A copy of this preliminary prospectus has been filed with the securities regulatory authorities in each of the provinces of Canada but has not yet become final for the purpose of the sale of securities. Information contained in this preliminary prospectus may not be complete and may have to be amended. The securities may not be sold until a receipt for the prospectus is obtained from the securities regulatory authorities.

No securities regulatory authority has expressed an opinion about these securities and it is an offence to claim otherwise. This prospectus constitutes a public offering of securities only in those jurisdictions where such securities may be lawfully offered for sale and therein only by persons permitted to sell such securities.

Neither the Units offered by this prospectus nor the Common Shares or Share Purchase Warrants comprising the Units nor the securities issuable on exercise of the Share Purchase Warrants have been or will be registered under the United States Securities Act of 1933, as amended (the "1933 Act"), or the securities laws of any state of the U.S. and, subject to certain exceptions, may not be offered for purchase or sale, sold or otherwise disposed of, directly or indirectly, within the United States of America or its territories or possessions or to or for the account or benefit of any "U.S. person" (as defined in Regulation S under the 1933 Act). This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any of the securities offered hereby within the United States of America, its territories or possessions or to or for the account or benefit of a U.S. person. See "Plan of Distribution".

PRELIMINARY PROSPECTUS

Initial Public Offering **June 25, 2004**

SemBioSys GENETICS INC.

$ ● ● Units

This prospectus qualifies the distribution (the "Offering") to the public of ● Units (the "Units" or "Offered Securities") of SemBioSys Genetics Inc. ("SemBioSys" or the "Company"), with each Unit consisting of one common share ("Common Share") of the Company and one-half of one common share purchase warrant ("Share Purchase Warrant"). Each whole Share Purchase Warrant entitles the holder to purchase one Common Share at a price of $ ● at any time prior to 4:30 p.m. Calgary time on ●. The offering price of the Units was determined by negotiation among SemBioSys and Orion Securities Inc., Dlouhy Merchant Group Inc., First Associates Investments Inc. and Raymond James Ltd. (collectively, the "Underwriters"). **There is currently no market through which the Common Shares or Share Purchase Warrants may be sold and purchasers may not be able to resell securities purchased under the prospectus.**

Price: $ ● per Unit

	Price to the Public	Underwriters' Fee[1]	Net Proceeds to the Company[2][3]
Per Unit	$ ●	$ ●	$ ●
Total Offering	$ ●	$ ●	$ ●

Notes:

(1) The Underwriters will be paid a fee (the "Underwriters' Fee") equal to 6.5% of the gross proceeds of the Offering.

(2) Before deducting expenses of the Offering, estimated to be $ ●, which will be paid by the Company out of the proceeds of the Offering. See "Plan of Distribution".

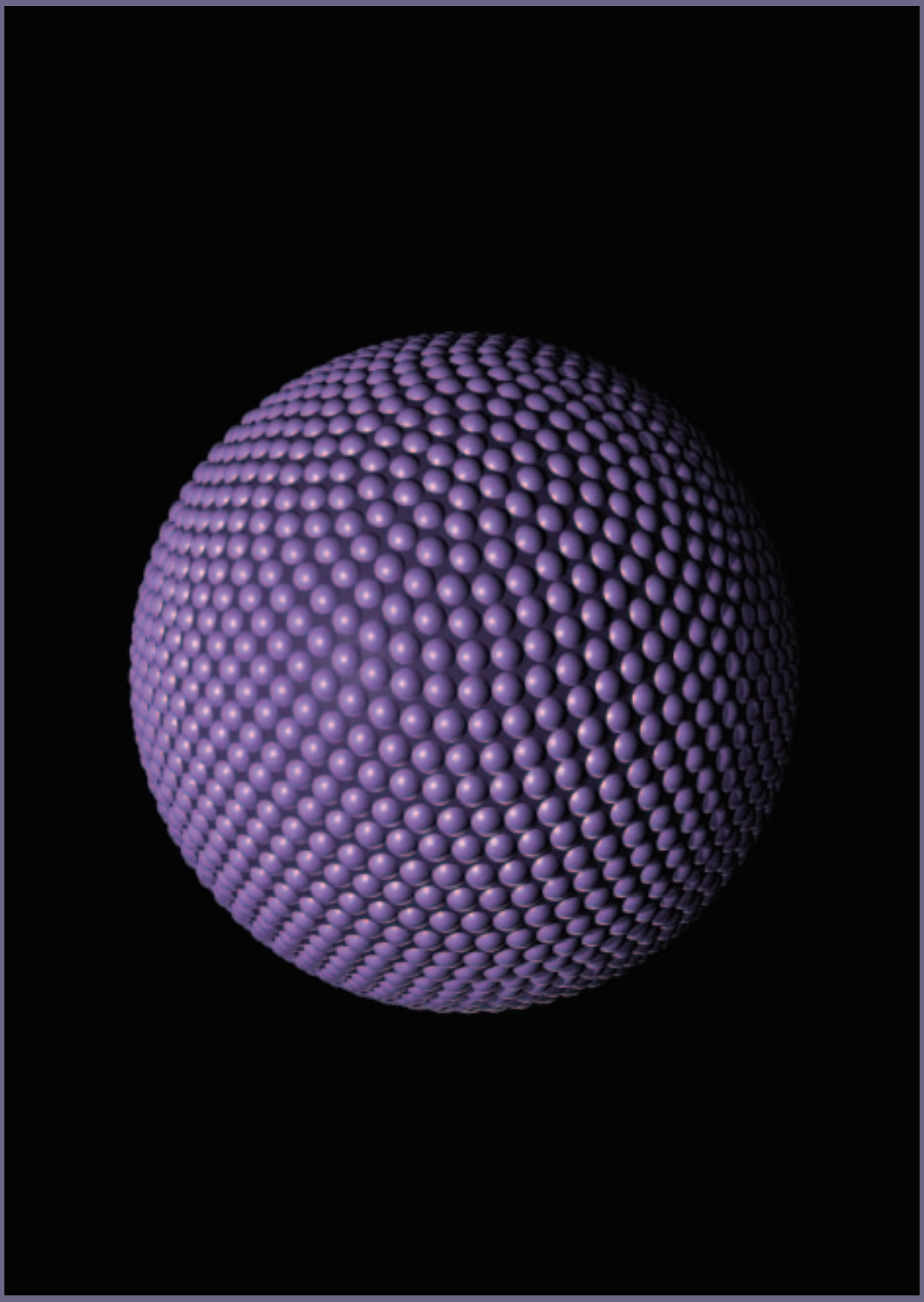
(3) The Company has granted to the Underwriters an over-allotment option (the "Over-allotment Option"), exercisable by the Underwriters at any time prior to 30 days after the date of closing of the Offering, to purchase up to an additional ● Common Shares and ● Share Purchase Warrants at prices of $ ● and $ ● respectively, solely to cover over-allotments, if any, and for market stabilization purposes. If the Over-allotment Option is exercised in full, the total Offering, the Underwriters' Fee and the net proceeds to the Company will be $ ●, $ ● and $ ●, respectively. This prospectus qualifies both the grant of the Over-allotment Option and the distribution of Common Shares, Share Purchase Warrants and Units issuable upon exercise of the Over-allotment Option. See "Plan of Distribution".

The Underwriters, as principals, conditionally offer the Units subject to prior sale, if, as and when issued, sold and delivered by the Company and accepted by the Underwriters in accordance with the conditions contained in the underwriting agreement referred to under "Plan of Distribution", subject to approval of certain legal matters on behalf of SemBioSys by McCarthy Tétrault LLP and on behalf of the Underwriters by Fasken Martineau DuMoulin LLP.

An investment in the Units is speculative and involves a high degree of risk that should be considered by potential investors. See "Risk Factors".

Subscriptions will be received subject to rejection or allotment in whole or in part and the right is reserved to close the subscription books at any time without notice. It is expected that the certificates representing the Common Shares and Share Purchase Warrants will be available for delivery at the closing of this Offering on or about ●, 2004, or such later date as the Company and the Underwriters may agree but in any event no later than ●, 2004.

Certain terms used throughout this prospectus are defined in the glossary beginning on page 78 of this prospectus.



SemBioSys – milestone horizons

pharmaceutical products

2012

2008

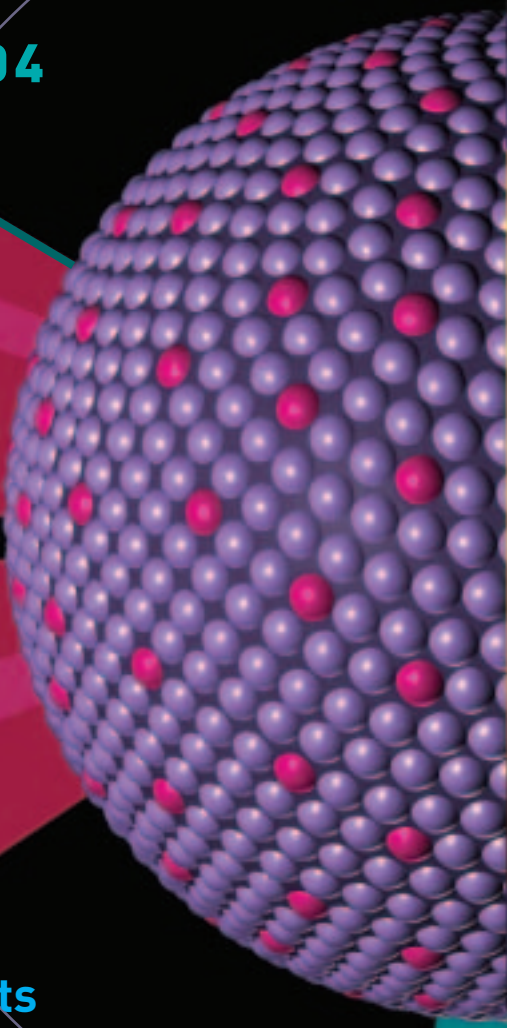
2004

Apo AI

Cholesterol management drugs are the largest class of prescription pharmaceuticals, with global sales in 2003 exceeding US$26 billion. Apo AI is a naturally occurring protein whose function is to remove excess cholesterol from arteries. It may have the potential to reverse atherosclerosis, a major cardiovascular disease.

Insulin

Today, insulin can only be injected. Technologies in development could allow insulin to be administered in other ways, which may require 5 to 20 times the amount of insulin per dose. If these technologies succeed, we estimate that insulin usage will increase from 4,000 kg today to 18,000 kg by 2010. Access to a low cost, high volume supply of insulin may be a key issue for these alternative delivery options. We believe we can supply this expanding market while reducing production costs.

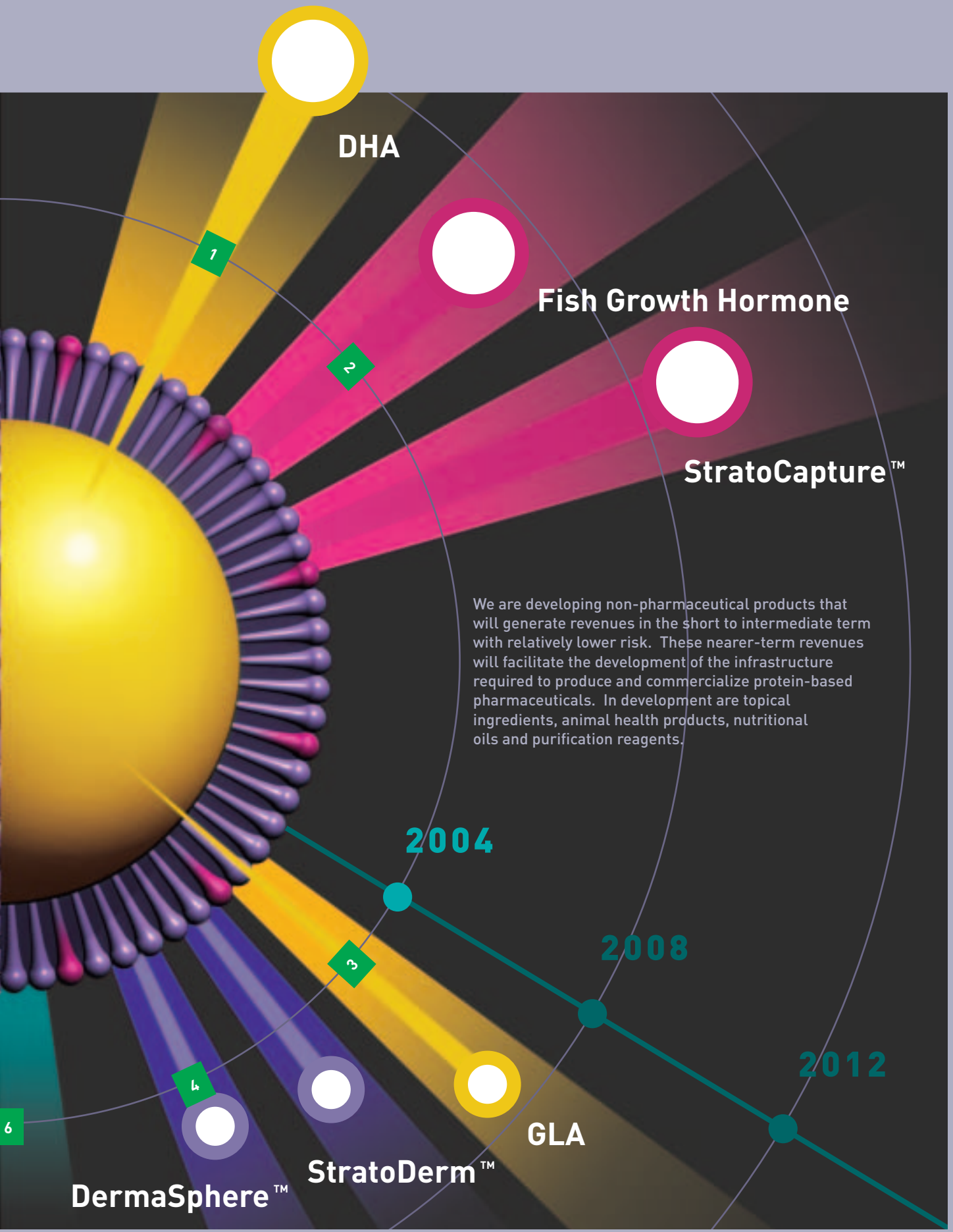


Future products

We have both internal and partnered programs aimed at expanding our product pipeline, further leveraging our proprietary oilbody-oleosin technology platform. Partnered programs include a fully funded feasibility agreement with Dow AgroSciences LLC for the production of an animal vaccine and a technology license to Syngenta Participations AG, for the production of their proprietary biologics.

1 Martek Biosciences Corporation
2 Aqua Bounty Technologies Inc.
3 Arcadia Biosciences, Inc.
4 Lonza, Inc.
5 Syngenta Participations AG
6 Dow AgroSciences LLC

non-pharmaceutical products



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General matters

As used in this prospectus, unless the context otherwise requires or indicates, the terms ''Company'', ''we'', ''us'' and ''our'' mean SemBioSys Genetics Inc.

Except as set forth in the consolidated financial statements or as otherwise indicated in this prospectus, all information assumes that the Over-allotment Option has not been exercised and: (i) the conversion of all Class A Convertible Preferred Shares into Common Shares; (ii) the cancellation of our existing Class A Convertible Preferred Shares as an authorized class of shares and the creation of a new class of preferred shares issuable in series; (iii) the consolidation of our Common Shares, options and warrants on a ten-to-one basis with a corresponding adjustment to the exercise price of options and warrants; (iv) the conversion of all our outstanding preferred share purchase warrants into Common Share purchase warrants; (v) the termination of our shareholders' agreement dated October 17, 2000; and (vi) the conversion of a convertible promissory note (face value of US$2.25 million) held by a subsidiary of Syngenta Participations AG into Common Shares and Common Share purchase warrants (collectively, the ''Share Capital Reorganization''). Assuming the exchange rate in effect on May 31, 2004 of $1.3634 Cdn. for each US$1.00, and assuming a conversion date of June 30, 2004, the conversion of the promissory note by Syngenta will result in the issue of 511,900 Common Shares (post consolidation) and 74,225 Common Share purchase warrants (post-consolidation). The actual number of Common Shares and Common Share purchase warrants issuable on the conversion will depend on the currency exchange rate in effect on the date of conversion which will take place on the date of closing of this Offering (the ''Closing Date''). See ''Description of Share Capital — Share Capital Reorganization''. Under the terms of the Underwriting Agreement, the Share Capital Reorganization must be completed prior to the closing of this Offering.

''SemBioSys'', ''Stratosome'', ''StratoCapture'', ''DermaSphere'' and ''StratoDerm'' are our trademarks. All other trademarks or service marks appearing in this prospectus are the trademarks or service marks of the companies that use them.

Statistical information and other data relating to the pharmaceutical and biotechnology industry included in this prospectus is derived from recognized industry reports published by industry analysts, industry associations and independent consulting and data compilation organizations. Market data and industry forecasts used throughout this prospectus were obtained from various publicly available sources. Although we believe that these independent sources are generally reliable, the accuracy and completeness of such information are not guaranteed and have not been independently verified.

Forward looking statements

Certain statements in this prospectus are forward looking statements. These forward looking statements are not based on historical facts but rather on management's expectations regarding future growth, results of operations, performance, future capital and other expenditures (including the amount, nature and sources of funding thereof), competitive advantages, business prospects and opportunities. Statements in this prospectus about our future plans and intentions, results, levels of activity, performance, goals or achievements or other future events constitute forward looking statements. Wherever possible, words such as ''anticipate'', ''believe'', ''expect'', ''may'', ''could'', ''will'', ''potential'', ''intend'', ''estimate'', ''should'', ''plan'', ''predict'' or the negative or other variations of these words, or similar words or phrases, have been used to identify these forward looking statements. Such forward looking statements reflect our management's current beliefs and assumptions and are based on information currently available to our management. Forward looking statements involve significant known and unknown risks, uncertainties and assumptions and other factors that may cause our actual results, levels of activity,

performance or achievements to differ materially from those implied by forward looking statements. These factors should be considered carefully and prospective investors should not place undue reliance on the forward looking statements. Although the forward looking statements contained in this prospectus are based upon what our management believes to be reasonable assumptions, we cannot assure investors that actual results will be consistent with these forward looking statements. These forward looking statements are made as of the date of this prospectus, and we assume no obligation to update or revise them to reflect new events or circumstances.

Eligibility for investment

In the opinion of McCarthy Tétrault LLP, our counsel, and Fasken Martineau DuMoulin LLP, counsel for the Underwriters, based on the provisions of the *Income Tax Act* (Canada) (the "Tax Act") and the proposals to amend the Tax Act and the regulations thereunder publicly announced by or on behalf of the Minister of Finance prior to the date of this prospectus, and based and relying upon a certificate of one of our officers, if, as and when the Common Shares are listed on the Toronto Stock Exchange, the Offered Securities, if issued on the date of this prospectus, would be qualified investments for a trust governed by a registered retirement savings plan, a registered retirement income fund, a deferred profit sharing plan or a registered education savings plan (collectively, the "Plans") under the Tax Act and the Regulations, provided the Company deals at arms' length, at the date of this prospectus, with each person who is an annuitant, beneficiary, employee or subscriber under the Plans. Further, the Offered Securities, if issued on the date of this prospectus, would not constitute "foreign property" for purposes of the Tax Act for persons subject to tax imposed under Part XI of the Tax Act.

Currency and exchange rates

In this prospectus, unless otherwise noted, all dollar amounts are expressed in Canadian dollars. References to US$ are to United States dollars.

The following table sets forth, for each of the periods indicated, the high and low rate of exchange for one US dollar in Canadian dollars, the average exchange rate during each such period and the end-of-period rate. Such rates are based on the noon buying rates in New York City for cable transfers payable in US dollars, as certified for custom purposes by the Bank of Canada. On May 31, 2004, the noon buying rate for one US dollar in Canadian dollars as certified by the Bank of Canada was $1.3634.

Year Ended December 31	High	Low	Average[(1)]	End of Year
2003	$1.5750	$1.2923	$1.3916	$1.2923
2002	$1.6128	$1.5108	$1.5702	$1.5800
2001	$1.6023	$1.4933	$1.5519	$1.5925

Note:

(1) The average of the daily noon buying rates on the last business day of each month during the period.

Prospectus summary

The following is a summary of the principal features of this Offering and is qualified by and should be read in conjunction with the more detailed information and financial data and statements appearing elsewhere in this prospectus.

OUR BUSINESS

We are a biotechnology company focused on the development, commercialization and production of protein-based pharmaceuticals and non-pharmaceutical products based on our plant genetic engineering skills and our proprietary oilbody-oleosin technology platform. Our technology platform enables us to genetically engineer oilseed plants, typically safflower, with the potential to produce recombinant proteins abundantly and at low cost.

We are focusing our development efforts on those protein product candidates where we believe our technology platform addresses major commercialization challenges for those product candidates. In general, these will be products aimed at chronic conditions affecting large patient populations. Our two current protein-based pharmaceutical product candidates are:

- **Insulin:** We are developing insulin to serve the expanding diabetes market and to facilitate the commercialization of alternative insulin delivery technologies. If abbreviated clinical trial protocols apply, we project this product candidate, which is in the research phase, could reach the market as early as 2008 or 2009. See ''Regulatory Environment''.
- **Apolipoprotein (AI-class):** We are developing apolipoprotein A-I and apolipoprotein A-I_{Milano} (collectively, Apo AI) to be used in formulations that will serve as cardiovascular therapeutics to reduce and stabilize vascular atherosclerotic plaques which are associated with acute coronary syndrome (ACS), including heart attack and unstable angina, and stroke indications. These product candidates, which are in the research phase, are projected to reach the market in 2011 or 2012.

In addition to insulin and Apo AI, we have an active program to demonstrate proof-of-concept for new product candidates. This program in conjunction with clinical, intellectual property and market analysis is being used to select new product candidates for our protein-based pharmaceutical product candidate development pipeline. We anticipate initiating at least one new pharmaceutical development project in the next 12 to 18 months.

In addition to our product candidates, we entered into an agreement with Syngenta Participation AG on November 28, 2003. This agreement gives Syngenta an option to use our technology for the production of their proprietary biologics, which may lead to several products being introduced by Syngenta in the longer term.

Our technology platform was developed by Dr. Maurice Moloney, our Chief Scientific Officer and scientific founder. Our technology is built on two basic proprietary capabilities. The first is our ability to cost-effectively extract oilbodies (the structures used by seeds to store oil) from seeds at scale. The second is our ability to use genetic engineering to attach proteins to oilbodies in the seed.

We have developed a number of products and product development systems based on these capabilities including:

- Production and purification of recombinant proteins (our Stratosome™ Biologics System and our Affinity Capture System);
- Antibody purification reagents (our StratoCapture™ Purification System);
- Purified non-recombinant oilbody products (our DermaSphere™ Ingredient System and our StratoDerm™ Skin Care System); and
- Seeds containing recombinant oilbodies (animal health products).

In addition, our ability to develop transgenic oilseed products has enabled us to initiate modified seed oil product development programs (GLA and DHA rich safflower oils).

Our oilbody-oleosin technology is unique among transgenic technologies, as it is the only transgenic technology that addresses protein recovery and purification (processes which cost as much as 1.5 to 2.3 times the cost of production (Datamonitor, 2003)) simultaneously with bulk protein production. We believe our technology offers several advantages for protein production and purification over traditional (bacteria, yeast and animal cell culture) and other transgenic (animal and plant) approaches, including:

- Flexibility and scalability of production;
- Enabling the production of proteins that are problematic using other transgenic systems;
- Lower capital costs for protein production and purification facilities; and
- Lower production costs.

As a complement to our protein-based pharmaceuticals development program, we are also using our technology platform to develop non-pharmaceutical products that we expect will provide short and intermediate term revenue. These non-pharmaceutical product development programs should allow us to continue to develop the organizational infrastructure required to produce and commercialize protein-based pharmaceuticals. We have product development programs in the areas of:

- **Topical Ingredients:** Including non-transgenic oilbody ingredients for the personal care industry (DermaSphere™ Ingredient System) and topical pharmaceutical markets (StratoDerm™ Skin Care System). Our DermaSphere™ Product has been partnered with Lonza, Inc., who projects it will be commercialized in late 2004. Our StratoDerm™ Skin Care System, which is in the development phase, is projected to be launched in 2005 or 2006.
- **Animal Health Products:** Including fish growth hormone (fGH), a feed additive for the aquaculture industry aimed at improving the economics of aquaculture production. We are jointly developing fGH, which is in the development phase, with Aqua Bounty Technologies Inc. and we project this product will be launched in late 2007 or 2008. We have also executed a funded agreement with Dow AgroSciences LLC to evaluate the utility of our technology for the development of an animal vaccine.
- **Nutritional Oils:** Including safflower oil rich in the omega-6 fatty acid gamma-linolenic acid (GLA) and safflower oil rich in the omega-3 fatty acid docosahexaenoic acid (DHA), nutrients with proven health benefits. GLA and DHA are used as supplements, as food ingredients and as animal feed additives. Arcadia Biosciences, Inc. is our partner for the GLA product, which is in the development stage and projected for launch in 2007 or 2008. Martek Biosciences Corporation is our partner for the DHA product, which is in the research phase and projected for launch in 2009 or 2010.
- **Purification Reagents:** Including the StratoCapture™ Purification System, an oilbody-based purification system that addresses cost and efficiency issues in the purification of antibodies and other proteins. We are in discussions with several reagent companies to be the commercialization partner for our lead purification reagent product, StratoCapture™ Protein A Reagent for use in the purification of monoclonal antibodies from animal cell culture. We project our StratoCapture™ Protein A Reagent, which is in the development stage, will reach the market in 2007 or 2008.

We are evaluating several other possible products in these areas with expectation that work on at least one new product will begin within the next 12 to 18 months.

The Offering

Securities to be Distributed:

● Common Shares and ● Share Purchase Warrants (● Common Shares and ● Share Purchase Warrants if the Over-allotment Option is exercised in full) offered in Units with each Unit consisting of one Common Share and one-half of one Share Purchase Warrant. Each whole Share Purchase Warrant entitles the holder to purchase one Common Share of SemBioSys at a price of $ ● at any time prior to 4:30 p.m. Calgary time on ● .

Offering Price:

$ ● per Unit.

Offering Amount:

$ ● (● if the Over-allotment Option is exercised in full).

Over-allotment Option:

We have granted to the Underwriters the Over-allotment Option, exercisable by the Underwriters at any time prior to 30 days after the Closing Date, to purchase up to an additional ● Common Shares and ● Share Purchase Warrants (representing 15% of the Offered Securities) at a price of $ ● per Common Share and $ ● per Share Purchase Warrant, solely to cover over-allotments, if any, and for market stabilization purposes. See "Plan of Distribution".

Common Shares Outstanding:

	Prior to the Offering as at May 31, 2004	After Completion of the Offering
Common Shares	8,606,737	● (● assuming full exercise of the Over-allotment Option)
Common Shares on a fully diluted basis	9,772,411	● (● assuming full exercise of the Over-allotment Option)

Share Capital Reorganization:

Prior to the closing of this Offering, we will effect the Share Capital Reorganization by: (i) converting all Class A Convertible Preferred Shares into Common Shares; (ii) cancelling our Class A Convertible Preferred Shares as an authorized class of shares and creating a new class of preferred shares issuable in series; (iii) consolidating our Common Shares, options and warrants on a ten-to-one basis with a corresponding adjustment to the exercise price of options and warrants; (iv) converting all

	outstanding preferred share purchase warrants into Common Share purchase warrants; (v) terminating our shareholders' agreement dated October 17, 2000; and (vi) converting a convertible promissory note (face value of US$2.25 million) held by a subsidiary of Syngenta into Common Shares and Common Share purchase warrants. Assuming the exchange rate in effect on May 31, 2004 of $1.3634 Cdn. for each US$1.00, and assuming a conversion date of June 30, 2004, the conversion of the promissory note by Syngenta will result in the issue of 511,900 Common Shares (post consolidation) and 74,225 Common Share purchase warrants (post consolidation). Unless the context otherwise indicates, all information in this prospectus assumes the completion of the Share Capital Reorganization. Under the terms of the Underwriting Agreement, the Share Capital Reorganization must be completed prior to the closing of this Offering. See "Description of Share Capital".
Use of Proceeds:	We expect the net proceeds from the Offering will be approximately $● million. We intend to use such proceeds as follows: (i) approximately $11 million for development of our insulin and Apo AI product candidates, including pre-clinical and Phase I clinical trials; (ii) approximately $5 million for capital asset expenditures including the construction of a multipurpose pilot plant for the production of insulin, Apo AI and other proteins for Phase I and Phase II clinical trials, as well as development quantities of our StratoCapture™ Protein A Reagent; (iii) approximately $2 million for on-going research and development focused on new products; and (iv) the balance of $● million for general corporate purposes, including working capital and possible acquisition of technology. The amounts and timing of the expenditures will vary depending upon a number of factors, including our future revenue growth and the amount of cash generated from operations.
Risk Factors:	An investment in the Units involves certain risks. Prospective investors should carefully review the factors set out under "Risk Factors" together with other information contained elsewhere in this prospectus. An investment in the Units is suitable only for purchasers who are aware of such risks and who have the ability and willingness to accept the risk of the loss of all or part of their investment.

Summary consolidated financial information

The following is a summary of our selected consolidated financial information as at and for the fiscal years ended December 31, 2003 and 2002 and as at and for the three month periods ended March 31, 2004 and March 31, 2003 that have been derived from our consolidated financial statements appearing elsewhere in this prospectus. The selected consolidated balance sheet data as at December 31, 2001 has been derived from our consolidated balance sheet as at December 31, 2001 which is not included in this prospectus. The summary information should be read in conjunction with our consolidated financial statements and the related notes and with "Management's Discussion and Analysis", included elsewhere in this prospectus. The weighted average number of Common Shares outstanding and per share amounts have been adjusted to reflect the 1 for 10 consolidation effected as part of the Share Capital Reorganization but not the conversion of the Class A Preferred Shares or the US$2.25 million convertible promissory note. See "Description of Share Capital".

Selected Consolidated Financial Data

	Three Months Ended March 31,		Year Ended December 31,		
	2004	2003	2003	2002	2001
	unaudited	unaudited	($,000's, except per share data)		
Revenues					
Licensing fees	—	—	4,865	—	—
Contract research	166	—	85	294	963
	166	—	4,950	294	963
Expenses					
Research and development	1,006	1,137	4,337	6,272	4,958
General and administration	626	644	2,578	2,950	2,011
Intellectual property costs	192	196	1,494	1,039	679
Business development	155	129	545	508	251
Cost recoveries	(125)	(230)	(1,176)	(1,972)	(4,236)
Investment tax credits	(175)	(175)	(823)	(964)	(507)
Loss before undernoted	(1,513)	(1,701)	(2,005)	(7,539)	(2,193)
Interest expense	(46)	(7)	(43)	(39)	(23)
Interest income	53	50	148	272	703
Foreign exchange gain (loss)	(34)	6	125	(35)	32
Loss for the period	(1,540)	(1,652)	(1,775)	(7,341)	(1,481)
Loss per share, basic and diluted[(1)]	(0.28)	(0.31)	(0.33)	(1.36)	(0.28)
Weighted average number of common shares outstanding, basic and diluted[(1)]	5,413	5,390	5,392	5,379	5,375

Note:

(1) The effects of potentially dilutive instruments (Class A Preferred Shares, stock options, warrants and convertible promissory note) on loss per share are not dilutive. See Note 2 to the Consolidated Financial Statements for the years ended December 31, 2003, 2002 and 2001.

Selected Consolidated Balance Sheet Data

	As adjusted[1] Mar 31, 2004	Mar 31, 2004	Dec 31, 2003	Dec 31, 2002
	unaudited	unaudited ($,000's)		
Cash and cash equivalents		7,239	9,443	6,577
Working capital	●	7,199	8,572	6,436
Total assets	●	11,986	14,037	11,810
Deferred cost recoveries	●	500	562	—
Long term liabilities	●	1,450	1,372	545
Total shareholders' equity		8,751	10,275	10,094

Notes:

(1) As adjusted information reflects the Share Capital Reorganization and completion of the Offering without the exercise of the Over-allotment Option.

Company structure

We were incorporated under the *Canada Business Corporations Act* (CBCA) on April 25, 1994 as 3026841 Canada Inc. and were authorized to issue an unlimited number of Common Shares. On October 6, 1994 we changed our name to SemBioSys Genetics Inc. and were extra provincially registered in Alberta. On April 1, 1997 we amended our articles to convert our then existing 400 Common Shares to 10,000 Common Shares and, on December 23, 1998, further amended our articles to split our issued and outstanding Common Shares on the basis of 4,752.399962 new shares for each old share held. We filed restated articles on October 17, 2000 to authorize our stated capital to include an unlimited number of Common Shares and Class A Convertible Preferred Shares.

Prior to the closing of this Offering, we will effect the Share Capital Reorganization which is described under "Description of Share Capital — Share Capital Reorganization".

Our head office is located at 110, 2985 – 23rd Avenue N.E., Calgary, Alberta T1Y 7L3, and our registered office is located at 3300, 421 – 7th Avenue S.W., Calgary, Alberta T2P 4K9. Our website is located at www.sembiosys.com. Information on our website is not incorporated by reference into this prospectus.

Our business

OVERVIEW

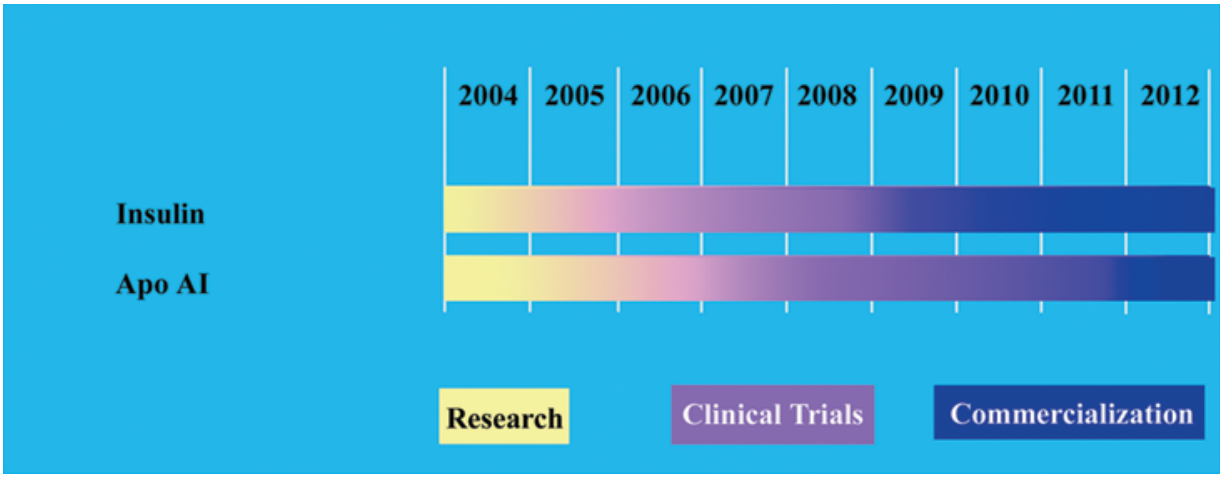
We are a biotechnology company focused on the development, commercialization and production of protein-based pharmaceuticals and non-pharmaceutical products based on our plant genetic engineering skills and our proprietary oilbody-oleosin technology platform. Our technology platform enables us to genetically engineer oilseed plants, typically safflower, to produce recombinant proteins abundantly and at low cost.

We are focusing our development efforts on those protein product candidates where we believe our technology platform addresses major commercialization challenges for those product candidates. In general, these will be products aimed at chronic conditions affecting large patient populations. Our two (2) current protein-based pharmaceutical product candidates are:

- **Insulin:** We are developing insulin to serve the expanding diabetes market and to facilitate the commercialization of alternative insulin delivery technologies. If abbreviated clinical trial protocols apply, we project this product candidate, which is in the research phase, could reach the market as early as 2008 or 2009. See "Regulatory Environment".
- **Apolipoprotein (AI-class):** We are developing apolipoprotein A-I and apolipoprotein A-I_{Milano} (collectively, Apo AI) to be used in formulations that will serve as cardiovascular therapeutics to reduce and stabilize vascular atherosclerotic plaques which are associated with acute coronary syndrome (ACS), including heart attack and unstable angina, and stroke indications. These product candidates, which are in the research phase, are projected to reach the market in 2011 or 2012.

Figure 1 depicts our projected protein-based pharmaceutical product candidate development timelines.

Figure 1
Pharmaceutical Product Candidate Development Timelines



In addition to insulin and Apo AI, we have an active program to demonstrate proof-of-concept for new product candidates. This program in conjunction with clinical, intellectual property and market analysis is used to select new product candidates for our protein-based pharmaceutical product candidate development pipeline. We anticipate initiating at least one new pharmaceutical development project in the next 12 to 18 months.

In addition to our own product candidates, we entered into an agreement with Syngenta Participation AG (NYSE: SYT) on November 28, 2003 which gives Syngenta an option to use our technology for the production of their proprietary protein-based pharmaceuticals. Syngenta is a world-leading agribusiness with sales in 2003 of approximately US$6.6 billion. This relationship may lead to several products being introduced by Syngenta in the longer term.

Our technology platform was developed by Dr. Maurice Moloney, our Chief Scientific Officer and scientific founder. The platform is based on the genetic manipulation of oilbodies, the structures used by seeds to store oil, and oilbody associated proteins. We believe our oilbody-oleosin technology is unique among transgenic technologies, as we believe it is the only transgenic technology that addresses protein recovery and purification (processes which cost as much as 1.5 to 2.3 times the cost of production (Datamonitor, 2003)) simultaneously with bulk protein production. We believe our technology offers several advantages for protein production and purification over traditional (bacteria, yeast and animal cell culture) and other transgenic (animal and plant) approaches, including:

- Flexibility and scalability of production;
- Enabling the production of proteins that are problematic using other transgenic systems;
- Lower capital costs for protein production and purification facilities; and
- Lower production costs.

As a complement to our protein-based pharmaceuticals development program, we are also using our technology platform to develop non-pharmaceutical products that we expect will provide short and intermediate term revenue. These non-pharmaceutical product development programs should allow us to

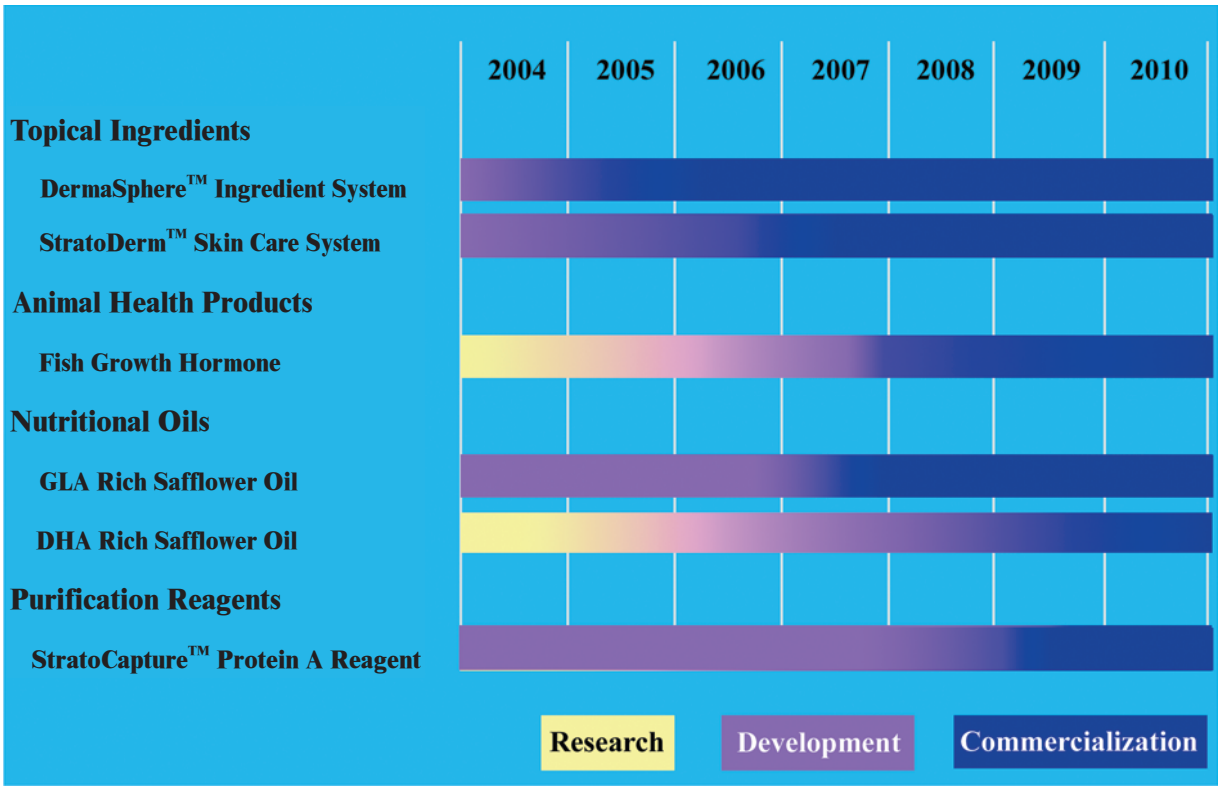
continue to develop the infrastructure we require to produce and commercialize protein-based pharmaceuticals. We have product development programs in the areas of:

- **Topical Ingredients:** Including non-recombinant oilbody ingredients for the personal care industry (DermaSphere™ Ingredient System) and topical pharmaceutical markets (StratoDerm™ Skin Care System). Our DermaSphere™ Product has been partnered with Lonza, Inc., who projects it will be commercialized in late 2004. Our StratoDerm™ Skin Care System, which is in the development phase, is projected to be launched in 2005 or 2006.
- **Animal Health Products:** Including fish growth hormone (fGH), a feed additive for the aquaculture industry aimed at improving the economics of aquaculture production. We are jointly developing fGH, which is in the development phase, with Aqua Bounty Technologies Inc. and we project this product will be launched in late 2007 or 2008. We have also executed a funded agreement with Dow AgroSciences LLC to evaluate the utility of our technology for the development of an animal vaccine.
- **Nutritional Oils:** Including safflower oil rich in the omega-6 fatty acid gamma-linolenic acid (GLA) and safflower oil rich in the omega-3 fatty acid docosahexaenoic acid (DHA), nutrients with proven health benefits. GLA and DHA are used as supplements, as food ingredients and as animal feed additives. Arcadia Biosciences, Inc. is our GLA partner, which is in the development stage and projected for launch in 2007 or 2008. Martek Biosciences Corporation is our partner for the DHA product, which is in the research phase and projected for launch in 2009 or 2010.
- **Purification Reagents:** Including the StratoCapture™ Purification System, an oilbody-based purification system that addresses cost and efficiency issues in the purification of antibodies and other proteins. We are in discussions with several reagent companies to be the commercialization partner for our lead purification reagent product, StratoCapture™ Protein A Reagent for use in the purification of monoclonal antibodies from animal cell culture. We project our StratoCapture™ Protein A Reagent, which is in the development stage will reach the market in 2007 or 2008.

We are evaluating several other possible products in these areas with expectation that work on at least one new product will begin within the next 12 to 18 months.

Figure 2 depicts our projected non-pharmaceutical product development timelines.

Figure 2
Non-Pharmaceutical Product Development Timelines



PROTEIN-BASED PHARMACEUTICALS

Insulin — a product candidate to facilitate new delivery technologies

We are developing insulin derived from genetically engineered safflower to serve the expanding diabetes market and to facilitate the commercialization of alternative insulin delivery technologies.

According to the World Health Organization, diabetes affected an estimated 177 million individuals worldwide in 2000 and is projected to affect over 370 million individuals by 2030. Insulin therapy is the exclusive treatment for Type 1 diabetics and is also being more frequently prescribed for Type 2 diabetics. In 2003, the global insulin market was valued at approximately US$4.3 billion and is projected to grow to US$7.1 billion by 2010, due to growth in incidence, diagnosis, usage and the commercialization of new insulin technologies (Datamonitor, 2004). There are currently three major manufacturers of insulin (Eli Lilly, Novo Nordisk and Aventis). A number of other companies are expected to commence insulin production as a result of the recent expiry of certain insulin related patents and the approaching expiry of others.

Currently, insulin can only be effectively administered through injection; however, significant efforts have been made by a number of biotechnology and pharmaceutical companies to develop technologies that will allow insulin to be administered in other ways. Some companies working on the development of alternative delivery technologies are listed in Table 1.

Table 1
Development of Alternative Insulin Delivery Technologies

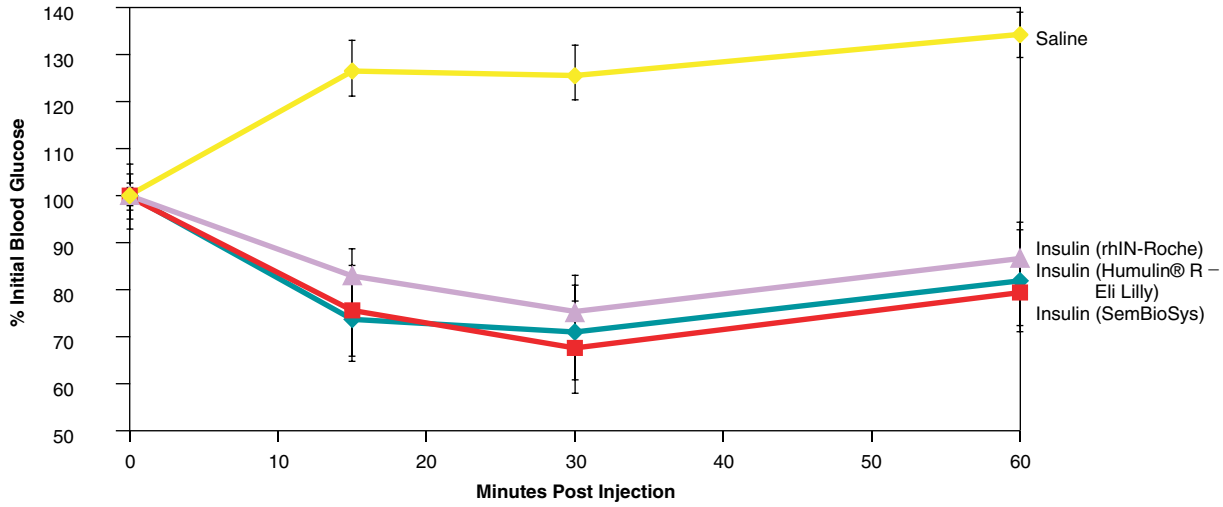
Developer	Licensee	Delivery Route	Status
Nektar Therapeutics	Pfizer/Aventis	Pulmonary	Phase III trials
Aradigm Corporation	Novo Nordisk	Pulmonary	Phase III trials
Generex Biotechnology Corporation	—	Buccal	Phase II trials
MannKind Corporation	—	Pulmonary	Phase II trials
Nobex Corporation	—	Oral	Phase II trials
Alkermes Inc.	Eli Lilly	Pulmonary	Phase II trials

Some developers of alternative delivery technologies have indicated to us that access to a low cost, high volume supply of insulin is a key issue to the successful commercialization of their technology. Based on pharmacokinetic analysis, companies developing alternative insulin delivery technologies estimate that these technologies will require approximately 5 to 20 times more insulin than the amount required for injection. We project that with the commercialization of alternative delivery technologies, insulin manufacturing demands will increase from the current 4,000 kilograms per year to an estimated 18,000 kilograms by 2010. We believe that our safflower produced insulin will allow us to supply this expanding market while at the same time significantly reducing the cost of insulin production.

We estimate the current cost of insulin production at US$50 to 60 per gram. We believe our technology will allow us to reduce the unit cost by 40%. Based on information received from published sources, we believe the capital expenditure associated with building insulin manufacturing facilities can cost over US$250 million per ton of capacity. We project that our technology will reduce the capital cost of manufacturing facilities by 70%.

We have demonstrated the commercial viability of plant produced insulin with successful expression in *Arabidopsis*, our model organism, at levels of approximately 1% total seed protein. We have also demonstrated the biological equivalence of plant-produced insulin relative to two commercially available types of insulin, Humulin® R and rhIN in an animal model, as depicted in Figure 3.

Figure 3
Comparison of *Arabidopsis*-Produced Insulin to Commercially Available Insulin



We are currently optimizing insulin expression in safflower and anticipate completing development of our production variety in the second half of 2005. We have filed a patent application at the U.S. Patent and

Trademark Office and internationally to protect the methodologies we have developed for the production of insulin in plants. In addition, depending on the plant expression construct we select for commercialization, one or more of our issued U.S. patents may offer further proprietary protection for this product. We anticipate making an Investigational New Drug (IND) application in 2006 upon successful completion of our pre-clinical work and commencing Phase I/II clinical trials shortly thereafter.

We plan to partner our insulin development program soon after the completion of Phase I/II clinical trials, subject to demonstrating safety, purity and bioequivalence of plant-produced insulin. The specific regulatory path for follow-on pharmaceutical proteins, like insulin, after Phase I trials is currently uncertain. Because of the relative simplicity of the insulin protein and the extensive clinical data concerning insulin safety and efficacy, we expect regulatory approval will be based on abbreviated clinical trial protocols if we can demonstrate to regulatory authorities that our insulin product candidate is sufficiently pure and bioequivalent to commercial insulin. If regulatory approval is based on abbreviated clinical trial protocols, we project that our insulin product candidate could reach the market as early as 2008 or 2009. However, if regulatory approval requires full clinical trials, we project our product will reach the market in 2010 or later. See ''Regulatory Environment''.

Apolipoprotein AI — a new cardiovascular disease therapeutic

We are developing apolipoprotein A-I and apolipoprotein A-I_{Milano} (collectively, Apo AI) to be used in formulations that will serve as cardiovascular therapeutics to reduce and stabilize vascular atherosclerotic plaques which are associated with acute coronary syndrome (ACS), including heart attack and unstable angina, and stroke indications.

According to the World Health Organization, cardiovascular and atherosclerotic diseases represent the leading cause of mortality in developed nations and by 2010 are projected to become the leading cause of mortality worldwide. Drugs aimed at cholesterol and triglyceride management are the single largest class of prescription pharmaceuticals, with global sales in 2003 exceeding US$26 billion (IMS Health, 2004). ACS is associated with physiological conditions characterized by insufficient blood flow to the heart and describes individuals that present with either acute myocardial infarction (heart attack) or unstable angina. Stroke is a condition or event associated with neurological damage to the brain due to an interruption in blood flow resulting from either the blocking or bursting of brain vasculature. We believe there is a significant clinical need for pharmacological therapies that rapidly stabilize and diminish atherosclerotic plaques for the prevention and treatment of ACS and stroke.

Apo AI is the major apolipoprotein associated with high density lipoprotein (HDL) or ''good'' cholesterol. HDL is a naturally occurring particle in blood or blood serum whose function is to remove excess cholesterol from arteries. HDL-targeted therapeutics are emerging as a new pharmacological class of molecules targeted to cardiovascular indications. Esperion Therapeutics, Inc. (acquired by Pfizer, Inc. in 2003 for US$1.3 billion), showed that its proprietary Apo AI_{Milano}/phospholipid formulation may have the potential to induce cardiovascular disease regression. In a six week Phase II clinical trial involving 47 patients, Esperion demonstrated that its proprietary Apo AI_{Milano}/phospholipid formulation could reduce absolute atheroma (plaque) volume by 4.2%.

Based upon Esperion's Phase II clinical dosing (15 to 45 mg of formulated protein per kilogram of body weight) and ACS incidence, we estimate that an Apo AI-based therapeutic could drive a demand for several tons of protein per year. In this context, we believe that our technology platform will bring the same type of cost and scale benefits to Apo AI as we anticipate it will bring to insulin.

The success of our Apo AI product candidates will be affected by the clinical outcome of other, more clinically advanced Apo AI therapies such as Pfizer/Esperion's product. Furthermore, Apo AI therapies will also face competition as an increasing number of companies focus their efforts on the development of HDL-targeted therapies. Current and emerging pharmacologic therapies that demonstrate positive effects

on HDL levels or activity include statins, fibrates, niacin, estrogen, phospholipid vesicles, CETP inhibitors and PPAR agonists. Competitive therapies such as these are being developed by companies such as Pfizer, Bristol-Myers Squibb, and Kos Pharma. However, none of the aforementioned therapies have demonstrated a reduction in atherosclerotic plaque volume as significant as that demonstrated by Pfizer/Esperion's Apo AI_{milano} phospholipid formulation. This characteristic sets Apo AI apart from other HDL-targeted therapies.

To date, our research efforts have established that Apo AI can be accumulated in plant seeds of *Arabidopsis* at a commercially viable level of greater than 1% seed protein and that plant derived Apo AI maintains the same size and physicochemical characteristics of native Apo AI. We are now in the process of introducing Apo AI expression constructs into safflower and anticipate completing development work in safflower by the end of 2005. Subsequent IND filing is expected to occur in the latter half of 2006 with Phase I clinical trials beginning shortly thereafter.

We have filed 2 provisional patent applications with the U.S. Patent and Trademark Office to protect the methodologies we have developed for the production of Apo AI in plants. In addition, one or more of our issued U.S. patents may offer further proprietary protection for our Apo AI product candidates.

Given the high degree of external interest in our Apo AI offering, we may partner this development program shortly before or after Phase I clinical trials. Assuming we reach our preclinical and clinical milestones in a timely manner, we anticipate our first Apo AI product candidate reaching market by 2011 or 2012.

Future Pharmaceutical Product Candidates — expanding the pipeline

In addition to insulin and Apo AI, we have an active program to demonstrate proof-of-concept for new product candidates. We have recently established a team to screen potential product candidates using *Arabidopsis*, our proof-of-concept organism.

Results from *Arabidopsis* are generated quickly (12 weeks) and allow us to test for expression and the chemical and biological characteristics of the candidate molecules. These results reduce the technical risk associated with a candidate molecule, as our *Arabidopsis* model is generally predictive of what can be achieved in safflower, our production crop. We estimate that we can currently screen and characterize 10 to 15 new molecules per year.

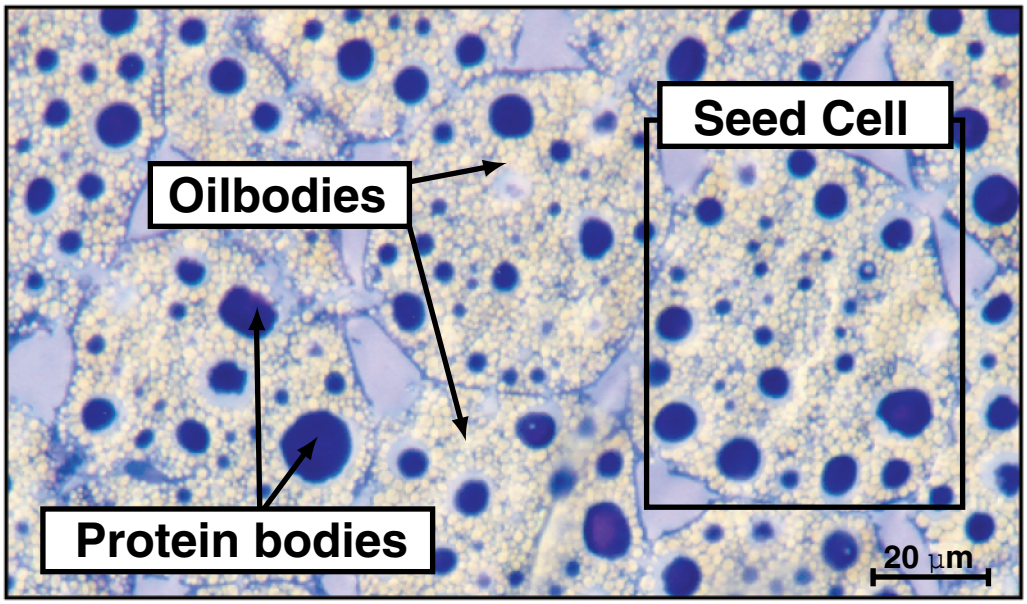
This program, in conjunction with clinical, intellectual property and market analysis, is being used to select new product candidates for our development pipeline. We have already produced a number of candidate proteins, primarily from *Arabidopsis*, at sufficient quantities to permit physicochemical characterization and confirm bioactivity. To date these include proteins addressing osteoporosis, pulmonary and liver fibrosis, psoriasis and gastrointestinal disorders. We anticipate initiating at least one new development project in the next 12 to 18 months.

OUR TECHNOLOGY

Our technology platform was developed by Dr. Maurice Moloney, our Chief Scientific Officer and scientific founder. The platform is based on the genetic manipulation of oilbodies, the structures used by seeds to store oil, and oilbody associated proteins. Our oilbody-oleosin technology is unique among transgenic technologies, as it is the only transgenic technology that addresses protein recovery and purification (processes which cost as much as 1.5 to 2.3 times the cost of production (Datamonitor, 2003)) simultaneously with bulk protein production.

Figure 4 depicts a cross-section of a safflower seed showing the densely packed oilbodies within a plant cell.

Figure 4
Cross Section of Safflower Seed



Courtesy Dr. Edward Yeung, University of Calgary

Our technology is built on two basic proprietary capabilities. The first is our ability to cost-effectively extract oilbodies from seeds at scale. The second is our ability to use genetic engineering to attach proteins to oilbodies in the seed.

We have developed a number of products and product development systems based on these capabilities including:

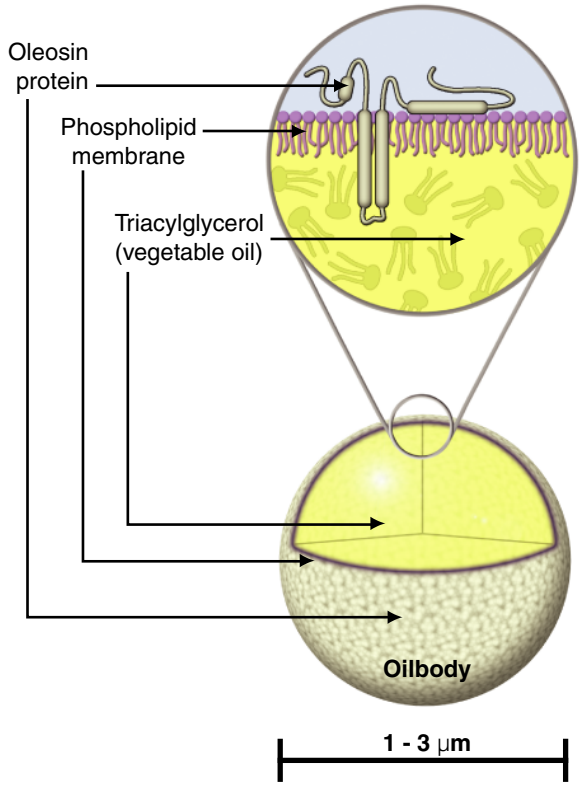
- production and purification of recombinant proteins (our Stratosome™ Biologics System and our Affinity Capture System);
- antibody purification reagents (our StratoCapture™ Purification System);
- purified non-recombinant oilbody products (our DermaSphere™ Ingredient System and our StratoDerm™ Skin Care System); and
- seeds containing recombinant oilbodies (animal health products).

In addition, our ability to develop transgenic oilseed products has enabled us to initiate modified seed oil product development programs (our GLA and DHA rich safflower oils).

Oilbody-Oleosin Technology

Our technology platform is based on the chemical and biological manipulation of oilbodies. As depicted in Figure 5, oilbodies are triglyceride spheres surrounded by a phospholipid membrane studded with oleosins, a unique class of proteins that specifically target and attach to oilbodies, creating a stable lipophilic particle.

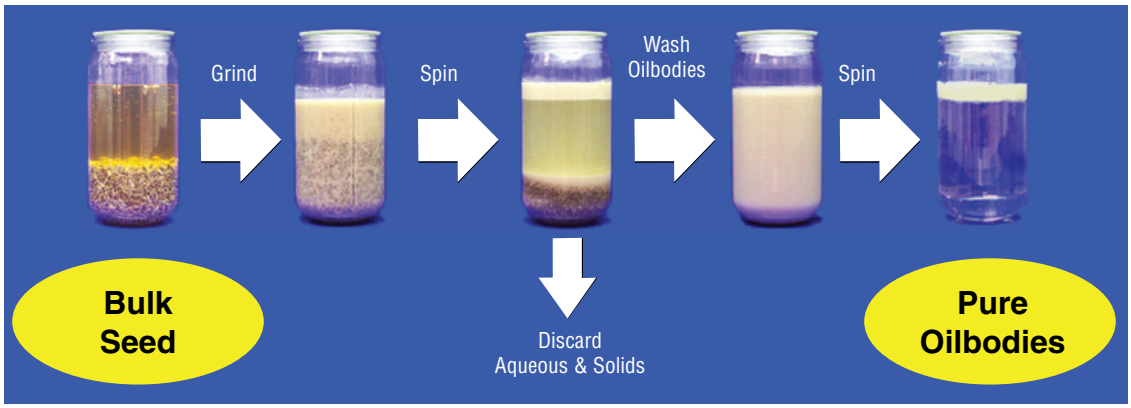
Figure 5
Oilbody Structure



Oilbody Extraction Technology

We have developed proprietary technology to extract and stabilize intact oilbodies from seeds using a cost effective aqueous extraction process. This process is depicted in Figure 6 and is based on the principle that oil is lighter than water. Seed is homogenized using a mill and the oilbodies are separated from the balance of the seed material and washed using a series of centrifuges to remove seed-derived impurities. The resulting product is 75% oilbodies and 25% water with negligible carryover of other seed materials. The vast majority of the seed proteins are removed by this process, which enriches specifically for the recombinant proteins. At this stage, we have removed over 98% of the contaminating proteins originally present in the seed. Conventional downstream processing is then used to complete purification of the recombinant protein.

Figure 6
Oilbody Extraction Technology



Protein Production Systems

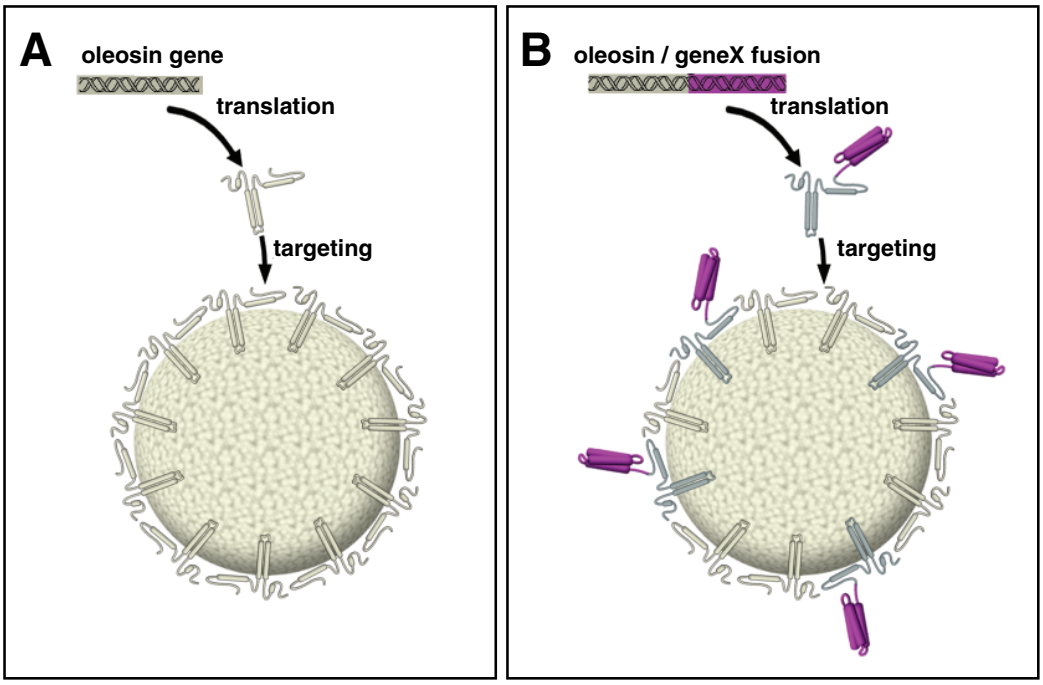
Our scientists have developed two proprietary recombinant protein production systems, the Stratosome™ Biologics System and the Affinity Capture System. Together these systems offer the ability to produce a wide array of recombinant proteins using our oilbody-oleosin technology and will be used for the production of our initial pharmaceutical product candidates, insulin and Apo AI.

The Stratosome™ Biologics System

We have developed proprietary technology to target recombinant proteins to oilbodies using plant genetic engineering techniques by engineering an oleosin fusion that includes the protein of interest. The combination of oilbody engineering with oilbody extraction is the basis of our Stratosome™ Biologics System.

Figure 7A depicts an oleosin protein targeted to a natural oilbody. Figure 7B depicts the Stratosome™ Biologics System in which an oleosin/GeneX fusion is targeted to an oilbody to form a recombinant oilbody.

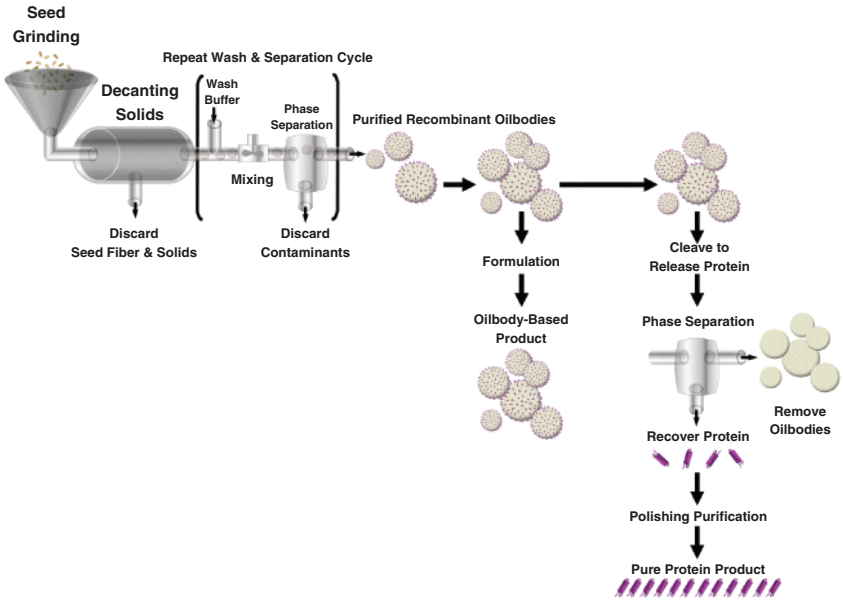
Figure 7



The Stratosome™ Biologics System works as follows:

- Genetic engineering is used to introduce a transgene encoding an oleosin/GeneX fusion protein into the plant. As the plant grows and the seed develops, the oleosin/GeneX fusion is expressed to produce a recombinant protein such as insulin or Apo AI which targets the oilbody to form a recombinant oilbody, as depicted in Figure 7B.
- Seed is produced from the genetically engineered plants using conventional farming practices that have been adapted to ensure product integrity and confinement.
- The harvested seed is then processed using our proprietary oilbody extraction process depicted in Figure 8. In cases where the oilbody/recombinant protein fusion is the desired finished product, this is the endpoint of the process and the product can then be formulated and packaged for its intended application.
- In cases where a purified protein such as insulin or Apo AI is the end product, an enzyme or chemical that recognizes a cleavage site between the target protein and the oleosin is added to purified oilbodies cleaving the recombinant protein from the oleosin.
- The oilbodies are then removed via centrifugation and the recombinant protein can then be purified simply and economically using conventional downstream processing.

Figure 8
Stratosome™ Biologics System



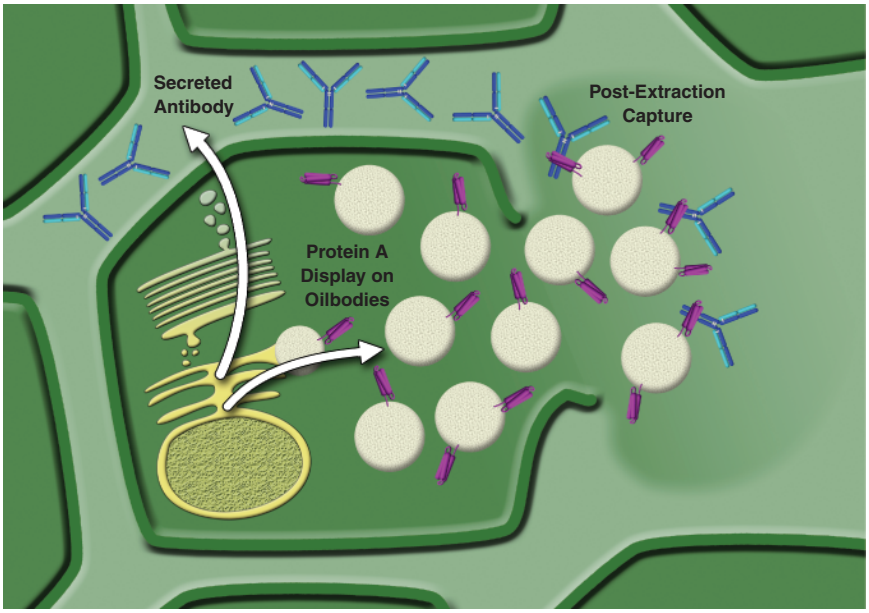
A wide array of proteins, ranging from approximately one kilodalton (nine amino acids) to over 100 kilodaltons, have been produced using the Stratosome™ Biologics System. In addition to simple proteins, we have demonstrated that proteins with complex secondary and tertiary structure, including those requiring the formation of multiple disulfide bridges, can be produced using this system. We have achieved recombinant protein expression levels of more than 5% of total seed protein for some proteins, which is five times higher than our minimum commercial target.

Affinity Capture System

We have developed the Affinity Capture System which combines conventional plant protein expression with oleosin technology to allow the production of proteins in a manner that uses the purification advantages of the Stratosome™ Biologic System. The Affinity Capture System can be used in cases where a protein does not accumulate as an oleosin fusion or where a protein's characteristics make targeting to the oilbody impractical due to the need for specialized post-translational modification. In the Affinity Capture System, a protein ligand with specific affinity for the recombinant protein is fused to the oleosin protein by genetic engineering. The recombinant protein can then be targeted for production at any location within or outside the cell. When the seed is milled, the recombinant protein is captured by the protein ligand displayed on the oilbody and the resulting oilbody-protein complex can be separated. The recombinant protein can then be disassociated from the oilbody using conventional techniques (for example changing pH or ionic strength) and be available for final purification.

One of the first areas of application for the Affinity Capture System is the plant production of antibodies. We have developed recombinant oilbodies in which Protein A is fused to oleosin and displayed on the surface of oilbodies. Protein A, having a naturally high affinity for antibodies, is used to capture and purify the recombinant antibody applying our oilbody extraction technology. The plant is engineered to accumulate the desired antibody in the extracellular space or the endoplasmic reticulum. Grinding the seed in aqueous media disrupts the physical barriers, allowing the Protein A oilbodies to find and capture the desired antibody as depicted in Figure 9. The antibody is then purified from the resulting antibody/oilbody complex using conventional technology.

Figure 9
Affinity Capture System

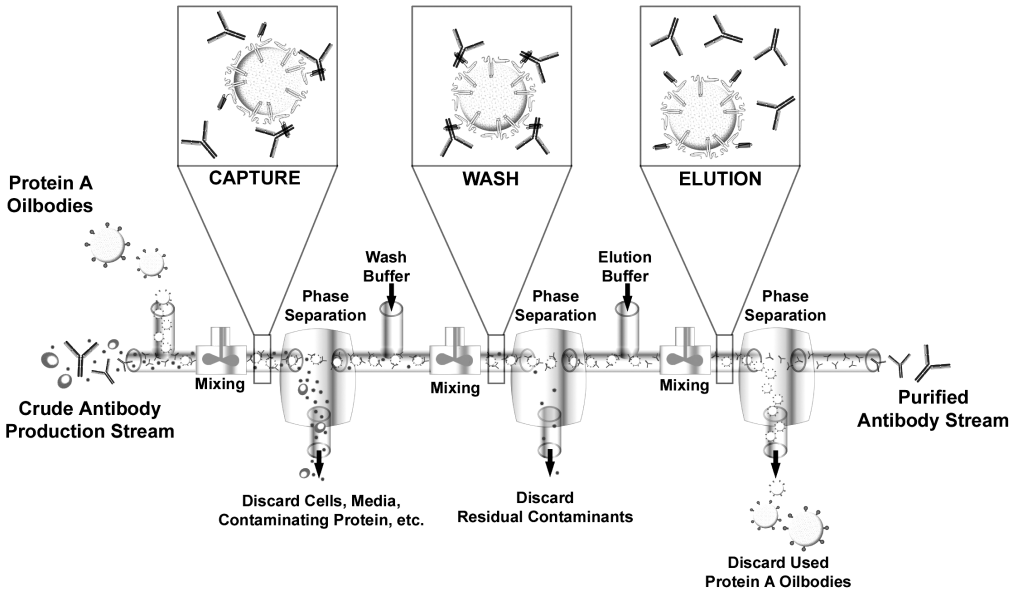


We have demonstrated that antibodies can be produced in plant seeds at expression levels greater than 5% of total seed protein, that Protein A can be attached to oilbodies as an oleosin fusion, and that Protein A tagged oilbodies can be used to recover antibodies from recombinant seed. We are currently working to scale-up this novel antibody production technology.

StratoCapture™ Protein A Purification System

We are also developing the StratoCapture™ Protein A Purification System (depicted in Figure 10) as a purification reagent for antibodies produced from animal cell culture. In the StratoCapture™ Protein A Purification System, oilbodies are mixed with supernatant from cell culture and the antibodies in the supernatant bind to the Protein A displayed on the surface of oilbodies (the "StratoCapture™ Protein A Purification Reagent"). This assembly is then removed from the oilbody-supernatant mixture via centrifugation and washed with buffer. This highly enriched antibody fraction is then subjected to an elution reagent which removes the antibody from the Protein A/oilbody assembly, which is discarded. Our StratoCapture™ Protein A Purification System has the potential to reduce the costs associated with antibody purification by replacing a cumbersome batch process with a disposable reagent used in a simple liquid-liquid continuous flow process. We have demonstrated the utility of this system at bench scale and are now working with third parties to scale-up the process. See "Non-Pharmaceutical Products under Development — StratoCapture™ Protein A Reagent".

Figure 10
StratoCapture™ Protein A Purification System



Topical Oilbodies

Oilbodies are natural liposomes that form stable emulsions without the use of surfactants. Our oilbodies can be easily formulated into a wide array of lotions, creams and other skin care products. They have excellent skin application properties, as they are easily absorbed and have a smooth texture and skin feel.

In human studies, we have shown that oilbodies act as a mild emollient, as an occlusive agent that reduces water loss, and that they moisturize and improve the visual appearance of skin. We have further demonstrated that oilbodies are non-irritating and non-allergenic when applied topically and in some cases can reduce skin irritation associated with certain active ingredients.

Oilbodies have potential as a carrier or delivery system for small molecules. By virtue of their unique structure, oilbodies can be loaded with a wide array of lipophilic small molecule active ingredients, including vitamins, steroids and anesthetics. For some actives, we have demonstrated that compartmentalization within oilbodies can protect and stabilize the molecules against destructive environmental factors. This could be of special interest to topical pharmaceutical markets.

We have developed a robust and cost effective process for the extraction of oilbodies from safflower and a variety of other plants (e.g., sunflower, pumpkin, cucumber). The process has been proven at pilot scale for safflower and the product consistently meets the specifications and stability requirements of the personal care industry. Our pilot plant has the capacity to produce market development quantities of product and we have developed detailed engineering plans for a commercial manufacturing facility with the capacity to produce several thousand metric tons of product per year. See ''Manufacturing''.

We anticipate that oilbodies will be sold into the personal care and cosmetic markets under the DermaSphere™ Ingredient System brand and into topical pharmaceutical markets as the StratoDerm™ Skin Care System. See ''Non-Pharmaceutical Products Under Development — DermaSphere™ Ingredient System'' and ''Non-Pharmaceutical Products Under Development — StratoDerm™ Skin Care System''.

Production Crops and Timelines

Our oilbody-oleosin technology has been demonstrated to be effective in a variety of oilseed crops. After extensive analysis, we have chosen safflower as our production crop. Our scientists are able to introduce genes into safflower on a routine basis and the crop can be grown counter-seasonally. In addition, safflower, like other oilseed crops, offers superior production and inventory management compared to many other transgenic systems. Unlike animal milk or leaves, recombinant proteins have been found to be stable in transgenic seeds for several years.

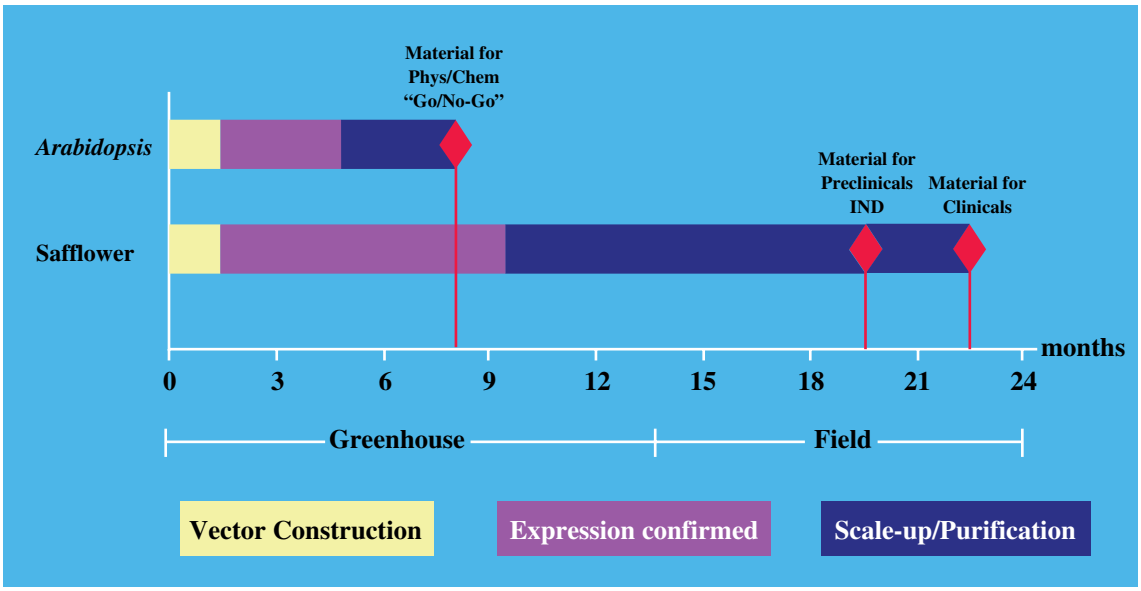
We believe our use of safflower will allow us to more easily address regulatory issues associated with transgenic crops because safflower is a small acreage crop that is largely self-pollinating, unlike corn, and can easily be segregated from other safflower production.

We have adopted the *Arabidopsis* plant, a widely used experimental plant, as a rapid screening system for evaluating different genetic constructs and vectors, and to rapidly generate quantities of recombinant proteins for physicochemical analysis. With its six-week growing cycle, the use of *Arabidopsis* permits us to complete rapid proof-of-concept for new recombinant proteins.

Figure 11 depicts the process of developing a recombinant pharmaceutical protein. During the first six to eight weeks, genetic constructs are created for expression of the recombinant protein in seeds. These vectors are introduced, contemporaneously or sequentially, into *Arabidopsis* and safflower. After approximately three months, the transgenic *Arabidopsis* plants can be evaluated for expression of the recombinant protein. Selected *Arabidopsis* lines are grown through the next generation and produce approximately 1 gram of recombinant protein to allow thorough physicochemical analysis. At this point, a go or no-go decision is made. If *Arabidopsis* and safflower are grown contemporaneously, approximately one month later transgenic safflower seed becomes available and the safflower plants can be evaluated for expression of the recombinant protein.

The best safflower lines are grown through two generations to provide approximately 5 grams of recombinant protein in approximately 20 months. This material can be used for preclinical work leading to submission of an IND. After one further generation, safflower-derived recombinant protein is available in quantities up to 75 grams. This is usually sufficient to allow clinical work to commence. After the fourth generation in safflower, the recombinant protein is available in kilogram quantities. Beyond the fourth generation, the propagation of the crop provides commercial quantities of the recombinant protein.

Figure 11
SemBioSys Development Timeline



Oilbody-Oleosin Technology Platform Benefits

Our technology platform offers significant, commercially relevant benefits that we believe will provide competitive advantages to our partners and us.

The oilbody-oleosin technology platform is flexible and cost-effective, allowing for the production of proteins ranging from very small peptides to large and complex antibodies, all of which have been produced using our system. We believe that our oilbody-oleosin technology is unique among transgenic technologies, as we believe it is the only transgenic technology that addresses protein recovery and purification (processes which cost as much as 1.5 to 2.3 times the cost of production (Datamonitor, 2003)) simultaneously with bulk protein production, reducing capital and operating costs at all stages of the production process. It offers the following benefits:

- *Flexible and Scaleable Production Process:* Protein production can be scaled up or down by simply increasing or decreasing crop production. Inventory can be effectively managed due to the natural advantages of seeds as a storage medium.
- *Enables Production of Difficult Proteins:* Enablement of transgenic production of some purified proteins that are problematic using other transgenic systems due to our ability to leverage oilbody/protein fusions to enhance protein stability and accumulation, such as Apo AI.
- *Lower Capital Costs:* The construction of conventional recombinant protein manufacturing facilities with 100,000 litre bioreactor capacity costs an estimated US$200 to 400 million (U.S. Bancorp Piper Jaffray, January 2002). We estimate our technology could reduce the capital cost by up to 70% for the production of equivalent volumes of recombinant protein.
- *Lower Production Costs:* Transformation of protein production by replacing expensive fermentation or cell culture with plant production, as well as eliminating many costly chromatography steps, converting the process from a batch operation to a continuous or semi-continuous one. Depending on the product, we estimate that the production costs could be reduced by as much as 75% compared to the most efficient conventional system currently available.

Unique among transgenic technologies, our technology enables the creation of innovative products that combine the economics of transgenic protein production with the unique physical and chemical properties of oilbodies. This natural surfactant-free emulsion provides a convenient vehicle to formulate recombinant proteins into topical products with potential advantages for targeting and delivery of protein-based pharmaceuticals.

In addition, oilbodies offer cosmetic and dermatosensory benefits. Significant formulation work has been done internally and with outside formulators, and we have developed extensive intellectual property around the use of oilbodies in topical formulations.

NON-PHARMACEUTICAL PRODUCTS UNDER DEVELOPMENT

DermaSphere™ Ingredient System — for the personal care market

We have developed non-transgenic oilbodies for use as an ingredient and as a carrier or delivery system for personal care markets, with a focus on skincare products. The oilbody emulsion is a natural, surfactant-free ingredient system that is cosmetically elegant and offers benefits as an emulsifier, an emollient and as a vehicle for encapsulation and delivery of small molecule active ingredients.

In 2002, the global market for specialty ingredients sold into the cosmetics market was US$3 billion (Kline and Company, 2004). Natural personal care products accounted for 14% of all personal care sales in the U.S. and Europe in 2003 and are expected to experience a 12% average growth over the next five years, to capture 21% of the total market (Datamonitor, 2004). Growth in this market segment is being driven primarily by consumer sentiment that natural products are inherently gentler, more effective and friendlier to the environment.

The U.S. market for specialty ingredients for the cosmetic market is highly fragmented with no supplier accounting for more than a 10% market share. Leading companies include BASF AG (NYSE: BF), Clariant International Ltd. (SMI: GLN), Cognis Deutschland GmbH & Co. KG and Lonza, Inc. (Kline and Company, 2004).

In April 2004, we executed a royalty bearing and fee paying license and sales agreement with Lonza, Inc., the U.S. based operating company of Lonza Group Ltd. (SWX: LONN). With a broad product line, global sales and distribution and comprehensive customer service capabilities, Lonza sells ingredients to many of the leading consumer marketers around the world. Our agreement gives Lonza exclusive global rights to our DermaSphere™ Ingredient System in personal care markets. Lonza will complete product development and then manufacture and market oilbody-based ingredients to the personal care industry. We believe that the natural and multifunctional benefits of the DermaSphere™ Ingredient System will provide the opportunity for product differentiation.

We have completed the initial characterization of the structural and functional properties of non-transgenic oilbodies and developed a scaleable manufacturing process for the production of the DermaSphere™ Ingredient System. See ''Our Technology — Topical Oilbodies''. The product and its uses are covered by five issued U.S. patents.

The DermaSphere™ Ingredient System has undergone extensive evaluation by Lonza, who have confirmed its utility for a wide range of personal care ingredient applications and confirmed its performance benefits. Lonza projects that it will launch the DermaSphere™ Ingredient System in the 4th quarter of 2004.

StratoDerm™ Skin Care System — for the topical pharmaceutical market

We intend to sell oilbodies into topical pharmaceutical markets through partnerships under the StratoDerm™ Skin Care System brand. The surfactant-free nature of oilbodies and the ability to load small active ingredients can be exploited in topical pharmaceutical products. We plan to launch the

StratoDerm™ Skin Care System first in over-the-counter (OTC) markets, taking advantage of the less stringent regulatory requirements, and then into prescription markets over a longer time frame.

The global market for topical pharmaceutical products was estimated at US$13.3 billion in 2001, with approximately two-thirds in prescription drugs and one-third in OTC products (Kline and Company, 2004). Annual growth of this market is 4% with sales driven primarily by brand recognition and the ability of marketers to differentiate their product to consumers. In 2001, the global excipients market (specialty and commodity) for topical pharmaceutical dosage forms was US$200 million (Kline and Company, 2004).

The topical pharmaceutical ingredients market is highly fragmented. Suppliers include The Dow Chemical Company (NYSE: DOW), Stepan Company (NYSE: SCL) and Lipo Chemicals Inc. There are few proprietary, differentiated products and we believe that the surfactant-free nature and multifunctionality (formulation flexibility, aesthetic and carrier or delivery properties) offered by the StratoDerm™ Skin Care System will enable the creation of new products and provide product differentiation opportunities to our partners.

We intend to partner the StratoDerm™ Skin Care System with specialty and mid-size or large pharmaceutical companies who have the technical, regulatory, sales and marketing capabilities to complete development and commercialize the product in topical pharmaceutical markets. We are currently in discussions with several companies for licensing of the StratoDerm™ Skin Care System for topical OTC and prescription markets, with the intent of structuring one or more agreements that will provide us with a combination of upfront and milestone payments, as well as royalties.

In addition to our own internal development, our StratoDerm™ Skin Care System has been evaluated by prospective partners who have provided preliminary confirmation of the utility of the StratoDerm™ Skin Care System for topical pharmaceutical applications. See ''Our Technology — Topical Oilbodies''. Based on feedback from industry participants, we believe that the StratoDerm™ Skin Care System may be used in OTC applications with minimal additional development. Additional safety and efficacy testing and extensive regulatory review, will be required to gain regulatory approval for prescription products based on the StratoDerm™ Skin Care System. The StratoDerm™ Skin Care System and its uses are protected by four issued U.S. patents. We anticipate that our StratoDerm™ Skin Care System will enter the topical pharmaceutical market in 2005 or 2006.

Fish Growth Hormone — for the aquaculture market

We have engineered safflower seed to accumulate a fish growth hormone (fGH) and are developing it as a feed additive to serve the fin fish and shrimp aquaculture market. Within these markets, fGH has the potential to improve production economics by accelerating growth, thus reducing time to market and reducing losses due to disease.

According to the Food and Agricultural Organization of the United Nations (FAO), global aquaculture production had a value of over US$60 billion in 2001. Further, due to population growth and increasing consumption, the aquaculture industry is growing faster than any other food-producing sector (Business Communications Co., 2003). We, and our partner Aqua Bounty Technologies Inc., estimate the aquaculture feed market to be worth approximately US$5 billion (2003) split evenly between the fin fish and shrimp segments.

We are targeting our fGH product to the US$2.5 billion fin fish feed market. We have demonstrated that fGH transgenic oilbodies may be fed to fin fish, such as Rainbow Trout and Chinook Salmon, to increase their growth rate without any observed adverse side-effects. Together with increased feed efficiency, fGH's growth augmentation will result in a shorter time to reach market weight, thereby allowing for higher annual production.

We are also targeting our fGH product to the US$2.5 billion shrimp feed market. Disease is a significant challenge facing shrimp producers, costing them over US$3 billion per year, devastating shrimp production in a number of areas throughout the world. For example, in 1999 white spot disease occurred within Ecuador's shrimp farming industry resulting in US$280 million in losses and the elimination of 150,000 jobs.

Competition to fGH is limited. Bovine somatotropin (BST) and growth hormone are used on a limited basis in some Asian markets to accelerate growth in fin fish. In addition, salmon and tilapia have been genetically engineered for accelerated growth although these products have not yet reached the market. BST has been shown to stimulate disease resistance for shrimp, but we believe that the cost advantage of our fGH product will make it very competitive.

To accelerate development and commercialization of our fGH product, in December 2002, we established a commercial relationship with Aqua Bounty Technologies Inc., a private aquaculture biotechnology company based in Boston, Massachusetts. In collaboration with Aqua Bounty we are pursuing a partnering strategy for the commercialization of fGH and are currently in early partnership discussions with several feed companies that sell into the complex sales and distribution channels in the global aquaculture market.

We have successfully developed a commercially viable safflower line for fGH production and are in the final stages of field level scale-up. Additionally, we are currently confirming the preliminary research data that indicated fGH may offer prophylactic disease resistance benefits to shrimp species, with results expected by the end of 2004. We are also planning trials to confirm the utility of fGH in full scale production in fin fish with results expected in 2005. The production of fGH in plants using oleosin technology is protected by two issued U.S. patents and is protected in most of the major agricultural markets around the world. We anticipate commercialization of our fGH product by 2007 or 2008.

GLA Rich Safflower Oil

We are developing safflower oil engineered to contain the polyunsaturated omega-6 fatty acid gamma linolenic acid (GLA) in collaboration with Arcadia Biosciences, Inc., a private agricultural biotechnology company based in Phoenix, Arizona. GLA is used as an ingredient in the topical, food and nutrition markets. GLA is an intermediate in human metabolism and serves as a precursor for a number of biologically active molecules vital to the maintenance of membrane structure and normal cell signalling. Results from scientific research, although mixed, suggest that GLA may offer benefits for sufferers of blood platelet dysfunction (thromboembolic disease), atherosclerosis and rheumatoid arthritis.

Evening primrose and borage oils, which have naturally high GLA contents, are currently the primary sources of GLA for human consumption. Currently GLA oil costs are high and supply is unreliable. We believe our transgenic safflower oil will offer a low cost, high volume, reliable source of GLA.

As an agriculture commodity (i.e. borage and evening primrose), the market for GLA rich oil offers few barriers to entry. However, we believe the competitive risk in the GLA market for our product is low due to high market fragmentation and the cost and production benefits that will be offered by our GLA-producing transgenic crop.

In May 2004, we entered into a development and license agreement with Arcadia to develop transgenic safflower lines as a source for GLA, which will be subsequently commercialized by Arcadia and its partners. Under the terms of this agreement we are eligible to receive license, research and milestone payments during development, and royalties on Arcadia's sales upon commercialization.

We are currently engineering safflower plants to produce GLA. Arcadia will use the seeds produced by us to develop a commercial safflower line for the bulk production of GLA rich oil. Arcadia is the exclusive

licensee to the patent protected GLA genes used to make this product. We anticipate that Arcadia will commercialize GLA rich safflower oil in 2007 or 2008.

DHA Rich Safflower Oil

We are developing safflower oil engineered to contain the essential long chain polyunsaturated omega-3 fatty acid docoasahexaenoic acid (DHA), a nutrient with proven health benefits that is used as a supplement, food ingredient and as an animal feed ingredient. DHA, in combination with arachidonic acid, has been demonstrated to be essential for normal brain development in infants and is currently added to preterm and full term infant formulas worldwide. DHA is also important in the maintenance of normal brain function in adults.

Adults may obtain DHA via foods such as fish or organ meats and infants obtain DHA through breast milk. While there are currently no universally recognized guidelines for daily DHA consumption, a workshop sponsored by various groups, including the U.S. National Institute of Health, recommended that adults consume at least 220 mgs of DHA daily. The World Health Organization has issued similar guidelines for infant nutrition. The U.S. Department of Agriculture and other organizations in Europe and Asia have compiled data showing dietary intake in Western developed societies is less than one-half of this level.

In December 2003, we entered into an exclusive agreement with Martek Biosciences Corporation (NASDAQ: MATK) of Columbia, Maryland, the world's largest supplier of DHA. Martek currently produces DHA using proprietary microalgae production technology. This microalgae technology allows Martek to address high value markets like infant nutrition which produced revenues of US$107 million for Martek in 2003. We and Martek project that increased recognition of DHA dietary insufficiency and a lower cost source will expand the financial opportunity in food and beverage, animal nutrition and aquaculture markets. Our product will complement Martek's current products by allowing them to address these higher volume, price sensitive markets with a lower cost product. Under the terms of this agreement, we are eligible to receive up to US$10 million in research, upfront and milestone payments to fund the development and commercialization of safflower oil containing DHA and royalties on Martek's gross margin on sales of the DHA rich safflower oil developed by us.

Martek currently holds a dominant position in the DHA market and has a strong patent position on the genes it believes are necessary to produce DHA in plants. However, we believe that several other agricultural biotechnology companies are also working on developing plant oils genetically engineered to produce oils enriched with DHA. At this time, we are not aware of any reports of successful production of DHA in plants.

We are working collaboratively with Martek on this project which is currently in the proof-of-concept phase. We project product commercialization for 2009 or 2010.

StratoCapture™ Protein A Reagent — a purification system for monoclonal antibody manufacturers

Our StratoCapture™ Protein A Reagent consists of oilbodies engineered to surface display Protein A. Protein A is a protein ligand that associates with monoclonal antibodies in a highly specific manner. Immobilized Protein A is essential for the purification of pharmaceutical antibodies such as Synagis® (Abbott Laboratories), Herceptin® (Genentech), and Remicade® (Johnson & Johnson). StratoCapture™ Protein A Reagent offers a simplified, economical single use alternative to existing batch column based Protein A purification systems, which are expensive, complex and labour intensive.

Monoclonal antibodies are one of the fastest growing drug categories in the world and the market is expected to grow at 21% per year (Datamonitor, 2003). This growth is paralleled by growth in the cGMP

Protein A market, which we estimate was US$65 million for 2003 and anticipate will grow through 2008 to over US$160 million.

Currently Protein A is produced by recombinant bacterial fermentation and then bound to various carbohydrate or glass resins for use in affinity chromatography columns, making the reagent expensive. Additionally, the use of Protein A columns involves a complex, labour intensive batch process. High reagent costs force antibody manufacturers to reuse these Protein A resins as many as 200 times resulting in cost and inconvenience as regenerated columns must be re-validated. Participants in this industry have advised us that they would prefer a single use, disposable reagent but none is currently available. We believe our StratoCapture™ Protein A Reagent will meet the needs of antibody producers as its low cost of production allows for disposability. Our system allows continuous flow processing which will simplify operations and further reduce costs associated with the purification of monoclonal antibodies. We project that our StratoCapture™ Protein A Reagent could reduce antibody production costs by as much as 20%.

The potential benefits of the StratoCapture™ Protein A Reagent have attracted partnership interest from both end-users and reagent suppliers who are seeking to simplify antibody purification and reduce overall costs. We are currently in negotiations with leading reagent suppliers to commercialize our StratoCapture™ Protein A Reagent. Our objective is to structure an agreement that will provide us with a combination of license fees, milestone payments and royalties.

The antibody purification market is currently well serviced and dominated by a small number of organizations with comprehensive product development and customer service and support capabilities. These companies are continually improving the utility and cost effectiveness of their Protein A based products, resulting in a very competitive market. Amersham BioSciences Corp. (recently acquired by General Electric) is the market leader, with Millipore (NYSE:MIL), the number two supplier. In addition, several other companies are looking for ways to gain entry to this high margin, rapidly growing market. There are also several other companies which are attempting to commercialize alternatives to immobilized Protein A for the purification of monoclonal antibodies.

We have developed a commercial safflower line for our StratoCapture™ Protein A Reagent, and are now scaling up for commercial production. The product has undergone intensive product and process development, and we are currently conducting feasibility testing programs with leading commercial antibody manufacturers. We are developing plans for a cGMP pilot plant for production and testing of our StratoCapture™ Protein A Reagent and expect to have it fully operational by 2005 or 2006. The manufacture and use of StratoCapture™ Protein A Reagent for the purification of monoclonal antibodies is protected by four issued U.S. patents. We anticipate that our StratoCapture™ Protein A Reagent will reach the market in 2007 or 2008.

Future Non-Pharmaceutical Products — expanding the pipeline

We are also exploring the development of other non-pharmaceutical products. Activities in this area include the development of our purification technology beyond antibody purification for entrance into the laboratory reagent markets, and the potential development of additional nutritional oils, animal health products, and food processing enzymes. We are also evaluating the potential drug delivery advantages that may be inherently associated with the physicochemical characteristics of oilbodies for oral and topical applications.

As an example of our pipeline building strategy, in April 2004 we executed a fully-funded feasibility agreement with Dow AgroSciences LLC of Indianapolis, Indiana for the production of an animal vaccine. This agreement further supports our business strategy for the generation of intermediate term revenues and provides additional confirmation of the value of our technology.

MANUFACTURING

SemBioSys currently operates an 1,800 square foot pilot plant, capable of processing approximately 100 kilograms of seed per hour to produce approximately 40 kilograms of oilbodies. This pilot plant is a key element in our product development program and is currently being used to:

- Produce market development quantities of oilbodies for use in the commercialization of our DermaSphere™ Ingredient System (Lonza, our partner, will be responsible for commercial production);
- Produce sample quantities of oilbodies to facilitate our StratoDerm™ Skin Care System partnering efforts;
- Confirm the utility of our StratoCapture™ Protein A Purification System at pilot scale; and
- Process transgenic seed as part of the purification of protein products and product candidates we are developing.

We are currently developing plans to build a cGMP pilot plant to produce clinical quantities of our current and future pharmaceutical protein product candidates for use in Phase I and Phase II clinical trials and expect to have it fully operational by 2005 or 2006. We anticipate it will cost approximately $5 million to build, validate and commission the cGMP pilot plant. We have also developed detailed engineering plans for a commercial manufacturing facility with capacity to produce several thousand metric tons of oilbodies per year for use in topical applications.

PLANT GENETIC ENGINEERING

Underlying all of our transgenic product development is our ability to efficiently introduce genes into safflower using plant genetic engineering. Much of the process is covered by trade secrets, and we are not aware of any other group that can routinely genetically engineer safflower. As far as we know, we are the only company to have conducted field trials with transgenic safflower and we routinely conduct field trials in Canada, the United States and Chile. Our field trials have included one or more genetically engineered safflower lines containing fGH, Protein A and three other products.

HUMAN RESOURCES

As at May 31, 2004 we had 39 full-time employees and 5 contract employees, 19 of whom hold Ph.Ds. Our staff has expertise in plant genetic engineering, biochemistry, protein purification, agronomics, management and finance. We have developed an organization that uses standard operating procedures to efficiently execute the process necessary for moving from a gene to a plant producing transgenic protein through to a purified product.

FACILITIES

We lease 70,000 square feet in two adjacent buildings in Calgary. Our lease for this space expires in 2011. We are currently using 27,000 square feet of this space for our headquarters, administrative offices and research laboratories. We anticipate an expansion of approximately 5,000 square feet to facilitate our cGMP pilot plant and additional indoor plant growth facilities. We believe that these facilities will meet our needs for at least the next three years.

OUR BUSINESS STRATEGY

A Focus on Protein-Based Pharmaceuticals

Our long term strategy is to focus on protein-based pharmaceuticals where we believe the benefits of the Stratosome™ Biologics System and the Affinity Capture System give us a market advantage through flexibility and scalability of production, by enabling the production of proteins that are problematic using other transgenic systems, through lower capital costs for protein production and purification facilities and lower production costs. Initially we have chosen to focus on products where clinical efficacy has already been demonstrated, such as insulin, or where early clinical data is encouraging, such as Apo AI. For such product candidates, the key technical challenges are primarily those associated with the deployment of our technology towards the production of the target protein. As the first products move through the development pipeline, we expect to develop additional product candidates.

As a complement to this long term strategy, we are developing non-pharmaceutical products, which have the benefits of lower regulatory hurdles, development costs and capital requirements, allowing us to generate revenues in the short to medium term with relatively low risk. In addition, commercialization of non-pharmaceutical products will allow us to continue developing the organizational infrastructure required to develop and commercialize protein-based pharmaceuticals.

The DermaSphere™ Ingredient System, StratoDerm™ Skin Care System, fGH, nutritional oils (GLA and DHA) and the StratoCapture™ Protein A Reagent are all examples of our lower risk non-pharmaceutical products in development.

Leveraging Our Technology Through Partnering Agreements

Partnering with companies that bring financial resources and complementary development, manufacturing and commercialization skills is a central component of our business strategy.

In the case of protein-based pharmaceuticals, we will develop product candidates through the early stages of the clinical development process. In these stages, we will develop a proprietary safflower line that produces commercial levels of the target protein and then conduct the trials necessary to demonstrate that the product is safe and efficacious. In those cases where we are developing an already approved product, we will demonstrate that our product is biochemically and physiologically equivalent to the approved product. In practice, this means we will generally develop product candidates through the completion of pre-clinical, Phase I or Phase II clinical trials, at which point we will seek to enter into a partnership agreement. We anticipate these agreements will include licensing fees and milestone payments to us and that we will participate in successful commercialization through royalties on product sales and profits on supply of product.

In the case of our non-pharmaceutical products, we will typically enter into partnerships after key technical milestones have been achieved and look for partners with manufacturing, sales, marketing, and technical service capabilities. We expect these arrangements to generate license or milestone fees as well as royalties on product sales. In the case of nutritional and pharmaceutical oils, we will partner with companies who provide the genes necessary for development of the product and who will be responsible for product development and commercialization. Such partnerships will ideally include provisions for our partners to fund our product development through a combination of research and milestone payments and royalties on product sales.

Leveraging Our Technologies Through In-Licensing Agreements

We plan to in-license pharmaceutical product candidates such as proteins, peptides and monoclonal antibodies, and non-pharmaceutical products where our oilbody-oleosin technology platform offers benefits for capital savings, lowering costs of goods and scale-up and provides a source of sustainable,

competitive advantage. We expect to enter into partnerships with academic institutions, other biotechnology companies and pharmaceutical companies that will provide access to the intellectual property and biological material necessary to integrate the product candidate into our development programs.

Increase Shareholder Value by Enhancing Intellectual Property

Our intellectual property strategy has two primary objectives. First, we seek to continually augment our existing patent portfolio with new patent applications that further strengthen our proprietary position for our oilbody-oleosin technology platform. Second, we seek new patent protection around each of the target molecules or classes of molecules that we are able to successfully produce in plants. This protection includes composition of matter claims to plants expressing the target molecule and methods of manufacturing the target molecule in plants. To date, we own or have the exclusive rights to 52 U.S. and international patents, including patents with composition of matter claims relating to plants containing oleosin fusions, claims related to specific products, as well as claims related to methods of manufacturing recombinant proteins in plants.

We believe that our current patent portfolio makes it difficult for another firm to manufacture products involving the use of oilbodies without infringing on one or more of our patents. Due to the broad geographical protection of our patent portfolio, we believe this to be true in key markets such as the U.S., Europe, Japan and Canada and also in markets that may be accessed following initial successful introduction of our products, such as South America and Asia. Nevertheless, there is no assurance that our existing patents will be found not to be infringed upon by potential competitors or will not be successfully challenged and invalidated. In addition, while we intend to vigorously defend our patent rights, there can be no assurance that such a defence will be successful. See ''Risk Factors — Patent and Proprietary Rights''.

Managing Growth and Profitability

We currently have the capacity to conduct development programs through the proof-of-concept and product generation phases in an efficient milestone driven process. As products and product candidates that move through the development pipeline reach the next phase of development, new ones will be introduced. We intend to make additions to our development organization, facilities and equipment to extend this capability through the production of material for pre-clinical and early stage clinical development trials and the management of those trials. This strategy will allow us to have more products at various stages of development at any point in time. We expect to contract out all of our pre-clinical and clinical trials.

PARTNERSHIPS, STRATEGIC ALLIANCES AND LICENSING

In line with our business strategy we have entered into the following partnerships, alliances and collaborations:

Corporate & Collaboration Partnerships

Aqua Bounty Technologies Inc.

In December 2002, we entered into a strategic relationship with Aqua Bounty Technologies Inc., a private aquaculture biotechnology company based in Boston, Massachusetts. We intend to collaborate with Aqua Bounty to develop and commercialize safflower produced fGH for sale in the shrimp and fish feed markets. Each party is responsible for their own costs associated with the development and commercialization of this product and the sharing of all revenues on a 50/50 basis.

Syngenta Participations AG

In November 2003, we entered into a Technology License Agreement with Syngenta Participations AG. Under the terms of the agreement, Syngenta has the right to exercise a series of options to access our technology for their proprietary protein-based pharmaceuticals. Syngenta made an upfront payment to us of US$3.75 million and an advance of US$2.25 million secured by a convertible promissory note which will be converted into Common Shares and Common Share purchase warrants on the Closing Date. See "Description of Share Capital — Share Capital Reorganization". We are eligible to receive additional option exercise fees, royalties based on pre-commercialization revenues received by Syngenta, as well as royalties on Syngenta product sales.

Martek Biosciences Corporation

In December 2003, we entered into an exclusive agreement with Martek Biosciences Corporation of Columbia, Maryland, the world's largest supplier of DHA. Under the terms of the agreement, we will be responsible for the development of safflower lines containing DHA and will grant Martek the exclusive right to the research results in order to commercialize safflower produced DHA rich oil. We are eligible to receive up to a total of US$10 million in contract research payments and milestone payments as well as royalties on Martek's gross margins and sublicense revenues.

Lonza, Inc.

In April 2004, we entered into an exclusive agreement with Lonza, Inc. covering the license, production and sale of the DermaSphere™ Ingredient System for the personal care market. Pursuant to the agreement, Lonza will be responsible for the commercial production, marketing and sale of the DermaSphere™ Ingredient System. Lonza made an upfront license payment and we are eligible for additional licensing fees as well as royalty payments based on Lonza product sales, which are anticipated to commence in 2005.

Dow AgroSciences LLC

In April 2004, we entered into a feasibility agreement with Dow AgroSciences LLC. Under the Agreement, we will engage in proof-of-concept work relating to the production of an animal vaccine using our Stratosome™ Biologics System. We will receive upfront payments and are eligible for milestone payments.

Arcadia Biosciences, Inc.

In May 2004, we entered into a development and license agreement with Arcadia Biosciences, Inc., a private agricultural biotechnology company based in Phoenix, Arizona. Under the terms of the agreement, we will be responsible for the development of safflower lines containing GLA and will grant Arcadia an exclusive licence under applicable technology to commercialize safflower produced GLA rich oil. We will receive contract research payments, and are eligible for license fees and milestone payments as well as royalties on product sales by Arcadia.

Non-Dilutive Investment Agreements

Technology Partnerships Canada

In March 2001, we entered into an agreement with Technology Partnerships Canada (TPC) regarding financial assistance to be provided by the Government of Canada for the commercial development of our oilbody-oleosin technology platform. To date, we have received $5.5 million under this agreement and we have successfully completed all our development work. Repayment will be made through royalties on product sales and is conditional upon product commercialization.

Alberta Value Added Corporation

In June 2001 and March 2003, we entered into two separate agreements with the Alberta Value Added Corporation (AVAC). Under these agreements, AVAC funded the development of the oilbody-oleosin technology for the production of monoclonal antibodies in safflower and the development of our StratoCapture™ Protein A Purification System. To date, we have received $3.35 million (of up to $4.9 million) under these agreements. This investment is repayable upon successful commercialization of monoclonal antibodies or the StratoCapture™ Protein A Reagent.

Technology License Partnerships

University Technologies International Inc.

In a March 1996 agreement with University Technologies International Inc. (UTI), a wholly-owned subsidiary of the University of Calgary, we acquired the exclusive, worldwide rights to our oleosin-oilbody technology. This license emanated from the rights initially held by Dr. Maurice Moloney prior to his assignment of such rights to UTI. The agreement provides for royalty payments to UTI if we use the oilbody-oleosin technology covered by this license to commercialize products.

Biomolecular Tools

We use several biomolecular tools to generate transgenic plants. We have developed a series of these tools through our internal technology development program and negotiated rights from third parties to use others. Under non-exclusive license agreements with Mogen Licencing NV (now Syngenta), Garching Innovations GmbH (the commercialization arm of the Max Planck Institute), The Dow Chemical Company, Dow AgroSciences LLC and Aventis (now Bayer CropScience), we have acquired the right to use certain plant promoters, selectable markers and *Agrobacterium* plant transformation methodologies. With the exception of one of these licenses, we are not required to pay royalties on any products sold.

COMPETITION

We compete with a variety of companies on a product by product basis, in addition to those with competitive technology platforms.

In insulin, we will compete with Eli Lilly & Company (NYSE: LLY), Novo Nordisk (NYSE: NVO) and Aventis (NYSE: AVE). In Apo AI, we will compete with Pfizer Inc. (NYSE: PFE) and other companies developing HDL-targeted therapeutics including GlaxoSmithKline PLC (NYSE: GSK), Japan Tobacco Inc., and AstraZeneca PLC (NYSE: AZN).

Our DermaSphere™ Ingredient System will compete with a wide array of specialty ingredients suppliers including BASF AG (NYSE: BF), Clariant International Ltd. (SMI: CLN) and Cognis Deutschland GmbH & Co. KG. Our StratoDerm™ Skin Care System will compete with topical pharmaceutical ingredient suppliers including The Dow Chemical Company (NYSE: DOW), Stepan Company (NYSE: SCL) and Lipo Chemicals, Inc.

Competition to fGH is limited with bovine somatotropin (BST) and growth hormone used on a limited basis in some Asian markets to accelerate growth in fin fish. In addition, salmon and tilapia have been genetically engineered for accelerated growth although these products have not yet reached the market. BST has been shown to stimulate disease resistance for shrimp, but we believe that the cost advantage of our fGH product will make it very competitive. Our StratoCapture™ Protein A Reagent will compete with Protein A columns sold by reagent suppliers including Amersham Biosciences Corp. (recently acquired by General Electric) and Millipore Corp. (NYSE: MIL).

Other competitors include transgenic plant and animal companies, such as GTC Biotherapeutics, Inc. (NASDAQ: GTCB) (goats), Nexia Biotechnologies Inc. (TSX: NXB) (goats), Biolex, Inc. (duckweed), Large Scale Biology Corporation (NASDAQ: LSBC) (tobacco), Meristem Therapeutics Inc. (corn) and Medicago Inc. (alfalfa). We believe that the low cost of production, the low capital costs and the flexibility benefits of our technology make us competitive with both traditional and transgenic technologies for those products where manufacturing is a strategic issue.

Companies with technologies that address protein manufacturing are also competitors. These include other biotechnology and pharmaceutical companies such as Genentech, Inc. (NYSE: DNA), as well as contract manufacturers such as Lonza Biologics Inc. and Boehringer Ingelheim GmbH. Each of these competitors use traditional bacteria, yeast or animal cell culture systems to manufacture pharmaceutical proteins.

PATENTS AND PROPRIETARY RIGHTS

We believe that our patent portfolio is a significant asset. Consequently, we spend a substantial amount each year to maintain and further strengthen our patent portfolio. It is our policy to file patent applications in all major markets as well as major safflower crop production areas in the world. We employ a multi-tiered approach to building patent protection that involves patents with various broad technology claims in addition to patents that are directed to specific molecules or classes of molecules produced in plants.

We currently own or have exclusive rights to 52 patents that were issued or granted (13 in the U.S. and 39 in other jurisdictions) and an additional 137 patent applications pending (23 in the U.S. and 114 in other jurisdictions). Most of the non-U.S. pending patent applications are national entries of PCT (worldwide) applications.

Central to our patent strategy are two groups of core patents and patent applications. One group consisting of 11 U.S. patents and applications has claims directed to the production of recombinant proteins in plants using the oilbody-oleosin technology platform. The other group consisting of 16 U.S. patents and applications has composition of matter, manufacturing method, and method of use claims directed to formulations comprising oilbodies. Our oldest patents will expire in 2014 in the U.S. and 2011 in most other jurisdictions.

We have developed internal processes for monitoring new technology developments, identifying and recording patentable technology and monitoring patent status. We also have developed significant know-how relating to various technologies we employ. Most significant in this regard is our know-how relating to the generation of genetically engineered safflower and the manufacture at scale of oilbodies, all of which are maintained as trade secrets. It is our policy to require employees, consultants, academics and collaborators to enter into agreements which provide for confidentiality and for sole ownership of new intellectual property resulting from work done for us.

In Canada, the U.S. and the European Community, one or more of the following trademarks related to our business and technology are currently pending or registered: ''SemBioSys'', ''Stratosome'', ''StratoCapture'', ''StratoCleave'', ''DermaSphere'', ''StratoDerm'', ''NutraSphere'' and ''FloraSphere''.

REGULATORY ENVIRONMENT

Overview

Our products will be subject to various regulatory approvals, with the specific regulatory requirements being dependent upon the type of product. Our pharmaceutical product candidates are subject to regulation for safety and efficacy by various governmental authorities around the world. Transgenic plant products are subject to regulation with respect to environmental safety and the adequacy of our

production practices in ensuring that our products do not enter the food supply or damage the environment. In cases where our products are plant-made proteins, the regulatory path is unproven, as there is little precedent for the large scale field production of such products, and no plant-made proteins have yet been approved for use as pharmaceuticals. There is additional uncertainty surrounding the specifics of the regulatory process for some of our pharmaceutical protein product candidates as they are follow-on pharmaceutical proteins for which the regulatory approval process is uncertain.

The Regulatory Process for Drug Development

In Canada, pharmaceutical products are regulated by the *Food and Drug Act* and the rules and regulations promulgated thereunder, which are enforced by the Therapeutic Products Directorate (TPD), a department of Health Canada. In the U.S., drugs and biological products are subject to regulation by the Food and Drug Administration (FDA). These laws and regulations require licensing of manufacturing and contract research facilities, carefully controlled research and testing of products, governmental review and approval of results prior to marketing therapeutic products. Additionally, they require adherence to good laboratory practices as well as good clinical practices during clinical testing and good manufacturing practices during production. The systems of new drug approvals in Canada and the U.S. are generally considered to be among the most rigorous in the world.

In general, the steps required for approval of a new drug in Canada and the U.S. are:

Preclinical Studies: Prior to preclinical studies, a research phase takes place which involves validation of target and function, design, screening and synthesis of inhibitors. Preclinical studies involve evaluations of animal pharmacology and toxicity, pharmacokinetics and metabolism of a drug in animals to provide evidence of the safety, bioavailability and activity of the drug in animals. The results of the formal IND-enabling preclinical studies as well as the comprehensive descriptions of proposed human clinical studies are then submitted as part of the IND application to the FDA or its Canadian equivalent, a Clinical Trial Application, to the TPD.

Phase I Clinical Trials: Phase I clinical trials are usually first-in-man trials, take from a few months to two years to complete and are generally conducted on a small number of healthy human subjects to evaluate the drug's safety, schedule and dose, pharmacokinetics and pharmacodynamics.

Phase II Clinical Trials: Phase II clinical trials take approximately one to three years to complete and are carried out on a relatively small to moderate number of patients (compared to Phase III) suffering from the targeted condition or disease to determine the drug's efficacy, optimal doses, regimens, pharmacokinetics, pharmacodynamics and dose response relationships. This phase also provides additional safety data and serves to identify possible common short-term side effects and risks in a larger group of patients. Phase II clinical trials often include randomization of patients as well as a placebo arm.

Phase III Clinical Trials: Phase III clinical trials take approximately two to five years to complete and involve tests on a much larger population of patients (several hundred to several thousand patients) suffering from the targeted condition or disease. These studies usually include randomization of patients, a placebo arm and blinding of both patients and investigators at geographically dispersed test sites (multi-centre trials) to establish clinical safety effectiveness.

New Drug Application: Upon completion of the Phase III clinical studies, the company sponsoring the new drug then assembles all the pre-clinical, clinical and manufacturing data and submits it to the FDA or the TPD as part of a New Drug Application in the United States or a New Drug Submission in Canada, respectively. The submission or application is then reviewed by the regulatory body for approval to market the product. This process usually takes six months to two years to complete.

The regulatory path for follow-on pharmaceutical proteins, like insulin, after Phase I trials is uncertain. The FDA is developing guidelines for the regulatory process for follow-on protein-based pharmaceuticals,

but until such guidelines are developed, any variance from the standard clinical trial protocols will be on a case-by-case basis. Based on discussions with our regulatory consultants, we believe that we may be able to receive approval from the FDA to file an NDA for our insulin product candidate upon completion of a Phase I/II trial demonstrating safety, purity and bioequivalence of our product candidate to commercial insulin. We believe insulin is particularly suited for abbreviated clinical trial protocols because it is a relatively simple protein and there is extensive clinical data concerning its safety and efficacy. If the FDA does not permit abbreviated clinical trial protocols we may be required to conduct full clinical trials.

The Regulatory Process for Transgenic Plant Production

Our personnel have been at the forefront of developing regulations for the production of pharmaceutical producing plants, working with the United States Department of Agriculture (USDA), the FDA and the Canadian Food Inspection Agency (CFIA).

Our President and CEO, Andrew Baum is a member of the Board of Washington based Biotechnology Industry Organization (BIO) which is the trade organization representing the U.S. biotechnology industry. In addition, Mr. Baum is on BIO's Food and Ag Governing Body and chairs the working group of BIO on plant-made pharmaceuticals. Mr. Baum is also the Chairman of the Board of BioAlberta and a member of the Board of BIOTECanada.

In the U.S., transgenic plants producing pharmaceutical proteins are subject to regulation by the USDA's Animal and Plant Health Inspection Service (APHIS) under the authority of the *Plant Protection Act* (PPA). These plants are grown under an APHIS permit that specifies confinement conditions designed to minimize their impact on the environment and the possibility that pharmaceutical proteins could enter the food supply. APHIS permit confinement conditions for these plants have increased each year since 2002, and APHIS is currently considering significant revisions to its regulation of all transgenic plants, which may further increase permit confinement conditions. Few plants producing pharmaceutical proteins, if any, have reached commercial planting scales. It is unclear at this time what conditions APHIS will place on these plants when produced at commercial scale.

In Canada, transgenic plants that produce pharmaceutical proteins are regulated by the CFIA under the *Seeds Regulations Act*. The stringency of the confinement conditions for growth of these plants in Canada is very similar to that of the APHIS permit conditions, however, current regulations do not allow for more than five hectares of any one transgenic crop in any one province. Existing regulations surrounding the growth of plants engineered to produce pharmaceutical proteins are currently being reviewed.

In Chile, pharmaceutical-producing transgenic plants are regulated by the Agriculture and Livestock Service division of the Department of Agriculture Protection (SAG). SAG also enforces a number of terms and conditions to ensure that confinement is in accordance with specific Chilean Agricultural Protection laws. We produce plants in Chile to balance large scale production of our safflower lines with counter-seasonal grow-out.

Use of proceeds

We expect the net proceeds from the Offering will be approximately $ ● million. We intend to use such proceeds as follows:

(i) approximately $11 million for development of our insulin and Apo AI product candidates, including pre-clinical and Phase I clinical trials;

(ii) approximately $5 million for capital asset expenditures including the construction of a multipurpose pilot plant for the production of insulin, Apo AI and other proteins for Phase I and Phase II clinical trials as well as development quantities for our StratoCapture™ Protein A Reagent;

(iii) approximately $2 million for on-going research and development focussed on new products; and

(iv) the balance of $ ● million for general corporate purposes, including working capital and possible acquisition of technology.

The amounts and timing of the expenditures will vary depending upon a number of factors, including our future revenue growth and the amount of cash generated from operations. Our plans with respect to the allocation of the net proceeds of the Offering among the uses described above may change after the date of this prospectus. In particular, the types of acquisitions or investment that we may make will largely depend upon the business opportunities that we identify, if any, which we cannot predict at this time. Pending utilization of the net proceeds of the Offering, we will invest the funds in short-term interest bearing obligations pursuant to our investment policy.

Based on our current operations and plans, we anticipate that using our existing financial resources together with the net proceeds of the Offering, we will be in a position to sustain our operations until 2007.

Selected consolidated financial information

The following is a summary of our selected consolidated financial information as at and for the fiscal years ended December 31, 2003 and 2002 as at and for the three month periods ended March 31, 2004 and March 31, 2003 that have been derived from our consolidated financial statements appearing elsewhere in this prospectus. The selected consolidated balance sheet data as at December 31, 2001 has been derived from our consolidated balance sheet as at December 31, 2001 which is not included in this prospectus. The summary information should be read in conjunction with our consolidated financial statements and the related notes and with "Management's Discussion and Analysis", included elsewhere in this prospectus. The weighted average number of Common Shares outstanding and per share amounts have been adjusted to reflect the 1 for 10 consolidation effected as part of the Share Capital Reorganization but not the conversion of the Class A Preferred Shares or the US$2.25 million convertible promissory note. See "Description of Share Capital".

Consolidated Statement of Operations Data

	Three Months Ended March 31,		Year Ended December 31,		
	2004	2003	2003	2002	2001
	unaudited	unaudited ($,000's, except per share data)			
Revenues					
Licensing fees	—	—	4,865	—	—
Contract research	166	—	85	294	963
	166	—	4,950	294	963
Expenses					
Research and development	1,006	1,137	4,337	6,272	4,958
General and administration	626	644	2,578	2,950	2,011
Intellectual property costs	192	196	1,494	1,039	679
Business development	155	129	545	508	251
Cost recoveries	(125)	(230)	(1,176)	(1,972)	(4,236)
Investment tax credits	(175)	(175)	(823)	(964)	(507)
Loss before undernoted	(1,513)	(1,701)	(2,005)	(7,539)	(2,193)
Interest expense	(46)	(7)	(43)	(39)	(23)
Interest income	53	50	148	272	703
Foreign exchange gain (loss)	(34)	6	125	(35)	32
Loss for the period	(1,540)	(1,652)	(1,775)	(7,341)	(1,481)
Loss per common share, basic and diluted[1]	(0.28)	(0.31)	(0.33)	(1.36)	(0.28)
Weighted average number of common shares outstanding, basic and diluted[1]	5,413	5,390	5,392	5,379	5,375

Note:

(1) The effects of potentially dilutive instruments (Class A Preferred Shares, stock options, warrants and convertible promissory note) on loss per common share are not dilutive. See Note 2 to the Consolidated Financial Statements for the years ended December 31, 2003, 2002 and 2001.

Selected Consolidated Balance Sheet Data

	As Adjusted[1] Mar 31, 2004	Mar 31, 2004	Dec 31, 2003	Dec 31, 2002	Dec 31, 2001
	unaudited	unaudited	($000's)		
Cash and cash equivalents		7,239	9,443	6,577	11,462
Working capital	●	7,199	8,572	6,436	13,900
Total assets	●	11,986	14,037	11,810	19,025
Deferred cost recoveries	●	500	562	—	—
Long term liabilities	●	1,450	1,372	545	295
Total shareholders' equity		8,751	10,275	10,094	17,426

Note:

(1) As adjusted information reflects the completion of the Offering without exercise of the Over-allotment Option.

Selected Consolidated Quarterly Financial Information

The following table sets out selected financial information for each of the eight quarters ended March 31, 2004. In the opinion of our management, this information has been prepared on the same basis as the audited financial statements appearing elsewhere in this prospectus, and all necessary adjustments have been included in the amounts stated below to present fairly the unaudited quarterly results when read in conjunction with our audited financial statements and the notes to those statements. The operating results for any quarter should not be relied upon as any indication of results for any future period.

	Quarter Ended							
	2004	2003				2002		
	Mar. 31	Dec. 31	Sept. 30	June 30	Mar. 31	Dec. 31	Sept. 30	June 30
				unaudited ($000's)				
Revenues	166	4,950	—	—	—	60	—	84
Net income (loss)	(1,540)	2,489	(1,527)	(1,084)	(1,652)	(2,554)	(1,931)	(1,983)
Income (loss) per common share, basic and diluted[1][2]	(0.28)	0.46	(0.28)	(0.21)	(0.31)	(0.47)	(0.36)	(0.37)

Notes:

(1) The effects of potentially dilutive instruments on loss per common share are not dilutive. See Note 2 to the Consolidated Financial Statements for the years ended December 31, 2003, 2002 and 2001.

(2) The per share amounts have been adjusted to reflect the 1 for 10 consolidation effected as part of the Share Capital Reorganization but not the conversion of the Class A Preferred Shares or the US$2,250,000 convertible promissory note. See "Description of Share Capital".

Management's discussion and analysis

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following information should be read in conjunction with our selected financial data and consolidated financial statements and related notes appearing elsewhere in this prospectus, which are prepared in accordance with Canadian generally accepted accounting principles. Certain information contained in management's discussion and analysis of our financial condition and results of our operations constitute forward-looking statements. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by such forward-looking statements. See "Forward Looking Statements" and "Risk Factors".

OVERVIEW

We are a biotechnology company focused on the development, commercialization and production of protein-based pharmaceutical product candidates and non-pharmaceutical products based on our plant engineering skills and our proprietary oilbody-oleosin technology platform.

Our business strategy is to develop products which respond to a significant market need where our technology creates sustainable competitive advantage. Our primary focus is the development of protein-based pharmaceuticals. We are currently developing insulin (for diabetes) and Apo AI (for cardiovascular disease) product candidates. In addition to our pharmaceutical product candidates, we have a number of non-pharmaceutical products under development. Beyond generating revenue and profits in the short and medium term, commercialization of these non-pharmaceutical products will allow us to develop much of the infrastructure required to develop and commercialize nutritional oils and therapeutic proteins.

We expect longer-term revenues and profits to be generated from the commercialization of protein-based pharmaceuticals. These revenues are considered long term as a result of the long lead times required for clinical trials and regulatory approvals.

Revenue and Expenses

Revenue is generated from licensing fees, contract research and related milestone payments and royalties.

Research and development expenses consist primarily of personnel and related costs associated with the development of our portfolio of pharmaceutical and non-pharmaceutical products and product candidates.

General and administration costs consist of personnel and related costs associated with our administrative and finance functions as well as our professional fees, office rent and utilities, insurance and other corporate expenses.

Intellectual property costs consist of personnel and related costs associated with the development and maintenance of our intellectual property portfolio. Our technology is protected by patents filed worldwide. See "Our Business — Patents and Proprietary Rights".

Business development costs consist of personnel and related costs associated with promoting our technology platform and costs associated with licensing, contract research and partnering activities.

Significant Accounting Policies

Revenue Recognition

Revenues from licensing fees are recognized at the date the license is granted if there is persuasive evidence of an arrangement, collection of the resulting receivable is reasonably assured, the fee is fixed or determinable, delivery has occurred and the contract has commenced.

Future royalty revenues, based on a percentage of sales of certain declared products sold by third parties, will be recorded as revenues when earned.

Contract research revenues for cost plus margin agreements are recognized as the services are performed. Contract research revenues related to milestone agreements are recorded as milestones are achieved and customer acceptance has occurred.

Research and Development

Research and development expenditures (with the exception of those which are capital in nature) are expensed as incurred unless a development project meets the criteria for deferral under Canadian generally accepted accounting principles. No development costs have been deferred to date.

Cost Recovery Agreements and Government Assistance

Cost recovery agreements relate to agreements with various government programs whereby we are contracted to complete research projects and are reimbursed for research costs related to the specified project. The contribution agreements have specific milestones that must be completed under the terms of the agreements. Upfront payments are deferred and recognized over the agreement term as milestones have been achieved.

Investment Tax Credits

We are entitled to investment tax credits (ITCs) based on certain scientific research and experimental development expenditures (SRED) incurred. These cash credits are recognized when there is reasonable assurance of their recovery using the cost reduction method. ITCs are subject to assessment by the Canada Customs and Revenue Agency. Adjustments required, if any, are reflected in the year when such assessments are received.

During and following the taxation year in which this Offering is completed, ITCs related to scientific research and development expenditures incurred thereafter will no longer be refundable and may only be used to reduce future income taxes payable, if any.

ITCs and other cost recoveries related to property and equipment are credited against the book value of property and equipment and the credit is released to income on a straight line basis as a reduction of amortization expenses over the estimated useful lives of the relevant assets. The remaining balance is recorded as a reduction of scientific research and development expenditures.

Stock Based Compensation

On January 1, 2004, we adopted the standard set out in CICA Handbook Section 3870, "Stock-based Compensation and Other Stock-based Payments". This standard requires the recognition of the value of stock options issued in the financial statements in the period of issuance. We calculate the fair value of stock options issued with consideration of factors specific to us. For options granted to employees and directors, the fair value is deferred and expensed over the period the options vest, with a corresponding increase in contributed surplus. For options granted to advisors, expense is recognized immediately as a cost of service for the fair value of options granted to consultants.

Income Taxes

The Company uses the liability method of accounting for income taxes, under which future tax assets and liabilities are recognized for differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Future tax assets and liabilities are measured using substantively enacted tax rates in effect in the period in which those temporary differences are expected to be recovered or settled. The effect on future tax assets and liabilities of a change in tax rates is recognized as part of the provision for income taxes in the period that includes the enactment date. A valuation allowance is recorded against the future tax asset to the extent it is more likely than not that some or all of the future tax assets will be realized.

Significant Developments in 2003

In November 2003, we signed a Technology License Agreement with Syngenta Participations AG. The agreement gives Syngenta access to our proprietary oilbody based Stratosome™ Biologics, StratoCapture™ Purification and Affinity Capture Systems for the development of Syngenta's biologic products. The agreement provides for an upfront payment to us of US$3.75 million and an advance of US$2.25 million secured by a convertible promissory note. We may receive additional option exercise fees, royalties based on pre-commercialization revenue received by Syngenta, as well as royalties on Syngenta product sales. The promissory note plus accrued interest is convertible, at the option of the holder, into common shares or preferred shares, or, upon the occurrence of certain events, preferred shares and, for each preferred share issued, 0.145 of a preferred share purchase warrant. Syngenta has advised us that prior to the closing of this Offering, it will convert the note into Common Shares and Common Share purchase warrants in accordance with the terms of the note. The number of shares and warrants to be issued will be based on the exchange rate in effect on the Closing Date. Assuming the exchange rate in effect on May 31, 2004 of $1.3634 Cdn. for each US$1.00 and assuming a conversion date of June 30, 2004, the conversion of the note by Syngenta will result in the issue of 511,900 Common Shares and 74,225 Common Share purchase warrants. See ''Capitalization''.

In December 2003, we signed a collaboration agreement with Martek Biosciences Corporation to co-develop value-added specialty oil products with potential nutritional applications. Under the terms of the multi-year agreement, we will use our safflower biotechnology capabilities to develop plant sourced DHA products for Martek in return for up to US$10 million in research and milestone payments as well as the potential for royalties on gross margins from Martek's product sales.

Financial Review — Comparison of three months ended March 31, 2004 and 2003

Contract research revenue increased by $166,000 in the three months ended March 31, 2004 over the three months ended March 31, 2003 as a result of revenue earned for services related to the Martek contract. There was no comparable revenue in 2003.

Research and development costs were $131,000 lower in the three months ended March 31, 2004 over the three months ended March 31, 2003 as a result of a decrease in consulting fees and contract research expenses. The decrease in these expenses is a result of less work being contracted to third parties.

General and administration expenses decreased by $18,000 in the three months ended March 31, 2004 compared with the three months ended March 31, 2003 as a result of a decrease in utilities costs for the operation of the head office and research facility in 2004 over 2003.

Intellectual property costs decreased to $192,000 in the three months ended March 31, 2004 compared with $196,000 in the three months ended March 31, 2003 mainly as a result of the timing of legal and patent prosecution expenses in 2004 compared to 2003.

Business development costs were $25,000 higher in the three months ended March 31, 2004 than in the three months ended March 31, 2003 as a result of increased travel costs relating to our partnering activities.

Cost recoveries decreased $105,000 in the three months ended March 31, 2004 compared to the three months ended March 31, 2003 as a result of the timing of milestone payments under the AVAC Ltd. agreement. Cost recoveries related to this agreement are based on the achievement of specified milestones, and, therefore, recognition of these recoveries will vary, depending on the achievement of the milestones.

Interest expense increased to $46,000 in the three months ended March 31, 2004 compared with $7,000 in the three months ended March 31, 2003 as a result of interest incurred on the Syngenta promissory note for which there is no comparable amount in 2003.

Interest income was $3,000 higher in the three months ended March 31, 2004 than in the three months ended March 31, 2003 as a result of slightly higher average cash balances during the three month period ended March 31, 2004.

Foreign exchange loss was $34,000 during the three months ended March 31, 2004 compared to a gain of $6,000 in the three months ended March 31, 2003 as a result of the decline in the Canadian dollar relative to the US dollar during the first quarter of 2004. The Syngenta promissory note is denominated in US dollars.

Financial Review — Comparison of Years ended December 31, 2003 and 2002

We signed a Technology Licensing Agreement with Syngenta in November 2003. Under the terms of this agreement, Syngenta received an option to obtain a license to the Company's patented oleosin technology for proprietary Syngenta products on a product by product basis in return for an option payment of U.S. $3.75 million. The entire amount is included in income because no future services are owed by the Company to Syngenta in exchange for the option payment and because the agreement requires that Syngenta pay additional option exercise fees and royalties for each product. No additional option fees or royalties have been earned to date. The license is world wide, non-exclusive, limited and terminable.

Contract research revenue was $209,000 lower in 2003 than in 2002 as a result of a protein research contract which ended June 30, 2002 and was not renewed or replaced in 2003.

Research and development expenses decreased by $1,935,000 in 2003 compared to 2002 largely as a result of a 20% staff reduction that occurred in September 2002. Research and development expenses recorded in 2003 incorporate the full effect of these staff and related expense reductions.

General and administration expenses decreased by $371,000 in 2003 compared to 2002 mainly as a result of staff reductions in September 2002 and a reduction in consulting fees paid as a result of our implementation of a cost reduction strategy in late 2002.

Intellectual property costs were $455,000 higher in 2003 compared to 2002 as a result of a significant increase in legal fees relating to the Syngenta licensing agreement and the Martek collaboration agreement.

Business development expenses increased $37,000 in 2003 from $508,000 in 2002 as a result of increased travel costs relating to our partnering activities.

Cost recoveries decreased by $796,000 in 2003 compared to 2002 due to recoveries from the Technology Partnerships Canada (TPC) contribution agreement during 2002 for which there was no comparable amounts in 2003. We completed the terms of the TPC contract in 2002 and achieved the objectives outlined in the agreement. To date, we have been successful in attracting various sources of repayable and non-repayable government funding to assist with operating and capital expenses. There is no guarantee

that we will successfully negotiate these agreements in the future depending on changes in program criteria and other eligibility factors.

ITCs decreased by $141,000 in 2003 compared to 2002 as a result of lower eligible expenses in 2003 compared to 2002. To date, we have received all ITCs that have been claimed. However, we note that we will lose the refundable portion of the ITC for the taxation year in which the Offering is completed and for subsequent taxation years given that we will lose our Canadian Controlled Private Corporation (CCPC) status as a result of this Offering. Future ITCs will only be available to reduce future income taxes payable.

Interest expense increased by $4,000 in 2003 compared to 2002 as a result of slightly higher interest rates in 2003 compared to 2002.

Interest income decreased $124,000 in 2003 compared to 2002 as a result of a decrease in average cash balances in 2003.

The foreign exchange gain of $125,000 in 2003 resulted from the fact that certain US dollar denominated expenses were accrued in 2002 but paid in 2003 at a significantly lower exchange rate. In early 2003, there was a significant improvement in the Canadian dollar relative to the US dollar. This improvement was sustained throughout 2003.

Financial Review — Comparison of Years ended December 31, 2002 and 2001

Contract research revenue decreased by $669,000 in 2002 compared to 2001 as a result of a protein research contract which ended June 30, 2001 and was not renewed or replaced.

Research and development expenses increased to $6,272,000 in 2002 compared to $4,958,000 in 2001 as a result of an increase in staff and related expenses during 2002. In September 2002, we reduced our staff by 20%.

General and administration costs were $938,000 higher in 2002 than in 2001 largely as a result of the full effect of the operating costs for the new head office and research and development facilities in 2002. We moved into our new facility in July 2001.

Intellectual property costs increased by $360,000 in 2002 compared to 2001 as a result of a significant increase in legal fees and patent prosecution fees as the number of patents and the costs to protect these patents increased during the year.

Business development costs increased by $258,000 in 2002 compared to 2001 as a result of hiring a full-time Vice President of Business Development in early 2002.

Cost recoveries were $2,264,000 lower in 2002 than in 2001 as a result of the 2001 recoveries related to the Technology Partnerships Canada (TPC) agreement. These recoveries included a large amount relating to costs incurred in 2000 that were recorded as a recovery in 2001 in accordance with the terms of the agreement.

ITCs increased $457,000 in 2002 compared to 2001 as a result of higher eligible scientific research and development expenditures.

Interest expense was $16,000 higher in 2002 compared to 2001 as a result of an increase in long term debt used to finance equipment purchases.

Interest income decreased to $272,000 in 2002 compared to $703,000 in 2001 as a result of a decrease in average cash balances in 2002.

Foreign exchange declined from a gain of $32,000 in 2001 to a loss of $35,000 in 2002. This change resulted from fluctuations in the exchange rate between the Canadian and US dollar during the periods. During much of 2002, the Canadian dollar was weak relative to the US dollar.

Contractual Obligations

Minimum payments under our contractual obligations are as follows as of March 31, 2004:

	Total	2004	2005	2006	2007	2008	Thereafter
				($)			
Operating leases	3,836,665	500,236	473,813	480,027	487,997	490,172	1,404,420
Long Term Debt	508,609	112,658	160,117	164,731	71,103	Nil	Nil
Convertible Promissory Note	3,004,841[1]	Nil	Nil	Nil	Nil	Nil	Nil
Repayable Advances	926,694	841,054[2]	Nil	Nil	85,640[3]	Nil	Nil

Notes:

(1) This represents the face value in Canadian dollars plus accrued interest as at March 31, 2004 and assumes that the note is converted to Common Shares as a result of this Offering.

(2) This balance includes US$500,000 attributable to the Martek agreement. If Martek terminates the agreement prior to December 31, 2004, then US$250,000 must be returned to Martek. If we terminate the agreement prior to December 1, 2004, then US$500,000 must be returned to Martek. Thereafter, upon any terminations other than due to a breach by us, we shall be entitled to retain the entire advance. See "Our Business — Non-Pharmaceutical Products Under Development — DHA Rich Safflower Oil". The remaining advance may become repayable in 2004 if the advance is not offset against funding of a research chair at the University of Calgary.

(3) Under the terms of a 1999 contract research agreement, US$50,000 plus interest at the current prime rate may be repayable if the advance has not been offset against royalties or purchases by December 30, 2007.

Critical Accounting Estimates

The preparation of financial statements in accordance with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent liabilities at the date of the financial statements and the reported amounts of sales and expenses during the reporting period. Actual results can differ from those estimates. Significant estimates have been made in the following areas: the calculation of the investment tax credits receivable, the useful lives of property and equipment, the valuation of stock options and the initial calculation of the fair value of the convertible promissory note.

We are entitled to ITCs based on certain scientific research and experimental development expenditures. ITCs are recorded at full value when there is reasonable assurance of their recovery using the cost reduction method. This policy has been used as a result of the fact that we have received the full amount of all claims in prior years. As noted above, we will lose the refundable portion of ITCs for scientific research and experimental development expenditures for the taxation year in which the Offering is completed and for subsequent taxation years. ITCs for the taxation year in which the Offering is completed and for subsequent taxation years will be available only to reduce future income taxes, if any.

Property and equipment are recorded at cost less accumulated amortization. We amortize leasehold improvements over the term of the lease on our head office and research facilities. Laboratory and process development equipment are amortized based on their estimated useful life, generally 10 years.

We used the residual value of equity component method to allocate the proceeds from the convertible promissory note issued to Syngenta. We estimated that the appropriate interest rate for such a note was 15% based on the fact that the note is subordinate to all other debt, is unsecured and convertible into Common Shares if the Company closes an initial public offering with net proceeds greater than

US$15 million. A 1% change in the assumed lending rate would have caused a material change in the allocation of the proceeds between debt and equity.

Liquidity and Capital Resources

Our primary capital needs are for funds to support our scientific research and development activities including pre-clinical and clinical trials and capital expenditures for development of pilot plant facilities and working capital. Since inception, we have financed our cash requirements primarily through issuances of securities, investment tax credits, government funding, cost recoveries, contract research revenues, long-term debt and interest income.

Our investment activities are subject to the guidelines contained in our investment policy. We invest only in liquid, high grade investment securities of reputable banks.

At March 31, 2004, we had long-term debt of $509,000, a convertible promissory note payable in the amount of US$2.25 million plus accrued interest and cash and cash equivalents of $7.2 million. We also had a positive working capital of $7.2 million.

We had cash and cash equivalents of $9.4 million as at December 31, 2003, an increase of $2.9 million over December 31, 2002. The cash increase was largely the result of the issuance of a US$2.25 million convertible promissory note, a license fee payment of US$3.75 million and a US$500,000 advance. The cash increases were offset by a loss from operations. In addition, we had investment tax credits receivable of $750,000 as at December 31, 2003.

As part of the Martek agreement, Martek advanced US$500,000 to us to assist us with our working capital requirements during the first year of the contract. This advance is included in the repayable advances section of "Current Liabilities". If Martek terminates the agreement in the first year, then US$250,000 must be returned to Martek. If the termination is due to a breach by us, the full US$500,000 must be returned. Thereafter, we are entitled to retain the entire advance.

In the three month period ended March 31, 2004 as compared to the three month period ended March 31, 2003, cash used in operating activities increased $323,000 mainly as a result of a decrease in accounts payable and accrued liabilities.

Cash used in operating activities declined from $4.5 million as at December 31, 2002 to $432,000 in 2003 as a result of the decrease in net loss in 2003 over 2002 of $5.6 million and a decrease of $1.6 million in non cash working capital and other balances related to operations.

Cash used in operating activities increased by $356,000 in the year ended December 31, 2002 compared to the year ended December 31, 2001. This increase resulted from an increase in net loss from operations of $5.9 million offset by a change of $5.3 million in non-cash working capital and other balances related to operations.

There are no capital commitments other than those described in the "Contractual Obligations" table. For additional financing requirements and access to capital, see "Risk Factors".

Financing Activities

Cash used in financing activities decreased by $18,000 in the three months ended March 31, 2004 compared to the three months ended March 31, 2003 as a result of lower principal payments on long-term debt and the sale of common stock under our employee stock option plan.

Cash provided from financing activities increased to $3.3 million in the year ended December 31, 2003 compared to $333,000 in the year ended December 31, 2002. The increase results from the issuance of a

US$2.25 million convertible promissory note to Syngenta and the receipt of repayable advances of $544,000. There were no comparable amounts in 2002.

Cash provided from financing activities decreased to $333,000 in the year ended December 31, 2002 compared to $359,000 in the year ended December 31, 2001. The decrease results from an increase in long term debt repayments as a result of new debt issued to finance certain laboratory equipment.

There are no off-balance sheet financing arrangements or hedging arrangements.

Investing Activities

Investing activities during the three month period ended March 31, 2004 and March 31, 2003 relate to the acquisition of capital assets. The increase of $12,000 in the three month period ended March 31, 2004 compared to the three month period ended March 31, 2003 relates to the replacement of some computer equipment.

Investing activities during the year ended December 31, 2003 relate to the acquisition of capital assets. The capital assets additions decreased by $725,000 in 2003 compared to 2002 as a result of enhanced cost controls for purchasing new equipment.

Acquisition of capital assets additions declined from $3.6 million in the year ended December 31, 2001 to $756,000 in the year ended December 31, 2002 as a result of the fact that the initial acquisition of leasehold improvements, and laboratory equipment relating to our head office and research and development facility occurred in 2001 with no comparable costs in 2002.

Related Party Transactions

Dow AgroSciences Canada, Inc., BiotecKnowledge Associates Inc. and University Technologies International Inc. (UTI) are considered related parties as a result of their equity investment in our company and representation on our board of directors. UTI is a subsidiary of The University of Calgary. BiotecKnowledge is owned by Dr. Maurice Moloney, our Chief Scientific Officer.

Amounts due to related parties comprise:

	March 31, 2004	December 31, 2003	December 31, 2002
		($000's)	
	(unaudited)		
Dow AgroSciences Canada, Inc.	118	118	190

The balances are unsecured and non-interest bearing.

Research and development expenses paid to related parties:

	March 31,		December 31,		
	2004	2003	2003	2002	2001
			($000's)		
	(unaudited)				
University of Calgary	—	—	—	—	136
Dow AgroSciences Canada, Inc.	—	—	—	201	154
BiotecKnowledge Associates Inc.	—	—	—	—	33

Risks and Uncertainties

Prospects for companies in the biotechnology industry generally may be regarded as uncertain given the nature of the industry and, accordingly, investments in biotechnology companies should be regarded as highly speculative. The realization of our long-term potential will be dependent upon the successful development and commercialization of products and product candidates currently under development. We can make no assurance that these products and product candidates will be developed or receive regulatory approval. Our new products and product candidates are currently in the research and development stages, the riskiest stages for a company in the biotechnology industry. We can make no assurance that our research and development programs will result in commercially viable products and product candidates. To achieve profitable operations, we, alone or with others, must successfully develop, introduce and market our products and product candidates. To obtain regulatory approvals for the products and product candidates being developed and to achieve commercial success, clinical trials must demonstrate that the products and product candidates are safe for human or animal use and that they demonstrate efficacy. Unsatisfactory results obtained from a particular study relating to a program may cause the company or its collaborators to abandon the commitments to that program. We can make no assurance that any future tests, if undertaken, will yield favourable results. See ''Risk Factors''.

Dividend policy

We have not declared or paid any dividends on the Common Shares to date. The payment of dividends in the future will be dependent on our earnings, financial condition and such other factors as our board of directors considers appropriate.

Capitalization

The following table sets forth our consolidated capitalization as at March 31, 2004, giving effect to the Share Capital Reorganization and after giving effect to the Offering, excluding any Common Shares underlying the Share Purchase Warrants or issued pursuant to the Over-allotment Option. The table must be read with the financial statements and accompanying notes, which appear hereafter in this prospectus.

Description of the Security	Securities Authorized	Outstanding as at March 31, 2004	Outstanding as at March 31, 2004 Proforma given the Current Offering
Long-term debt (including current portion)		$ 508,609	$ 508,609
Common Shares	Unlimited	$ 24,313,245 8,573,537 shares	$ ● ●
Common Share options[1]	1,192,226	$ 437,253 699,604 options	$ 437,253 699,604 options
Warrants[2]	456,870	$ 3,994,859[3] 456,870 warrants	$ 3,994,859[3] 456,870 warrants
Share Purchase Warrants[4]	●	nil nil	$ ● [5] ● warrants
Deficit		$ 15,636,723	$ 15,636,723

Notes:

(1) Stock options issued pursuant to our Stock Option Plan. See "Compensation of Directors and Executive Officers". Table does not include 87,400 (giving effect to the Share Capital Reorganization) Common Share options granted to directors, officers and employees in April and May 2004, 33,200 options that were exercised and 45,000 options that expired after March 31, 2004.

(2) Each warrant is exercisable into one Common Share at an exercise price of $6.275 to be exercised prior to 4:30 p.m. (Calgary time) on October 17, 2007.

(3) This amount includes the cash receivable when warrants are exercised ($2,866,859) together with current carrying value of Common Share purchase warrants ($1,128,000).

(4) Pursuant to the Offering, each whole Share Purchase Warrant is exercisable into one Common Share at an exercise price of $ ● to be exercised prior to 4:30 pm (Calgary time) on ● .

(5) This amount includes the cash receivable when Share Purchase Warrants are exercised ($ ●).

Description of share capital

SHARE CAPITAL REORGANIZATION

We will effect the Share Capital Reorganization prior to the closing of this Offering by: (i) converting all Class A Convertible Preferred Shares into Common Shares; (ii) cancelling our Class A Convertible Preferred Shares as an authorized class of shares and creating a new class of preferred shares issuable in series; (iii) consolidating our Common Shares, options and warrants on a ten-to-one basis with a corresponding adjustment to the exercise price of options and warrants; (iv) converting all outstanding preferred share purchase warrants into Common Share purchase warrants; (v) terminating our shareholders' agreement dated October 17, 2000; and (vi) converting a convertible promissory note (face value of US$2.25 million) held by a subsidiary of Syngenta into Common Shares and Common Share purchase warrants. Assuming an exchange rate in effect on May 31, 2004 of $1.3634 Cdn. for each US$1.00, and assuming a conversion date of June 30, 2004, the conversion of the promissory note by Syngenta will result in the issue of 511,900 Common Shares (post consolidation) and 74,225 Common Shares purchase warrants (post consolidation). The actual number of Common Shares and Common Share purchase warrants issuable on the conversion of the promissory note by Syngenta will depend on the currency exchange rate in effect on conversion which will take place on the Closing Date. Under the terms of the Underwriting Agreement, the Share Capital Reorganization must be completed prior to the closing of the Offering.

After the completion of this Offering, our authorized share capital will consist of an unlimited number of Common Shares all without nominal or par value, an unlimited number of first preferred shares (First Preferred Shares), outstanding warrants issued pursuant to the Share Capital Reorganization and Share Purchase Warrants issued pursuant to this Offering. The following sets forth the attributes of those securities following the Share Capital Reorganization.

COMMON SHARES

Holders of Common Shares will be entitled to receive notice of and to attend all meetings of our shareholders, except meetings at which holders of another specified class of shares are exclusively entitled to vote, and will be entitled to one vote for each Common Share held on all votes taken at such meetings. The holders of Common Shares will be entitled to receive such dividends as our directors may in their discretion declare, regardless of whether dividends are declared on any other class of shares. Upon our liquidation, dissolution or winding-up, the holders of Common Shares will be entitled to receive any remaining property after payment of any amount required to redeem or retract any issued and outstanding First Preferred Shares and any other shares ranking senior in priority to the Common Shares.

WARRANTS

Pursuant to prior private placements, we issued 456,870 warrants each exercisable at $6.275 per Common Share until October 17, 2007. No warrant indenture was entered into with respect to these warrants.

SHARE PURCHASE WARRANTS

On ● , 2004, we entered into a Share Purchase Warrant Indenture with Computershare Trust Company of Canada pursuant to which Share Purchase Warrants offered hereunder will be issued. Each whole Share Purchase Warrant is exercisable into one Common Share at an exercise price of $ ● at any time prior to 4:30 pm (Calgary time) on ● . The Share Purchase Warrant Indenture contains provisions for adjustments to the number of Common Shares issuable and the exercise price per Common Share in certain events.

FIRST PREFERRED SHARES

The First Preferred Shares may be issued in one or more series, with each series to consist of such number of shares as may, before the issue of the series, be fixed by our directors. Our directors will be authorized, before the issue of the series, to determine the designation, rights, privileges, restrictions and conditions attaching to the First Preferred Shares of each series. The First Preferred Shares of each series will rank equally with respect to the payment of dividends and the distribution of assets or return of capital in the event of our liquidation, dissolution or winding-up and in priority to the Common Shares and any other shares ranking junior to the First Preferred Shares. In addition, if any amount of cumulative dividend or declared non-cumulative dividend or an amount payable on return of capital in respect of shares of a series of First Preferred Shares is not paid in full, the shares of the series will be entitled to participate rateably with the shares of any other series of the same class in respect of such amounts.

REGISTRATION RIGHTS

Under our shareholders' agreement dated October 17, 2000 we have granted to the holders of our Class A Convertible Preferred Shares certain registration rights. These rights will continue after the Closing Date. On or before closing, our shareholders' agreement will be terminated and we will enter into a registration rights agreement under which we will grant to the former holders of our Class A Convertible Preferred Shares the same registration rights those holders had under the shareholders' agreement dated October 17, 2000. Under this agreement, certain shareholders will have the right, subject to market conditions and other factors, to require that we undertake the filing of a registration statement in the United States or a prospectus in Canada for the purpose of permitting a distribution to the public by these shareholders of a portion of their Common Shares and the right to distribute to the public a portion of their Common Shares in an offering of Common Shares undertaken by us. No shareholders have indicated that they will exercise any of these rights to participate in this Offering.

Executive officers, key employees and directors

EXECUTIVE OFFICERS AND KEY EMPLOYEES

The following table provides the names and municipalities of residence of our executive officers and key employees.

Name and Municipality of Residence	Position
Andrew Baum Calgary, Alberta	Director, President and Chief Executive Officer
Maurice Moloney, Ph.D. Calgary, Alberta	Chief Scientific Officer
James Williams, C.A. Calgary, Alberta	Vice President, Finance and Administration
Harm Deckers, Ph.D. Calgary, Alberta	Director, Intellectual Property
Joseph Boothe, Ph.D. Calgary, Alberta	Director, Biochemistry
Steven Szarka, Ph.D. Calgary, Alberta	Director, Cell and Molecular Biology
Ronald Bassuner, Ph.D., D.Sc. Calgary, Alberta	Director, Manufacturing and Process Development
Janis Goll, M.Sc. Calgary, Alberta	Manager, Research Operations
Rick Keon, M.Sc. Calgary, Alberta	Manager, Planting Operations and Field Regulatory Affairs
Nancy Markley, Ph.D. Calgary, Alberta	Manager, Business Development

BIOGRAPHIES

Andrew Baum, Director, President & Chief Executive Officer

Mr. Baum has been our President and Chief Executive Officer since August 1998. Prior to joining us, Mr. Baum spent 16 years at Calgene, Inc., an agricultural biotechnology firm where he started as Calgene's first employee and rose to the position of President of Calgene's Oils Division. Mr. Baum developed and implemented all aspects of Calgene's genetically engineered oils business, one of the first to focus on using genetic engineering to develop output traits. In 1997, Calgene was acquired for US$240 million by Monsanto Company, a world leader in agricultural biotechnology, food ingredients and pharmaceuticals. Mr. Baum thereafter served as the Director of Business Development for the Sustainable Development Sector of Monsanto. In this capacity, Mr. Baum was responsible for identifying and addressing new business opportunities as well as ensuring a smooth transition of Calgene's plant oils business into Monsanto. Mr. Baum received his B.Sc. in Industrial Engineering and Operations Research from the University of California at Berkeley.

Mr. Baum is a member of the Board of the Washington based Biotechnology Industry Organization (BIO) which is the trade organization representing the U.S. biotechnology industry. In addition, Mr. Baum is on BIO's Food and Ag Governing Body and chairs the working group of BIO on plant-made

pharmaceuticals. Mr. Baum is also the Chairman of the Board of BioAlberta and a member of the Board of BIOTECanada.

Maurice Moloney, Ph.D., Chief Scientific Officer

Dr. Moloney, our scientific founder, has over twenty years of extensive experience in plant biotechnology and has been our Chief Scientific Officer since July 2001. Dr. Moloney holds the Natural Sciences and Engineering Research Council of Canada (NSERC) Industrial Research Chair in Plant Biotechnology, a position he has held since 1995. Dr. Moloney is also a professor in the Department of Biological Sciences at the University of Calgary where he has been teaching since 1990. Prior to these positions, Dr. Moloney was the head of the Cell Biology Group at Calgene Inc., where he developed the first transgenic oilseed plants using canola as the model crop. This resulted in a landmark patent in plant biotechnology and eventually became the basis of Monsanto's Roundup Ready® and Liberty Link® canola products. Dr. Moloney has published more than seventy original research papers and is an inventor on eighteen issued or pending patent families. Dr. Moloney serves on many federal and corporate advisory boards and is currently a member of NSERC Council and the Chairperson of NSERC's Committee on Research Partnerships. Dr. Moloney has received a number of prestigious awards, including the Alberta Science and Technology (ASTECH) Award for leadership in Alberta Technology. Dr. Moloney received his B.Sc. in Organic Chemistry from Imperial College at the University of London and his doctorate in Plant Biochemistry from Leicester Polytechnic in the United Kingdom.

James Williams, C.A., Vice President, Finance and Administration

Mr. Williams joined us in 1999 as Director, Finance and Administration. Mr. Williams has more than twenty years of experience in all aspects of financial accounting and reporting to internal and external stakeholders. Prior to joining us, Mr. Williams spent five years as the Director of Special Projects for Industry Canada's Native Economic Development Program (NEDP). Mr. Williams also spent ten years in the oil and gas industry domestically and overseas. Mr. Williams was responsible for external financial reporting to the U.S. Securities and Exchange Commission (SEC) and the Ontario Securities Commission, organization and preparation of annual operating and capital budgets as well as internal, external and joint venture audits. Mr. Williams articled with Deloitte & Touche in Toronto and received his Chartered Accountant designation from the Canadian Institute of Chartered Accountants in 1973.

Harm Deckers, Ph.D., Director, Intellectual Property

Dr. Deckers is our Director, Intellectual Property. In July 1996, Dr. Deckers joined us to establish and direct our Intellectual Property Group. Dr. Deckers oversees the management of our patent estate and our technology in-and out-licensing programs. In addition, Dr. Deckers has been a member of the negotiation team in virtually all of our major partnership transactions. Dr. Deckers is an author of several scientific papers and is named co-inventor on several of our U.S. patents and pending patents. Dr. Deckers received his B.Sc. and M.Sc. in Biology from the Agricultural University Wageningen in the Netherlands and received his Ph.D. in Biochemistry and Molecular Biology from the University of Calgary. Dr. Deckers was a post-doctoral fellow at the University of Montreal, Quebec.

Joseph Boothe, Ph.D., Director, Biochemistry

Dr. Joseph Boothe joined us in 1994 as a senior research scientist. As a member of the original research team, developing the oilbody-oleosin technology platform, Dr. Boothe helped to develop our core technology and contributed to our early proof-of-concept work. Dr. Boothe is currently Director, Biochemistry, and is responsible for the purification, characterization and bioassay of our lead recombinant protein products. Prior to this, Dr. Boothe worked as a research associate at the Plant Biotechnology Institute of the National Research Council (Canada) and in the Plant Sciences Department

of the University of Alberta. Dr. Boothe's research interests over this period include the molecular and cell biology of plant gametes and the expression and function of plant low temperature-induced proteins. Dr. Boothe is the author of numerous research and review articles and is also an inventor on eight issued or pending patents comprising some of our core technology. Dr. Boothe received his B.Sc. in Genetics and his Ph.D. in Plant Science from the University of Western Ontario.

Steven Szarka, Ph.D., Director, Cell and Molecular Biology

Dr. Szarka joined us as a research scientist and project manager in 2001. Dr. Szarka is currently the Director, Cell and Molecular Biology, and oversees a department of scientists responsible for optimization of gene expression and plant transformation, as well as several product research and development programs. Prior to joining us, Dr. Szarka completed two research associate positions developing plant based vaccines and utilizing protein engineering to develop improved thrombolytic agents. Dr. Szarka has authored numerous peer reviewed publications. Dr. Szarka received his B.Sc. in Cellular, Molecular and Microbial Biology and his Ph.D. in Plant Molecular Biology from the University of Calgary.

Ronald Bassuner, Ph.D., D.Sc., Director, Manufacturing and Process Development

Dr. Bassuner is our Director, Manufacturing and Process Development and has been with us since 2001. Dr. Bassuner directs our pilot plant manufacturing and process development activities and leads our protein and recombinant biopharmaceutical manufacturing efforts for early phase clinical studies with outside parties. Prior to this, Dr. Bassuner was a scientific and project leader at Monsanto's Integrated Protein Technologies. Dr. Bassuner also held positions as visiting assistant professor and project leader at Purdue University, visiting scientist at the Food Research Institute in Tsukuba, Japan, and principal investigator and group leader at the Crop Plant Research Institute in Gatersleben, Germany. Dr. Bassuner has authored numerous peer-reviewed publications and is an inventor on several issued and pending patents. Dr. Bassuner received his doctorate in Genetics (habilitation) from the University Halle in Germany and his doctorate in Molecular Biology from the Academy of Sciences in Berlin, Germany. Dr. Bassuner received his M.Sc. in Biology and Plant Biochemistry from the University of Moldova in Kishinev, U.S.S.R.

Janis Goll, M.Sc., Manager, Research Operations

Ms. Goll is our Manager, Research Operations and has been with us since our inception in 1994. At that time, Ms. Goll worked concurrently at Dr. Moloney's lab at the University of Calgary and managed our research labs. Ms. Goll initially joined Dr. Moloney's research labs in 1989. Ms. Goll was instrumental in the design and building of our original pilot plant and head office complex and for the design, building and outfitting of all new equipment for our 27,000 sq. ft. facility in Calgary, which opened in 2001. Ms. Goll manages our operations group and research labs as well as our purchasing and facilities management functions. Ms. Goll has authored research articles and is also an inventor on six issued and several pending patents. Ms. Goll received her B.Sc. in Cellular and Microbial Biology and her M.Sc. in Molecular Genetics from the University of Calgary.

Rick Keon, M.Sc., Manager, Planting Operations and Field Regulatory Affairs

Mr. Keon is our Manager, Planting Operations and Field Regulatory Affairs. Mr. Keon is responsible for managing the personnel in our growth facilities, seed management and in the field. Mr. Keon is also our liaison with various government regulatory bodies concerning the field growth guidelines required to produce our seed. Mr. Keon initially joined us in 1995 as a Research Associate in molecular biology, working to construct a set of proprietary plant transformation plasmids. Later in 2001, Mr. Keon was promoted to Research Scientist where he led the research work for several of our projects. In 2001, Mr. Keon moved from Research and Development into his current position in management. Mr. Keon is

also the Chair of BIOTECanada's Molecular Farming Task Force and sits on their Ag Policy Committee. Mr. Keon is also on the BIO Compliance Task Force and various steering committees at the Canadian Food Inspection Agency (CFIA) that address biotechnical regulations. Mr. Keon received his B.Sc. in Biochemistry and his M.Sc. in Molecular Microbiology from the University of Calgary.

Nancy A. Markley, Ph.D., Manager, Business Development

Dr. Markley joined us in the fall of 1998 as our first Research Analyst and became our Manager, Business Development in July 2003. In addition to execution of our core business development activities, Dr. Markley is the senior manager responsible for our personal care and topical pharmaceutical business. Dr. Markley has been integral to the development and licensing of our DermaSphere™ Ingredient System for personal care and is leading commercial development and partnering of the StratoDerm™ Skin Care System for dermatological markets. Dr. Markley is the author and co-author of numerous research and review articles and is an inventor on pending patents comprising our technology. Dr. Markley received her Ph.D. in Molecular Biology from the University of Calgary and completed her postdoctoral research in cell cycle regulation at the University of Calgary, Faculty of Medicine (Alberta Cancer Board Fellow).

DIRECTORS

The following table provides the names and municipalities of residence of our directors as well as their offices.

Name and Municipality of Residence	Current Positions and Offices Held	Principal Occupation	Director Since
Andrew Baum ..... Calgary, Alberta	Director, President and Chief Executive Officer	President and Chief Executive Officer	October 1998
Richard Smith[(1)(2)(3)] ..... Calgary, Alberta	Director and Chairman of the Board of Directors	President and Chief Executive Officer, Dow AgroSciences Canada, Inc.	January 1998
Nancy Harrison[(2)(3)] ..... North Vancouver, British Columbia	Director	Senior Vice President, Ventures West Management Inc.	October 2000
Douglass Given[(1)(2)] ..... Atherton, California	Director	Venture Partner, Bay City Capital	January 2001
Paul Cataford[(1)] ..... Toronto, Ontario	Director	President and Chief Executive Officer, University Technologies International Inc.	May 2004
David Cox[(2)] ..... Calgary, Alberta	Director	President, Chancellor Life Sciences Inc.	November 1999
David Howard[(3)] ..... North Vancouver, British Columbia	Director	Chairperson, Angiotech Pharmaceuticals Inc.	May 2004

Notes:

(1) member of Audit Committee

(2) member of the Compensation Committee

(3) member of the Corporate Governance and Nominating Committee

All of our directors' terms of office will expire at the earliest of their resignation, the close of the next annual shareholder meeting called for the election of directors, or such other date as they may be removed according to the CBCA.

BIOGRAPHIES

Andrew Baum, Director, President & Chief Executive Officer

See "Executive Officers and Key Employees".

Richard Smith, M.Sc., Director

Mr. Smith is currently the President and CEO of Dow AgroSciences Canada, Inc., a wholly owned subsidiary of The Dow Chemical Company. Dow AgroSciences' current business focus in Canada is targeting human nutrition through the production of healthier products by eliminating transfats and partially hydrogenated oils. Mr. Smith has management experience in the life science areas, including human pharmaceuticals, animal health and plant sciences as well as a number of commercialization

initiatives in plant biotechnology. Mr. Smith is Chairman of the Board of SemBioSys, founding Chairman of BioProducts Canada Inc., a member of the Board and Executive Committee of BIOTECanada and is a Board Member of BioAlberta. Mr. Smith attended the University of Waterloo where he received his M.Sc. in Biochemistry.

Nancy Harrison, B.Sc., MBA, Director

Ms. Harrison has been with Ventures West Management Inc. since 1993 where she currently holds a position as Senior Vice President. Ms. Harrison's focus is on the life sciences sector. Prior to joining Ventures West, Ms. Harrison worked as an engineer with Shell Canada and a consultant with ESSO in Eastern Europe. Ms. Harrison currently serves as a Director of Caprion Pharmaceuticals Inc., Celator Technologies Inc., OncoGenex Technologies Inc. and New Axon Inc. She is a past winner of the "Top 40 Under 40" award. Ms. Harrison received her B.Sc. from Queen's University and her MBA from McGill University.

Douglass Given, MD, Ph.D., MBA, Director

Dr. Given is a Venture Partner at Bay City Capital. Dr. Given was formerly the Chief Executive Officer and a Director of NeoRx Corporation, and Corporate Senior Vice President and Chief Technology Officer at Mallinckrodt, Inc. Prior to these positions, Dr. Given served as Chief Executive Officer and a Director of Progenitor, Inc. and Mercator Genetics in Menlo Park, California. Dr. Given held positions as Vice President of Schering Plough Corp., Vice President of Monsanto/G.D. Searle and Medical Advisor of Lilly Research Laboratories. Dr. Given is a Director for the Advisory Council to the University of Chicago for Biological Sciences, the Pritzker School of Medicine and several biopharmaceutical companies. Dr. Given received his MD and Ph.D. in Virology from the University of Chicago, and an MBA from Wharton School at the University of Pennsylvania. Dr. Given was a fellow in Internal Medicine and Infectious Diseases at Harvard Medical School and Massachusetts General Hospital and an Assistant Professor of Medicine at Indiana University.

David J. Cox, Ph.D., Director

Dr. Cox has recently returned to the position of President of Chancellor Life Sciences Inc., a position he held for seven months in 2002. Until April, 2004, Dr. Cox was the President and Chief Executive Officer of KS Avicenna Inc., a Canadian GMP manufacturer of biologics. Prior to this, Dr. Cox was the President and Chief Executive Officer of SYNSORB Biotech Inc., a publicly-traded pharmaceutical development company based in Calgary, Vice President of Advanced Technologies at Alberta Research Council in Edmonton, and President and Chief Executive Officer of Apotex Fermentation Inc. Dr. Cox is the Chairman of BCY Life Sciences Inc. (TSXV:BCY) and a Director of BioAlberta. Dr. Cox received his Ph.D. in Microbiology at Leeds University.

David T. Howard, Director

Mr. Howard is the Chairperson of Angiotech Pharmaceuticals Inc (TSX:ANP), a world leader in the emerging field of drug coated medical devices and biomaterials. Mr. Howard is also the Chairman of the Board of SCOLR, Inc. (AMEX: DDD), a specialty biopharmaceutical and drug delivery company in Redmond, Washington and is a Director of Delex Therapeutics, Inc., a privately held drug delivery company based in Mississauga, Ontario. Prior to this, Mr. Howard served as President and Chief Operating Officer of Novopharm International of Toronto, Ontario and as President of Novopharm USA, Inc. Mr. Howard's industry experience includes operational and strategic positions with Boehringer Mannheim Canada, where he was Vice President of Pharmaceuticals, and Rhône-Poulenc Pharma in Montreal and Paris.

Paul Cataford, B.Sc., MBA, Director

Mr. Cataford joined University Technologies International Inc. (UTI) as President and Chief Executive Officer in April 2004. UTI is a leading technology commercialization company owned by the University of Calgary. Prior to UTI, Mr. Cataford was the Managing Partner of HorizonOne Asset Management, a Toronto-based private equity boutique which he co-founded in 2001. Mr. Cataford was formerly an Executive Managing Director of BMO Nesbitt Burns Equity Partners and Managing Director and President of BCE Capital, a venture capital firm specializing in high technology sector investment. Mr. Cataford serves on the Boards of UTI, Sierra Wireless Inc., Daily Driller Inc. and Indigo Manufacturing Inc. and previously served on the executive and Board of Canadian Venture Capital Association. Mr. Cataford received his B.Sc. in Mechanical Engineering from Queens University and his MBA from York University's Schulich School of Business.

COMMITTEES OF THE BOARD OF DIRECTORS

We have an Audit Committee, Compensation Committee and a Corporate Governance and Nominating Committee.

Audit Committee

Our audit committee assists our board of directors in fulfilling its responsibilities for oversight and supervision of financial and accounting matters. Our audit committee's responsibilities include (i) recommending to the board of directors the engagement of the external auditor and the terms of the external auditor's engagement; (ii) overseeing the work of the external auditor, including dispute resolution between management and the external auditor, if required; (iii) pre-approving all non-audit service to be provided to us by our external auditor; (iv) reviewing our financial statements, management's discussion and analysis and annual and interim earnings press releases before we publicly disclose the information; (v) assessing the adequacy of procedures for our public disclosure of financial information; (vi) establishing procedures to deal with complaints received by us relating to our accounting and auditing matters; and (vii) reviewing our hiring policies and those of our external auditor. We have adopted, along with our audit committee, a written charter of the audit committee setting out the mandate and responsibilities of the audit committee which is reviewed and assessed on an annual basis.

Compensation Committee

Our compensation committee reviews and makes recommendations to our board of directors concerning the compensation of our executive officers and key employees which includes the review of our executive compensation policies, the administration of our bonuses and stock options and major changes to our benefit plans. Our compensation committee is comprised of non-management members of our board of directors.

Corporate Governance and Nominating Committee

Our corporate governance and nominating committee's mandate is to develop and recommend to our board of directors a set of corporate governance principles and to prepare and review the disclosure with respect to, and the operation of, our system of corporate governance, before such disclosure is submitted to our board of directors for their approval.

Share Ownership by Directors and Officers

Our officers and directors beneficially own, as a group, or exercise control or direction over, directly or indirectly, 1,820,214 Common Shares, representing approximately 21% of our currently issued and outstanding Common Shares, after giving effect to the Share Capital Reorganization but prior to giving

effect to the Offering. Assuming no additional Offered Shares are purchased by such individuals pursuant to this prospectus, our officers and directors, as a group, will own or exercise control over approximately ●% of our outstanding Common Shares after the completion of the Offering.

Corporate Cease Trade Orders or Bankruptcies

Except as disclosed herein, none of our directors, officers or other members of our management have, or within ten years prior to the date of this prospectus have been, directors, officers or promoters of any other companies that, while such person was acting in that capacity:

(a) were the subject of a cease trade order or similar order or an order that denied their access to any statutory exemptions for a period of more than 30 consecutive days; or

(b) were declared bankrupt or made a voluntary assignment in bankruptcy, made a proposal under any legislation relating to bankruptcy or insolvency or were subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold their assets.

Mr. Paul Cataford was a director of Antel Optronics Inc. from late 1993 until immediately before a creditor instituted proceedings to appoint a receiver in 1994.

Penalties or Sanctions

None of our directors, officers or principal shareholders have, within ten years prior to the date of this prospectus, been subject to any penalties or sanctions imposed by a court or securities regulatory authority relating to trading in securities, promotion, formation or management of a publicly traded company, or involving theft or fraud.

Personal Bankruptcies

None of our directors, officers or principal shareholders, or a personal holding company of any such persons, have, within ten years prior to the date of this prospectus, become bankrupt, made a proposal under any bankruptcy or insolvency legislation, been subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold their assets.

Conflicts of Interest

Other than as disclosed herein, none of our directors, officers or principal shareholders and no associates or affiliates of any of them, have or have had any material interest in any transaction which materially affects us. There are potential conflicts of interest to which our directors and officers will be subject in connection with our operations. In particular, certain of our directors are involved in managerial and/or director positions with other companies whose operations may, from time to time, be in direct competition with our operations or with entities which may, from time to time, provide financing to, or make equity investments in, our competitors. Conflicts, if any, will be subject to the procedures and remedies available under the CBCA. The CBCA provides that in the event that a director has an interest in a contract or proposed contract or agreement, the director shall disclose his interest in such contract or agreement and shall refrain from voting on any matter in respect of such contract or agreement unless otherwise provided by the CBCA.

Compensation of directors and executive officers

All numbers of securities and exercise prices in this section are reported giving effect to the Share Capital Reorganization.

SUMMARY OF EXECUTIVE COMPENSATION

The following table provides a summary of the compensation paid during each of the three most recently completed fiscal years to the Chief Executive Officer and our only other two executive officers who are currently serving as executive officers and whose total salary and other compensation during the fiscal year ended December 31, 2003 exceeded $100,000 (the "Named Executive Officers").

		Annual Compensation			Long term Compensation			
					Awards		Payouts	
Name	Fiscal Year Ended Dec 31	Salary ($)	Bonus ($)	Other Annual Compensation	Securities Under Options Granted (#)	Restricted Common Shares or Restricted Shares Units (#)	LTIP Payouts ($)	All other Compensation ($)
Andrew Baum	2003	278,375	40,000	—	—	—	—	—
	2002	278,375	—	—	—	—	—	—
	2001	270,375	68,000		75,000	—	—	—
Maurice Moloney	2003	200,000	25,000	—	—	—	—	—
	2002	175,000	—	—	—	—	—	—
	2001	85,000[1]	30,000	—	50,000	—	—	—
James Williams	2003	105,000	4,000	—	7,500	—	—	—
	2002	90,000	—	—	—	—	—	—
	2001	85,000	15,000	—	10,000	—	—	—

Note:

(1) Start date July 1, 2001.

Options Granted During the Year Ended December 31, 2003

The following table sets forth details of all options to purchase Common Shares that were granted to the Named Executive Officers during the fiscal year ended December 31, 2003.

Name	Securities/Under Options/SARs Granted (#)	% of Total Options/SARs Granted to Employees in Financial Year (%)	Exercise or Base Price ($/Security)	Market Value of Securities Underlying Options/SARs on the Date of Grant ($)	Expiration Date
Andrew Baum	—	—	—	—	—
Maurice Moloney	—	—	—	—	—
James Williams	7,500	13	0.625	4,688	January 2010

Options Exercised During the Year Ended December 31, 2003

The following table sets forth details of: (i) options exercised, and the value thereof, by the Named Executive Officers during the fiscal year ended December 31, 2003; (ii) the number of unexercised options as at December 31, 2003 (exercisable and unexercisable) held by the Named Executive Officers; and

(iii) the value of unexercised "in-the-money" options as at the fiscal year ended December 31, 2003 (exercisable and unexercisable) held by the Named Executive Officers.

Name	Securities Acquired on Exercise	Aggregate Value Realized ($)	Unexercised Options/SARs at December 31, 2003 (#) (Exercisable/Unexercisable)	Value of Unexercised In-the-Money Options/SARs at December 31, 2003 ($) (Exercisable/Unexercisable)
Andrew Baum	—	—	269,996/45,000	168,748/28,125
Maurice Moloney	—	—	20,000/30,000	12,500/18,750
James Williams	3,000	1,875	0/13,500	0/8,438

Employment Agreements

Each of our employees have entered into confidentiality and proprietary rights agreements which survive the termination of their employment and provide for, among other things, customary confidentiality, duty of loyalty and non-competition provisions as well as covenants stipulating that any intellectual property developed in the course of their employment is our property. Certain employees' confidentiality and proprietary rights agreements give us one year from the termination of their contracts to hire them as full-time consultants if they are presented with an opportunity to work for a competitor. In addition, Mr. Baum and Dr. Moloney's confidentiality and proprietary rights agreements stipulate that they shall not solicit our customers for business purposes which compete with us or our employees or affiliates.

The employment agreements of Mr. Baum and Dr. Moloney stipulate that in the event of dismissal without cause, they will be entitled to compensation and benefits (excluding short and long term disability, Alberta Blue Cross and term life insurance) for a period of twelve (12) months following their termination. They shall be entitled to any bonuses and share options earned prior to termination but shall not be entitled to any bonuses, share options or vesting of granted options during the twelve (12) month period following their termination. In the event of a change of control, Mr. Baum and Dr. Moloney's employment agreement stipulates that they shall receive the compensation and benefits stated above but shall be entitled to a lump sum payment of a bonus for the days they were employed during the year of the change of control calculated using the average of annual bonuses earned during the three year period prior to the change of control.

Summary of Directors' Compensation

Our directors do not have service contracts. We compensate our directors in the amount of US$1,500 for meetings attended in person and US$500 for board meetings attended by teleconference and US$500 per committee meeting. In addition, all directors are reimbursed for expenses incurred by them in their capacity as directors, including travel and other out-of-pocket expenses incurred in connection with meetings of the board of directors or any committee of the board of directors. In addition, our directors are eligible to receive stock options under our Stock Option Plan.

Directors' and Officers' Liability Insurance

We maintain a comprehensive directors' and officers' liability policy for the period of December 2003 to December 2004. Our directors and officers are covered by this policy which covers limits of liability for each loss and for the policy period of $3 million with a $15,000 deductible. The worldwide coverage includes derivative shareholder action suits, wrongful acts including libel, slander and defamation, securities claims relating to employment and fiduciary practices. We paid a premium of $18,190 for the policy period.

Key Man Insurance

We are the named beneficiary of an insurance policy with respect to Mr. Baum for $1,000,000 and Dr. Moloney for $1,000,000.

Stock Option Plan

We currently have a stock option plan (the "Plan") in place to assist us in attracting, retaining and motivating directors, officers, employees, consultants and advisors and to closely align their personal interests with those of our shareholders by providing them with the opportunity, through options, to acquire our Common Shares. Prior to the closing of this Offering, the Plan will be amended to meet the requirements of securities regulatory authorities; the following disclosure reflects those proposed amendments.

Our Plan is administered by our board of directors, which has final authority and discretion, subject to the express provisions of our Plan, to interpret the Plan, to prescribe, amend and rescind rules and regulations relating to it and to make all other determinations deemed necessary or advisable for the administration of our Plan. This includes the discretion to decide who will participate in the Plan (the "Participants").

Options granted under the Plan are non-transferable. Vested options granted under the Plan terminate immediately if a Participant is dismissed with cause or within 30 days if a Participant ceases to be a director, officer, employee, consultant or advisor by reason of death, disability or retirement. For other discretionary circumstances where an adjustment of the option exercise period is approved by our board of directors, vested options granted under the Plan will terminate on the earlier of: (i) the expiry of the option, or (ii) 6 months from the date of ceasing to be a director, officer, employee, consultant, or advisor.

The maximum number of Common Shares that may be reserved for issuance pursuant to options granted under the Plan is ● , which we expect to be approximately 10% of our issued share capital on the Closing Date. The maximum number of Common Shares that may be reserved for issuance to any one eligible person pursuant to options granted under the Plan is 5% of the number of common shares outstanding at the time of reservation.

Prior to the date of this prospectus and pursuant to the Plan, the board of directors granted options to purchase 708,804 Common Shares to certain directors, officers and employees. These options have vesting dates following the Closing Date and will expire seven years from the date of original grant. The following table sets out, as of the date hereof, information regarding outstanding options.

Category	Year of Grant	Common Shares Underlying Options Granted	Range of Exercise Price ($)	Year of Expiry
All present and past executive officers	2004	28,500	0.625	2011
3 individuals	2003	6,000	0.625	2010
	2002	—	0.625	2009
	2001	129,000	0.625	2008
	2000	—	0.625	2007
	1999	239,996	0.625	2006
All present and past directors	2004	15,000	0.625 to 3.1375	2011
9 individuals	2003	5,000	0.625	2010
	2002	5,000	0.625	2009
	2001	6,000	0.625	2008
	2000	—	0.625	2007
	1999	—	0.625	2006
All present and past employees	2004	119,208	0.625	2011
	2003	48,900	0.625	2010
	2002	24,350	0.625	2009
	2001	48,200	0.625	2008
	2000	13,350	0.625	2007
	1999	17,800	0.625	2006
All present and past consultants	2004	—	—	—
	2003	—	—	—
	2002	—	—	—
	2001	—	—	—
	2000	—	—	—
	1999	—	—	—
TOTAL		708,804		

Indebtedness of Directors and Executive Officers

None of our executive officers or directors, or any of their associates or affiliates, are or have been indebted to us since the commencement of our last completed financial year, nor have any of the foregoing been the subject of a guarantee, support agreement, letter of credit or other similar arrangement or understanding provided by us or any of our subsidiaries since the commencement of the last completed financial year.

Principal shareholders

The following table sets forth, as of the date hereof, our shareholders who own, or are known by us to own, of record or beneficially, either directly or indirectly, more than 10% of our issued and outstanding voting shares as well as certain of our other shareholders.

Shareholder	Type of Ownership	Number of Common Shares	Percentage of Class Before Giving Effect to the Offering (%)	Percentage of Class After Giving Effect to the Offering (%)
Dow AgroSciences Canada, Inc.	registered	1,847,881	22	●
University Technologies International Inc.	registered	1,716,570	20	●
BiotecKnowledge Associates Inc.[1]	registered	1,749,834	20	●
The North American Nutrition & Agribusiness Fund, L.P.[2]	registered	1,195,219	14	●
Ventures West 7 Limited Partnership	registered	727,022	8	●
Ventures West 7 Limited Partnership U.S.	registered	69,790	1	●
Business Development Bank of Canada	registered	398,406	5	●
A Canadian chartered bank[3]	registered	239,044	3	●
Syngenta Participations AG	registered	511,900	6	●
Andrew Baum	registered	59,880	1	●

Notes:

(1) This Company is owned and controlled by Dr. Maurice Moloney, our Chief Scientific Officer.

(2) Managed by Bay City Capital LLC.

(3) A Canadian chartered bank of which Royal Bank Capital Partners is a subsidiary.

Escrowed securities

Pursuant to National Policy 46-201 ''Escrow for Initial Public Offerings'' and the policies of the Toronto Stock Exchange, certain of our shareholders will enter into an escrow agreement (the ''Escrow Agreement'') with us and with Computershare Trust Company of Canada (the ''Escrow Agent''). These shareholders will deposit their securities in escrow with the Escrow Agent and while the securities are under escrow, they may not be transferred or otherwise dealt with, except in very limited circumstances. Under the terms of the Escrow Agreement, the Escrow Agent will release 25% of each shareholder's securities upon listing of the Common Shares on the Toronto Stock Exchange, 33⅓% of the remaining securities six months after such date, 50% of the remaining securities 12 months after such date, and the remaining escrowed securities 18 months after such date. If any shareholder acquires additional Common Shares or securities convertible or issuable into Common Shares while they have securities under escrow,

such Common Shares or securities will be added to the securities already held in escrow. The following sets out the names of shareholders whose securities will be subject to escrow.

Name	Number and Type of Securities Held in Escrow	Percentage of Common Shares (fully diluted) Prior to Giving Effect to the Offering	Percentage of Common Shares (fully diluted) After Giving Effect to the Offering
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●
●	●	●	●

Options and warrants to purchase securities

Pursuant to our Stock Option Plan, 708,804 outstanding Common Share options are held by directors, officers, employees and consultants (present and former). See ''Compensation of Executive Officers and Directors — Stock Option Plan''.

Pursuant to the Share Capital Reorganization, all outstanding Preferred Share purchase warrants will be converted into Common Share purchase warrants on a ten-to-one basis. There will be 456,870 warrants outstanding at an exercise price of $6.275 per Common Share, exercisable until October 17, 2007, which includes 74,225 Common Share purchase warrants to be issued on the conversion of the US$2.25 million convertible promissory note. These are on different terms than the Share Purchase Warrants which form part of the Units which are to be issued pursuant to this Offering. See ''Description of Share Capital — Share Purchase Warrants''.

Prior sales

From June ●, 2003 to the date hereof, we issued ● Common Shares at a price of $0.625. This table sets out the securities we issued during the 12 month period prior to the date of this prospectus as well as issuances contemplated on or before the Closing Date.

Date	Type of Security	Number of Securities	Price per Share	Type of Issuance
August 2003	Common Shares	2,000	$0.625	Exercise of options
September 2003	Common Shares	3,160	$0.625	Exercise of options
January 2004	Common Shares	21,500	$0.625	Exercise of options
February 2004	Common Shares	1,600	$0.625	Exercise of options
March 2004	Common Shares	2,500	$0.625	Exercise of options
April 2004	Common Shares	33,200	$0.625	Exercise of options
Closing Date	Common Shares	2,638,932	N/A	Conversion and consolidation of Preferred Shares
Closing Date	Common Shares	511,900	$6.275	Conversion of US$2.25 million convertible promissory note

Plan of distribution

Pursuant to the Underwriting Agreement dated ● , 2004 between ourselves and the Underwriters, we have agreed to issue and sell ● Units and the Underwriters have severally agreed to purchase on ● , 2004, or such other date as may be agreed but not later than ● , 2004, subject to the terms and conditions stated therein, all such Units offered under this prospectus at a price of $ ● per Unit, for a total aggregate consideration of $ ● . The obligations of the Underwriters under the Underwriting Agreement are conditional and may be terminated at any time in their sole discretion on the basis of their assessment of the state of the financial markets and on the occurrence of certain stated events. The Underwriters are, however, severally obligated to take up and pay for all such Units if any such Units are purchased under the Underwriting Agreement.

In consideration of their services in connection with the Offering, the Underwriters are being paid a fee of $ ● per Unit, representing 6.5% of the gross proceeds of the Offering, which fee we will pay. There is currently no market for the Common Shares or the Share Purchase Warrants. Accordingly, the price of the Units and terms of the Offering were determined through our negotiations with the Underwriters. The Underwriters have reserved the right to offer selling group participation in the Offering to other registered investment dealers. Any fees payable to members of such selling group will be paid by the Underwriters out of their fee.

We have granted to the Underwriters the Over-allotment Option, which is exercisable at any time prior to 30 days from the Closing Date and gives the Underwriters the right to purchase up to an additional ● Common Shares ($ ●) and ● Share Purchase Warrants ($ ●), solely to cover over-allotments, if any, and for market stabilization purposes. We will pay the Underwriters a fee of $ ● per Common Share and $ ● per Share Purchase Warrant purchased pursuant to the exercise of the Over-allotment Option. This prospectus qualifies the distribution of the Over-allotment Option and the distribution of the Common Shares and Share Purchase Warrants upon the exercise of the Over-allotment Option.

Under the terms of the Underwriting Agreement, the Share Capital Reorganization must be completed prior to the closing of this Offering.

We have agreed to indemnify the Underwriters and their respective affiliates, directors, officers, employees and agents against certain liabilities including civil liabilities under Canadian securities legislation or will contribute to payments that the Underwriters may be required to make in respect thereof.

We have agreed that we will not directly or indirectly, without the prior consent of Orion Securities Inc., issue, offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of (or announce any intention to effect the foregoing) any Common Shares or securities giving the right to acquire Common Shares at any time prior to 180 days after closing of this Offering, except (i) Common Shares issued upon exercise of outstanding warrants, convertible debt, debentures or options, or issued pursuant to Share Purchase Warrants forming part of the Units, (ii) Common Shares issued under our current stock option plan, and (iii) Common Shares issued pursuant to the entering into of strategic partnerships, collaboration or joint ventures, in which the raising of capital is not the primary purpose of such transaction.

Pursuant to policy statements of the Ontario Securities Commission and the Autorité des marchés financiers (formerly the Commission des valeurs mobilières du Québec), the Underwriters may not, throughout the period of distribution under this prospectus, bid for or purchase Common Shares. The foregoing restriction is subject to certain exceptions as long as the bid or purchase is not engaged in for the purpose of creating actual or apparent active trading in or raising the price of Common Shares. These exceptions include a bid or purchase permitted under the by-laws and rules of the Toronto Stock Exchange relating to market stabilization and passive market making activities and a bid or purchase

made for and on behalf of a customer where the order was not solicited during the period of distribution. We have been advised that in connection with the Offering and pursuant to the first mentioned exemption, the Underwriters may effect transactions which stabilize or maintain the market price of the Common Shares at levels other than those which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time.

Neither the Units offered hereby nor the Common Shares or Share Purchase Warrants comprising the Units nor the securities issuable upon exercise of the Share Purchase Warrants (collectively, the "Securities") have been or will be registered under the 1933 Act or the securities laws of any state of the United States of America, and, subject to certain exceptions, may not be offered for purchase or sale, sold or otherwise disposed of, directly or indirectly, within the United States of America or its territories or possessions or to or for the account or benefit of any U.S. person. Any such offer, sale or disposition would constitute a violation of the 1933 Act unless made in compliance with the registration requirements of the 1933 Act or an exemption therefrom. The Share Purchase Warrants may not be exercised by a person in the United States or by or on behalf of a U.S. person unless the securities to be delivered on exercise have been registered under the 1933 Act or an exemption from such registration is available. The certificates evidencing the Share Purchase Warrants issued to purchasers other than U.S. persons or persons in the United States shall contain a legend indicating that Share Purchase Warrants may not be offered, sold or otherwise transferred to a U.S. person or a person in the United States. Each Underwriter has agreed that, except in accordance with the terms of an applicable exemption, it will not offer, sell or deliver the Units within the United States of America or its territories or possessions or to or for the account or benefit of any U.S. person. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any of the Units in the United States or its territories or possessions or to or for the account or benefit of a U.S. person.

In addition, until 40 days after the commencement of the Offering, any offer or sale of Securities within the United States by any dealer, whether or not participating in the Offering may violate the registration requirements of the 1933 Act.

Subscriptions will be received subject to rejection or allotment in whole or in part and the right is reserved to close the subscription books at any time without notice. It is expected that the certificates representing the Common Shares and Share Purchase Warrants will be available for delivery at the Closing Date.

Lock-Up Agreements

The Underwriters have requested that certain holders of Common Shares each enter into a lock-up agreement with the Underwriters whereby the shareholder agrees not to sell that shareholder's Common Shares for a period of 180 days following closing of this Offering. The holders of ● Common Shares have entered into those agreements.

Risk factors

An investment in Units is speculative and involves a high degree of risk that should be considered by potential investors. An investor should carefully consider the following risk factors in addition to the other information contained in this prospectus before purchasing Units. The risks and uncertainties below are not the only ones we are facing. There are additional risks and uncertainties that we do not presently know or that we currently consider immaterial which may also impair our business operations and cause the price of our Common Shares or Share Purchase Warrants to decline. If any of the following risks actually occur, our business may be harmed and our financial condition and results of operations may suffer significantly. In that event, the trading price of our Common Shares or Share Purchase Warrants could decline, and an investor may lose all or part of his or her investment.

RISKS RELATED TO US AND OUR BUSINESS

Early Stage Development

We are at an early stage of development, having been founded in 1994, and have a limited operating history. Prior to commercialization, significant additional investments will be necessary to complete the development of any of our products and product candidates. It is not certain whether such products and product candidates can be produced in commercial quantities at a reasonable cost and be successfully marketed, nor is it known whether our investment in such products or product candidates will be recovered through sales or royalties. Most of the products and product candidates or processes we are currently developing will not be commercially available for several years and we may encounter unforeseen difficulties or delays in our operations.

None of our safflower produced proteins has demonstrated efficacy in the human body. Furthermore, it is not known whether any of our potential products and product candidates will meet applicable health regulatory standards and obtain the requisite regulatory approvals. It is not certain whether quantities of product candidates required for clinical trials can be manufactured at a reasonable cost. It is not certain whether such products and product candidates can be produced in commercial quantities at a reasonable cost and be successfully marked, nor is it known whether our investment in any such product or product candidates will be recovered through sales or royalties.

At the current time, our ability to produce commercial levels of our products and product candidates has not been tested. Many of the benefits which we believe our technology platform delivers are in lower capital costs and lower cost of goods sold which have not yet been commercially established. Competitors may develop alternative production methods which could reduce our competitive advantages. Some of our products under development address markets which are in the early stages of development. These markets may not develop as we expect due to market forces.

Lack of Product Revenues; History of Operating Losses

As at the present date, we have not recorded any revenues from the sale of products. We have an accumulated deficit, since our inception through March 31, 2004 of $15,636,723. Losses are expected to increase in the near term as we continue our product development and, in the case of pharmaceutical proteins, seek regulatory approval for the sale of our product candidates. Operating losses are expected to be incurred until such time as product sales and royalty payments are sufficient to generate revenues to fund our continuing operations. Quarter-to-quarter fluctuations in revenues, expenses and losses are also expected.

Regulation of Drug and Product Approval

Potential investors should be aware of the risks, problems, delays, expenses and difficulties which we may encounter in light of the extensive regulatory environment in which our business is carried on.

Numerous statutes and regulations govern the manufacture and sale of non-therapeutic and human therapeutic products in Canada, the United States and other countries, the intended markets for our products and product candidates. Such legislation and regulation bears upon the approval of manufacturing facilities, testing procedures and controlled research, pre-clinical and clinical data prior to marketing approval, including adherence to cGMP standards during production and storage, as well as regulation of marketing activities, including advertising and labelling.

Many of the products, product candidates and processes that we are currently developing require significant development, testing and the investment of significant funds prior to their commercialization. There can be no assurance that any of such products or processes will actually be developed to a commercial level.

Before obtaining regulatory clearance for the commercial sale of any of our pharmaceutical product candidates, we must demonstrate through preclinical studies and clinical trials that the potential product is safe and efficacious for use in humans for each target indication. The results from preclinical studies and early clinical trials may not be predictive of results that will be obtained in large-scale testing, and there can be no assurance that our clinical trials will demonstrate sufficient safety for an IND or subsequent phases or steps in human trials even after preclinical testing and/or human data is submitted. The failure to adequately demonstrate the safety and efficacy of a product under development could delay or prevent regulatory clearance of the potential product and would have a material adverse effect on our success.

Any drug is likely to produce some toxicity or undesirable side effects in animals and in humans when administered as a monotherapy or in combination with other drugs. There can be no assurance that unacceptable toxicity, adverse events or side effects will not occur at any dose level at any time in the course of toxicological studies or of human clinical trials of our potential products as a monotherapy or in combination with other drugs. The appearance of any such unacceptable toxicity, adverse events or side effects in toxicology studies or in clinical trials could cause us or regulatory authorities to interrupt, limit, delay or abort the development of any of our product candidates and could ultimately prevent their clearance by the TPD, the FDA or other regulatory authorities, for any or all targeted indications. There can be no assurance that a phase, component or step of a trial will be successful or safely completed allowing a subsequent phase, step or component of a trial or a trial's design to commence. There is no assurance that the TPD, the FDA or other regulatory authorities will accept a specific protocol or protocol design regardless of phase, steps or components of a phase. In particular, there can be no assurance that the TPD, the FDA or other regulatory authorities will allow us to conduct an abbreviated clinical trial protocol for any of our product candidates, such as insulin, which are follow-on pharmaceutical proteins. Furthermore, after a trial or phase of a trial has commenced, the TPD, the FDA or other regulatory authorities could place the trial on clinical hold if the TPD, the FDA or other regulatory authorities determine a trial or its design may be unsafe or require clarifications regarding protocol design. If we are placed on clinical hold, there is no assurance the objections or issues will be overcome or resolved and such trial could be postponed and/or terminated. Even after being cleared by the TPD, FDA or other regulatory authorities, a product candidate may later be shown to be unsafe or not to have its purported effect, thereby preventing its widespread use or requiring withdrawal from the market. There can be no assurance that any product candidates we have developed or will develop will be safe when administered to patients.

The rate of completion of our clinical trials will be dependent upon, among other factors, the rate of patient enrolment. Patient enrolment is a function of many factors, including the size of the patient population, the nature of the protocol, competing trials for the same patient population, the proximity of

parties to clinical sites, the eligibility criteria for the study and interest of clinical investigators. Delays in planned patient enrolment may result in increased costs, delays or termination of clinical trials, which could have a material adverse effect on our success. In addition, our staff has limited clinical experience and, as a result, will rely on third parties to assist us in overseeing and monitoring the clinical trials, which may result in delays in completing clinical trials, or their not being completed at all, if such third parties fail to perform under their agreements with us or fail to meet regulatory standards in the performance of their obligations under such agreements. There can be no assurance that we will be able to submit a new drug application as scheduled if clinical trials are completed or that any such applications will be reviewed and cleared by the TPD or FDA in a timely manner or at all.

Regulation of Genetically Engineered Plants

We must comply with regulations of the USDA, the CFIA and other regulatory authorities for outdoor releases of genetically engineered organisms as well as other products designed for use on or with agricultural products. The USDA and the CFIA prohibit growing and transporting genetically modified plants except pursuant to an exemption or under special permits. In order to obtain the required permits we will be required to demonstrate that we have satisfactory procedures for the growth of our genetically modified plants and for the control of seed stocks, harvested material, processing facilities, and waste material from such plants. There can be no assurance that permits will be granted to us in a timely fashion, if at all. In addition, the conditions to the grant of such permits may be time consuming or expensive for us to fulfill. Furthermore, changes in regulations or policies of the USDA, the CFIA and other regulatory authorities regarding the growth and movement of field release of genetically modified plant hosts could adversely affect our business by increasing the cost of our products and technologies or decreasing consumer demand for those products and technologies or causing governments to prohibit their sale or use. If we fail to comply with such rules or policies, we may be subject to financial loss or be liable for costs incurred as a result of non-compliance. In addition, the regulatory requirements for the outdoor commercial growth of transgenic plants producing pharmaceutical proteins have not been promulgated in Canada, the U.S. or elsewhere.

Rapid Technological Change

The industry in which we operate is characterized by rapid and substantial technological change. There can be no assurance that developments by others will not render our product candidates, products or technologies non-competitive or that we will be able to keep pace with technological developments. Our competitors may have developed or may be developing technologies which could become the basis for competitive products and product candidates. Some of these products and product candidates may prove to be more effective and less costly than the products and product candidates developed or that are being developed by us.

Dependence on Key Personnel

We depend on certain members of our management and scientific staff and the loss of services of one or more of said persons could adversely affect us. It is necessary for us to continue to implement and improve our management systems and to continue to recruit and train new employees in order to manage our growth effectively. In particular, we will need to recruit personnel with experience in cGMP manufacturing and drug development. While we have been able to attract and retain skilled and experienced personnel in the past, no assurance can be given that we will be able to do so in the future.

Competition

Technological competition is intense in the industry in which we operate. Competition comes from pharmaceutical companies, biotechnology companies and universities as well as companies that

participate in each of the non-pharmaceuticals markets we are attempting to address with our products and product candidates. Many of our competitors have substantially more financial and technical resources, more extensive research and development capabilities and greater marketing, distribution, production and human resources than we do. Moreover, competitors may develop products before we develop our own products and product candidates and may obtain regulatory approval for such products and product candidates more rapidly than we do. Products and product candidates and processes which are more effective than those that we intend to develop may be developed by our competitors. Research and development by others may render our technology, products and product candidates or processes non-competitive or obsolete. See ''Our Business — Competition''.

Negative Public Reaction to Genetically Engineered Technology

Future commercial success of some of our products and product candidates and of the products of some of our collaborators will depend in part on public acceptance of the use of genetically engineered products and product candidates, including drugs, plants and plant products. Claims that genetically engineered products and product candidates are unsafe for consumption or pose a danger to the environment may influence public attitudes, regardless of their veracity. Negative public reaction to genetically modified organisms and products and product candidates could result in greater government regulation of genetic research and resultant products and product candidates, including stricter labelling requirements, and could cause a decrease in the demand for our products and product candidates, even if such products and product candidates do not result from genetically modified organisms.

Patents and Proprietary Rights

Our success depends, in part, on our ability to secure and protect our intellectual property rights and to operate without infringing on the proprietary rights of others or having third parties circumvent the rights owned or licensed by us. Applications for patents in Canada, the United States and in foreign markets have been filed and we are actively pursuing them. The patent positions of pharmaceutical and biotechnology firms, ourselves included, are uncertain and involve complex questions of law and fact for which important legal issues remain unresolved. Therefore, it is not clear whether our pending patent applications will result in the issuance of patents or whether we will develop additional proprietary products which are patentable. Part of our strategy resides on our ability to secure a patent position around the production of a recombinant protein using our oilbody-oleosin technology platform. There is no assurance that we will be successful in this approach and failure to secure patent protection may have a material adverse effect upon us and our financial condition. Also, we may fail in our attempt to commercialize products using currently patented oilbody-oleosin technology without having to license additional patents, such as patents relating to plant transformation or the use of certain plant specific genetic elements. Moreover, it is not clear whether the patents issued or to be issued to us will provide us with any competitive advantages or if any such patents will be the target of challenges by third parties, whether the patents of others will interfere with our ability to market our products or whether third parties will circumvent our patents by means of alternate processes. Furthermore, it is possible for others to develop products and product candidates which have the same effect as our products and product candidates or production technologies on an independent basis or to design around technologies patented by us.

Patent applications relating to or affecting our business have been filed by a number of pharmaceutical and biotechnology companies and academic institutions. A number of these technologies, applications or patents may conflict with our technologies or patent applications and such conflict could reduce the scope of patent protection which we could otherwise obtain or even lead to refusal of our patent applications.

There is no assurance that we will be able to enter into licensing arrangements on reasonable commercial terms, or develop or obtain alternative technology in respect of patents issued to third parties that

incidentally cover our products or production technologies. Any inability to secure licenses or alternative technology could result in delays in the introduction of some of our products or even lead to prohibition of the development, manufacture or sale of certain products by us. Moreover, we could potentially incur substantial legal costs in defending legal actions which allege patent infringement, or by instituting patent infringement suits against others.

It is not possible for us to be certain that we are the creator of inventions covered by pending patent applications or that we were the first to file patent applications for any such inventions. No assurance can be given that our patents, once issued, would be upheld by a court, or that a competitor's technology or product would be found to infringe on our patents.

Moreover, much of our know-how technology which is not patentable may constitute trade secrets. Therefore, we require our employees, consultants, advisors and collaborators to enter into confidentiality agreements. However, no assurance can be given that such agreements will provide for a meaningful protection of our trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure of information.

Potential Product Liability

A risk of product liability claims and related negative publicity is inherent in the development of human therapeutic and other products. Product liability insurance is expensive, its availability is limited, and may not be on terms acceptable to us, if at all. The commercialization of our potential products could be inhibited or prevented by an inability to maintain sufficient insurance coverage on reasonable terms or to otherwise protect against potential product liability claims. A product liability claim against us or the withdrawal of a product from the market could have a material adverse effect upon us and our financial condition.

Additional Financing Requirements and Access to Capital

We require significant additional funds for further research and development, planned clinical trials, regulatory approvals, establishment of pilot scale and commercial manufacturing capabilities and the marketing of our products and product candidates. An attempt may be made to raise additional funds for the aforementioned purposes through public or private equity or debt financing, and collaborations with other biotechnology companies, or financing from other sources may be undertaken. There can be no assurance that additional funding will be available on terms which are acceptable to us and which would result in successful commercialization of our products. If adequate funding is not available, we may be required to delay, reduce, or eliminate one or more of our product development programs or obtain funds through corporate partners or others who may require us to relinquish significant rights to protect candidates or obtain funds on less favourable terms than we would otherwise accept.

Unproven Market

Much of our strategy is based on the belief that the application of our oilbody-oleosin technology to develop products and product candidates for the markets we are addressing will result in the creation of new, commercially viable products. Notwithstanding our estimated market potential for our products and product candidates, no assurance can be given that these beliefs will prove to be correct owing to, in particular, competition from existing or new products and the yet to be established commercial viability of our products.

Establishment of Internal Drug Development Capabilities

The drug development process is inherently complex. The preparation of cGMP quality material for clinical trials, the design and implementation of those trials, and the reporting of those results to the FDA

and other agencies requires a high level of expertise and experience within the developing company if this process is to be successful. We do not have personnel within our organization who have such experience, nor is there any assurance that we will be able to recruit such people as employees. Failure to do so could lead to delays in the implementation and completion of clinical trials, or even lead to clinical failure due to poor clinical design or execution.

Dependence on Collaborative Partners

Our strategy is to enter into various arrangements for clinical testing, and eventual manufacturing, marketing and commercialization of our products. We also expect to enter into collaborations for the potential development and commercialization of our products and product candidates with other firms, pursuant to which we may receive additional funding, including milestone payments. We also intend to enter into additional corporate partnering agreements to develop and commercialize products and product candidates based upon our core technology. There can be no assurance, however, that we will be able to establish such additional collaborations on favourable terms, if at all, or that our current or future collaborative arrangements will be successful.

Should any collaborative partner fail to successfully develop or commercialize any product to which it has rights, or any of the partner's products to which we have rights, our business may be adversely affected. In addition, while we believe that our actual and eventual collaborative partners will have sufficient economic motivation to continue their funding, there can be no assurance that any of these collaborations will be continued or will result in successfully commercialized products. Failure of a collaborative partner to continue funding any particular program could delay or halt the development or commercialization of any products arising out of such program. In addition, there can be no assurance that the collaborative partners will not pursue alternative technologies or develop alternative products either on their own or in collaboration with others, including our competitors.

Hazardous Materials: Environmental Matters

Our discovery and development processes involve the controlled use of hazardous and radioactive materials. We are subject to federal, provincial and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Although we believe that our safety procedures for handling and disposing of such materials comply with the standards prescribed by such laws and regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for any damages that result and any such liability could exceed our resources. We are not specifically insured with respect to this liability. Although we believe that we are in compliance with applicable environmental laws and regulations in all material respects and currently do not expect to make material capital expenditures for environmental control facilities in the near-term, there can be no assurance that we will not be required to incur significant costs to comply with environmental laws and regulations in the future, or that current or future environmental laws or regulations will not have a material adverse affect on our operations, business or assets.

Income Tax Matters

We have determined that we were eligible for investment tax credits (ITCs) on expenditures incurred on scientific research and experimental development (SRED). There is a risk that the Canada Customs and Revenue Agency could conclude that some or all of the expenditures were not incurred on SRED activities and, therefore, could reduce or disallow claims for ITCs, including refundable ITCs.

Management of Growth

Recent rapid growth in all areas of our business has placed, and is expected to continue to place, a significant strain on our managerial, operational and technical resources. We expect operating expenses and staffing levels to increase in the future. To manage our growth, we must expand our operational and technical capabilities and manage our employee base while effectively administering multiple relationships with various third parties. There can be no assurance that we will be able to manage our expanding operations effectively. Any failure to implement cohesive management and operating systems, add resources on a cost-effective basis or properly manage our expansion could have a material adverse effect on our business and results of operations.

RISKS RELATED TO THE OFFERING

Absence of Liquid, Public Market

Prior to the Offering, there has been no public market for our Common Shares or Share Purchase Warrants and there can be no assurance that a liquid, public market will develop for our Common Shares or Share Purchase Warrants. The price at which our Units are being offered hereunder is determined through negotiations between us and the Underwriters. Among the factors to be considered in determining the price are our future prospects and industry in general, sales, and certain other of our financial and operating information in recent periods, and the market prices of securities and certain financial and other operating information of companies engaged in activities similar to ours. The offering price may not be indicative of the market price for our Common Shares or Share Purchase Warrants after the Offering, which price may decline below the offering price or may stay below the exercise price of the Share Purchase Warrants. See ''Plan of Distribution''.

Use of Proceeds

Our management will have broad discretion concerning the use of the proceeds of this Offering as well as the timing of their expenditure. As a result, you will be relying on the judgment of management for the application of the proceeds of this Offering. Our management may use the net proceeds of this Offering in ways that you may not consider desirable. The results and the effectiveness of the application of the proceeds are uncertain. If the proceeds are not applied effectively, the results of our operations may suffer.

Dilution

The initial public offering price of our Common Shares significantly exceeds the net tangible book value per share of our Common Shares. Accordingly, if you purchase Units you will experience immediate and substantial dilution of your investment. If outstanding options or warrants are exercised into Common Shares, you will experience additional dilution.

Dividends

We have not declared or paid any cash dividends on the Common Shares to date. The payment of dividends in the future will be dependent on our earnings and financial condition and on such other factors as our board of directors considers appropriate. Unless and until we pay dividends, shareholders may not receive a return on their shares.

Legal proceedings

We are not a party to, nor are any of our assets subject to, any material legal proceedings nor to our knowledge are any such proceedings contemplated.

Interest of management and others in material transactions

There are no material interests, direct or indirect, of directors, senior officers, any shareholder who beneficially owns, directly or indirectly, more than 10% of our outstanding Common Shares, or any known associates or affiliates of such persons, in any transaction within the last three years or in any proposed transaction which has materially affected or would materially affect us.

Auditors, transfer agent and registrar

Our auditors are PricewaterhouseCoopers LLP, Chartered Accountants, 111 5th Avenue S.W., Suite 3100, Calgary, Alberta T2P 5L3.

The registrar and transfer agent for our Common Shares is Computershare Trust Company of Canada at its principal office in Calgary, Alberta.

Certain Canadian Federal Income Tax Considerations

In the opinion of McCarthy Tétrault LLP, counsel to the Company, and Fasken Martineau DuMoulin LLP, counsel to the Underwriters, the following is a general summary of the principal Canadian federal income tax considerations relevant to a purchaser pursuant to this Offering of Common Shares and Share Purchase Warrants comprising the Units. This summary is applicable only to a purchaser who, at all relevant times, is resident in Canada, deals at arm's length and is not affiliated with the Company, and who will acquire and hold such Common Shares and Share Purchase Warrants as capital property (a "Holder"), all within the meaning of the Tax Act. Any Common Shares and Share Purchase Warrants will generally be considered to be capital property to a Holder unless the Holder holds such securities in the course of carrying on a business of buying and selling securities or has acquired them in a transaction or transactions considered to be an adventure in the nature of trade.

Certain Holders whose Common Shares might not otherwise qualify as capital property may be entitled to make the irrevocable election provided by subsection 39(4) of the Tax Act to have the Common Shares and every other "Canadian Security" (as defined by the Tax Act), which would not include the Share Purchase Warrants, owned by such Holder in the taxation year of the election and in all subsequent taxation years, deemed to be capital property.

This summary is based upon the current provisions of the Tax Act and the regulations thereunder, specific proposals to amend the Tax Act (the "Tax Proposals") which have been announced by the Minister of Finance prior to the date hereof, and counsel's understanding of the current published administrative practices of the Canada Customs and Revenue Agency (the "CCRA"). This summary assumes that the Tax Proposals will be enacted in the form proposed and does not take into account or anticipate any other changes in law, whether by way of judicial, legislative or governmental decision or action, nor does it take into account provincial, territorial or foreign income tax legislation or considerations, which may differ from the Canadian federal income tax considerations discussed herein. No assurances can be given that such Tax Proposals will be enacted as proposed or that legislative, judicial or administrative changes will not modify or change the statements expressed herein.

On October 31, 2003, the Department of Finance released, for public consultation, draft proposed amendments (the ''October 31st Proposals'') to the Tax Act that would require, for taxation years commencing after 2004, that there be a ''reasonable expectation of profit'' from a business or property for a taxpayer to realize a loss from the business or property, and that make it clear that profit in this sense does not include capital gains. The October 31st Proposals could, among other things, adversely affect a Holder who has borrowed funds in connection with an acquisition of Common Shares and Share Purchase Warrants pursuant to this Offering. The summary does not address any special considerations for such Holder and any such Holder should consult his or her own tax advisors in this regard.

This summary does not apply to Holders that are ''financial institutions'' for purposes of the mark-to-market provisions of the Tax Act or ''specified financial institutions'' for purposes of the Tax Act or to any Holder an interest in which would be a ''tax shelter investment'' for the purposes of the Tax Act. Holders are urged to consult their own income tax advisors with respect to the tax consequences applicable to them based on their own particular circumstances.

This summary is of a general nature only and is not intended to constitute tax advice to any particular Holder. Prospective purchasers of the Offered Securities should consult their own tax advisors with respect to the tax consequences applicable to them based on their own particular circumstances.

Allocation of Purchase Price

Holders will be required to allocate the purchase price of each Unit between the Common Share and the one-half of one Share Purchase Warrant on a reasonable basis in order to determine their respective costs for purposes of the Tax Act. The Company will also be required to allocate the amount received for each Unit between the Common Share and the one-half of one Share Purchase Warrant on a reasonable basis for the purposes of the Tax Act. The Company intends to allocate $ ● of the issue price of each Unit as consideration for the issue of each Common Share and $ ● for the issue of each one-half of one Share Purchase Warrant. Although the Company believes such allocation is reasonable, such allocation will not be binding on the CCRA.

The adjusted cost base to a Holder of a Share Purchase Warrant acquired hereunder will be determined by averaging the cost of the Share Purchase Warrant with the adjusted cost base of any other identical Share Purchase Warrants held at the time by the Holder. Similarly, the adjusted cost base to a Holder of a Common Share acquired hereunder will be determined by averaging the cost of that Common Share with the adjusted cost base of all Common Shares held at that time by the Holder.

Exercise of Share Purchase Warrants

No gain or loss will be realized by a Holder upon the exercise of a Share Purchase Warrant. The Holder's cost of Common Shares acquired by exercising Share Purchase Warrants will be equal to the aggregate of the Holder's adjusted cost base of the Share Purchase Warrants exercised plus the exercise price paid for the Common Shares. The Holder's adjusted cost base of the Common Shares so acquired must be averaged with the cost of any other Common Shares held by such Holder, whether acquired hereunder or otherwise.

Disposition of Common Shares and Share Purchase Warrants

A Holder who disposes of or is deemed to have disposed of a Common Share (acquired as part of a Unit or upon the exercise of a Share Purchase Warrant) or a Share Purchase Warrant (other than a disposition arising on the exercise of a Share Purchase Warrant) will realize a capital gain, or incur a capital loss, as the case may be, equal to the amount by which the proceeds of disposition in respect of the Common Share or the Share Purchase Warrant exceeds or is exceeded by the aggregate of the adjusted cost base of such Common Share or Share Purchase Warrant, respectively, and any reasonable expenses associated

with the disposition. In the event of the expiry of an unexercised Share Purchase Warrant, the Holder will realize a capital loss equal to the Holder's adjusted cost base of such Share Purchase Warrant.

One half of any capital gain (a "taxable capital gain") must be included in income and one half of any capital loss may be used to offset taxable capital gains incurred in the year, in any of the three prior years or in any subsequent year in the circumstances and to the extent provided in the Tax Act. A capital loss realized on a disposition or deemed disposition of a Common Share (acquired as part of a Unit or upon the exercise of a Share Purchase Warrant) may in certain circumstances be reduced by the amount of certain dividends, including deemed dividends, which have been received by the Holder of such shares.

Capital gains realized by an individual or trust, other than certain specified trusts, may result in the individual or trust paying alternative minimum tax under the Tax Act. The difference between alternative minimum tax paid and the regular tax payable may be claimed as a credit to offset regular tax payable by the individual or trust in any of the following seven years to the extent that regular tax payable exceeds the alternative minimum tax amount in that subsequent year.

A Holder that is, throughout the relevant taxation year, a "Canadian-controlled private corporation" (as defined in the Tax Act) may be liable to pay an additional refundable tax of 6⅔% on its "aggregate investment income" for the year, which is defined to include an amount in respect of taxable capital gains.

Taxation of Dividends Received by Holders of Common Shares

A Holder of Common Shares (acquired as part of a Unit or upon the exercise of a Share Purchase Warrant) will be subject to the normal treatment under the Tax Act applicable to dividends received from a taxable Canadian corporation. That is, a Holder who is an individual will be subject to the usual gross-up and dividend tax credit rules under the Tax Act. A Holder that is a corporation will include such dividends in computing its income and generally will be entitled to deduct the amount of such dividends when calculating its taxable income under the Tax Act. A Holder that is a "private corporation" or a "subject corporation", as defined in the Tax Act, may be liable under Part IV of the Tax Act to pay a refundable tax of 33⅓% on dividends to the extent that such dividends are deductible in computing the corporate Holder's taxable income. This tax will be refunded to the corporation at the rate of $1 for every $3 of taxable dividends paid while it is a private corporation.

Material contracts

Except for contracts entered into in the ordinary course of business, the only material contracts we have entered into in the two years immediately prior to the date of this prospectus which can reasonably be regarded as presently material are the following:

(1) Investment Agreement dated March 31, 2003 between AVAC Ltd. and SemBioSys Genetics Inc. See "Our Business — Partnerships, Strategic Alliances and Licensing — Non-Dilutive Investment Agreement";

(2) Technology License Agreement dated November 28, 2003 between Syngenta Participations AG and SemBioSys Genetics Inc. See "Our Business — Partnerships, Strategic Alliances and Licensing — Corporate & Collaboration Partnerships";

(3) Registration Rights Agreement dated ● , 2004 between University Technologies International Inc.; BiotecKnowledge Associates Inc.; Dow AgroSciences Canada, Inc.; Andrew Baum; The North American Nutrition & AgriBusiness Fund, L.P.; Ventures West 7 Limited Partnership; Business Development Bank of Canada; a Canadian chartered bank; Richard W. Michelmore; Robert M. Speights; Dr. Maurice Moloney; and SemBioSys Genetics Inc. See "Description of Share Capital";

(4) Underwriting Agreement dated ● , 2004 among SemBioSys and the Underwriters; and

(5) Share Purchase Warrant Indenture dated ● , 2004 between SemBioSys and Computershare Trust Company of Canada.

Copies of the foregoing, or drafts thereof, will be available for inspection at our head office in Calgary, Alberta while the securities qualified by this prospectus are in distribution and for a period of 30 days thereafter at any time during normal business hours. In Ontario, copies of the foregoing may be viewed at the offices of McCarthy Tétrault LLP in Toronto at Suite 4700, Toronto Dominion Bank Tower, Toronto, Ontario, M5K 1E6.

Experts

Certain legal matters in connection with the Offering are being reviewed, on our behalf, by McCarthy Tétrault LLP, and on behalf of the Underwriters, by Fasken Martineau DuMoulin LLP. As at the date hereof, the partners and associates of McCarthy Tétrault LLP, as a group and Fasken Martineau DuMoulin LLP, as a group, beneficially own, respectively, directly or indirectly, less than 1% of the outstanding Common Shares.

Purchasers' statutory rights of withdrawal and rescission

Securities legislation in certain of the provinces of Canada provides purchasers with the right to withdraw from an agreement to purchase securities within two business days after receipt or deemed receipt of a prospectus and any amendment. In several of the provinces, securities legislation further provides a purchaser with remedies for rescission or, in some jurisdictions, damages where the prospectus and any amendment contains a misrepresentation or is not delivered to the purchaser, provided that such remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the applicable province. The purchaser should refer to any applicable provisions of the securities legislation of the province in which the purchaser resides for the particulars of these rights or consult with a legal advisor.

Glossary

As used in this prospectus, the following terms have the respective meanings specified below:

Animal and Plant Health Inspection Service (APHIS):	Department of the USDA responsible for protecting and promoting U.S. agricultural health, administering the *Animal Welfare Act*, and carrying out wildlife damage management activities. APHIS is responsible for the regulation of testing and production of transgenic plants in the U.S.
Apolipoprotein AI (ApoAI):	The most abundantly present protein in an HDL particle. Includes the native form of the protein found in most people and the Apo AI_{Milano} variant.
Apolipoprotein AI_{Milano}:	A naturally occurring rare variant form of apolipoprotein AI.
Aquaculture:	The farming of aquatic organisms where some form of human intervention enhances the productive output of the population.
***Arabidopsis*:**	Latin name for thale cress, a plant species we use for research and proof-of-concept purposes.
Buccal:	Part of the mouth cavity inside the cheek.
Canadian Food Inspection Agency (CFIA):	The department of the government of Canada which is responsible for regulating food safety (along with Health Canada), animal health and plant protection. The CFIA is responsible for the regulation of testing and production of transgenic plants in Canada.
Centrifugation:	Process involving the spinning of a compartment about a central axis to separate materials of different densities (e.g., water and oil) contained within the compartment.
CETP:	Cholesteryl ester transfer protein.
cGMP or cGMP Manufacturing:	Current good manufacturing practice. This involves tightly controlled production processes that are thoroughly documented to ensure that products are consistently produced and are of high quality.
Dermatosensory:	The perceived impact on the skin feel associated with application of a topical product.
Docosahexaenoic acid (DHA):	A polysaturated omega-3 fatty acid which is found naturally in fish, organ meats, human breast milk and some microalgae.
Emollient:	Chemical ingredient commonly used in the formulation of personal care products to provide one or more of the following benefits to the skin: softness, smoothness and elasticity.
Emulsifier:	Chemical ingredient used to facilitate the mixing of two immiscible substances (e.g., water and oil). Emulsifiers are commonly used in the formulation of topical products.
Excipient:	An inert substance used as a diluent or vehicle for a drug.

Food and Drug Administration (FDA):	The U.S. regulatory body that oversees the drug development process. Most drugs cannot be marketed in the U.S. without the approval of the FDA.
Fish growth hormone (fGH):	A feed additive for the aquaculture industry aimed at improving the economics of aquaculture production.
Gamma-linolenic acid (GLA):	An polyunsaturated omega-6 fatty acid essential in nutrition. GLA is an intermediate in human metabolism and serves as a precursor for a number of biologically active molecules vital to the maintenance of membrane structure and normal cell signalling.
High density lipoprotein (HDL):	A naturally occurring particle that serves to transport cholesterol from the bloodstream to various tissues. Increased levels of HDL have been correlated with decreased risk of atherosclerosis.
Humulin® R:	Recombinantly manufactured form of insulin which is chemically identical to the insulin produced by the human pancreas.
IND:	Investigational New Drug Application — the documentation submitted to the FDA to obtain approval to test drugs in patients.
Lipophilic:	The property of having an affinity for, tending to combine with, or capable of dissolving in lipids.
Monoclonal antibody:	Highly specific, purified form of antibody which specifically recognizes one antigen target.
Occlusive agent:	A substance which prevents water loss from the skin when applied topically.
Oilbody:	Naturally occurring spherically shaped particles found within plant seed cells which serve to store the plant cell's oil fraction.
Oleosin:	The most abundantly present protein in an oilbody. Oleosins form the outer shell of an oilbody.
PCT:	Patent Cooperation Treaty.
Pharmaceutical Protein:	Protein drug; a product which can only be marketed in the U.S. after completion of clinical trials and approval by the FDA.
Pharmacokinetic:	The action of drugs in the body over a period of time, including the processes of absorption, distribution, localisation in tissues, biotransformation and excretion.
Physicochemical:	Combined physical and chemical characteristics.
PPAR:	Peroxisome proliferator activated receptor.
Placebo Arm:	A treatment group within a randomized clinical trial that receives an inactive pill, liquid, or powder that has no therapeutic value. Experimental treatments are often compared with placebos to assess the treatment's effectiveness.
Products:	Products which can be marketed in the U.S. without the performance of clinical trials overseen by the FDA.

Product candidates:	Products which can only be marketed in the U.S. following successful performance of clinical trails overseen by the FDA.
Protein A:	A protein-ligand that is able to specifically associate with monoclonal antibodies. Protein A is a commonly used reagent in the purification of pharmaceutical monoclonal antibodies.
Protein-ligand:	A protein capable of specifically associating with another compound without the formation of a chemical bond.
Reagent:	Any substance added to a solution of another substance to participate in a chemical reaction.
Recombinant oilbody:	An oilbody with oleosin/novel protein fusions where the oleosin/novel protein fusion was created through the use of genetic engineering technology.
Recombinant protein:	A protein manufactured using a process involving an organism which has been altered by the incorporation of foreign genetic material.
Safflower	A thistle-like plant widely grown for its colourful flowerheads and seeds that yield a valuable oil; SemBioSys' development and commercial production crop.
Therapeutic Products Directorate (TPD):	The Therapeutic Products Directorate is within the Department of Health Canada and is the Canadian federal authority that regulates pharmaceutical drugs and medical devices for human use. Prior to being given market authorization, a manufacturer must present substantive scientific evidence of a product's safety, efficacy and quality as required by the *Food and Drugs Act* and Regulations.
Therapeutic Proteins:	Proteins that confer a therapeutic effect when introduced into humans or animals.
Transgenic:	An organism that has been altered by incorporation of foreign genetic material.
United States Department of Agriculture (USDA):	Department of the U.S. government responsible for farm and foreign agricultural services, food safety, natural resources and environment, rural development, food, nutrition and consumer services, marketing and regulatory, and research, education and economics. APHIS is part of the USDA.
Validation:	A documented program that provides a high degree of assurance that a specific process, method, or system will consistently produce a result meeting pre-determined acceptance criteria.

Auditors' consent

We have read the prospectus of SemBioSys Genetics Inc. (''SemBioSys'') dated June 25, 2004 relating to the issue of common shares and common share purchase warrants of SemBioSys. We have complied with Canadian generally accepted standards for auditors' involvement with offering documents. We consent to the use in the above-mentioned prospectus of our report to the directors of SemBioSys on the balance sheets of SemBioSys as at December 31, 2003 and 2002 and the statements of operations and deficit and statements of cash flows for each of the years in the three year period ended December 31, 2003. Our report is dated February 19, 2004, except as to note 15 which is as of ● , 2004.

" ● "
PricewaterhouseCoopers LLP
Chartered Accountants

Calgary, Alberta
● , 2004

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

AUDITORS' REPORT

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Facsimile +1 (403) 781 1825

February 19, 2004
(except as to note 15, which is as of ●)

Auditors' Report

To the Directors of
SEMBIOSYS GENETICS INC.

We have audited the consolidated balance sheets of **SemBioSys Genetics Inc.** as at December 31, 2003 and 2002 and the consolidated statements of operations and deficit and cash flows for each of the years in the three year period ended December 31, 2003, 2002 and 2001. These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the company as at December 31, 2003 and 2002 and the results of its operations and its cash flows for each of the years in the three year period ended December 31, 2003, 2002 and 2001 in accordance with Canadian generally accepted accounting principles.

" ● "
Chartered Accountants
Calgary, Alberta

SemBioSys Genetics Inc.

CONSOLIDATED BALANCE SHEETS
(expressed in Canadian dollars)

	March 31, 2004	December 31, 2003	December 31, 2002
	$ (Unaudited)	$	$
ASSETS			
Current assets			
Cash and cash equivalents	7,239,488	9,443,040	6,577,348
Accounts receivable	271,488	148,171	182,037
Investment tax credits receivable	925,000	750,000	800,000
Prepaid expenses and deposits	48,312	57,958	48,478
	8,484,288	10,399,169	7,607,863
Property and equipment *(note 3)*	3,501,490	3,638,065	4,202,471
	11,985,778	14,037,234	11,810,334
LIABILITIES			
Current liabilities			
Accounts payable and accrued liabilities *(note 4)*	245,952	751,733	657,878
Repayable advances *(note 5)*	926,694	926,694	375,022
Short-term portion of long-term debt *(note 7)*	112,658	148,944	138,711
	1,285,304	1,827,371	1,171,611
Deferred cost recoveries *(note 6(a))*	500,001	562,500	—
Long-term debt *(note 7)*	395,951	395,951	544,957
Convertible promissory note *(note 9)*	1,053,702	976,231	—
	3,234,958	3,762,053	1,716,568
SHAREHOLDERS' EQUITY			
Capital stock *(note 10)*	21,308,404	21,292,404	21,287,325
Warrants *(note 10)*	1,128,000	1,128,000	1,128,000
Equity portion of convertible promissory note *(note 9)*	1,951,139	1,951,139	—
Deficit	(15,636,723)	(14,096,362)	(12,321,559)
	8,750,820	10,275,181	10,093,766
	11,985,778	14,037,234	11,810,334

Contingencies and commitments *(notes 6 and 12)*

Approved by the Board of Directors

Director

Director

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

SemBioSys Genetics Inc.

CONSOLIDATED STATEMENTS OF OPERATIONS AND DEFICIT

(expressed in Canadian dollars)

	Three month period ended March 31,		Years ended December 31,		
	2004	2003	2003	2002	2001
	$ (Unaudited)	$ (Unaudited)	$	$	$
REVENUE					
Licensing fees *(note 8)*	—	—	4,864,875	—	—
Contract research	165,585	—	84,620	293,835	962,884
	165,585	—	4,949,495	293,835	962,884
EXPENSES					
Research and development	1,006,159	1,136,679	4,336,797	6,271,979	4,958,084
General and administration	626,315	643,921	2,578,032	2,949,486	2,011,347
Intellectual property costs	191,778	196,453	1,493,900	1,038,985	678,835
Business development	154,557	129,288	545,001	508,345	250,355
Cost recoveries *(note 6)*	(125,000)	(230,167)	(1,176,010)	(1,971,559)	(4,235,994)
Investment tax credits	(175,000)	(175,000)	(823,246)	(964,294)	(506,803)
	1,678,809	1,701,174	6,954,474	7,832,942	3,155,824
Loss before the undernoted	(1,513,224)	(1,701,174)	(2,004,979)	(7,539,107)	(2,192,940)
Interest expense	(46,245)	(7,240)	(43,519)	(39,275)	(22,815)
Interest income	53,258	50,068	148,242	272,286	703,204
Foreign exchange gain (loss)	(34,150)	6,086	125,453	(34,911)	31,640
	(27,137)	48,914	230,176	198,100	712,029
Loss for the period	(1,540,361)	(1,652,260)	(1,774,803)	(7,341,007)	(1,480,911)
Deficit — Beginning of period	(14,096,362)	(12,321,559)	(12,321,559)	(4,980,552)	(3,499,641)
Deficit — End of period	(15,636,723)	(13,973,819)	(14,096,362)	(12,321,559)	(4,980,552)
Loss per share — basic and diluted	(0.28)	(0.31)	(0.33)	(1.36)	(0.28)

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

SemBioSys Genetics Inc.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(expressed in Canadian dollars)

	Three month period ended March 31,		Years ended December 31,		
	2004	2003	2003	2002	2001
	$ (Unaudited)	$ (Unaudited)	$	$	$
Cash provided by (used in)					
OPERATING ACTIVITIES					
Loss for the period	(1,540,361)	(1,652,260)	(1,774,803)	(7,341,007)	(1,480,911)
Add items not affecting cash					
Amortization	149,605	184,779	595,923	552,650	400,584
Accretion of convertible promissory note	36,746	—	12,097	—	—
Interest expense on repayable advances	—	1,800	7,200	7,200	19,400
Unrealized foreign exchange loss (gain)	40,725	—	(3,652)	—	—
Non-cash funding of research chair (note 5(ii))	—	—	—	—	(62,500)
	(1,313,285)	(1,465,681)	(1,163,235)	(6,781,157)	(1,123,427)
Change in non-cash working capital and other balances related to operations	(856,951)	(381,687)	730,741	2,319,625	(2,981,797)
Cash used in operating activities	(2,170,236)	(1,847,368)	(432,494)	(4,461,532)	(4,105,224)
FINANCING ACTIVITIES					
Issuance of common shares	16,000	1,790	5,079	8,427	625
Proceeds from convertible promissory note	—	—	2,918,925	—	—
Proceeds from long-term debt	—	—	—	403,775	362,500
Repayment of long-term debt	(36,286)	(40,346)	(138,773)	(78,737)	(3,870)
Repayable advances	—	—	544,472	—	—
Cash provided by (used in) financing activities	(20,286)	(38,556)	3,329,703	333,465	359,255
INVESTING ACTIVITY					
Acquisition of property and equipment	(13,030)	(1,100)	(31,517)	(756,314)	(3,630,652)
Increase (decrease) in cash and cash equivalents	(2,203,552)	(1,887,024)	2,865,692	(4,884,381)	(7,376,621)
Cash and cash equivalents — Beginning of period	9,443,040	6,577,348	6,577,348	11,461,729	18,838,350
Cash and cash equivalents — End of period	7,239,488	4,690,324	9,443,040	6,577,348	11,461,729
SUPPLEMENTAL INFORMATION					
Interest received	53,258	50,068	143,042	272,286	703,204
Interest paid	9,499	5,440	45,241	32,075	4,729

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

1 NATURE OF OPERATIONS

SemBioSys Genetics Inc. ("the Company") is a biotechnology research company, which was incorporated on April 25, 1994. The Company is focused on the development, commercialization and production of protein-based pharmaceuticals and non-pharmaceuticals products based on its engineering skills and its plant-based oleosin/oilbody technology platform. At its current stage of development, the Company derives its revenues from licensing fees and contract research for third parties.

2 SIGNIFICANT ACCOUNTING POLICIES

These consolidated financial statements have been prepared by management in accordance with Canadian generally accepted accounting principles. The following is a summary of significant accounting policies.

Basis of consolidation

These consolidated financial statements include the accounts of the Company and its United States subsidiary, SemBioSys, Inc. All significant intercompany balances and transactions have been eliminated upon consolidation.

Revenue recognition

Licensing fees revenue is recognized at the date the license is granted, if there is persuasive evidence of an arrangement, collection of the resulting receivable is reasonably assured, the fee is fixed or determinable, delivery has occurred and the contract has commenced.

Contract research revenues for cost plus margin agreements are recognized as the services are performed. Contract research revenue related to milestone agreements are recorded as milestones are achieved and customer acceptance has occurred.

Future royalty revenues, based on a percentage of sales of certain declared products sold by third parties, will be recorded as sales when earned.

Cost recovery agreements and government assistance

The contribution agreements (note 6) have specific milestones that must be completed under the terms of the agreements. Upfront payments are deferred and recognized over the agreement term as milestones have been achieved.

Property and equipment

Property and equipment are recorded at cost less accumulated amortization. Amortization of property and equipment is provided over their estimated useful lives, on a straight-line basis at the following annual rates:

Leasehold improvements	10 years or lease term
Laboratory equipment	10 years
Process development equipment	10 years
Other equipment	3-5 years

Management assesses the carrying amount of property and equipment for impairment annually and an impairment loss is recognized when the carrying amount exceeds its fair value. No impairment loss has been recorded to date.

Investment tax credits

The Company is entitled to investment tax credits (ITC's) based on certain research and experimental development costs incurred. These credits are recognized when there is reasonable assurance of their recovery using the cost reduction method. Investment tax credits are subject to assessment and approval by the Canada Revenue Agency ("CRA"). Adjustments required, if any, are reflected in the year when such assessments are received.

Investment tax credits and other cost recoveries related to property and equipment are credited against the book value of property and equipment and the credit is released to income on a straight-line basis as a reduction of amortization expenses over

the above-noted estimated useful lives of the relevant assets and the remaining balance is recorded as a reduction of research and development expenses.

Research and development

Research and development expenditures (with the exception of those which are capital in nature) are expensed as incurred unless a development project meets the criteria for deferral under Canadian generally accepted accounting principles. No development costs have been deferred to date.

Intellectual property costs

Intellectual property costs include $60,000 for the period ended March 31, 2004 ($505,015 — 2003; $482,996 — 2002; $288,450 — 2001) of patent costs and other costs such as legal opinions and licensing fees. These costs are expensed as incurred.

Cash and cash equivalents

Cash and cash equivalents consist of cash on deposit, term deposits and loans which mature within three months or less of the date of purchase. Cash, short-term deposits and loans are held with highly rated financial institutions.

Stock based compensation

On January 1, 2004, the Company retroactively adopted the CICA Handbook Section 3870, "Stock-based Compensation and Other Stock-based Payments". This standard requires the recognition of the value of stock options issued in the financial statements in the period of issuance. The Company calculates the value of stock options issued with consideration of factors specific to the Company. For options granted to employees and directors, the value is deferred and expensed over the period the options vest, with a corresponding increase to contributed surplus. For options granted to consultants, an expense is recognized immediately.

Loss per share

Loss per share is calculated using net loss and the weighted average number of common shares outstanding during the period. The weighted average number of shares outstanding during the year ended December 31, 2003 is 5,392,436 (2002 — 5,379,439, 2001 — 5,374,959; period ended March 31, 2004 — 5,412,738; March 31, 2003 — 5,390,129). The Company uses the treasury method of calculating diluted loss per common share. The effects of potentially dilutive instruments on loss per share are not dilutive.

Income taxes

The Company uses the liability method of accounting for income taxes under which future tax assets and liabilities are recognized for differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Future tax assets and liabilities are measured using substantively enacted tax rates in effect in the period in which those temporary differences are expected to be recovered or settled. The effect on future tax assets and liabilities of a change in tax rates is recognized as part of the provision for income taxes in the period that includes the enactment date. A valuation allowance is recorded against the future tax asset to the extent it is more likely than not that some or all of the future tax asset will be realized.

Foreign currency translation

Transactions denominated in foreign currencies and the financial statements of the integrated foreign operations are translated into the functional currency using the temporal method. Under this method, monetary assets and liabilities are translated using the rate of exchange in effect at the balance sheet date, whereas other non-monetary assets and liabilities are translated at the rate of exchange in effect on the date of the transaction. Revenues and expenses are remeasured at monthly average rates prevailing throughout the period, except for amortization which is remeasured at exchange rates prevailing when the related assets were acquired. Exchange gains and losses resulting from translation are included in the statement of operations.

Use of estimates

The preparation of financial statements in accordance with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results can differ from those estimates. Significant estimates are made for the determination of the investment tax credits receivable, the useful lives of property and equipment, valuation of stock options, valuation allowance against the future tax asset, and in the initial calculation of the equity portion of the convertible promissory note.

3 PROPERTY AND EQUIPMENT

	March 31, 2004		
	Cost	Accumulated amortization	Net
	$	$	$
		(Unaudited)	
Laboratory equipment	2,142,557	590,460	1,552,097
Leasehold improvements	2,981,797	1,088,106	1,893,691
Process development equipment	1,077,883	309,817	768,066
Other equipment	832,554	495,976	336,578
Less: Investment tax credits	(326,000)	(86,008)	(239,992)
Government assistance	(1,149,976)	(341,026)	(808,950)
	5,558,815	2,057,325	3,501,490

	December 31, 2003		
	Cost	Accumulated amortization	Net
	$	$	$
Laboratory equipment	2,150,109	536,895	1,613,214
Leasehold improvements	2,981,797	1,019,100	1,962,697
Process development equipment	1,075,202	282,928	792,274
Other equipment	814,653	458,931	355,722
Less: Investment tax credits	(326,000)	(77,858)	(248,142)
Government assistance	(1,149,976)	(312,276)	(837,700)
	5,545,785	1,907,720	3,638,065

	December 31, 2002		
	Cost	Accumulated amortization	Net
	$	$	$
Laboratory equipment	2,139,124	322,867	1,816,257
Leasehold improvements	3,114,174	733,233	2,380,941
Process development equipment	717,901	166,594	551,307
Other equipment	1,019,053	331,637	687,416
Less: Investment tax credits	(326,008)	(45,258)	(280,750)
Government assistance	(1,149,976)	(197,276)	(952,700)
	5,514,268	1,311,797	4,202,471

Investment tax credits and government assistance of $nil were credited against the cost of property, plant and equipment during the period ended March 31, 2004 (year ended December 31, 2003 — $nil; 2002 — $564,409).

4 RELATED PARTY TRANSACTIONS AND BALANCES

Dow AgroSciences Canada Inc., BiotecKnowledge Associates Inc. (“BiotecKnowledge”) and University Technologies International Inc. (“UTI”) are considered related parties as a result of their equity investment in the Company and representation on the Company’s Board of Directors. UTI is a subsidiary of The University of Calgary. BiotecKnowledge is wholly owned by an officer of the Company. Amounts due to related parties comprise:

	March 31, 2004	December 31, 2003	December 31, 2002
	$	$	$
	(Unaudited)		
Dow AgroSciences Canada Inc.	117,704	117,704	189,467

These balances, which are included in accounts payable, are unsecured, non-interest bearing and repayable on demand. See note 5(ii) for further advances from Dow AgroSciences Canada Inc.

Research and development expenses are recorded at estimated fair values and were paid to related parties as follows:

	March 31,		December 31,		
	2004	2003	2003	2002	2001
	$ (Unaudited)	$ (Unaudited)	$	$	$
University of Calgary	—	—	—	—	135,575
Dow AgroSciences Canada Inc.	—	—	—	201,132	153,952
BiotecKnowledge Associates Inc.	—	—	—	—	33,000

5 REPAYABLE ADVANCES

	March 31, 2004	December 31,	
		2003	2002
	$ (Unaudited)	$	$
Martek advance[(i)]	650,872	650,872	—
Advance for research chair[(ii)]	190,182	190,182	190,182
Contract research advance[(iii)]	85,640	85,640	184,840
Balance — End of period	926,694	926,694	375,022

(i) On December 1, 2003, the Company entered into a collaboration agreement with Martek BioSciences Inc. (“Martek”). The agreement states that the companies will collaborate in the development of transgenic plants to produce long chain polyunsaturated fatty acids. As part of the agreement, Martek agreed to advance to the Company U.S. $500,000 to assist with the working capital requirements of the project for the first year. Upon termination of the agreement within the first year following the effective date, the Company is required to return U.S. $250,000 to Martek. In the event such termination is due to breach by the Company, the Company must return the full amount of U.S. $500,000. Thereafter, upon any termination other than due to a breach by the Company, the Company shall be entitled to retain the entire advance.

(ii) The Company received advances from Dow AgroSciences to offset the Company’s cost of funding a research chair at the University of Calgary. The research chair is currently vacant. In 2001, a portion of the advance ($62,500) was used to offset the cost of funding the research chair in the year.

(iii) In 1999, the Company received U.S. $100,000 under a contract research arrangement. The advance, together with interest at the current prime rate was to be credited against future royalties or purchases. Under the terms of the contract, 50% of the advance and accrued interest was to be forgiven, if the customer did not exercise an option to license technology from the Company in 2003. Consequently, during 2003, the advance was reduced by 50% ($64,620 was recognized as contract research revenue and $21,020 was recognized as a recovery of interest expense). If the advance has not been offset against royalties or purchases by December 30, 2007, the remaining U.S. $50,000 plus interest at the current prime rate is repayable.

6 COST RECOVERIES

a) In March 2003, the Company entered into an agreement with AVAC Ltd. to provide funding for the Company’s Protein “A” research. Under the terms of the agreement, AVAC will advance up to $2.5 million on the basis of achieving specific predetermined milestones between March 2003 and March 2006. The advance is repayable in the form of a sliding scale royalty (1% to 3%) commencing March 2007. The cumulative royalty payable is equal to two times the amount of funding actually received by the Company. During the year ended December 31, 2003, the Company received funding of $1,150,000 under the agreement, of which the upfront payment of $750,000 was deferred and is being recognized over the contract term as the Company performs under the contract and milestones are achieved.

b) The Company received non-repayable financial assistance under various government programs.

	March 31,		December 31,		
	2004	2003	2003	2002	2001
	$ (Unaudited)	$ (Unaudited)	$	$	$
Various government programs	62,500	30,167	140,333	84,922	—

c) In June 2001, the Company entered into an agreement with AVAC Ltd. to provide funding for the Company’s antibodies research. Under the terms of the agreement, AVAC will advance up to $2.4 million on the basis of achieving specific predetermined milestones between June 2001 and May 2004. The advance is repayable in the form of a 3% royalty on

gross revenues attributable to the commercialization of the antibody products. The cumulative royalty repayable is equal to two times the amount of funding received by the Company. No funding was received for the period ended March 31, 2004. During the year ended December 31, 2003, the Company received funding in the amount of $450,000 (2002 — $500,000; 2001 — $1,250,000) under this agreement. Total amount received to March 31, 2004 is $2,200,000.

d) In March 2001, the Company entered into a repayable contribution agreement with Technology Partnerships Canada (TPC), an agency of the Government of Canada. Under the terms of the Agreement, TPC contributed 36% of eligible project costs from December 23, 1999 until December 31, 2002, subject to a maximum of $5.5 million. The contribution is repayable at a rate of 1.5% of gross revenues arising from commercialization of the technology developed by the Company. If, by December 31, 2010, the total cumulative royalty payments paid are equal to or exceed $16.7 million, the royalty period ends. If the total cumulative royalty payments made are less than $16.7 million by that date, the royalty period will continue until the cumulative royalty payments equal $16.7 million or until December 31, 2014 whichever comes first. After December 31, 2014, the contribution is forgiven. During the year ended December 31, 2003, the Company recorded $nil (2002 — $1,386,637; 2001 — $3,000,000) under this agreement as a cost recovery and $nil (2002 — $313,000; 2001 — $785,000) as a reduction of the cost of property and equipment. Total amount received to March 31, 2004 is $5,484,637.

e) In 1996, under an agreement with the Government of Canada, Western Economic Diversification ("WED"), WED provided contributions of $529,159 towards certain specific project costs. Repayments are required annually and are due four months after the fiscal year end based on a percentage of specified product revenues. The annual instalments shall continue until the entire contribution has been repaid in full or until four months after the Company's fiscal year ending in 2007 when any outstanding balance is due and payable.

Pursuant to a letter agreement, Dow AgroSciences has agreed to provide the funds necessary to repay the WED contributions as required. The Company is not obligated to repay the amount to Dow AgroSciences.

7 LONG-TERM DEBT

	March 31, 2004	December 31, 2003	December 31, 2002
	$ (Unaudited)	$	$
Loan payable, bearing interest at bankers acceptance rate plus 4.43%, repayable in blended monthly instalments of $7,851 due November 2006	210,679	228,376	295,954
Loan payable, bearing interest at bankers acceptance rate plus 4.27%, repayable in blended monthly instalments of $3,613, due July 2007	128,837	137,374	170,057
Loan payable, bearing interest at bankers acceptance rate plus 4.12%, repayable in blended monthly instalments of $4,363, due November 2007	169,093	179,145	217,657
	508,609	544,895	683,668
Less: Current portion of long-term debt	(112,658)	(148,944)	(138,711)
Balance — End of period	395,951	395,951	544,957

Repayment of long-term debt over the next five years is as follows:

	$
2004	112,658
2005	160,117
2006	164,731
2007	71,103
	508,609

The loans are collateralized by certain laboratory equipment.

8 LICENSING FEES

On November 28, 2003, the Company entered into a technology licensing agreement with Syngenta Participations AG ("Syngenta"). Under the terms of the agreement, Syngenta received an option to obtain a license to the Company's patented oleosin technology for proprietary Syngenta products on a product by product basis in return for an option payment of U.S. $3.75 million. The entire amount is included in income because no future services are owed by the Company to Syngenta in exchange for the option payment, and because the agreement requires that Syngenta pay additional option exercise fees and royalties for each licensed product. No additional option fees or royalties have been earned to date. The option to license is world wide, non-exclusive, limited and terminable.

9 CONVERTIBLE PROMISSORY NOTE

During 2003, the Company received U.S. $2.25 million from Syngenta in exchange for a convertible promissory note. The note bears interest on the unpaid balance at the rate of 8% per annum, payable on November 28, 2016. The total debt (principal and interest) is unsecured and subordinate to any and all indebtedness of the Company.

The total amount of the debt will be automatically converted to common stock of the Company upon the closing of an initial public offering (''IPO'') in which the Company receives net proceeds of at least U.S. $15 million. Two thirds of the common stock into which the total debt is converted shall have the same rights as those possessed at such time by holders of the Company's Series ''A'' convertible preferred stock. The remaining one third will be treated in the same manner as all other issued shares of common stock of the Company.

The total amount of the debt will be automatically converted into privately issued preferred equity securities of the same class that are issued or sold in one or a series of transactions in which the Company receives aggregate net proceeds of at least U.S. $10 million. The preferred equity securities will have the same rights as the Class ''A'' convertible preferred stock.

The total amount of the debt may, at the holder's option, be converted in its entirety into preferred stock of the Company if the Company enters into a financing agreement wherein the Company receives aggregate net proceeds of at least U.S. $3.5 million.

The note is convertible into preferred or common stock at an exchange ratio based upon the lowest price per share issued in connection with a share offering.

Syngenta shall also have the option to convert the total debt into equity (inclusive of warrant coverage) on the same terms as were utilized in the Company's issuance of its existing Series A Preferred shares prior to the date which is the earlier of: a) August 14, 2004; b) 45 days from the receipt by Syngenta of notice of the Company's signing an engagement letter with a lead underwriter related to the Company's IPO; or c) 21 days from the date of receipt by Syngenta of a fully executed term sheet from the Company regarding a qualified financing.

When the convertible promissory note was issued, the Company used the residual value of equity component method to allocate the proceeds of $2,918,925 (U.S. $2.25 million) between the liability component and the equity component, based on an estimated market lending interest rate of 15%. The equity component was calculated to be $1,951,139. The principal amount is being accreted to U.S. $2.25 million (the face value of the note) over the term of the note and the accretion charge is accounted for as interest expense.

	$
Proceeds from issuance of convertible promissory note	2,918,925
Less: Equity component	(1,951,139)
Liability at date of issuance	967,786
Accrued interest and interest accretion	12,097
Foreign exchange adjustment	(3,652)
Liability and interest component at December 31, 2003	976,231
Accrued interest and interest accretion	36,746
Foreign exchange adjustment	40,725
Liability and interest component — March 31, 2004	1,053,702

10 CAPITAL STOCK

The following share, option and warrant information has been retroactively adjusted to reflect the one-for-ten consolidation discussed in note 15(a).

a) Authorized

Unlimited number of Common Shares without nominal or par value Unlimited number of Class A Convertible Preferred Shares without nominal or par value.

The holders of preferred shares are entitled to receive dividends at an annual rate of 8% of the original issue price per share for each outstanding preferred share held by them, when and as declared by the Board of Directors, in preference and priority to the payment of dividends on common shares. Each preferred share is entitled to one vote however, the preferred shareholders are not entitled to vote separately as a class but instead shall vote, together with the holders of common shares. The Class A preferred shares are convertible at any time at the option of the holder on a one for one basis into fully paid common shares and are automatically converted into common shares upon a qualifying initial public offering or with the consent of at least 75% of the holders of the preferred shares. Upon liquidation, dissolution or wind-up of the Company, the preferred shares have liquidation preference and entitlements over the common shares.

b) **Issued — Common Shares**

	Number of shares	Amount
		$
Balance — December 31, 2001	5,375,495	6,004,359
Exercise of stock options	13,483	8,427
Balance — December 31, 2002	5,388,978	6,012,786
Exercise of stock options	8,127	5,079
Balance — December 31, 2003	5,397,105	6,017,865
Exercise of stock options	25,600	16,000
Balance — March 31, 2004	5,422,705	6,033,865

Issued — Class A Preferred Shares

	Number of shares	Amount
		$
Balance — March 31, 2004, December 31, 2003 and 2002	2,638,932	15,274,539

c) **Warrants**

Under a Preferred Stock Purchase Agreement dated October 17, 2000, the Company issued preferred stock units at $0.6275 consisting of 26,389,322 Class A Preferred Shares and 0.145 Preferred Share Warrant for each Preferred Stock issued resulting in the issuance of 3,826,451 Warrants. As discussed in note 15(a), the number of preferred shares and Preferred Stock Warrants have been consolidated on a one-for-ten basis. Consequently the number of Preferred Stock Warrants have been reduced to 382,645. The Preferred Stock Warrants were valued at $1,128,000 using the Black-Scholes option pricing method, assuming a life of seven years, 35% volatility and an average risk-free interest rate of 5% per warrant. The warrants are exercisable at any time at an exercise price of $6.275 prior to October 17, 2007.

d) **Stock options**

The Company adopted a stock option plan in 1998 under which it may grant options to employees, consultants, officers and directors of the Company. Under that plan, the Board of Directors sets the exercise price and expiry date for each option grant. The Board of Directors repriced all outstanding options during 2001. The options vest over a period of three to five years. The Company has authorized 1 million common shares for grant under the stock option plan.

The following table summarizes the stock option activity during the year:

	March 31, 2004	December 31, 2003	December 31, 2002
	(Unaudited)		
Issued and outstanding			
Balance — Beginning of period	649,096	630,063	554,196
Granted	77,808	68,100	97,000
Exercised	(25,600)	(8,127)	(13,483)
Forfeited	(1,700)	(40,940)	(7,650)
Balance — End of period	699,604	649,096	630,063
Options exercisable — End of period	442,906	394,129	272,021

The weighted average remaining term of the options is 4.00 years (2003 — 3.92 years 2002 — 4.69 years).

The exercise and grant price for all of the above stock options is $0.625 per share.

The fair value of stock options has been estimated on the date of grant by reference to the Black-Scholes option-pricing model. For the period ended March 31, 2004 and years ended December 31, 2003 and 2002, the Company assumed that the life of all options granted equals seven years, no common share dividends will be paid, average expected volatility of 0% and an average risk free interest rate of 4.1%. The fair value of options granted during the period ended March 31, 2004 and 2003 and the years ended December 31, 2003 and 2002 were not material.

11 INCOME TAXES

The Company's income tax provision has been determined as follows:

	March 31,		December 31,		
	2004	2003	2003	2002	2001
	$ (Unaudited)	$ (Unaudited)	$	$	$
Loss for the period	1,540,361	1,652,260	1,774,803	7,341,007	1,480,911
Combined basic federal and provincial income tax recovery	(517,869)	(285,015)	(306,154)	(1,486,201)	(296,182)
Permanent non-deductible expenses	13,514	5,000	3,048	1,845	857
Loss and temporary differences for which no benefit was recognized	504,355	280,015	303,106	1,484,356	295,325
	—	—	—	—	—

The significant components of the Company's future income tax assets are summarized as follows:

	March 31, 2004	December 31, 2003	December 31, 2002
	$ (Unaudited)	$	$
Benefit of unclaimed current and capital scientific research and experimental development expenditures	3,880,000	1,875,000	3,463,000
Non-capital loss carryforwards	1,097,000	455,000	2,367,000
Benefit of investment tax credits	511,000	637,000	428,000
Capital assets	207,000	71,000	(582,000)
Other	—	—	33,000
Future income tax asset	5,695,000	3,038,000	5,709,000
Less: Valuation allowance	(5,695,000)	(3,038,000)	(5,709,000)
	—	—	—

The Company has recorded a full valuation allowance against its future income tax assets because of its history of net operating losses since its inception.

The unutilized scientific research and experimental development expenditures may be carried forward indefinitely by the Company to reduce taxable income in future years. The non-capital loss carryforwards can be applied to reduce taxable income in the future. Tax losses of $2,639,000 and $697,000 expire if not used before December 31, 2009 and 2011, respectively.

12 COMMITMENTS

The Company has entered into operating leases for laboratory equipment, a corporate head office and a secondary facility ending in 2011 as well as for computers and furniture. The minimum lease payments for the next five years are as follows:

	$
2004	500,236
2005	473,813
2006	480,027
2007	487,997
2008	490,172

13 FINANCIAL INSTRUMENTS

Fair value

The fair values of cash and cash equivalents, accounts receivable, investment tax credits receivable, accounts payable and accrued liabilities and repayable advances approximate their carrying values due to their short term maturity. The long-term debt fair value approximates its carry value due to the debt bearing interest at a variable rate. The fair value of the convertible promissory note is not practicably determinable. Terms of the promissory note is described in note 9. The fair value may be substantially different than the carrying value.

Credit risk

The Company is exposed to credit risk in the event of non-performance by counterparties, but does not anticipate such non-performance. The Company monitors the credit risk and credit standing of counterparties on a regular basis. The maximum credit risk is the fair value of the financial assets.

Interest rate risk

The Company is exposed to interest rate price risk in respect of the convertible promissory note, which bears a fixed rate of interest, and interest rate cash flow risk in respect of its variable rate, long-term debt.

14 SEGMENTED INFORMATION

The Company is focused on the development, commercialization and production of pharmaceutical proteins and non-pharmaceutical products based on its plant engineering skills and its proprietary oilbody-oleosin technology platform.

At its current stage of development, the Company is only engaged in research and development. It derives its current revenues from licensing fees and contract research, both of which are closely connected with its primary research and development activities. In the opinion of management, the Company has only one business segment.

Revenues from external customers are attributable to the following countries based on the customer's country of domicile.

	March 31,		December 31,		
	2004	2003	2003	2002	2001
	$ (Unaudited)	$ (Unaudited)	$	$	$
License fees – Switzerland *(note 8)*	—	—	4,864,875	—	—
Contract research revenue					
United States	165,585	—	84,620	293,835	602,884
Australia	—	—	—	—	360,000
	165,585	—	4,949,495	293,835	962,884

15 SUBSEQUENT EVENT

a) Share consolidation

On June 21, 2004, the shareholders of the Company approved a one-for-ten consolidation of all its common and preferred shares and preferred share warrants in connection with the offering discussed in note 15(b). In addition, a similar consolidation was approved for all outstanding common share options. All disclosures of outstanding shares, options, and warrants, as well as per share information, have been retroactively adjusted to reflect the consolidation.

b) Underwriting agreement and Offering

The Company entered into an Underwriting Agreement dated ● under which it agreed to file a prospectus to qualify for distribution up to ● units to be issued from treasury at $ ● per unit (the "Offering"). Each unit is comprised of one Common Share and one-half Share Purchase Warrant. Each whole Share Purchase Warrant is exercisable for one Common Share at $ ● prior to 4:30 pm (Calgary time) on ● . The agreement provides for an underwriters' commission of ● % of the aggregate gross proceeds realized from the Offering and the granting of an option to the underwriters to purchase up to ● common shares at $● per common share and ● share purchase warrants at $● per share purchase warrant, solely to cover over-allotments, if any, and for market stabilization purposes.

Concurrent with the closing of the Offering, all outstanding preferred shares and the convertible promissory note are to be converted into common shares.

CERTIFICATE OF THE COMPANY

June 25, 2004

The foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this prospectus as required by Part 9 of the *Securities Act* (British Columbia), by Part 9 of the *Securities Act* (Alberta), by Part XI of *The Securities Act, 1988* (Saskatchewan), by Part VII of *The Securities Act* (Manitoba), by Part XV of the *Securities Act* (Ontario), by Section 63 of the *Securities Act* (Nova Scotia), by Section 13 of the *Security Frauds Prevention Act* (New Brunswick), by Part XIV of *The Securities Act* (Newfoundland and Labrador) and by Part II of the *Securities Act* (Prince Edward Island) and the respective regulations thereunder. This prospectus does not contain any misrepresentation likely to affect the value of the market price of the securities to be distributed within the meaning of the *Securities Act* (Québec) and the regulations thereunder.

"Andrew Baum"
Andrew Baum,
Chief Executive Officer

"James Williams"
James Williams,
Acting Chief Financial Officer

On behalf of the Board of Directors:

"Richard Smith"
Richard Smith, Director

"David Cox"
David Cox, Director

CERTIFICATE OF THE UNDERWRITERS

June 25, 2004

To the best of our knowledge, information and belief, the foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this prospectus as required by Part 9 of the *Securities Act* (British Columbia), by Part 9 of the *Securities Act* (Alberta), by Part XI of *The Securities Act, 1988* (Saskatchewan), by Part VII of *The Securities Act* (Manitoba), by Part XV of the *Securities Act* (Ontario), by Section 64 of the *Securities Act* (Nova Scotia), by Section 13 of the *Security Frauds Prevention Act* (New Brunswick), by Part XIV of *The Securities Act* (Newfoundland and Labrador) and by Part II of the *Securities Act* (Prince Edward Island) and the respective regulations thereunder. To the best of our knowledge, this prospectus does not contain any misrepresentation likely to affect the value of the market price of the securities to be distributed within the meaning of the *Securities Act* (Québec) and the regulations thereunder.

ORION SECURITIES INC.	DLOUHY MERCHANT GROUP INC.
"MICHAEL DENNY" Michael Denny	"WILLIAM MURRAY" William Murray
FIRST ASSOCIATES INVESTMENTS INC.	RAYMOND JAMES LTD.
"CAMERON GROOME" Cameron Groome	"PATRICK WOLFE" Patrick Wolfe

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