expanded into the specialized area of environmental

liability for underground storage tanks, contractors and asbestos and environmental remediation specialists. Net premiums earned from our general liability business totaled \$96.6 million, \$115.4 million and \$140.9 million, or 17 percent, 21 percent and 25 percent of consolidated revenues for 2010, 2009 and 2008, respectively.

Commercial and Personal Umbrella Liability

Our commercial umbrella coverage is principally written in excess of primary liability insurance provided by other carriers and in excess of primary liability written by us. The personal umbrella coverage is written in excess of the homeowners and automobile liability coverage provided by other carriers, except in Hawaii, where some underlying homeowners—coverage is written by us. In 2010, we broadened eligibility guidelines and offered certain coverage enhancements in an effort to broaden our market reach. Net premiums earned from this business totaled \$61.4 million, \$62.4 million and \$65.1 million, or 11 percent, 11 percent and 12 percent of consolidated revenues for 2010, 2009 and 2008, respectively.

Commercial Transportation

Our transportation insurance facility in Atlanta provides automobile liability and physical damage insurance to local, intermediate and long haul truckers, public transportation risks and equipment dealers, along with other types of specialty commercial automobile risks. We also offer incidental, related insurance coverages, including general liability, commercial umbrella and excess liability and motor truck cargo. The facility is staffed by highly experienced transportation underwriters who produce business through independent agents and brokers nationwide. Net premiums earned from this business totaled

\$40.3 million, \$42.2 million and \$46.7 million, or 7 percent, 8 percent and 8 percent of consolidated revenues for 2010, 2009 and 2008, respectively.
Executive Products
We provide a variety of professional liability coverages, such as directors and officers (D&O) liability insurance, employment practices liability and other miscellaneous professional liability coverages, for a variety of low to moderate classes of risks. We tend to focus on smaller accounts, avoiding the large account sector which is generally more sensitive to price competition. Our target accounts include publicly traded companies with market capitalization below \$5 billion (where we are writing part of the traditional D&O program), Side A coverage (where corporations cannot indemnify the individual D&Os), private companies, nonprofit organizations and sole-sponsored and multi-employer fiduciary liability accounts. Our primary focus for publicly traded companies is on providing Side A coverage. Additionally, we have had success rounding out our portfolio by writing more fiduciary liability coverage, primary and excess D&O coverage for private companies and non-profit organizations. In 2009, we began offering coverage for select first and third party cyber liability exposures. Net premiums earned from the executive products business totaled \$15.8 million, \$15.6 million and \$13.8 million, or 3 percent, 3 percent and 2 percent of consolidated revenues for 2010, 2009 and 2008, respectively.
Specialty Program Business
We offer program business in a variety of areas, which are typically multiple coverages combined into a package or portfolio policy. Our program coverages include: commercial property, general liability, inland marine and crime. We rely primarily on program administrators as sources for this business. In October 2010, we began offering pet insurance for domesticated animals. Net premiums earned from the specialty program business totaled \$7.2 million, \$21.6 million and \$38.3 million, or 1 percent, 7 percent and 6 percent of consolidated revenues for 2010, 2009 and 2008, respectively.
Other
We offer a variety of other smaller programs in our casualty segment, including in-home business and employer s excess indemnity. In February 2009, we began a professional liability for design professionals coverage targeting small to medium-size risks. More recently, we have expanded our product suite to these same customers by offering a full array of multi-peril package products including worker s compensation coverage. Net premiums earned from these lines totaled \$9.8 million, \$7.9 million and \$8.6 million, or 2 percent, 1 percent and 2 percent of consolidated revenues for 2010, 2009 and 2008, respectively.
Property Segment
Commercial

Our commercial property coverage consists primarily of excess and surplus lines and specialty insurance such as fire, earthquake and difference in conditions, which can include earthquake, wind, flood and collapse coverages and inland marine. We provide insurance for a wide range of commercial and industrial risks, such as office buildings, apartments, condominiums and certain industrial and mercantile structures. Net premiums earned from commercial property business totaled \$80.5 million, \$81.8 million and \$85.3 million, or 14 percent, 15 percent and 15 percent of consolidated revenues for 2010, 2009 and 2008, respectively.

Marine

Our marine coverages include cargo, hull and protection and indemnity (P&I), marine liability, as well as inland marine coverages including builders risks, contractors equipment and other floater type coverages. In March 2008, the marine division added a yacht program. In 2010, 2009 and 2008, marine net premiums earned totaled \$48.0 million, \$52.5 million and \$48.2 million, or 8 percent, 10 percent and 9 percent of consolidated revenues, respectively.

Crop Reinsurance

In January 2010, we added crop reinsurance to the property segment as we entered into a two-year agreement to become a quota share reinsurer of Producers Agricultural Insurance Company (ProAg). ProAg is a crop insurance company located in Amarillo, Texas. Under this agreement, we will reinsure a portion of ProAg s multi-peril crop insurance (MPCI) and crop hail premium and exposure. Crop insurance is purchased by agricultural producers for protection against crop-related losses due to natural disasters and other perils. The MPCI program is a partnership with the U.S. Department of Agriculture

(USDA). Crop insurers such as ProAg also issue policies that cover revenue shortfalls or production losses due to natural causes such as drought, excessive moisture, hail, wind, frost, insects, and disease. The new crop reinsurance agreement added \$27.1 million in net premiums earned in 2010, or 5 percent of consolidated revenues.

Property Reinsurance

We offer facultative and other treaty reinsurance. These products were launched in 2007 for facultative coverages and expanded to treaty reinsurance in 2009. The division underwrites property facultative reinsurance for insurance companies utilizing reinsurance intermediaries. The facultative unit specializes in underground mining, power generation, and other technical risks requiring underwriting expertise. Perils covered range from fire, mechanical breakdown, flood, and other catastrophic events. Although the predominant exposures are located within the United States, there is some incidental international exposure written by this division. During 2009, we began opportunistically writing select specialty property treaties on a proportional basis. These treaties are portfolio underwritten using specialized actuarial models and cover catastrophic perils of earthquake, windstorm and other weather-related events, as well as some additional losses. This expanded in the second quarter of 2010 to include industry loss warranty (ILW) treaties. Under the ILW treaties, we provide reinsurance coverage for windstorm losses if two loss triggers (an industry loss limit trigger and a retention trigger) are met. Net premiums earned from property reinsurance business totaled \$9.9 million, \$7.8 million and \$1.6 million, or 2 percent, 1 percent and less than 1 percent of consolidated revenues for 2010, 2009 and 2008, respectively.

Other

We offer a variety of other smaller programs in our property segment, including a limited amount of homeowners and dwelling fire insurance in Hawaii. Net premiums earned from other property coverages totaled \$16.1 million, \$13.2 million and \$11.8 million, or 3 percent, 2 percent and 2 percent of consolidated revenues for 2010, 2009 and 2008, respectively.

Surety Segment

Our surety segment specializes in writing small-to-large commercial and small contract surety coverages, as well as those for the energy (plugging and abandonment of oil wells), petrochemical and refining industries. We offer miscellaneous bonds, including license and permit, notary and court bonds. In September 2008, we launched a fidelity division focusing on fidelity and crime coverage for commercial insureds and select financial institutions. These bonds are written through independent agencies as well as regional and national brokers. Net earned premium from the surety segment totaled \$80.7 million, \$71.6 million and \$68.4 million, or 14 percent, 13 percent and 12 percent of consolidated revenues for 2010, 2009 and 2008, respectively.

Marketing and Distribution

We distribute our coverages primarily through branch offices throughout the country that market to wholesale and retail brokers and through independent agents. We also market through agencies and more recently through e-commerce channels.

Brokers

The largest volume of broker-generated premium is in our commercial property, general liability, commercial surety, commercial umbrella, commercial automobile, and specialty facultative and treaty reinsurance coverages. This business is produced through wholesale, retail, and reinsurance brokers who are not affiliated with us.

Independent Agents

Our surety segment offers its business through a variety of independent agents. Additionally, we write program business, such as at-home business and personal umbrella, through independent agents. Homeowners and dwelling fire is produced through independent agents in Hawaii. Each of these programs involves detailed eligibility criteria, which are incorporated into strict underwriting guidelines, and prequalification of each risk using a system accessible by the independent agent. The independent agent cannot bind the risk unless they receive approval through our system.

Underwriting Agents

We contract with certain underwriting agencies who have limited authority to bind or underwrite business on our behalf. The underwriting agreements involve strict underwriting guidelines and the agents are subject to audits upon request. These agencies may receive some compensation through contingent profit commission.

E-commerce and/or Direct

We are actively employing e-commerce to produce and efficiently process and service business, including, at-home businesses, small commercial and personal umbrella risks surety bonding, and pet insurance. Our largest assumed reinsurance treaty is on a direct basis with ProAg.

Competition

Our specialty property and casualty insurance subsidiaries are part of an extremely competitive industry that is cyclical and historically characterized by periods of high premium rates and shortages of underwriting capacity followed by periods of severe competition and excess underwriting capacity. Within the United States alone, approximately 2,400 companies, both stock and mutual, actively market property and casualty coverages. Our primary competitors in our casualty segment are, among others, Ace, Arch, James River, Landmark, Navigators, USLI, Great West, Lancer, National Interstate, Chubb, Philadelphia, Great American, Travelers and CNA. Our primary competitors in our property segment are, among others, Ace, Lexington, Arch, Crum & Forster, Travelers and Markel. Our primary competitors in our surety segment are, among others, Ace, Arch, HCC, CNA, Safeco, North American Specialty, Travelers and Hartford. The combination of coverages, service, pricing and other methods of competition vary from line to line. Our principal methods of meeting this competition are innovative coverages, marketing structure and quality service to the agents and policyholders at a fair price. We compete favorably in part because of our sound financial base and reputation, as well as our broad geographic penetration into all 50 states, the District of Columbia, Puerto Rico, the Virgin Islands and Guam. In the casualty, property and surety areas, we have acquired experienced underwriting specialists in our branch and home offices. We have continued to maintain our underwriting and marketing standards by not seeking market share at the expense of earnings. We have a track record of withdrawing from markets when conditions become overly adverse and we offer new coverages and new programs where the opportunity exists to provide needed insurance coverage with exceptional service on a profitable basis.

Financial Strength Ratings

A.M. Best ratings for the industry range from A++ (Superior) to F (In Liquidation) with some companies not being rated. Standard & Poor s ratings for the industry range from AAA (Extremely strong) to R (Regulatory Action). Moody s ratings for the industry range from Aaa (Exceptional) to C (Lowest). The following table illustrates the range of ratings assigned by each of the three major rating companies that has issued a financial strength rating on our insurance companies:

	A.M. Best SECURE		Standard & Poor s SECURE	Moody s STRONG			
A++, A+	Superior	AAA	Extremely strong	Aaa	Exceptional		
A,A-	Excellent	AA	Very strong	Aa	Excellent		
B++, B+	Very good	A	Strong	A	Good		
	BBB		Good	Baa	Adequate		
					•		
	VULNERABLE		VULNERABLE	WEAK			
B,B-	Fair	BB	Marginal	Ba	Questionable		
C++,C+	Marginal	В	Weak	В	Poor		
C,C-	Weak	CCC	Very weak	Caa	Very poor		
D	Poor	CC	Extremely weak	Ca	Extremely poor		
Е	Under regulatory supervision	R	Regulatory action	С	Lowest		

F	In liquidation		
S	Rating suspend	led	
Within-catego	ory modifiers	+,-	1,2,3 (1 high, 3 low)

Publications of A.M. Best, Standard & Poor s and Moody s indicate that A and A+ ratings are assigned to those companies that, in their opini have achieved excellent overall performance when compared to the standards established by these firms and have a strong ability to meet their obligations to policyholders over a long period of time. In evaluating a company s financial and operating performance, each of the firms reviews the company s profitability, leverage and liquidity, as well as the company s spread of risk, the quality and appropriateness of its reinsurance, the quality and diversification of its

assets, the adequacy of its policy and loss reserves, the adequacy of its surplus, its capital structure, its risk management practices and the experience and objectives of its management. These ratings are based on factors relevant to policyholders, agents, insurance brokers and intermediaries and are not directed to the protection of investors.

At December 31, 2010, the following ratings were assigned to our insurance companies:

A.M. Best

RLI Insurance, Mt. Hawley Insurance and RLI Indemnity (RLI Group) A+, Superior

Standard & Poor s*

RLI Insurance and Mt. Hawley Insurance A+, Strong

Moody s

RLI Insurance, Mt. Hawley Insurance and RLI Indemnity A2, Good

For A.M Best, Standard & Poor s and Moody s, the financial strength ratings represented above are affirmations of previously assigned ratings. A.M. Best, in addition to assigning a financial strength rating, also assigns financial size categories. In May 2010, RLI Ins., Mt. Hawley Insurance Company and RLI Indemnity Company, collectively referred to as RLI Group, were assigned a financial size category of XI (adjusted policyholders surplus of between \$750 million and \$1 billion). As of December 31, 2010, the policyholders statutory surplus of RLI Group totaled \$732.4 million. This would put the group in A.M. Best s financial size category X (adjusted policyholders surplus of between \$500 million and \$750 million).

Reinsurance

We reinsure a portion of our insurance exposure, paying or ceding to the reinsurer a portion of the premiums received on such policies. Earned premiums ceded to non-affiliated reinsurers totaled \$153.9 million, \$162.4 million, and \$172.3 million in 2010, 2009, and 2008, respectively. Insurance is ceded principally to reduce net liability on individual risks and to protect against catastrophic losses. While reinsurance does not relieve us of our legal liability to our policyholders, we use reinsurance as an alternative to using our own capital to fund losses. Retention levels are adjusted each year to maintain a balance between the growth in surplus and the cost of reinsurance. Although reinsurance does not legally discharge an insurer from its primary liability for the full amount of the policies, it does make the assuming reinsurer liable to the insurer to the extent of the insurance ceded.

Reinsurance is subject to certain risks, specifically market risk (which affects the cost of and the ability to secure reinsurance contracts) and credit risk (which relates to the ability to collect from the reinsurer on our claims). We purchase reinsurance from a number of financially strong reinsurers. We evaluate reinsurers ability to pay based on their financial results, level of surplus, financial strength ratings and other risk characteristics. A reinsurance committee, comprised of senior management, approves our security guidelines and reinsurer usage. More than 91 percent of our reinsurance recoverables are due from companies with financial strength ratings of A or better by A.M. Best and Standard & Poor s rating services.

^{*} Standard & Poor s does not rate RLI Indemnity

The following table sets forth the 10 largest reinsurers in terms of amounts recoverable, net of collateral we are holding from such reinsurers, as of December 31, 2010. These all have financial strength ratings of A or better by A.M. Best and Standard and Poor s rating services. Also shown are the amounts of written premium ceded to these reinsurers during the calendar year 2010.

			Net Reinsurer		Ceded	
(dollars in thousands)	A.M. Best Rating	S & P Rating	Exposure as of 12/31/2010	Percent of Total	Premiums Written	Percent of Total
Munich Re America / HSB	A+	AA-	\$ 59,682	15.3% \$	18,929	12.5%
Endurance Re	A	A	53,992	13.9%	18,648	12.3%
Swiss Re / Westport Ins. Corp.	A	A+	35,059	9.0%	3,491	2.3%
Axis Re	A	A+	29,793	7.6%	8,810	5.8%
General Cologne Re	A++	AA+	28,071	7.2%	1,797	1.2%
Transatlantic Re	A	A+	24,314	6.2%	14,462	9.6%
Aspen UK Ltd.	A	A	22,381	5.7%	9,197	6.1%
Lloyds of London	A	A+	21,821	5.6%	14,652	9.7%
Berkley Insurance Co.	A+	A+	20,049	5.1%	7,432	4.9%
Toa-Re	A	A+	13,269	3.4%	4,245	2.8%
All other reinsurers			81,077	21.0%	49,513	32.8%
Total ceded exposure			\$ 389,508	100.0% \$	151,176	100.0%

We utilize both treaty and facultative reinsurance coverage for our risks. Treaty coverage refers to a reinsurance contract that is applied to a group or class of business where all the risks written meet the criteria for that class. Facultative coverage is applied to individual risks as opposed to a group or class of business. It is used for a variety of reasons including supplementing the limits provided by the treaty coverage or covering risks or perils excluded from treaty reinsurance.

Much of our reinsurance is purchased on an excess of loss basis. Under an excess of loss arrangement, we retain losses on a risk up to a specified amount and the reinsurers assume any losses above that amount. We may choose to participate in the reinsurance layers purchased by retaining a percentage of the layer. It is common to find conditions in excess of loss covers such as occurrence limits, aggregate limits and reinstatement premium charges. Occurrence limits cap our recovery for multiple losses caused by the same event. Aggregate limits cap our recovery for all losses ceded during the contract term. We may be required to pay additional premium to reinstate or have access to use the reinsurance limits for potential future recoveries during the same contract year. Our property and surety treaties tend to include reinstatement provisions which require us, in certain circumstances, to pay reinstatement premiums after a loss has occurred in order to preserve coverage.

Excluding catastrophe reinsurance, the following table summarizes the reinsurance treaty coverage currently in effect:

Product Line(s) Covered (in millions)	Contract Type	Renewal Date	First-Dollar Retention	Limit Purchased	Maximum Retention
General liability	Excess of Loss	1/1	\$ 0.5	\$ 4.5	\$ 1.4
	Quota Share/				
Brokerage umbrella and excess	Excess of Loss	1/1	N/A	10.0	1.5
Personal umbrella and eXS	Excess of Loss	1/1	1.0	5.0	1.75
	Excess of Loss/				
Transportation	Quota Share	1/1	0.5	4.5	0.5
Executive products	Quota Share	7/1	N/A	25.0	8.75
Design Professionals - liability	Quota Share	4/1	N/A	5.0	2.0
				9.0 per	
Design Professionals - workers compensation	Excess of Loss	11/1	1.0	occurrence	1.0
Property	Excess of Loss	1/1	1.0	14.0	1.6
Marine	Excess of Loss	5/1	2.0	28.0	2.0
Surety	Excess of Loss	4/1	2.0	48.0	7.1
Fidelity	Quota Share	7/1	N/A	25.0	3.75

At each renewal, we consider plans to change the insurance coverage we offer, updated loss activity, the level of RLI Ins. s surplus, changes in our risk appetite, and the cost and availability of reinsurance treaties. In the last renewal cycle, we made several material changes to the coverage provided. We changed the contract type for brokerage umbrella and excess business from a variable quota share, which provides a different reinsurance limit depending on the amount of insurance limit provided, to a quota share. This increased our retention for some policies and decreased our retention on others. We also increased the reinsurance limit purchased for personal umbrella coverage from \$4.5 million to \$5.0 million. We increased our

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retention on the executive products and design professional treaties by \$1.25 million and \$0.5 million, respectively. The workers compensation treaty was a new purchase in 2010 to support our design professional business unit s expansion in offering package policies to their insureds. We increased property coverage from \$9.0 million to \$14.0 million and decreased the reinsurance limit purchased for marine from \$39.0 million to \$28.0 million. Marine and surety first-dollar retentions increased from \$1.0 million to \$2.0 million.

Property Reinsurance Catastrophe Coverage

Our property catastrophe reinsurance reduces the financial impact a catastrophe could have on our property segment. Catastrophes involve multiple claims and policyholders. Reinsurance limits purchased fluctuate due to changes in the number of policies we insure, reinsurance costs, insurance company surplus levels and our risk appetite. In addition, we monitor the expected rate of return for each of our catastrophe lines of business. At high rates of return, we grow the book of business and may purchase additional reinsurance depending on our capital position. As the rate of return decreases, we shrink the book and may purchase less reinsurance to increase our return. Our reinsurance coverage for the last few years follows:

Catastrophe Coverages

(in millions)

		2011			2010			2009			2008		
	First-Dollar			First-Dollar			First-Dollar			Firs			
	Ret	Retention		mit Retention		Limit	Retention		Limit	Retention		Limit	
California Earthquake	\$	25	300	\$	50	325	\$	50	325	\$	50	350	
Other Earthquake		25	325		25	350		25	350		25	375	
Other Perils		25	225		25	150		25	150		25	175	

These catastrophe limits are in addition to the per-occurrence coverage provided by facultative and other treaty coverages. We have participated in the catastrophe layers purchased by retaining a percentage of each layer throughout this period. Our participation has varied based on price and the amount of risk transferred by each layer.

Our property catastrophe program continues to be on an excess of loss basis. It attaches after all other reinsurance has been considered. Although covered in one program, limits and attachment points differ for California earthquakes and all other perils. The following charts use information from our catastrophe modeling software to illustrate our net retention resulting from particular events that would generate the listed levels of gross losses:

Catastrophe - California Earthquake

(in millions)

	20:	10	200	09	200	2008		
Projected	Ceded	Net	Ceded	Net	Ceded	Net		

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Gross Loss		Losses		Losses		Losses		Losses		Losses		Losses	
\$	50	\$	29	\$ 21	\$	9	\$	41	\$	7	\$	43	
	100		71	29		48		52		50		50	
	200		161	39		132		68		139		61	
	350		299	51		276		74		276		74	

$Catastrophe \hbox{ - Other (Earthquake outside of California, Wind, etc.)}$

(in millions)

	2010				2009					2008				
Projected Gross Loss			eded osses		Net Losses		Ceded Losses		Net Losses	Ceded Losses			Net Losses	
\$	25	\$	6	\$	19	\$	9	\$	16	\$	6	\$	19	
	50		17		33		27		23		29		21	
	100		56		44		68		32		73		27	
	150		99		51		108		42		117		33	

Projected losses as of the end of each year presented above were estimated utilizing the current treaty structure in place at that time (January of each following year).

The previous tables were generated using theoretical probabilities of events occurring in areas where our portfolio of currently in-force policies could generate the level of loss shown. Actual results could vary significantly from these tables as the actual nature or severity of a particular event cannot be predicted with any reasonable degree of accuracy. Reinsurance limits are purchased based on the anticipated losses to large events. The largest losses shown above are unlikely to occur based on the probability of those events occurring. However, there is a remote chance that a larger event could occur. If the actual event losses are larger than anticipated, we could retain additional losses above the limit of our catastrophe reinsurance.

Our catastrophe program includes one prepaid reinstatement for the first two layers of coverage, up to \$100 million, for a catastrophe other than California earthquake. If a loss does occur, reinstatement must be purchased for the remaining limits. For a California earthquake, there is a prepaid reinstatement for the \$50.0 million excess \$50.0 million layer (placed at 78 percent, 75 percent, and 77 percent for 2011, 2010, and 2009, respectively) and a reinstatement must be purchased for the remaining limits.

We continuously monitor and quantify our exposure to catastrophes, including earthquakes, hurricanes, terrorist acts and other catastrophic events. In the normal course of business, we manage our concentrations of exposures to catastrophic events, primarily by limiting concentrations of exposure to acceptable levels and by purchasing reinsurance. Exposure and coverage detail is recorded for each risk location. We quantify and monitor the total policy limit insured in each geographical region. In addition, we use third-party catastrophe exposure models and an internally developed analysis to assess each risk to ensure we include an appropriate charge for assumed catastrophe risks. Catastrophe exposure modeling is inherently uncertain due to the model s reliance on an infrequent observation of actual events and exposure data, increasing the importance of capturing accurate policy coverage data. The model results are used both in the underwriting analysis of individual risks, and at a corporate level for the aggregate book of catastrophe-exposed business. From both perspectives, we consider the potential loss produced by individual events that represent moderate-to-high loss potential at varying return periods and magnitudes. In calculating potential losses, we select appropriate assumptions including, but not limited to, loss amplification and loss adjustment expense. We establish risk tolerances at the portfolio level based on market conditions, the level of reinsurance available, changes to the assumptions in the catastrophe models, rating agency capital constraints, underwriting guidelines and coverages and internal preferences. Our risk tolerances for each type of catastrophe, and for all perils in aggregate, change over time as these internal and external conditions change. We are required to report to the rating agencies estimated loss to a single event that could include all potential earthquakes and hurricanes contemplated by the catastrophe modeling software. This reported loss includes the impact of insured losses based on the estimated frequency and severity of potential events, loss adjustment expense, reinstatements paid after the loss, reinsurance recoveries and taxes. Based on the catastrophe reinsurance treaty purchased on January 1, 2011, there is a 99.6 percent likelihood that the loss will be less than 9.5 percent of policyholders surplus as of December 31, 2010.

Environmental, Asbestos and Mass Tort Exposures

We are subject to environmental site cleanup, asbestos removal and mass tort claims and exposures through our commercial umbrella, general liability and discontinued assumed casualty reinsurance lines of business. The majority of the exposure is in the excess layers of our commercial umbrella and assumed reinsurance books of business.

The following table represents paid and unpaid environmental, asbestos and mass tort claims data (including incurred but not reported losses) as of December 31, 2010, 2009 and 2008:

		D	December 31,	
(dollars in thousands)	2010		2009	2008
Loss and Loss Adjustment				
Expense (LAE) payments (Cumulative)				
Gross	\$ 86,453	\$	75,544	\$ 70,210

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Ceded	(43,015)	(41,639)	(39,143)
Net	\$ 43,438	\$ 33,905 \$	31,067
Unpaid losses and LAE at end of year			
Gross	\$ 72,243	\$ 68,198 \$	65,583
Ceded	(36,895)	(20,142)	(20,407)
Net	\$ 35,348	\$ 48,056 \$	45,176

Our environmental, asbestos and mass tort exposure is limited, relative to other insurers, as a result of entering the affected liability lines after the insurance industry had already recognized environmental and asbestos exposure as a problem and adopted appropriate coverage exclusions.

During 2010, we experienced elevated payment activity relative to previous years on both a direct and net basis. Most of this activity was driven by mass tort claim activity from the 1980s associated with Underwriter s Indemnity Company (UIC) which we purchased in 1999. The most significant claims from this book were settled in 2010. We recorded \$3.9 million direct and \$0.7 million net of incurred losses on these claims in 2010. The resulting payment served to decrease ending reserves. Additionally, there were significant payments associated with our assumed run-off book of reinsurance. Four asbestos claims had payments totaling \$1.5 million gross and \$1.2 million net. The significant increase in ceded reserves in 2010 was largely due to adjustments for a 2007 marine liability claim as well as the UIC mass tort claims.

During 2009, the increase in inception-to-date gross loss payments was significantly less than we experienced in 2008. Of particular note was a mass tort claim from accident year 2005 against an insured hotel involving carbon monoxide discharge. This resulted in payments of \$1.6 million direct and \$0.8 million net; approximately the same amounts as the case reserves established in 2008. Also, a marine liability claim from accident year 2007 involving a fuel spill resulted in payments of \$0.3 million direct and net.

The increase in 2009 reserves over 2008 was driven primarily by claim activity from the 1980s associated with UIC. In recent years, we have had unexpected claim activity from this book of business, which caused us to add \$4.7 million of both direct and net IBNR in 2009. Claim activity was lower in 2009 than in 2008, but we are still receiving new claim notifications.

While our environmental exposure is limited, the ultimate liability for this exposure is difficult to assess because of the extensive and complicated litigation involved in the settlement of claims and evolving legislation on such issues as joint and several liability, retroactive liability and standards of cleanup. Additionally, we participate primarily in the excess layers of coverage, where accurate estimates of ultimate loss are more difficult to derive than for primary coverage.

Losses and Settlement Expenses

Overview

Loss and loss adjustment expense (LAE) reserves represent our best estimate of ultimate payments for losses and related settlement expenses from claims that have been reported but not paid, and those losses that have occurred but have not yet been reported to us. Loss reserves do not represent an exact calculation of liability, but instead represent our estimates, generally utilizing individual claim estimates, actuarial expertise and estimation techniques at a given accounting date. The loss reserve estimates are expectations of what ultimate settlement and administration of claims will cost upon final resolution. These estimates are based on facts and circumstances then known to us, review of historical settlement patterns, estimates of trends in claims frequency and severity, projections of loss costs, expected interpretations of legal theories of liability and many other factors. In establishing reserves, we also take into account estimated recoveries from reinsurance, salvage and subrogation. The reserves are reviewed regularly by a team of actuaries we employ.

The process of estimating loss reserves involves a high degree of judgment and is subject to a number of variables. These variables can be affected by both internal and external events, such as changes in claims handling procedures, claim personnel, economic inflation, legal trends

and legislative changes, among others. The impact of many of these items on ultimate costs for loss and LAE is difficult to estimate. Loss reserve estimations also differ significantly by coverage due to differences in claim complexity, the volume of claims, the policy limits written, the terms and conditions of the underlying policies, the potential severity of individual claims, the determination of occurrence date for a claim and reporting lags (the time between the occurrence of the policyholder event and when it is actually reported to the insurer). Informed judgment is applied throughout the process. We continually refine our loss reserve estimates as historical loss experience develops and additional claims are reported and settled. We rigorously attempt to consider all significant facts and circumstances known at the time loss reserves are established.

Due to inherent uncertainty underlying loss reserve estimates, including, but not limited to, the future settlement environment, final resolution of the estimated liability may be different from that anticipated at the reporting date. Therefore, actual paid losses in the future may yield a significantly different amount than currently reserved favorable or unfavorable.

The amount by which estimated losses differ from those originally reported for a period is known as development. Development is unfavorable when the losses ultimately settle for more than the levels at which they were reserved or subsequent estimates indicate a basis for reserve increases on unresolved claims. Development is favorable when losses

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ultimately settle for less than the amount reserved or subsequent estimates indicate a basis for reducing loss reserves on unresolved claims. We reflect favorable or unfavorable developments of loss reserves in the results of operations in the period the estimates are changed.

We record two categories of loss and LAE reserves case-specific reserves and IBNR reserves.

Within a reasonable period of time after a claim is reported, our claim department completes an initial investigation and establishes a case reserve. This case-specific reserve is an estimate of the ultimate amount we will have to pay for the claim, including related legal expenses and other costs associated with resolving and settling it. The estimate reflects all of the current information available regarding the claim, the informed judgment of our professional claim personnel regarding the nature and value of the specific type of claim and our reserving practices. During the life cycle of a particular claim, as more information becomes available, we may revise the estimate of the ultimate value of the claim either upward or downward. We may determine that it is appropriate to pay portions of the reserve to the claimant or related settlement expenses before final resolution of the claim. The amount of the individual claim reserve will be adjusted accordingly and is based on the most recent information available.

We establish IBNR reserves to estimate the amount we will have to pay for claims that have occurred, but have not yet been reported to us; claims that have been reported to us that may ultimately be paid out differently than expected by our case-specific reserves; and claims that have been paid and closed, but may reopen and require future payment.

Our IBNR reserving process involves three steps including an initial IBNR generation process that is prospective in nature; a loss and LAE reserve estimation process that occurs retrospectively; and a subsequent discussion and reconciliation between our prospective and retrospective IBNR estimates which includes changes in our provisions for IBNR where deemed appropriate. These three processes are discussed in more detail in the following sections.

LAE represents the cost involved in adjusting and administering losses from policies we issued. The LAE reserves are frequently separated into two components: allocated and unallocated. Allocated loss adjustment expense (ALAE) reserves represent an estimate of claims settlement expenses that can be identified with a specific claim or case. Examples of ALAE would be the hiring of an outside adjuster to investigate a claim or an outside attorney to defend our insured. The claims professional typically estimates this cost separately from the loss component in the case reserve. Unallocated loss adjustment expense (ULAE) reserves represent an estimate of claims settlement expenses that cannot be identified with a specific claim. An example of ULAE would be the cost of an internal claims examiner to manage or investigate a reported claim.

All decisions regarding our best estimate of ultimate loss and LAE reserves are made by our Loss Reserve Committee (LRC). The LRC is made up of various members of the management team including the chief executive officer, chief operating officer, chief financial officer, chief actuary, general counsel and other selected executives. We do not use discounting (recognition of the time value of money) in reporting our estimated reserves for losses and settlement expenses. Based on current assumptions used in calculating reserves, we believe that our overall reserve levels at December 31, 2010, make a reasonable provision to meet our future obligations.

Net loss and loss adjustment reserves by product line at year-end 2010 and 2009 were as follows:

(as of December 31, in \$ thousands)

			2010			2009	
Product Line		Case	IBNR	Total	Case	IBNR	Total
Casualty segment net loss and							
ALAE reserves							
Commercial umbrella	\$	3,608	\$ 31,829	\$ 35,437	\$ 2,121	\$ 19,621	\$ 21,742
Personal umbrella		24,862	25,677	50,539	23,108	31,222	54,330
General liability		139,750	231,014	370,764	104,586	235,534	340,120
Transportation		49,033	7,654	56,687	50,964	11,070	62,034
Executive products		9,480	30,200	39,680	6,647	34,752	41,399
Other casualty		26,969	42,751	69,720	34,064	71,626	105,690
Property segment net loss and							
ALAE reserves							
Marine		23,986	30,079	54,065	25,820	26,282	52,102
Crop		15,439	4,067	19,506			
Assumed property		3,673	3,529	7,202	218	2,167	2,385
Other property		9,825	11,635	21,460	10,577	12,994	23,571
Surety segment net loss and ALAE							
reserves		5,964	18,398	24,362	4,374	18,869	23,243
Latent liability net loss and ALAE							
reserves		15,172	20,176	35,348	22,813	25,243	48,056
Total net loss and ALAE reserves		327,761	457,009	784,770	285,292	489,380	774,672
ULAE reserves			35,010	35,010		35,396	35,396
Total net loss and LAE reserves	\$	327,761	\$ 492,019	\$ 819,780	\$ 285,292	\$ 524,776	\$ 810,068

Initial IBNR Generation Process

Initial carried IBNR reserves are determined through a reserve generation process. The intent of this process is to establish an initial total reserve that will provide a reasonable provision for the ultimate value of all unpaid loss and ALAE liabilities. For most casualty and surety products, this process involves the use of an initial loss and ALAE ratio that is applied to the earned premium for a given period. The result is our best initial estimate of the expected amount of ultimate loss and ALAE for the period by product. Paid and case reserves are subtracted from this initial estimate of ultimate loss and ALAE to determine a carried IBNR reserve.

For most property products, we use an alternative method of determining an appropriate provision for initial IBNR. Since this segment is characterized by a shorter period of time between claim occurrence and claim settlement, the IBNR reserve is determined by an IBNR percentage applied to premium earned. The IBNR percentage is determined based on historical reserve patterns and is updated periodically. In addition, for assumed reinsurance, consideration is given to information provided by the ceding company. No deductions for paid or case reserves are made. This alternative method of determining initial IBNR reacts more rapidly to the actual loss emergence and is more appropriate for our property products where final claim resolution occurs over a shorter period of time.

Our crop reinsurance business is unique and is subject to an inherently higher degree of estimation risk during interim periods. As a result, the interim reports and professional judgments of our ceding company s actuaries and crop business experts provide important information which

assists us in estimating our carried reserves.

We do not reserve for natural or man-made catastrophes until an event has occurred. Shortly after such occurrence, we review insured locations exposed to the event, catastrophe model loss estimates based on our own exposures and industry loss estimates of the event. We also consider our knowledge of frequency and severity from early claim reports to determine an appropriate reserve for the catastrophe. These reserves are reviewed frequently to consider actual losses reported and appropriate changes to our estimates are made to reflect the new information.

The initial loss and ALAE ratios that are applied to earned premium are reviewed at least semi-annually. Prospective estimates are made based on historical loss experience adjusted for exposure mix and price change and loss cost trends. The initial loss and ALAE ratios also reflect a provision for estimation risk. We consider estimation risk by segment and product line. A segment with greater overall volatility and uncertainty has greater estimation risk. Characteristics of segments and products with higher estimation risk include, but are not limited to, the following:

- Significant changes in underlying policy terms and conditions,
- A new business or one experiencing significant growth and/or high turnover,

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•	Small volume or lacking internal data requiring significant utilization of external data,
• protection,	Unique reinsurance features including those with aggregate stop-loss, reinstatement clauses, commutation provisions, or clash
•	Longer emergence patterns with exposures to latent unforeseen mass tort,
• and claims and	Assumed reinsurance businesses where there is an extended reporting lag and/or a heavier utilization of ceding company data product expertise,
•	High severity and/or low frequency,
•	Operational processes undergoing significant change and/or
•	High sensitivity to significant swings in loss trends or economic change.
risk and reserve business such as loss liability. A	able of significant risk factors involved in estimating losses grouped by major product line. We distinguish between loss ratio estimation risk. Loss ratio risk refers to the possible dispersion of loss ratios from year to year due to inherent volatility in the shigh severity or aggregating exposures. Reserve estimation risk recognizes the difficulty in estimating a given year sultimates an example, our property catastrophe business (included below in Other Property) has significant variance in year-over-year its reserving estimation risk is relatively moderate.
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Significant Risk Factors

Product line Commercial umbrella	•		Other risk factors Low frequency High severity Loss trend volatility Unforeseen tort potential Exposure changes/mix	Expected loss ratio variability High	Reserve estimation variability High
Personal umbrella	Medium	Internal	Low frequency	Medium	Medium
General liability	Long	Internal	Exposure growth/mix	Medium	High
			Unforeseen tort potential		
Transportation	Medium	Internal	High severity	Medium	Medium
			Exposure growth/mix		
Executive products	Long	Internal &	Low frequency	High	High
		significant external	High severity		
			Loss trend volatility		
			Economic volatility		
			Unforeseen tort potential		
			Small volume		
Other casualty	Medium	Internal & external	Small volume	Medium	Medium
Marine	Medium	Significant external	New business	High	High
			Small volume		
Crop	Short	Significant	Weather, yield and price volatility	Medium	Medium
		external	Catastrophe aggregation		
			exposure		
			Unique inuring		
			reinsurance features		
Assumed Property	Medium	External	New business	High	Medium

Catastrophe aggregation

exposure

Low frequency

High severity

Reporting delay

Other Property Short Internal Catastrophe aggregation High Medium

exposure

Low frequency

High severity

Surety Medium Internal & external Economic volatility Medium Medium

Uniqueness of exposure

Runoff including Long Internal & external Loss trend volatility High High

asbestos & environmental

Mass tort/latent exposure

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The historical and prospective loss and ALAE estimates along with the risks listed are the basis for determining our initial and subsequent carried reserves. Adjustments in the initial loss ratio by product and segment are made where necessary and reflect updated assumptions regarding loss experience, loss trends, price changes and prevailing risk factors. The LRC makes all final decisions regarding changes in the initial loss and ALAE ratios.

Loss and LAE Reserve Estimation Process

A full analysis of our loss reserves takes place at least semi-annually. The purpose of this analysis is to provide validation of our carried loss reserves. Estimates of the expected value of the unpaid loss and LAE are derived using actuarial methodologies. These estimates are then compared to the carried loss reserves to determine the appropriateness of the current reserve balance.

The process of estimating ultimate payment for claims and claims expenses begins with the collection and analysis of current and historical claim data. Data on individual reported claims, including paid amounts and individual claim adjuster estimates, are grouped by common characteristics. There is judgment involved in this grouping. Considerations when grouping data include the volume of the data available, the credibility of the data available, the homogeneity of the risks in each cohort and both settlement and payment pattern consistency. We use this data to determine historical claim reporting and payment patterns which are used in the analysis of ultimate claim liabilities. For portions of the business without sufficiently large numbers of policies or that have not accumulated sufficient historical statistics, our own data is supplemented with external or industry average data as available and when appropriate. For our new products such as our crop reinsurance business, as well as for executive products and marine business, we utilize external data extensively.

In addition to the review of historical claim reporting and payment patterns, we also incorporate estimated losses relative to premium (loss ratios) by year into the analysis. The expected loss ratios are based on a review of historical loss performance, trends in frequency and severity and price level changes. The estimates are subject to judgment including consideration given to available internal and industry data, growth and policy turnover, changes in policy limits, changes in underlying policy provisions, changes in legal and regulatory interpretations of policy provisions and changes in reinsurance structure.

We use historical development patterns, expected loss ratios and standard actuarial methods to derive an estimate of the ultimate level of loss and LAE payments necessary to settle all the claims occurring as of the end of the evaluation period. Once an estimate of the ultimate level of claim payments has been derived, the amount of paid loss and LAE and case reserve through the evaluation date is subtracted to reveal the resulting IBNR.

Our reserve processes include multiple standard actuarial methods for determining estimates of IBNR reserves. Other supplementary methodologies are incorporated as necessary. Mass tort and latent liabilities are examples of exposures where supplementary methodologies are used. Each method produces an estimate of ultimate loss by accident year. We review all of these various estimates and the actuaries assign weights to each based on the characteristics of the product being reviewed.

The methodologies we have chosen to incorporate are a function of data availability and appropriately reflective of our own book of business. There are a number of additional actuarial methods that are available but are not currently being utilized because of data constraints or because the methods were either deemed redundant or not predictive for our book of business. From time to time, we evaluate the need to add supplementary methodologies. New methods are incorporated if it is believed that they improve the estimate of our ultimate loss and LAE liability. All of the actuarial methods tend to converge to the same estimate as an accident year matures. Our core methodologies are listed below with a short description and their relative strengths and weaknesses:

Paid Loss Development Historical payment patterns for prior claims are used to estimate future payment patterns for current claims. These patterns are applied to current payments by accident year to yield an expected ultimate loss.

Strengths: The method reflects only the claim dollars that have been paid and is not subject to case-basis reserve changes or changes in case reserve practices.

Weaknesses: External claims environment changes can impact the rate at which claims are settled and losses paid (e.g., increase in attorney involvement or legal precedent). Adjustments to reflect changes in payment patterns on a prospective basis are difficult to quantify. For losses that have occurred recently, payments can be minimal and thus early estimates are subject to significant instability.

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Incurred Loss Development Historical case-incurred patterns (paid losses plus case reserves) for past claims are used to estimate future case-incurred amounts for current claims. These patterns are applied to current case-incurred losses by accident year to yield an expected ultimate loss.

Strengths: Losses are reported more quickly than paid, therefore, the estimates stabilize sooner. The method reflects more information (claims department case reserve) in the analysis than the paid loss development method.

Weaknesses: Method involves additional estimation risk if significant changes to case reserving practices have occurred.

Case Reserve Development Patterns of historical development in reported losses relative to historical case reserves are determined. These patterns are applied to current case reserves by accident year and the result is combined with paid losses to yield an expected ultimate loss.

Strengths: Like the incurred development method, this method benefits from using the additional information available in case reserves that is not available from paid losses only. It also can provide a more reasonable estimate than other methods when the proportion of claims still open for an accident year is unusually high or low.

Weaknesses: It is subject to the risk of changes in case reserving practices or philosophy. It may provide unstable estimates when an accident year is immature and more of the IBNR is expected to come from unreported claims rather than development on reported claims.

Expected Loss Ratio Historical loss ratios, in combination with projections of frequency and severity trends as well as estimates of price and exposure changes, are analyzed to produce an estimate of the expected loss ratio for each accident year. The expected loss ratio is then applied to the earned premium for each year to estimate the expected ultimate losses. The current accident year expected loss ratio is also the prospective loss and ALAE ratio used in our initial IBNR generation process.

Strengths: Reflects an estimate independent of how losses are emerging on either a paid or a case reserve basis. Method is particularly useful in the absence of historical development patterns or where losses take a long time to emerge.

Weaknesses: Ignores how losses are actually emerging and thus produces the same estimate of ultimate loss regardless of favorable/unfavorable emergence.

Paid and Incurred Bornhuetter/Ferguson (BF) This approach blends the expected loss ratio method with either the paid or incurred loss development method. In effect, the BF methods produce weighted average indications for each accident year. As an example, if the current accident year for commercial automobile liability is estimated to be 20 percent paid, then the paid loss development method would receive a weight of 20 percent, and the expected loss ratio method would receive an 80 percent weight. Over time, this method will converge with the ultimate estimated by the respective loss development method.

Strengths: Reflects actual emergence that is favorable/unfavorable, but assumes remaining emergence will continue as previously expected. Does not overreact to the early emergence (or lack of emergence) where patterns are most unstable.

Weaknesses: Could potentially understate favorable or unfavorable development by putting weight on the expected loss ratio.

In most cases, multiple estimation methods will be valid for the particular facts and circumstances of the claim liabilities being evaluated. Each estimation method has its own set of assumption variables and its own advantages and disadvantages, with no single estimation method being better than the others in all situations, and no one set of assumption variables being meaningful for all product line components. The relative strengths and weaknesses of the particular estimation methods, when applied to a particular group of claims, can also change over time; therefore, the weight given to each estimation method will likely change by accident year and with each evaluation.

The actuarial point estimates typically follow a progression that places significant weight on the BF methods when accident years are younger and claims emergence is immature. As accident years mature and claims emerge over time, increasing weight is placed on the incurred development method, the paid development method and the case reserve development method. For product lines with faster loss emergence, the progression to greater weight on the incurred and paid development methods occurs more quickly.

For our long- and medium-tail products, the BF methods are typically given the most weight for the first 36 months of evaluation. These methods are also predominant for the first 12 months of evaluation for short-tail lines. Beyond these time periods, our actuaries apply their professional judgment when weighting the estimates from the various methods deployed but place significant reliance on the expected stage of development. Judgment can supersede this natural progression if risk factors and assumptions change, or if a situation occurs that amplifies a particular strength or weakness of a methodology. Extreme projections are critically analyzed and may be adjusted, given less credence, or discarded altogether. Internal documentation is maintained that records any substantial changes in methods or assumptions from one loss reserve study to another. Our estimates of ultimate loss and LAE reserves are subject to change as additional data emerges. This could occur as a result of change in loss development patterns, a revision in expected loss ratios, the emergence of exceptional loss activity, a change in weightings between actuarial methods, the addition of new actuarial methodologies, new information that merits inclusion, or the emergence of internal variables or external factors that would alter our view. There is uncertainty in the estimates of ultimate losses. Significant risk factors to the reserve estimate include, but are not limited to, unforeseen or unquantifiable changes in: Loss payment patterns, Loss reporting patterns, Frequency and severity trends, Underlying policy terms and conditions, Business or exposure mix, Operational or internal processes affecting the timing of loss and LAE transactions,

Regulatory and legal environment, and/or

Economic environment.

Our actuaries engage in discussions with senior management, underwriting and the claim department on a regular basis to attempt to ascertain any substantial changes in operations or other assumptions that are necessary to consider in the reserving analysis.

A considerable degree of judgment in the evaluation of all these factors is involved in the analysis of reserves. The human element in the application of judgment is unavoidable when faced with uncertainty. Different experts will choose different assumptions, based on their individual backgrounds, professional experiences and areas of focus. Hence, the estimate selected by various qualified experts may differ significantly from each other. We consider this uncertainty by examining our historic reserve accuracy and through an internal peer review process.

Given the substantial impact of the reserve estimates on our financial statements, we subject the reserving process to significant diagnostic testing and reasonability checks. We have incorporated data validity checks and balances into our front-end processes. Data anomalies are researched and explained to reach a comfort level with the data and results. Leading indicators such as actual versus expected emergence and other diagnostics are also incorporated into the reserving processes.

Determination of Our Best Estimate

Upon completion of our full loss and LAE estimation analysis, the results are discussed with the LRC. As part of this discussion, the analysis supporting an indicated point estimate of the IBNR loss reserve by product is reviewed. The actuaries also present explanations supporting any changes to the underlying assumptions used to calculate the indicated point estimate. A review of the resulting variance between the indicated reserves and the carried reserves determined from the initial IBNR generation process takes place. Quarterly, we also consider the most recent actual loss emergence compared to the expected loss emergence derived using the last full loss and ALAE analyses. Our actuaries make a recommendation to management in regards to booked reserves that reflect their analytical assessment and view of estimation risk. After discussion of these

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analyses and all relevant risk factors, the LRC determines whether the reserve balances require adjustment. Resulting reserve balances have always fallen within our actuaries reasonable range of estimates.

As a predominantly excess and surplus lines and specialty insurer servicing niche markets, we believe there are several reasons to carry on an overall basis reserves above the actuarial point estimate. We believe we are subject to above-average variation in estimates and that this variation is not symmetrical around the actuarial point estimate.

One reason for the variation is the above-average policyholder turnover and changes in the underlying mix of exposures typical of an excess and surplus lines business. This constant change can cause estimates based on prior experience to be less reliable than estimates for more stable, admitted books of business. Also, as a niche market writer, there is little industry-level information for direct comparisons of current and prior experience and other reserving parameters. These unknowns create greater-than-average variation in the actuarial point estimates.

Actuarial methods attempt to quantify future events. However, insurance companies are subject to unique exposures that are difficult to foresee at the point coverage is initiated and, often, many years subsequent. Judicial and regulatory bodies involved in interpretation of insurance contracts have increasingly found opportunities to expand coverage beyond that which was intended or contemplated at the time the policy was issued. Many of these policies are issued on an all risk and occurrence basis. Aggressive plaintiff attorneys have often sought coverage beyond the insurer s original intent. Some examples would be the industry s ongoing asbestos and environmental litigation, court interpretations of exclusionary language for mold and construction defect, and debates over wind versus flood as the cause of loss from major hurricane events.

We believe that because of the inherent variation and the likelihood that there are unforeseen and under-quantified liabilities absent from the actuarial estimate, it is prudent to carry loss reserves above the actuarial point estimate. Most of our variance between the carried reserve and the actuarial point estimate is in the most recent accident years for our casualty segment, where the most significant estimation risks reside. These estimation risks are considered when setting the initial loss ratios. In the cases where these risks fail to materialize, favorable loss development will likely occur over subsequent accounting periods. It is also possible that the risks materialize above the amount we considered when booking our initial loss reserves. In this case, unfavorable loss development is likely to occur over subsequent accounting periods.

Our best estimate of loss and LAE reserves may change as a result of a revision in the actuarial point estimate, the actuary s certainty in the estimates and processes and our overall view of the underlying risks. From time to time, we benchmark our reserving policies and procedures and refine them by adopting industry best practices where appropriate. A detailed, ground-up analysis of the actuarial estimation risks associated with each of our products and segments, including an assessment of industry information, is performed annually.

Loss reserve estimates are subject to a high degree of variability due to the inherent uncertainty of ultimate settlement values. Periodic adjustments to these estimates will likely occur as the actual loss emergence reveals itself over time. We believe our loss reserving processes reflect industry best practices and our methodologies result in a reasonable provision for reserves as of December 31, 2010.

Reserve Sensitivities

There are three major parameters that have significant influence on our actuarial estimates of ultimate liabilities by product. They are the actual losses that are reported, the expected loss emergence pattern and the expected loss ratios used in the analyses. If the actual losses reported do

not emerge as expected, it may cause us to challenge all or some of our previous assumptions. We may change expected loss emergence patterns, the expected loss ratios used in our analysis and/or the weights we place on a given actuarial method. The impact will be much greater and more leveraged for products with longer emergence patterns. Our general liability product is an example of a product with a relatively long emergence pattern. We have constructed a chart below that illustrates the sensitivity of our general liability reserve estimates to these key parameters. We believe the scenarios to be reasonable as similar favorable variations have occurred in recent years. In particular, our actual general liability loss emergence in 2009 was very favorable and in 2010 our emergence for all products combined excluding general liability was favorable by more than 30%. The numbers below are the resulting change in estimated ultimate loss and ALAE in millions of dollars as of December 31, 2010, as a result of the change in the parameter shown. These parameters were applied to a general liability net reserve balance of \$391.0 million at December 31, 2010.

(in millions)	Result from favorable change in parameter	Result from unfavorable change in the parameter
+/-5 point change in expected loss ratio for all accident years	\$ (11.6)	\$ 11.6
+/-10% change in expected emergence patterns	\$ (9.5)	\$ 9.2
+/-30% change in actual loss emergence over a calendar year	\$ (26.6)	\$ 26.6
Simultaneous change in expected loss ratio (5pts), expected emergence patterns (10%), and actual loss emergence (30%).	\$ (46.5)	\$ 48.4

There are often significant inter-relationships between our reserving assumptions that have offsetting or compounding effects on the reserve estimate. Thus, in almost all cases, it is impossible to discretely measure the effect of a single assumption or construct a meaningful sensitivity expectation that holds true in all cases. The scenario above is representative of general liability, one of our largest, and longest-tailed, products. It is unlikely that all of our products would have variations as wide as illustrated in the example. It is also unlikely that all of our products would simultaneously experience favorable or unfavorable loss development in the same direction or at their extremes during a calendar year. Because our portfolio is made up of a diversified mix of products, there would ordinarily be some offsetting favorable and unfavorable emergence by product as actual losses start to emerge and our loss estimates become more refined.

It is difficult for us to predict whether the favorable loss development observed in 2006 through 2010 will continue for any of our products in the future. We have reviewed historical data detailing the development of our total balance sheet reserves and changes in accident year loss ratios relative to original estimates. Based on this analysis and our understanding of loss reserve uncertainty, we believe fluctuations will occur in our estimate of ultimate reserve liabilities over time. Over the next calendar year, given our current exposure level and product mix, it would be reasonably likely for us to observe loss reserve development relating to prior years estimates across all of our products ranging from approximately 10 percent (\$82 million) favorable to 3 percent (\$25 million) unfavorable.

Historical Loss and LAE Development

The table which follows is a reconciliation of our unpaid losses and settlement expenses (LAE) for the years 2010, 2009 and 2008.

		Year I	Ended December 31,	
(Dollars in thousands)	2010		2009	2008
Unpaid losses and LAE at beginning of year:				
Gross	\$ 1,146,460	\$	1,159,311	\$ 1,192,178
Ceded	(336,392)		(350,284)	(417,250)
Net	\$ 810,068	\$	809,027	\$ 774,928
Increase (decrease) in incurred losses and LAE:				
Current accident year	\$ 284,575	\$	269,965	\$ 309,512
Prior accident years	(83,243)		(66,577)	(62,338)
Total incurred	\$ 201,332	\$	203,388	\$ 247,174
Loss and LAE payments for claims incurred:				
Current accident year	\$ (43,945)	\$	(41,890)	\$ (51,599)
Prior accident years	(147,675)		(160,457)	(161,476)
Total paid	\$ (191,620)	\$	(202,347)	\$ (213,075)
Net unpaid losses and LAE at end of year	\$ 819,780	\$	810,068	\$ 809,027
Unpaid losses and LAE at end of year:				
Gross	\$ 1,173,943	\$	1,146,460	\$ 1,159,311
Ceded	(354,163)		(336,392)	(350,284)
Net	\$ 819,780	\$	810,068	\$ 809,027

The deviations from our initial reserve estimates appeared as changes in our ultimate loss estimates as we updated those estimates through our reserve analysis process. The recognition of the changes in initial reserve estimates occurred over time as claims were reported, initial case reserves were established, initial reserves were reviewed in light of additional information and ultimate payments were made on the collective set of claims incurred as of that evaluation date. The new information on the ultimate settlement value of claims is continually updated until all claims in a defined set of claims are settled. As a relatively small insurer, our experience will ordinarily exhibit fluctuations from period to period. While we attempt to identify and react to systematic changes in the loss environment, we also must consider the volume of experience directly available to us and interpret any particular period s indications with a realistic technical understanding of the reliability of those observations.

The table below summarizes our prior accident years loss reserve development by segment for 2010, 2009 and 2008:

(in thousands)	2010	2009	2008
(Favorable)/Unfavorable reserve development by			
segment			
Casualty	\$ (65,283) \$	(65,523) \$	(50,562)
Property	(8,271)	3,434	(6,646)
Surety	(9,689)	(4,488)	(5,130)
Total	\$ (83,243) \$	(66,577) \$	(62,338)

A discussion of significant components of reserve development for the three most recent calendar years follows:

2010. During 2010, we experienced favorable loss emergence from prior years—reserve estimates across all of our segments. For our casualty segment, we experienced \$65.3 million of favorable development, predominantly from the accident years 2006 through 2008. In retrospect, the expected loss ratios initially used to establish carried reserves for these accident years proved to be higher than required, which resulted in loss emergence significantly lower than expected. This was predominantly caused by favorable frequency and severity trends that continued to be considerably less than we expect over the long term. This was particularly true for our personal umbrella, transportation and executive products which experienced favorable loss development of \$17.7 million, \$11.6 million and \$9.1 million, respectively. We also saw favorable loss emergence across most of our other casualty business including our commercial umbrella, program and general liability products. The experience on program business was a reversal compared to our experience in recent years. The contribution

from general liability was much smaller than in previous years because of adverse experience on owner, landlord and tenant (non-construction) classes. This affected development on accident year 2009 in particular. In addition, we realized favorable development from some runoff casualty business including environmental and asbestos exposures. This was enhanced by successful reinsurance recovery efforts.

Our property segment realized \$8.3 million of favorable loss development in 2010. Most of the development came from accident years 2009 and 2008. Marine business was the primary driver of the favorable development accounting for \$4.6 million. The corrective actions taken in 2009 had a positive impact on 2010 results, particularly in the hull, protection & indemnity and marine liability products. Nearly every other property product experienced favorable development with the difference in conditions, assumed facultative reinsurance and runoff construction products having the most favorable results.

The surety segment experienced \$9.7 million of favorable emergence in 2010. Accident year 2009 produced nearly all of the favorable development. The contract and commercial surety products were responsible for the majority of the favorable development, contributing \$5.4 million and \$3.7 million, respectively. We have been monitoring these products closely for signs of adverse experience caused by the condition of the economy over the last few years. To date, the impact has been much less than we thought likely and this is largely responsible for the favorable development.

2009. During 2009, we experienced favorable loss emergence from prior years reserve estimates across our casualty and surety segments, which were partially offset by unfavorable loss emergence in our property segment. For our casualty segment, we experienced \$65.5 million of favorable development, predominantly from the accident years 2003 through 2008. In retrospect, the expected loss ratios initially used to set booked reserves for these accident years proved to be conservative, which resulted in loss emergence significantly lower than expected. This was predominantly caused by favorable frequency and severity trends that were considerably less than we would expect over the long term. This was particularly true for our general liability, personal umbrella and transportation products, which experienced favorable loss development of \$38.2 million, \$11.2 million and \$10.1 million, respectively. The construction class was the largest contributor to the favorable emergence in the general liability product. We also saw favorable loss emergence across almost all of our other casualty products including our commercial umbrella products and executive products group. Offsetting this favorable trend, our program business experienced \$4.5 million of unfavorable prior years loss development during the year, almost all in the 2008 accident year. We re-underwrote and downsized this product offering during 2009. We also realized \$5.2 million of unfavorable development from some runoff casualty business from accident year 1987 related to environmental and asbestos exposures and the resulting changes in collectibility estimates.

Our property segment realized \$3.4 million of unfavorable loss development in 2009. Most of this emergence was in accident years 2007 and 2008 and the direct result of the longer-tailed coverage within our marine business. We entered the marine business in 2005 and it had grown steadily until the first half of 2009. We had relied extensively on external loss development patterns to that point. Our losses have developed much more slowly than would be expected particularly in the hull, protection & indemnity and marine liability lines. As a result, we booked \$11.4 million of adverse development on prior years reserves. We took underwriting action in 2009, exiting certain heavy commercial segments of the book and reorganizing the business. Offsetting the marine development was favorable development on catastrophes including \$4.2 million from the 2008 hurricanes and Midwest flood. We also observed favorable loss emergence in our fire and runoff construction businesses.

Our surety segment experienced \$4.5 million of favorable emergence in 2009. Almost all of the favorable emergence was from the 2008 accident year. Very little observed loss severity in the commercial surety product resulted in \$1.5 million of favorable emergence. Continued improvement in our contract surety loss ratio resulting from past re-underwriting of the business led to \$3.4 million of favorable loss reserve development. We continue to watch these products closely as they can be significantly impacted by economic downturns; however, there has been no impact to loss frequency or severity to this point.

2008. During 2008, we experienced favorable loss emergence from prior years—reserve estimates across all of our segments. For our casualty segment, we experienced \$50.6 million of favorable development, predominantly from the accident years 2002 through 2006. In retrospect, the expected loss ratios initially used to set booked reserves for these accident years proved to be conservative, which resulted in loss emergence significantly lower than expected. This was particularly true for our general liability, personal umbrella and commercial umbrella products, which experienced favorable loss development of \$33.1 million, \$12.7 million and \$11.8 million, respectively. The construction class was the largest contributor to the favorable emergence in the general liability product. In addition, our program business experienced \$9.3 million of unfavorable prior years—loss development during the year, mostly isolated in accident years 2004 through 2007. Our experience in the liquor liability class has been particularly adverse. In the past, we relied on external loss development patterns that have not proven predictive of actual emergence. As a result, this class was re-underwritten and we implemented a more stringent reserving approach in 2008.

Our property segment realized \$6.6 million of favorable loss development in 2008. Most of this emergence was in accident years 2005 through 2007. The construction and fire products were the drivers of the favorable emergence, recording

\$4.4 million and \$4.2 million, respectively. The construction business was in run-off for three years and recent experience was much better than expected, with a reduction in both frequency and severity of claims. Only a handful of contracts remain open and we observed little new activity from this product line. Our fire product saw favorable emergence from the 2007 accident year, as our year-end 2007 reserves developed more favorably than originally estimated.

Our surety segment experienced \$5.1 million of favorable emergence. Almost all of the favorable emergence was from the 2007 accident year. Very little observed loss severity in the commercial surety product resulted in \$1.7 million of favorable emergence. Continued improvement in our contract surety loss ratio resulting from past re-underwriting of the business led to \$2.5 million of favorable loss reserve development.

The following table presents the development of our balance sheet reserves from 2000 through 2010. The top line of the table shows the net reserves at the balance sheet date for each of the indicated periods. This represents the estimated amount of net losses and settlement expenses arising in all prior years that are unpaid at the balance sheet date, including losses that had been incurred but not yet reported to us. The lower portion of the table shows the re-estimated amount of the previously recorded net reserves based on experience as of the end of each succeeding year, as well as the re-estimated previously recorded gross reserves as of December 31, 2010. The estimate changes as more information becomes known about the frequency and severity of claims for individual periods.

Adverse loss and LAE reserve development can be observed in the table for years ending 2000-2002 on a net basis, and 2000-2003 on a gross basis. This development is related to unexpectedly large increases in loss frequency and severity and unquantifiable expansion of policy terms and conditions that took place in accident years 1997-2001 for our casualty segment. These causes widely impacted the property and casualty insurance industry during this time as soft market conditions were prevalent. These factors, combined with our rapid growth during 1999-2002, caused significant estimation risk, and thus had a related impact on our reserve liabilities for those years.

As the table displays, variations exist between our cumulative loss experience on a gross and net basis, due to the application of reinsurance. On certain products, our net retention (after applying reinsurance) is significantly less than our gross retention (before applying reinsurance). These differences in retention can cause a significant (leveraged) difference between loss reserve development on a net and gross basis. Additionally, the relationship of our gross to net retention changes over time. For example, we changed underwriting criteria to increase gross retentions (gross policy limits) on certain products written in 1999 through 2001, while leaving net retention unchanged. These products contained gross policy limits of up to \$50.0 million, while the relating net retention remained at \$0.5 million. Loss severity on certain of these products exceeded original expectations. As shown in the table that follows, on a re-estimated basis, this poor loss experience resulted in significant indicated gross deficiencies, with substantially less deficiency indicated on a net basis, as many losses were initially recorded at their full net retention. In 2002, we reduced our gross policy limits on many of these products to \$15.0 million, while net retention increased to \$1.0 million. As the relationship of our gross to net retention changes over time, re-estimation of loss reserves will result in variations between our cumulative loss experience on a gross and net basis.

							ecember 31,					
(Dollars in thousands)	2000 & Prior	2	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Net Liability for unpaid losses and Settlement expenses at end of the year	\$ 300.6	054 \$	327 250	\$ 301 052	\$ 531,393	\$ 668 110	\$ 738 657	\$ 703 106	\$ 774 028	\$ 800 027	\$ 810 068	\$ 210 780
Paid cumulative as of:	φ 300,0	<i>у</i> у-т ф .	521,250	ψ 391,932	ψ 551,575	\$ 000, 1 17	\$ 730,037	\$ 793,100	\$ 774,720	\$ 609,027	\$ 610,000	\$ 612,760
One year later	92,7	788	98,953	94,465	129,899	137,870	154,446	162,448	161,484	160,460	147,677	
Two years later	155,7	790	159,501	182,742	212,166	239,734	270,210	275,322	267,453	269,740		
Three years later	192,0	530	211,075	234,231	273,019	324,284	353,793	348,018	343,777			
Four years later	222,8		238,972			378,417	399,811	394,812				
Five years later	237,4		260,618	300,238		406,002	431,959					
Six years later	250,0)92	281,775	321,841	373,122	425,186						ŀ
Seven years later Non-vested stock options at July 1, 2007	261,0 249,666	\$ 1.07	295,663	331,092	387,506	Fair Value						
Granted	1,069,600	\$ 0.76										
Vested	(377,002)	\$ (0.82)										
Forfeited	(377,002)	ψ (0.02)										
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 undet the Companys Long-Term Incentive Program are met over the next 36 months.

Short-Term Incentive Program

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

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

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

- 1. 45% of eligible shares and options for contributions relating to the Company s Multiple Myeloma project;
- 2. 25% of eligible shares and options for contributions relating to the Company s current financing;
- 3. 15% of eligible shares and options for contributions relating to the Company s licensing and licensing support activities;
- 4. 5% of eligible shares and option for contributions relating to the Company s audits and Securities and Exchange filings;
- 5. 4% of the eligible shares and options for contributions relating to the administration of the Company s intellectual property;
- 6. 3% of the eligible shares and options for contributions relating to the Company s investor relations program;

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

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

	Number of Shares	Number of Options (1)
Bruce C. Galton	50,225	
John E. Thompson, Ph.D.		52,676
Joel Brooks	37,275	
Richard Dondero		71,924
Sascha P. Fedyszyn	25,200	
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:

	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

⁽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 7 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 8 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

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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

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date of issuance. The warrants will be issued in two series. Generally, the Series A warrants may be issued prior to stockholder approval, while the Series B warrants are only issued after stockholder approval. The exercise price of the Series A warrants is \$1.01 per share, and the exercise price of the Series B warrants is \$0.90 per share, subject to certain adjustments. The warrants provide a right of cashless exercise if, at the time of exercise, there is no effective registration statement registering the resale of the shares underlying the warrants.

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

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

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

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

Specifics of YA Global Financing

Pursuant to the YA Global Securities Purchase Agreement, the Company has issued three convertible notes in the aggregate amount of \$5,000,000 and two Series A warrants in the

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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 I	Purchase Agreement, the C	Company will issue	and sell to Stanford:
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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

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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;

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 \$12,727, which is comprised of notes with an aggregate face amount of \$7,000,000 less unamortized debt discount of \$6,987,273.

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 equity. Total charges to interest for amortization of debt discount were \$12,723 and \$12,727 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 9 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.

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Note 10 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.

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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

We are a development stage biotechnology company whose primary business is to develop and license our patented and patent-pending genes, primarily eucartyotic 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 h	numan health	results to	date	include:
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- 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;

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- 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 liposolysaccharide, 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

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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 addition, in-vitro studies have shown that 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

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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 en	couraging results from	m our initial studi	es, which have shown a	decrease in key	cytokines
related to	retinopathy, such as TN	F, VEGF, and iNOS.	This study has been	placed on hold du	e to budget constraints.	This study will	resume at
such time	when our budget will al	low.					

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:

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 for sufficient quantity and quality of

•	\$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

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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.

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

plants, rice, alfalfa, corn, soybean and trees; and

further develop and implement the DHS and Factor 5A gene technology in lettuce, melon, banana, canola, cotton, turfgrass, bedding

and more efficient use of fertilizer.

test the resultant crops for new beneficial traits such as increased yield, increased tolerance to environmental stress, disease resistance

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.

Patent and Patent Applications

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

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

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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:

	Payments Due by Period								
				Less than					More than
Contractual Obligations		Total		1 year	1	- 3 years	4	- 5 years	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.

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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.

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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.

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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. hawse 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, when 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.

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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.

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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 \$1,049,838 and \$1,135,637, respectively, a decrease of \$85,799, or 7.6%. This decrease in net loss was primarily the result of a decrease in revenue 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,							
	2	007		2006	C	hange	%	
	(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.

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General and Administrative Expenses

	Three Months Ended December 31,							
	2	007		2006	C	hange	%	
			(in th	ousands, exc	alues)			
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 M	onths Ende	d Decem	iber 31,	
	20	007	2	006	Cl	hange	%
	(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 utilizing the effective yield method.

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	Fac	ce Amount	Maturity Date
Sept. 21, 2007	\$	1,500,000	Dec. 30, 2010
Oct. 16, 2007	\$	1,500,000	Dec. 30, 2010
Dec. 20, 2007	\$	2,000,000	Dec. 30, 2010
Dec. 20, 2007	\$	2,000,000	Dec. 31, 2010
Total	\$	7,000,000	

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 \$1,431,884 and \$1,736,102, respectively, a decrease of \$304,218, or 17.5%. This decrease in net loss was primarily the result of an increase in revenue and a decrease in operating expenses.

Revenue

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

We anticipate that we will continue to receive milestone payments in connection with our current agricultural license agreements while we continue to pursue our goal of attracting other companies to license our technologies in various other crops. Additionally, we anticipate that we will receive royalty payments from our license agreements if our partners commercialize their crops containing our technology. However, it is difficult for us to determine our future revenue

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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 M	onths Ended	Decem	ber 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,							
	2	007	- 2	2006	C	hange	%	
			(in th	ousands, exc	ept % v	alues)		
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.

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- 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 M	onths Ended	l Decem	ber 31,	
	2	007	2	2006	C	hange	%
	(in thousands, except % values)						
Stock-based compensation	\$	31	\$	34	\$	(3)	(8.8)%
Other research and development		714		515		199	38.6%
Total research and development	\$	745	\$	549	\$	196	35.7%

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

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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 t	housands, except %	values)			
Agricultural	\$ 357	48% \$	341	62%		
Human health	388	52%	208	38%		
Total research and development	\$ 745	100% \$	549	100%		

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

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

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

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

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

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

Date Issued	Fa	ce Amount	Maturity Date	
Sept. 21, 2007	\$	1,500,000	Dec. 30, 2010	
Oct. 16, 2007	\$	1,500,000	Dec. 30, 2010	
Dec. 20, 2007	\$	2,000,000	Dec. 30, 2010	
Dec. 20, 2007	\$	2,000,000	Dec. 31, 2010	
Total	\$	7.000,000		\$

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.

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

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

We have incurred losses each year since inception and have an accumulated deficit of \$27,053,424 at December 31, 2007. We expect to continue to incur losses as a result of expenditures on research and development and administrative activities.

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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.

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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 \$27,053,424 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

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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.

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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

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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

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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

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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 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

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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.

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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.

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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.

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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

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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.

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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

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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 payable under the Registration Rights Agreement is \$600,000. We have not recorded an estimated registration rights liability as we anticipate that we will fulfill our obligations under the Registration Rights Agreement.

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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.

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.

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Bruce C. Galton

John E. Thompson, Ph.D.

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

13,880,432

14,304,049

947,247

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.

- 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: October 31, 2008 By: /s/ Bruce C. Galton

Bruce C. Galton, President and Chief Executive Officer (Principal Executive Officer)

DATE: October 31, 2008 By: /s/ Joel Brooks

Joel Brooks, Chief Financial Officer

and Treasurer

(Principal Financial and Accounting Officer)

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