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CAUTIONARY STATEMENT

This Business Plan contains certain forward-looking statements and forward-looking information, which is based on hypothetical data, which includes current expectations, estimates, projections, assumptions and beliefs. By their nature, forward-looking statements and hypothetical data is subject to several risks and uncertainties, because they relate to future events and circumstances and there are many factors that could cause actual results and developments to differ materially from those expressed or implied by these forward-looking statements. Additional disclosure information regarding the forward-looking statements mythology, assumptions and risks is available for review. These forward-looking statements may be identified by words such as “believes”, “expects”, “anticipates”, “projects”, “projected”, “pro forma”, “intends”, “forecasted”, “forecast”, “assumed”, “should”, “continue”, “seeks”, “may”, “will”, “estimates”, “estimated”, “future”, “could”, “probably” or similar words or expressions or by discussion of strategy, goals, plans, intentions or projections of revenues, earnings, segment performance, cash flows, contract awards, market size, industry trends, expenses and future financing.

Vitex Nutrition Ltd. (Vitex) does not guarantee the completion of any financing. Despite the best efforts of Vitex, the completion of any financing may never occur. No reliance shall be placed on any future financing possibility. All investments are for accredited investors only. It is believed that the expectations reflected in the forward-looking statements and forward-looking information are reasonable, but no assurance can be given that these expectations will prove to be correct, and such forward-looking statements and information should not be unduly relied upon, because the actual future results may differ materially from the plans, goals, and expectations set forth in such forward-looking statements. The forward-looking information and statements are only as of the date they are made. All subsequent written and oral forward-looking statements made are qualified by the cautionary statements in this section. There is no undertaking or assumption of any obligation to update or revise any of the included forward-looking statements or information, whether as a result of new information, changes in expectations or circumstances, future events or otherwise.

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Signed
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CORPORATE DATA

VITEX NUTRITION LTD.

Date of Incorporation: July 27, 2011

Purpose: Manufacturing, Sales and Marketing of nutraceutical products

Registered Office:

205 – 2922 Glen Drive
Coquitlam, B.C. V3B 2P5

Sales and Marketing Office:

1699 Sheridan Avenue
Coquitlam, B.C. V3K 1X2

E-mail: info@VitexNutrition.com

Websites:

www.VitexNutrition.com
www.c-nag.com
www.prostate2x.com
www.sweetnsafe.ca

Fiscal Year End: September 30

Board of Directors:

Barrie Carlsen
Bao Chau Tran
Jimmy S.H. Chang
Malcolm Gillis
Amy Pon
Alan Glasser
David Lo

Corporate Attorney: William Cadman Law Corp., Coquitlam B.C.
Accountants: Heer & Co, Chartered Accountants, Coquitlam B.C.
ABOUT VITEX NUTRITION LTD.

Vitex Nutrition Ltd is a specialty nutraceutical company focused on developing safe and effective natural therapies to manage the symptoms associated with serious health concerns such as Inflammatory bowel disease (IBD), chronic bronchitis, cardiovascular health, type 2 diabetes, age related macular degeneration (AMD), cognitive function, osteoporosis, arthritis, and others.

Vitex formulas can help improve the lives of persons with these and other health conditions and can be used to complement or replace prescription drugs but without the side effects of prescription drugs.

Vitex has built a diversified portfolio of 31 Health Canada registered, commercially attractive, best-in-class, proprietary nutraceuticals to help address some of these debilitating illnesses for which there are only limited natural therapies available.

Vitex’s lead product, C-NAG®, received Health Canada Natural Product License (NPN 80036770) approval in July 2013 for the claim: Helps promote a healthy intestinal lining in people with symptoms associated with inflammatory bowel disease.

C-NAG® is in the intermediate category between a dietary supplement and a prescription drug. Major Drug companies spend billions of dollars to develop a product such as C-NAG®, but so far there is no natural equivalent.

MISSION STATEMENT

THE GOAL is to develop the Vitex brand internationally as the leading brand of science-based formulations to compete in the premium segment of the nutraceutical marketplace.

Vitex formulas offer proven and safe alternatives and/or complements to prescription drugs without the serious side effects of prescription drugs. Based on published human studies, and approved by Health Canada, Vitex formulas offer consumers the highest level of efficacy and safety to manage many health issues.

Vitex has developed more than 40 leading edge formulas and 31 (August 2016) so far have received Health Canada NHP numbers, which allow Vitex to make claims for:

- specific ailment management
- preventative healthcare

Vitex uses the very highest level of manufacturing expertise:

1. Only raw materials that meet international pharmaceutical standards are used.
2. Vitex directly purchases all active ingredients used in the Vitex formulas to ensure the formula delivers the expected benefit.
3. GMP certified contract manufacturers are chosen until Vitex completes the construction and certification of its own “State of the Art” GMP Manufacturing facility.
4. Advanced technology that avoids heat or solvents which could denature delicate ingredients is used.
5. Vitex features all vegan formulas using starch soft capsules rather than gelatin
6. PETE containers that provide the highest level of moisture and oxygen barrier and eliminate cross contamination of the contents with the container are used.
COMPANY CRONOLOGY

July 27, 2011: Vitex was registered in the Province of British Colombia (registration # BC 0916633) with its registered office at 205 – 2922 Glen Drive, Coquitlam BC. V3B 2P5

August 31, 2011: Vitex received its City of Coquitlam Business License No. 11013972 and began developing its sales and marketing division.

September 2011: Vitex registered www.VitexNutrition.com.vn in Vietnam and a professional webmaster was hired to develop the site. This website is a prototype for the sales and marketing of Vitex products in Vietnam.

January 2012: Vitex launched its first products in Canada - Health Pac, SOURCE Optimum, SOURCE Omega 3.6.9 and Serrapeptase 60,000 u, 90,000 u and 120,000 u.

January 2013: Vitex launched its next seven products, Vita Zyme™, Coenzyme Q10, Grape Seed/ Green Tea, Joint Mend™, Osteo Mend™, Vision Boost™ and C-NAG®,

March 26, 2013: Vitex Nutrition Vietnam Co. Ltd was incorporated in Vietnam (Reg. No. 03121799913). Headed by Tran Bao Chau (Jewel), this office has introduced Vitex products to leading pharmacies and medical clinics throughout Vietnam.

October 19, 2013: Vitex Nutrition Vietnam held its grand opening.

September 18, 2014: South Ocean Nutraceutical (Canada) Ltd. (South Ocean) was incorporated in the Province of British Columbia (Number BC 1014025), as a wholly owned subsidiary of Vitex Nutrition Ltd.

August 2017: Vitex enters into a Joint Venture agreement with Health First Products Inc. to develop and market Agly-Gen fermented soy isoflavone product for the treatment for various cancers. Appendix 14

February 2019: Vitex launched its Vegan Omega 3-6-9 formula in the new Vegan soft capsules.

THE OPPORTUNITY

Strategic Shift in How Consumers View Health and Wellness

Dietary supplements may help prevent nutritional deficiencies when the diet is not adequate to provide optimum levels of essential nutrients. Regular supplementation of essential nutrients may provide protection against the development of degenerative diseases.

Over the past fifteen years, sales in the global nutrition and supplements market have seen an unprecedented growth. In fact, per a new market report published by Persistence Market Research "Global Market Study on Dietary Supplements: Botanical Supplements to be the Largest Market by 2020," the global dietary supplements market was valued at $109.8 billion in 2013 and is expected to grow at a compound annual growth rate (CAGR) of 7.4 percent from 2014 to 2020, to reach an estimated value of $179.8 billion in 2020. www.persistencemarketresearch.com
MANAGEMENT TEAM

The Vitex management team has many years’ professional business and nutraceutical industry experience, with considerable experience in product development, sales, marketing and manufacturing. Their combined experience and successful track records will position Vitex to take advantage of the significant opportunities in the premium dietary supplements sector of the nutraceutical marketplace. The President of Vitex, Mr. Barrie Carlsen has over 42 years of experience in developing and managing leading edge nutraceutical companies.

BARRIE CARLSEN – President

Barrie Carlsen became interested in health and fitness in his early twenties. As an amateur weightlifter, he studied the role of diet and nutrition in developing strength and endurance. He discovered that many world-class Olympic athletes were vegetarian and thus decided to adopt the vegetarian diet, a practice he still follows. His training and new vegetarian diet helped him to win the British Columbia Light-Heavyweight Weightlifting Championship in 1959. He never continued with his weightlifting career, but he intensified his studies on the role of nutrition, and of the vegetarian diet in maintaining health and fitness.

His personal interest in health led him to become involved in the nutrition (health food) industry. In November 1976, he founded Quest Vitamins, www.questvitamins.com a Vancouver based vitamin Supplement Company that eventually became one of the most technically advanced vitamin manufacturing companies in the world. A Quest Corporate Brochure is at Appendix 17. In 1982, Quest Vitamins (UK) Ltd. www.questvitamins.co.uk was incorporated as a 60% subsidiary of Quest Canada.

January 1993, he sold Quest Vitamins to Boehringer-Ingelheim Canada Ltd a German Pharmaceutical giant. Quest (UK) was purchased by the local management.

May 1994: Mr. Carlsen was asked to accept a nomination for the first annual Canadian Entrepreneur of the Year Awards.

August 1997: Mr. Carlsen founded Enerex Botanicals Ltd. www.Enerex.ca Enerex specializes in high quality nutritional supplements, a policy established during the Quest period. Many of the Quest and Enerex products developed by Mr. Carlsen are still market leaders.

March 1999: Mr. Carlsen was inducted into the Canadian Health Food Association’s “Pioneer Hall of Fame” in honor of his innovative work in the industry.

July 27, 2011, Mr. Carlsen incorporated Vitex Nutrition Ltd. in the Province of B.C.

Mr. Carlsen is the contributing editor of The Nutrition Digest of Essential Nutrients, a highly-respected reference work and the author of many articles on the role of nutritional supplements in preventing disease and maintaining good health. The January 2018 revised edition of the Nutrition Digest is posted on www.vitexnutrition.com
BAO CHAU TRAN (JEWEL) - Vice President

Ms. Tran is a businesswoman with many years' professional experience in the manufacturing sector in Vietnam. She is a Permanent Resident to Canada and is major shareholder and director in Vitex. Ms. Tran founded and managed Vitex Nutrition Vietnam Ltd. until she sold the distribution rights to Vitex Nutrition & Health Vietnam Ltd in August 2018. She. Speaks Cantonese, Mandarin, Vietnamese, and English

Ms. Tran began an incense business with her former husband in late 1992, and from small beginnings built the business into a leading manufacturer and distributer in South East Asia.


She managed 25 full time employees and all operations from organization, economic, financial and personnel: Responsible for signed commercial contracts.

Purchase and sale of construction material, interior decoration, handicrafts, mechanical and electrical ware, equipment, and accessories for industry sections such as agriculture, automobile, motorbikes, chemicals, food, wine, and beer:

Production, purchase and sale of incense and candles and their raw materials: leasing of office, warehouse, and workshop:


She managed 9 full time workers and 10 seasonal workers: Major responsibilities were in sales and marketing, local and abroad.

Specialized in the production and trading of incense powder, coconut shell powder, sawdust powder and Gum powder.


She managed all aspects of the Company including product registrations with the Minister of Health, import documents, sales and marketing including training of the staff of the main pharmacy chains and managing the Vitex administrative and sales staff.

JIMMY S.H. CHANG - Director

Jimmy Chang has an extensive background in the analytical, manufacturing and management in the Canadian food and nutraceutical industry. He has a Technical Diploma in biomedical electronics engineering from the BC Institute of Technology in 1974

EMPLOYMENT

- Currently, he is President and CEO of NHP Laboratories in Burnaby BC. (2009 to present)
- From 2007 to 2009 he was a director of Siliker JR Laboratories ULC
- From 1988 to 2007 he was President & CEO of JR Laboratories and a director of IRI Separation Technologies, a public listed company with the Junior Board in the TSX
- From 1975 to 1988 he was an engineering assistant with the BC Government – Ministry of Agriculture, Dairy and Food Laboratory
AMY PON - Director

Amy Pon has an extensive background of more than 30 years in the advertising and design industry, specializing in the health food industry. She has years of experience and knowledge with labeling and advertising requirements in compliance with Health Canada regulations.

She graduated from Langara College in 1985 and was awarded 2 scholarships for outstanding work.

Her company, AJP Communications Inc., has created and designed many labels and product packaging for many product lines, point of purchase materials, ads, brochures, booklets, specialty advertising, web sites and web materials, and other presentation materials, for print and flexo, for some of the leading health food manufacturers in BC including Vitex Nutrition.

Recently, Amy has taken an interest in using Google Analytics and Bootstrap in the creation of websites to track visitor information, hits, locations, multi-platform usage, etc. She is also available on LinkedIn.

Amy is a CLF kung fu practitioner for over 25 years and a black belt level instructor. She has competed at numerous local and international tournaments for many years and is one of the top adult female traditional forms competitors in the region. Amy won the Adult Black Belt Forms Western Canadian Martial Arts Grand Champion in 2012, and again in 2013.

May 2015: At age 50 Amy won the 2015 CanAm Grand Champion for Traditional Kung Fu 18+.

June 2016: Amy won the Adult Black Belt Forms Grand Champion in the Coastal Martial Arts Open against many hard stylists in karate in Port Alberni, BC. She is also a black belt judge for many years at many of the local and international tournaments in the martial arts community.

October 2016: Amy won the Adult Black Belt Soft Style Grand Champion at the Western Canadian Martial Arts Championship at BCIT.

March 2017: Amy won 1st place in 35+ Black Belt Open/Traditional Forms. She is also the 18+ Black Belt Traditional Forms/Weapons Grand Champion at the 2017 Tiger Balm Internationals tournament.

EMPLOYMENT

- Currently she is the principal / owner of AJP Communications Inc., created in 1996 to present - more info available at ajpcommunications.com.
- She got her start at Quest Vitamins in 1987 and was promoted to Creative Director / Supervisor (1990 - 1996)
- Responsible for overseeing all aspects and art direction of company advertising campaigns and production to ensure a corporate brand and consistency while working closely with agencies, suppliers, product photography & purchasing.
- Responsible for numerous magazine ads, flyers, brochures, POP, displays, packaging, labels. Worked closely with advertising agency personnel, suppliers, overseeing all product photography and handling purchasing for marketing department and administration.
- Designed and created 3 printed pieces in a series, both in English & French targeted to pharmacists in a nationally accredited program: Pharmacy Education Program for Boehringer Ingelheim Canada.
- From 1986 - 1987, she was a Graphics Assistant at the UBC Bookstore
- She started out as a silkscreen artist for Suda Textiles in 1985.
MALCOLM GILLIS – Director

Malcolm Gillis is president and co-founder with his wife Linda Gillis of Malinda Distributors Inc. incorporated in the Province of British Columbia in 1989. Malinda Distributors imports de-alcoholized wine from Australia and distributes it Canada-wide under their registered trademark Loxton. www.loxtonwines.ca

Malcolm and Linda recognized that the beverage market lacked an elegant alternative beverage for adults and identified a target consumer who would want to drink and enjoy a premium de-alcoholized wine – adults who prefer not to drink alcohol.

Malcolm manages purchases, distribution, and accounting for the company.

DAVID M. LO – Director

Education:

- West London College of Commerce, London UK in 1963 followed by special training in Business Management
- TO practices of Chinese Herbal Pharmacy in Hong Kong August 1978. Western Canadian institute of TCM Practitioners August 1998.

Business Experience:

- David Lo has over 40 years’ experience as a Senior Administer, Director, Owner, and Consultant for various successful enterprises, and has been engaged in many high-tech business ventures in the 1980’s
- In 1985 he served as a consultant and instructor in a youth training program for the Canadian Government
- During the 1980’s and 1990’s David spent most of his time working with renowned scientists in the alternative medical and traditional herbal medicine fields. These include 2-time Nobel Prize laureate Dr. Linus Pauling, Dr. Abraham Hoffer, renowned psychiatrist, and the father of Orthomolecular Medicine which has set a new direction for the medicine of the future, and Dr. F. Knelman, former professor for Science and Human Affairs at Concordia University, Montreal (1968-1985)
- In 1991, David founded Health First Products Inc. and successfully designed and built a multi-million-dollar biotech nutraceutical plant near Vancouver BC. to produce dietary phytochemical and herbal dietary supplements to treat and prevent cancer and other diseases. The project was granted major funding by the Government of Canada.
- August 2017, David joined Vitex Nutrition Ltd, as a consultant to assist in its fund- raising efforts and to oversee the development of AGLY-GEN
- June 2018: David became a Director of Vitex
ALAN GLASSER - R.Ph., B.Sc. (Gen.), B.Sc. (Pharm.). B.A.C. L.E.S. - Director

Education:
Graduated UBC B.Sc. (General) 1975
Graduated Faculty of Pharmacy UBC 1978  B.Sc. (Pharm.)

Business Experience:
Worked in retail pharmacy from 1978 to the present.
Currently owner/manager of Marks Pharmacy Delta BC.
In 40 years of clinical practice, Alan has always had a passion for finding answers for his clients. His greatest enlightenment came when working as a pharmacist, he noticed that clients were not always happy with the results they got from conventional medication. This started him on a path of discovery to do extensive research into complementary medicine. His client's greatest successes have been in the areas of pain relief, energy, and natural beauty solutions.
Alan has spent the last 20 years using print, TV, and Radio to get the message out of his passion to help the viewers, listeners and readers achieve their own great health outcomes. Not only to clients who visit his store (Marks Pharmacy Delta) but successfully kept several listings on the shelves of London Drugs for the past 15 years.

“I love talking to face-to-face with clients every day in the pharmacy, because it allows me to make a real difference in people’s lives and health. Our staff lives and breathes our pharmacy mission of ‘Make their Day’ so that every customer will leave with a smile on their face. I always tell my clients – my mission is to help you look and feel good. I get up every day energized wanting to make a difference of helping as many people as possible to look and feel good. That is why I am so dedicated and committed to this radio show.”

MILTON CHEN PhD - Consultant

Dr. Milton Chen is an inter-disciplinary biochemical engineer and a specialist in pharmaceutical process. He received his BSc. in chemical engineering, National Cheng Kung University, Taiwan in 1978; his PhD. in Chemical Engineering, University of Queensland, Australia in 1992 and his PMI Project Management Professional (PMP) Certification in 2011.
He is a member of the International Society of Pharmaceutical Engineering (ISPE) and of the Project Management Institute (PMI)

EMPLOYMENT

- (QC/QA chemist) Phytogen Life Sciences Inc., Delta, BC, Canada 1996-2005
- (Director Manager, Operations) Fujan South Bio-Technology Co. Ltd., China 2007-2008
- (Manager, Process Development) Savior Lifetec Corp., Taiwan, 2009-2010
- (Consultant) MingTech Life Sciences Corp., Coquitlam, BC, Canada 2005-present

Milton’s experience as it relates to Vitex and South Ocean Nutraceuticals Canada:

- Completed 10+ NHP site Licensing in Canada and China
- 20+ NHP product licensing in Canada
- General contractor for establishing 15,000 sq. ft. solid dosage dietary supplement production facility in Canada (facility renovation, equipment specification, process design, qualification and commissioning for an oral solid dosage, packaging, and labelling line)
- Overseeing formulation and manufacturing of supplements (capsules, tablets,)
INDUSTRY ANALYSIS

**Dietary Supplements: Safe, Beneficial and Regulated**

In the USA, the dietary supplement industry in 2014 is a $23.8 B industry. Per the most recent statistics from the Food and Drug Administration (FDA) there are 29,000 dietary supplement products on the market, up from 25,000 in 1993. Dietary supplement products include vitamins, minerals, botanicals, sport nutrition supplements, weight management products and specialty supplements. These products are intended to be used as supplements to, not substitutes for, a well-balanced diet and a healthy lifestyle. When used properly, they help promote overall good health and prevent disease. More than 150 million Americans take dietary supplements annually.

**NFM 2018 MARKET OVERVIEW**

The newly released NFM 2018 Market Overview show a slower growth in 2017 over 2016 of 5.2% in a 149 billion market, with vitamin & dietary supplements up 3.3% over 2016 with a market value of US$ 27.1 billion. The full report is at Appendix 12.

**DIETARY SUPPLEMENTS IN 2019 – A LOOK AT WHATS AHEAD**

A major report sponsored by Wellmune, a branded immune supplement, summarizes the current global market for dietary supplements (106 billion US dollars) and functional foods & beverage products (253 billion US dollars). The full report is at Appendix 9.

Vitex’s *Vegan Health Pack, C-NAG* along with most Vitex formulas are in this category. *Sweet n Safe and Organic Soya Slim* are in the functional food category.

**INDUSTRY TRENDS**

The $18 Billion Vitamin and Supplement Manufacturing industry has experienced impressive growth figures in the past five years averaging 7.4% growth from 2009-2014 as North American became more health conscious and disposable income levels recovered from the recession. Additionally, the number of adults aged 65 and over increased, and demands for age-related vitamins and supplements have expanded.

Over the next five years, the industry anticipates benefitting from the same trends that have supported its growth in the past. As discretionary income continues to strengthen, more consumers will trade up to premium, all-natural and organic products, helping lift industry revenue. New products and formats will also appeal to customers, boosting revenue.

**VEGETARIAN SUPPLEMENTS OVERTAKING THE NUTRITIONAL MARKET**

The vegetarian/vegan sector is one of the fastest-rising demographics today. Per a recent Public Policy Polling survey, 13% of US residents identified themselves as vegetarian or vegan. This does not fully capture the extent of the vegetarian/vegan influence, however. A Harris poll study also reveals that 33% of the US population—or about 100 million people—are consciously eating vegetarian-vegan meals more often, relying increasingly on a plant-based diet.

According to GlobalData the number of U.S. consumers identifying as vegan grew from 1% to 6% between 2014 and 2017 — a 600% increase. Added to this eye-catching stat is market research from Coherent Market Insights finding that the global vegan meat market was set to surpass $6.5 billion by 2026 with a compound annual growth rate of 7.6 percent between 2018 and 2025. Allied Market Research predicts that the market will reach $5.2 billion globally by 2020 and grow 8.4 percent from 2015. This has led to 54% of Americans are trying to eat less meat and more beans and grains according to an October 2017 poll.


Per a Public Policy Polling report, 49% of Americans have a favorable opinion of vegetarians compared to 22% who hold a negative view. For vegans, it’s 38% positive to 30% negative.

Plant-based foods are becoming more prevalent in the public domain from notoriety in the press, venture capital firms staking large sums of money into startups, big food players looking for new growth, celebrities and role-models opening up about their lifestyle and documentaries diving into the science in a digestible manner. This is leading to a global shift in the way we are thinking about and in turn consuming foods and the millennials who have added an accelerant to this process have forced the hand of major players in the industry to implement this change.

**Vitex** is focusing on this trend by introducing vegetarian soft capsules to replace the animal-based gelatin capsules which up to now dominate the soft capsule market. A report from Catalent Consumer Health is at Appendix 1, www.catalent.com and a brochure from ER Kang is at www.starchcap.com. Additionally, **Vitex introduced** the vegetarian-based intestinal release **DRcaps** to complement its vegetarian tablet formulas Appendix 10. With the introduction of **Vegan Omega 3-6-9**, Vitex is one of the few 100% vegetarian-based supplement brands.

### TARGET MARKET SECTORS

<table>
<thead>
<tr>
<th>Category</th>
<th>Target Market</th>
<th>Sub market(s)</th>
<th>Growth Drivers</th>
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</table>
| Sports Nutrition  | Male & female sport enthusiasts aged 18 to 35 | Elite athletes & Sports enthusiasts of all ages | ▪ Desire for a “healthy lifestyle”  
▪ Media coverage |
| Vanity            | Females 35+                     | Females 18 to 35 Males 18+                                                   | ▪ Ageing population  
▪ Dissatisfaction with cosmetic or medical treatments  
▪ Societal pressure  
▪ Media messages |
| Preventative Healthcare | Males & females 35 to 55 | Seniors                                                                       | ▪ Ageing population  
▪ Desire to avoid medical treatment  
▪ Preference for natural alternatives  
▪ Rising healthcare costs  
▪ Diminished confidence in healthcare system  
▪ Scientific research validating safety and effectiveness of alternative treatments  
▪ Increased media coverage of such research |
| Specific Ailments | Males & females 45 to 70       | Afflicted individuals in all age groups                                     | ▪ Ageing population  
▪ Dissatisfaction with conventional medical treatment  
▪ Increased acceptance amongst the scientific and medical community  
▪ Rising healthcare costs  
▪ Diminished confidence in healthcare system  
▪ Preference for natural alternatives  
▪ Scientific research validating safety and effectiveness of alternative treatments  
▪ Increased media coverage of such research |

The customer base for **Vitex** products ranges from teenagers to seniors. **Vitex** targets affluent and sophisticated dietary supplement consumers who require premium quality products and are not overly price conscious. These consumers prefer proactive healthcare and non-medical treatments.

This consumer group exists in North America and internationally in areas where there is historical usage of natural or herbal treatments.
Social, demographic, and economic trends drive demand for dietary supplements used in sports nutrition, vanity, and non-medical preventative treatments and in the management of specific health ailments. Vitex has identified a specific target consumer group and the submarket(s) for each category, focusing on the premium image in the nutritional supplement category.

Women are a particularly strong segment, as they typically purchase these products for themselves and their family. The “baby boomer” consumer, now between the ages of 35 to 54 years, will face such ailments as bone loss, cancer, arthritis, diabetes, and heart disease and begin to look to vitamins and other dietary supplements to complement or be the primary alternative to medically prescribed treatment. The societal emphasis on healthy living and an active lifestyle requires one to be and look the part, driving the demand for sports nutrition and vanity category.

INDUSTRY REPORT - INDUSTRY KEY BUYERS CHAPTER

The Vitamin and Supplement Manufacturing industry exhibits a low market share concentration, as the market for vitamins and supplements remains a highly fragmented and rapidly growing industry. Per the Office of Dietary Supplements http://ods.od.nih.gov/ there are well over 75,000 products offered by manufacturers. Due to the diversified nature of products, companies can compete effectively by specializing in a product segment. Furthermore, the top four leading manufacturers in this industry generated only 13.8% of industry revenue in 2014. Over the past five years, the industry has slightly consolidated as multi-national pharmaceutical companies and major consumer packaged goods operators purchased small vitamin manufacturers to tap into this growing market.

A growing consumer understanding of the link between diet and health is driving the market for functional foods and Nutraceuticals: ageing populations, rising health care costs, advances in food technology and nutrition and expanding scientific and clinical research validating the effectiveness of functional foods and nutraceuticals in preventing diseases. The demand for dietary supplement products, such as those offered by Vitex, has continued to gain market share and is forecasted to continue this growth.

Several factors account for this growth, including: diet-disease links are better understood, increased scientific research validating the safety and effectiveness of alternative treatments, increased media coverage of such research, an ageing consumer population taking direct interest in non-medical preventative health care, and all age groups increasingly choosing nutritional supplements and non-medical natural remedies for their ailments or injuries.

One of the fastest growing industries is the nutritional supplement group, or more broadly known as Vitamins, Minerals and Supplements, or VMS. Producing about $32 billion in revenue for just nutritional supplements alone in 2012, it is projected to double that by topping $60 billion in 2021 per the Nutritional Business Journal.

A White Paper Report on how Vitamin, Mineral and Supplement Sales Can Fortify Store Volume and Profit is at Appendix 9
**Vitex** can take advantage of the significant long-term trends in the industry. North American consumers visit non-traditional physicians, including naturopaths who claim expertise in herbs and other natural therapies, more often than their own family doctors do. Over 50% of Canadians consume natural health products in the form of vitamins and mineral supplements and other traditional herbal products and homeopathic preparations. A 1991 U.S. study by Harvard Medical School found that one out of three adults were taking advantage of non-medical treatments including the use of nutritional supplements. This trend has continued to the present where one in two adults is taking dietary supplements each day.

**PREMIUM TOPS TREND LIST**

The overarching trend that will continue to dominate the marketplace is the consumer quest for premium, per a report by the Hartman Group. [http://www.hartman-group.com](http://www.hartman-group.com)

The report identifies five trends for the years ahead that are set to impact the food and beverage market. First and foremost, says Hartman, is a pursuit for brands, products and experiences of a higher quality.

*Regardless of demographic, consumers will continue, in growing numbers, to pursue premium products (such as Vitex) and experiences far beyond the near future. Consumers no longer feel a need to justify premium, they expect it and feel they deserve it*, said Hartman. 03-Jan.-2008.

The trend to choose premium brands such as **Vitex** was further supported by the news published in the New York Times on February 2, 2015 that more that 70% of dietary herbal supplements sold in major chains such as GNC, Wal-Mart, Walgreens, and Target were “fake” [http://www.nytimes.com/interactive/2015/02/02/health/herbal_supplement_letters.html?_r=0](http://www.nytimes.com/interactive/2015/02/02/health/herbal_supplement_letters.html?_r=0)

A follow-up news release on March 10, 2015 show an investigation is being launched against GNC, Vitamin Shoppe and several dietary supplements manufactures of to determine the extent of the “fraud” [http://news.investors.com/business/031015-742763-gnc-vitamin-shoppe-drop-amid-investigation.htm](http://news.investors.com/business/031015-742763-gnc-vitamin-shoppe-drop-amid-investigation.htm)
FDA Finds Problems at 62% of Supplement Manufacturing Sites in U.S. and Abroad
https://www.consumerlab.com/recall_detail.asp?recallid=%2014053

FDA's inspections in 2016 of 583 dietary supplement manufacturing facilities, show that most -- 362 (62%) -- received letters indicating non-compliance with current Good Manufacturing Practices (cGMPs). Manufacturers are required by law to follow cGMPs.

**Common infractions, each observed at more than 10% of noncompliant facilities, were:**

- not establishing product specifications for the identity, purity, strength, and/or composition of the finished dietary supplement
- not establishing or following written procedures for quality control.
- not conducting at least one appropriate test or examination to verify the identity of a dietary ingredient.
- not preparing or following a written master manufacturing record for each batch.
- not producing records which included the complete information relating to the production and control of each batch.

It is expected that there are many companies who will want their premium formulas to be manufactured by a fully compliant cGMP facility such as proposed by Vitex.

A frequent practice with OEM contract manufacturers is to cut corners by sourcing lower cost sub-standard raw materials and by minimizing standard operating procedures (SOP) to lower overall cost as OEM companies largely depend on being the lowest cost to obtain business.

Vitex will offer one of the most technically advanced manufacturing facilities in the world, and the only 100% vegan facility that offers vegan tablets, powders, 2-piece hard capsules and vegan soft capsule in one facility.

**Selected Demographic Data**

The populations in Canada and the US are ageing. In Canada, half the population is over 40 years old, and in less than a decade, half the US population will be over 40 years old. Canada is "ageing" faster than the US because of a lower birth rate (Statistics Canada and the US Census Bureau). The "Baby Boom" generation, born after World War 2, occurred in Canada and the USA from 1946–1964.

**Canada**

Canada's population is 37 million (June 2018), and is ranked 38th in the world. Nearly 1/3 are made up of post-war Baby Boomers. The median age reached an all-time high of 40.8 years (September 2016), up 5.5 years from 35.3 in 1996. The population aged 15 to 64 increased to 68.5% and the over age 65 increased to 15.9% (January 2016). Life expectancy for males is 80 years and for females is 84 years.

**USA**

Approx. one-third of the US's 327.2 million (February 2018) are post-war Baby Boomers. In 2016 the median age of the population was 38.1 years, up from 35.2 years in 1998.
Market Locations

Vitex intends to develop retail customers across Canada in concert with independent agents.

Entry into the U.S. market, the largest importer of Canadian natural health products, will be accomplished by way of agreements and alliances with appropriate regional distributors.

Internationally, distributors will be sought to import and sell Vitex products in, Mexico, Slovakia, Iran, Korea, Middle East, North Africa, and the UK.

Internet Marketing

August 2013: Vitex registered www.C-NAG.com to market C-NAG® directly to people suffering with IBD including Crohn’s disease and Celiac disease and on March 5, 2015 registered www.Prostate2x.com to market Prostate 2x™ directly to men with BPH and high cholesterol.

July 2015: Vitex set up a Vitex Nutrition TV YouTube channel to feature 30 second product video clips to the public. Video clips will display a link to consumers for more info and where to find the product. These video clips can also be used as commercials on networks at a future date. https://www.youtube.com/channel/UCpay8ba52lM6TUK1Ke_HokQ

MAJOR FORECASTED TRENDS

The demand for premium dietary supplements such as those offered by Vitex has continued to gain market share and forecast to continue this growth track due to several social, demographic, and economic trends:

- Ageing populations
- Increasing interest in “healthy living”
- Rising health care cost
- Diminishing confidence in the healthcare system
- Increasing acceptance and use of alternative treatments
- Expanding body of scientific and clinical research validating effectiveness and safety
- Increasing acceptance among doctors, pharmacists, and other health professionals of diet-disease links
- General consumer dissatisfaction with conventional treatments, therapies, and drugs

TRENDS – www.euromonitor.com

Vitamins and dietary supplements continued to perform well in 2016, posting current value growth of 5% to reach sales of US$27.6 billion. This performance was in line with review period average. Demand for vitamins and dietary supplements remained positive in the US despite recent debates about the purity, health benefits and efficacy of these products. Due to high healthcare costs and an increased emphasis on preventative care, consumers are willing to spend on vitamins and dietary supplements in addition to their regular foods to maintain their health. Other factors, such as an ageing population, increasing consumer engagement with health and wellness, new product launches and the improved accessibility of products through various distribution channels also supported category growth.
COMPETITIVE LANDSCAPE

The vitamins and dietary supplements category remained very competitive in 2016, with no one company accounting for more than a 5% share of value sales. Vitamins and dietary supplements comprise a diverse range of products, and several types of companies are present, from large pharmaceutical manufacturers to packaged food and beverage players as well as private label and direct sellers. Manufacturers are continuously extending their brand portfolios across distinct categories, hoping to increase their share.

PROSPECTS

Vitamins and dietary supplements are expected to record a healthy value CAGR of 3% at constant 2016 prices over the forecast period to reach sales of US$31.7 billion in 2021. With an increased interest in healthy lifestyles, consumers will expand their consumption of vitamins and dietary supplements, particularly those targeted at systemic benefits like digestive health, immune system fortification, vitality, and longevity. Manufacturers will develop new formulations and delivery formats to cater for consumers’ specific needs and preferences. For younger consumers, natural ingredients will drive demand. However, increased regulation and higher industry standards will be necessary to sustain consumer confidence and sales.

These trends indicate changes in consumer behavior will be sustained and long-term.

Although there is increased interest in healthy living and an active lifestyle, other aspects of consumers’ lifestyles have imposed time constraints on their ability to exercise and eat nutritious, healthy foods. Dietary supplements are viewed as a quick and effective way to obtain required nutrition. Lack of exercise in combination with the popularity of fast foods and processed foods have contributed to a general weight problem, and an imminent obesity epidemic among children and adults in North America. Herbal weight loss formulas are perceived as the easiest method to losing weight. Reported in the Nutrition Business Journal (February 2002), IMS Health estimates that prescription weight loss drugs account for sales of about US$510 million. Globally, the market for prescription obesity treatments will more than double over the next decade, providing many opportunities for dietary supplements to be selected as the primary alternative or complement to prescribed medication.

Per the Natural Marketing Institute,1 demand for dietary supplements corresponds with a strategic shift in how consumers view health and wellness. More than ever before, consumers feel empowered to manage their health and are either actively using supplements or are researching information about them. New survey research conducted for the Dietary Supplement Information Bureau11 finds that dietary supplements have become an American standard. Today, six in ten consumers (59 %) take supplements on a regular basis. The survey yielded more interesting findings in the U.S. market:

Most Americans believe in supplements and takes them on a regular basis.

- Six in ten Americans (59 %) report taking dietary supplements on a regular basis.
- Almost half (46 %) take a multiple vitamin/mineral product daily
- More than a third (35 %) take single vitamins, such as vitamin C, vitamin E, or vitamin B complex.
- Corresponding to the dramatic growth of herbal products over the past few years, the survey found that almost one in four Americans (23 %) regularly use herbs and specialty supplements.
• Currently, 15% of adults now take such herbal supplements such as garlic, ginseng and St. John’s Wort, while almost 8% regularly use specialty supplements such as SAM-E and glucosamine sulfate.

• Americans take supplements because they associate these products with improved health and well-being.

• The specific reasons that consumers cite for taking supplements are:

  a) to feel better (72%),
  b) to help prevent getting sick (67%),
  c) to help get better when they are sick (51%),
  d) to live longer (50%),
  e) to build strength and muscle (37%),
  f) for weight management (12%).

• 33% of Americans take supplements for a specific health reason; for sports nutrition (24%). 33% of adults say that they take supplements on the advice of their doctor.

• Besides these specific reasons, half of all Americans (51%) agree that supplements provide insurance that people will get the nutrition they need for good health.

• At the same time, 53% of Americans agree that some dietary supplements offer benefits that are not matched by conventional drugs.

• Significantly, more than half (56%) says that some dietary supplements offer benefits comparable to those of drugs but with fewer side effects.

• Overwhelmingly, Americans are satisfied with the dietary supplements they are taking. Virtually all respondents (95%) say they are satisfied with the vitamins, minerals, herbs and specialty supplements they are taking.

• While one in four (23%) say they are extremely satisfied, half (50%) describe themselves as very satisfied and one-fourth (25%) consider themselves to be somewhat satisfied. Only 2% say they are not very satisfied and 1% is not satisfied at all.

The survey results and total market size illustrate the strength of Vitex’s plan to enter the U.S. market with products that are sought after by the consumer. Historically, these supplements are used for health maintenance or prevention of disease, but now are increasingly used to treat certain diseases. This opens new opportunities to expand the market.

With the current product mix and with the ability to add new products, Vitex is in a solid position to use its management expertise to capture significant market share.
INSIDE the BOTTLE: Understanding Supplements Today

A May 2016 report by New Hope Network summarizes the role of dietary supplements in the USA. The conclusions drawn represent the Canadian consumer as well. A short video is at: www.newhope.com/vitamins-and-supplements/inside-bottle-story-supplements video

IN SUMMARY:

• MYTH: You Can Get All Your Nutrients from Diet Alone
• Most Americans (and Canadians) do not even come close to meeting all their nutritional needs through diet alone.
• For Selected Nutrients in Certain Age Groups, more than 80% of the Group Consumed less than the Recommended Dietary Allowances (RDA)

NOTE: Vitex’s SOURCE Optimum provides optimum levels of all essential nutrients based on the “Suggested Optimal Nutrient Allowance (SONA) Study”. The SONA levels of nutrients are generally higher than the RDA and are designed to maintain optimal health over a lifetime.

1. The vitamin levels in SOURCE Optimum are based on the Suggested Optimal Nutrient Allowances (SONAs) as proposed to the US Senate. Drs. Emanuel Cheraskin and W. M. Ringsdorf at the University of Alabama Medical School conducted a multimillion dollar fifteen-year study to find the optimum daily nutrient allowances necessary to maintain good health over a lifetime. The study included 13,500 male and female subjects living in six different regions of the United States

   At Present, the RDA represents the nutritional equivalent of the minimum wage. Just like the minimum wage, they offer little hope of significantly improving the quality of your life. Clearly, there is a profound need for a SONA to replace the outmoded RDA. The SONA represents the first nutritional guideline designed to maintain good health over a lifetime.

RETAIL E-COMMERCE REVENUE IN CANADA from 2015 to 2021 (in billion $U.S)

This statistic gives information on retail e-commerce sales in Canada between 2015 and 2016 and provides a forecast until 2021. In 2016, retail e-commerce sales amounted to 18.34 billion U.S. dollars and are projected to grow to 28.66 billion U.S. dollars in 2021.

On a global scale, B2C e-commerce sales are expected to reach approximately 1.5 trillion U.S. dollars in 2018, up from nearly 995 billion in 2015. The Canadian market is expected to see sales figures increase from 29.6 billion Canadian dollars in 2015 to 44 billion in 2018. At the same time, sources forecast that online sales share within total industry sales will also exhibit a growing trend. It is said that e-commerce will account for eight percent of total retail sales in Canada in 2018 – that’s a three percent increase from 2014.

All in all, Canada’s e-commerce market is relatively strong. It was calculated, that in 2014 there were 20.2 million digital buyers in the country. This number is predicted to reach 22.5 million digital shoppers by the end of 2018.
WORLDWIDE RETAIL AND ECOMMERCE SALES:
eMarketer’s Updated Forecast and New Mcommerce Estimates for 2016—2021


![Retail Mcommerce Sales Worldwide, 2016-2021](image)

REGULATORY ISSUES

In January 2004, the Canadian government reclassified dietary supplements as Natural Health Products (NPN) and now assigns products a NPN number (instead of a DIN). The DIN registration standards will continue to apply to NPN’s.

This new NPN classification includes products such as vitamins, minerals, amino acids, essential fatty acids, enzymes, herbs, and probiotics. These new regulations recognize the current industry environment and the advancements in scientific and social understanding to date, bringing a significant upside to the industry. Among other positive initiatives, manufacturers will be allowed to make substantiated health benefit claims on the labels of vitamins and other dietary supplements. Formally, no label claims were permitted.

Vitex has contracted with Toronto based Natural Products Consulting Corp., one of Canada’s leading specialists to apply for NPN registration for all the Vitex products. [www.npc-corp.ca](http://www.npc-corp.ca)

The US market for dietary supplements is less stringently regulated because they are generally treated as food. Dietary supplements do not undergo FDA review. It is left up to the manufacturer to ensure that a product is safe. Quality assurance is important to American consumers. There are no impediments to Canadian products entering the US market.

These new regulations will affect the competitive situation in Canada. Canadian companies like Vitex will benefit because these regulations pose barriers to American or foreign companies wanting to sell their products in Canada. They must comply with standards not required domestically. However, once a product has received a NPN number it is unlikely that it would be ordered off the market. To date, (September 16, 2016) Vitex has received 31 NPN.
TRADE MARKS

May 25, 2015: Vitex received the Registered Trademark Number TMA904,456 for C-NAG® as: “a dietary supplement for treating the symptoms of inflammatory bowel disease”

February 12, 2016: Vitex received the Registered Trademark Number TMA928,903 for C-NAC® as: “a nutritional supplement for treating the symptoms of chronic bronchitis”

August 24, 2016: Vitex received the Registered Trademark Number TMA947,174 for Prostate 2x® as: “a dietary supplement for treatment of benign prostatic hyperplasia (BPH) and high cholesterol”

Several other Vitex formulas are in the process for trademark approval including Sweet ’n Safe.

VITEX NAME

Research has shown that the most powerful and easiest to remember names are of 5 letters, 2 syllables and containing the letter “X”. Vitex was chosen because it meets these criteria. Furthermore, a name that cannot be easily translated into another language is preferred because it is essential to retain the company name and logo in a uniform way in all countries.

Some examples of brand names that meet these criteria are: Rolex, Timex, Xerox, Exxon, Lexus, Pyrex, Purex, ReMax, Durex and FedEx.

MARKETING STRATEGY

Underlying social, economic, and demographic trends are driving overall demand for dietary supplements. The demand for premium products existed largely because quality assurance was a persistent problem. Now that consumers and conventional healthcare providers recognize diet-disease links, and have come to see supplements as complements, alternatives or preventative measures to medical treatment, significant opportunities exist in enlarging the market for premium supplement categories. Vitex products are designed to meet current and future market needs.

OBJECTIVES TO PENETRATE THE PREMIUM DIETARY SUPPLEMENT MARKET:

1. A refined approach to the market based on proactive healthcare customers’ needs for natural, effective, premium quality dietary supplements.

2. Educate conventional and alternative healthcare practitioners and consumers to the benefits of the Vitex special class of nutritional supplements — supplements based on scientific research and created without compromise in any way.

3. A strategy for building long-term customer relationships by providing extensive product information, both in print and on www.VitexNutrition.com

4. Products that reflect science, function, and unparalleled quality.

5. Become a dominant presence with alternative Health Care Practioners and with health food stores and specialty pharmacies in Canada.

6. Develop an international presence with strategic alliances with major pharmaceutical companies in China, South East Asia, Japan, and Europe.
SALES AND DISTRIBUTION STRATEGY

Vitex's strategy is to use Distributors, Agents and direct selling depending upon geographic and vertical market requirements. With a base of retail operations in Canada through its Canadian Agents, Vitex will be positioned to launch international sales efforts with regional distributors in the United States and national distributors in foreign markets.

The overall market for dietary supplements can be divided into three distinct segments: the mass market, the health food and independent pharmacy market and the professional health care market. The mass market includes the pharmacy chains like London Drugs and Shoppers Drug and “big box” stores such as Costco and Wal-Mart. The health food segment includes health food stores as well as specialty pharmacies where the customers expect a superior product and knowledgeable staff. The prices in these stores are usually set at a premium.

Vitex products will be marketed both to the health food segment of the market as the Vitex products are geared for this type of consumer, and to the National Pharmacy Chains. In conjunction with the National Advertising Campaign for C-NAG® (pages 68-70) the major chains like Shoppers Drug Mart and Loblaw’s are expected to stock the Vitex brand nationally.

Health Food Retail

In cooperation with Dennis Schroeder, a Vitex shareholder and owner of Good N’ Natural, the leading health food store in Steinbach, Manitoba www.goodnnatural.ca , Vitex products have earned consistent consumer support and demonstrate value and benefit and have become one of the leading supplement brands in his store.

Independent Pharmacy

My clinical experience with the Vitex line of products has been very positive. I know that I can have a client purchase something at least ONCE. With the Vitex line of products, they do solve my client’s problems. My clients return on a regular basis to repurchase Vitex formulas. My bottom line is Vitex products work! One of my best sellers (and one of the higher priced products is C-NAG).

Alan Glasser - Manager/Owner, Marks Pharmacy 101-8035 120 St. Delta BC, Canada

Wholesale

Vitex’s strategy will be to use distributors, licensees and direct selling depending upon geographic and vertical market requirements to over 10,000 locations across Canada, and internationally.

After establishing a base of retail accounts in Canada, the Company will be positioned to launch international sales efforts with regional distributors in the United States and foreign markets.
CORPORATE WEBSITE

The corporate website, www.VitexNutrition.com is a critical part of Vitex’s marketing strategy.

The corporate website provides both distributors and the public with full information on each of the companies’ products to a degree not found on most competitive websites. The depth of information on the website establishes confidence in Vitex products and further reinforces the company’s plans to position Vitex as the premier brand of nutritional supplements worldwide.

Every Vitex product label has www.VitexNutrition.com printed on it so the consumer has a way to find out full details on the product they are using or intend to purchase. The website is printed on all promotional literature and advertisements. In an age of increasing consumer use of the Internet as an information source: The corporate website is Vitex’s most valuable marketing tool.

EXPORT

Vitex Nutrition Vietnam Co Ltd. opened a sales and marketing office in Vietnam in August 2013 and began the registration process for approval of the first ten products for import into Vietnam and has received ten import Licenses (Visa’s) from the Vietnamese Minister of Health after providing the required export documents (ITC) from Health Canada. Sales began in May 2014.

On August 18, 2018, Vitex Nutrition Vietnam Co. Ltd. transferred its exclusive rights to Vitex Nutrition and Health Vietnam Ltd. A new contract with Vitex Canada includes a $600,000 3-year supply contract.

Vitex is currently in negotiation with a large pharmaceutical co for distribution rights for Taiwan

Vitex is currently in negotiation with a large Korean company for distribution rights for Korea

INTERNET SALES

August 2013: Vitex acquired the website www.C-NAG.com, and uses this website to market C-NAG® and C-NAC® 500 directly to persons suffering with IBD, Crohn’s disease, Celiac disease, and COPD. Preliminary Marketing began in October 2013

March 5, 2015: Vitex registered www.Prostate2x.com to market Prostate 2x™ directly to men with BPH and elevated cholesterol.


September 2016: Vitex began marketing its product range through Amazon.com

https://www.amazon.ca/s/ref=bl_dp_s_web_6205177011?ie=UTF8&node=6205177011&field-brandtextbin=Vitex+Nutrition
GEOGRAPHICAL TARGETS

CANADA

The initial market focus will be the Canadian market. Vitex will employ marketing initiatives including industry and consumer tradeshow attendance; retailer incentive programs and Prime time TV and print advertising.

Promotional Strategy

With assistance from local distributors, Vitex will employ a multi-faceted promotional strategy which will include: Attendance at industry and consumer trade shows, print advertising, a retailer incentive program, sponsorships and endorsements, internet marketing, and TV infomercials

Print Advertising

Marketing materials including brochures, leaflets, instruction manuals, and scientific data will be printed in various languages to service key markets. Vitex will utilize specific medical and healthcare publications. These publications will have substantial circulation and distribution to leading physicians and health specialists. However, experience has shown that marketing dollars are more effective when spent on point-of-sale advertising at store level, on the website or on an infomercial on Prime Time TV.

Internet

Vitex will utilize Internet advertising offered by the medical and healthcare publications. The corporate websites, www.VitexNutrition.com, www.C-NAG.com and www.Prostate2X.com will be reviewed for enhancements to increase traffic including placement of banner ads and improved ranking on top search engines. Vitex is considering retaining MEDIA Solutions https://solutionsmedia.cbcrc.ca/default.aspx to handle the Canadian Prime time & internet marketing. A detailed description is at Appendix 15

Pricing Strategy

Pricing strategy is an integral part of market positioning and a major tool to build a foundation to take and hold the market position. It is also important to have the price of a product reflect its true value.

Vitex determines prices for products based on costs, the product’s market position, product objectives, and projected and historical sales in a comprehensive approach to achieve optimum profitability. In the retail market Vitex, will set its prices competitively to other premium products. In general, Vitex will set the foreign distributor’s purchase price while the distributor will set a markup subject to local market conditions

USA

Vitex is considering retaining Nutritional Products International (NPI): http://nutricompany.com, a leading brand developer who can provide Vitex with sales, marketing and distribution services required to be successful in the USA, the world’s largest market. A marketing promotion video is at: https://www.dropbox.com/s/2grnr4k96nrspak/InHealth%20Media%20New.mov?oref=e

A detailed marketing and distribution proposal is at Appendix 16 and Appendix 17
CHINA MARKET

The Natural Health Supplement market, especially in mainland China has a large demand for premium health care products, with its various sales channels online and offline. Chinese consumers prefer USA and Canadian brands because of their perceived higher quality. Nature’s Bounty, GNC, Blackmore’s etc. are brands imported from overseas as normal food, not as health care products due to different customs regulations. The Chinese market for health care products has a 20%-25% growth ratio per year as illustrated on the chart below. In 2016, the expected market is 60 billion USD, rising to 180 billion US$ by 2020 or approx. 40% of the 450 billion US$ world market. Vitex will benefit from this huge market potential with its partnership with its Chinese Distributors.

The Hong Kong Trade Development Council www.hktdc.com/research published a detailed report in Sept. 2015 on China’s Health Food Market. In summary, it shows the market forecast has it that, in 2014-2050, the consumer market of China’s elderly population will jump from about RMB 4 trillion (77.5 billion CDN) to RMB106 trillion (2,055 billion CDN). Appendix 8

GLOBAL DIETARY SUPPLEMENTS MARKET SIZE WILL GROW USD 220.3 BILLION BY 2022

New York, NY, April 12, 2018 (GLOBE NEWSWIRE) -- Zion Market Research has published a new report titled “Dietary Supplements Market by Ingredients (Botanicals, Vitamins, Minerals, Amino Acids, Enzymes) for Additional Supplements, Medicinal Supplements, and Sports Nutrition Applications - Global Industry Perspective, Comprehensive Analysis and Forecast, 2016 – 2022”. According to the report, global dietary supplements market valued at USD 132.8 billion in 2016 and is expected to reach USD 220.3 billion in 2022 and is anticipated to grow at a CAGR of 8.8% between 2017 and 2022.
CHINESE POLICE SEIZE FAKE PENFOLDS, SWISSE, BLACKMORES IN MULTI-MILLION-DOLLAR COUNTERFEITING CRACKDOWN


E-commerce giant Taobao, a subsidiary of Alibaba Group, is also fighting against counterfeits.

In the company’s Annual Report of Intellectual Property Protection 2017, the group said they assisted Chinese police in arresting more than 1,600 suspects in the manufacturing and selling of counterfeit products and destroying more than 1,300 manufacturing sites.

The report said they also shut down 240,000 online shops which were suspect in selling counterfeits in 2017.

Vitex is exploring ways to incorporate anti-counterfeit technology that will allow consumers to buy online and offline, trace the origin of products, and verify their authenticity. One feature is to use custom moulded bottles with the Vitex name embossed on the bottle.

FINANCING

Vitex is seeking equity partners to raise capital to develop the Canadian, USA, Chinese, Japanese Taiwan, Malaysia and Vietnamese markets and for the sales and marketing of C-NAG®, Prostate 2x®, C-NAC® 500, Sweet ‘n Safe and other Vitex products and to build a GMP certified capsule, tablet, powder, manufacturing and packaging facility in the greater Vancouver area, and to package and distribute the vegan soft capsules manufactured by ER Kang in China.

Vitex is considering taking the company public to raise additional capital to buy or lease a building and to equip it with manufacturing equipment and a laboratory to manufacture market C-NAG®, and other Vitex products domestically and internationally (page 52, 53).

As a prelude, Vitex had prepared a SUBSCRIPTION AGREEMENT FOR 200 UNITS at $1,000.00 per unit. (Each unit is comprised of 2,000 common shares and one warrant). The offer was made to friends, family, and business associates of the directors. As at September 30, 2018, Vitex has raised $482,000 under this program from 56 new shareholders.

Vitex will also be seeking government financial assistance programs once Vitex becomes a reporting company.

CANADA SMALL BUSINESS FINANCING PROGRAM (CSBFP)

CSBFP is a loan program between Industry Canada and financial institutions that can be used to finance equipment purchases. It offers insured small business loans up to $500,000. The maximum chargeable is the lender’s prime lending rate plus 3% with a 2% registration fee that can be financed as part of the loan. You only need to personally guarantee 10% of the loan, which reduces your risk. The loans are available to purchase land, buildings, or equipment.

WESTERN INNOVATION (WINN) INITIATIVE

WINN is a $100 million five-year federal initiative that offers repayable contributions (i.e. a loan with very attractive repayment terms) for small- and medium-sized enterprises with operations in Western Canada to move their new and innovative technologies from the later stages of research and development to the marketplace (C-NAG likely will qualify under this grant). For more details visit www.wd-deo.gc.ca The loans are based on matching funds being invested, and the repayment terms are up to 7 years’ interest-free.
BUCHANAN GROUP

Vitex is in discussion with BUCHANAN GROUP, www.buchanangroup.com a leading global marketing and production company to prepare the production of TV commercials and marketing strategy for C-NAG®, C-NAG® 500 and other products once funding is arranged.

BUCHANAN GROUP is a global leader in creating testimonial content for brands - driving hundreds of millions of additional sales for clients globally, over the past 25 years. Overview at Appendix 13.

VITEX NUTRITION VIETNAM CO. LTD

Ms. Tran registered Vitex Nutrition Vietnam Co. Ltd. in March 2013


On August 18, 2018 an EXCLUSIVE DISTRIBUTION AGREEMENT was signed between Vitex Nutrition & Health Vietnam Limited and Vitex Nutrition Ltd. Vitex Vietnam will continue marketing and selling Vitex products, sourcing all the products from Vitex Canada. As part of the Agreement, a $600,000 three-year purchase agreement between Vitex Nutrition Vietnam and Vitex Nutrition Canada has been signed.

Vitex Nutrition Vietnam has received ten product import licenses (Visas). This process is dependent on submitting Health Canada NHP certificates and International Trade Certificates (ITC) to the Vietnam Minister of Health.

Vitex Nutrition Vietnam Co Ltd was the first Canadian Company to receive import Visas for several of its products and gave Vitex Nutrition Vietnam a distinct market advantage in presenting its Government approved formulas to the many pharmacies and medical clinics throughout Vietnam. Obtaining the Visa for C-NAG® is a breakthrough as there are no other competitive natural products in the Vietnamese marketplace for treating Crohn’s disease and other similar inflammatory bowel diseases.

Vitex products are listed in the major Pharmacy chains in Vietnam including:

- Medicare chain,
- Guardian chain,
- Phano chain
- and several other independent pharmacies.

March 2015: Vitex Nutrition Vietnam received several Government licenses to allow the advertising of Vitex products throughout Vietnam.

NOTE: All these product Visas and Licenses have now been assigned to Vitex Nutrition & Health Vietnam Limited.
PRODUCT DEVELOPMENT

**Vitex** products reflect current scientific thinking on the role of nutritional supplements (nutraceutical) in treating and preventing disease and maintaining good health.

Developed with input from leading nutritional experts and based on published studies in peer reviewed scientific journals, **Vitex** professional formulas are designed to compete in the nutraceutical segment of the over the counter (OTC) category.

**Vitex** has developed a comprehensive line of products licensed by Health Canada for treatment of chronic ailments but avoids developing "me too" products.

**Vitex** brings to the market eight truly new products in recent years: **Vegan Omega 3-6-9™**, **Gamma E Alpha™**, **Vita Zyme™**, **C-NAC-500™**, **C-NAG®,** **Prostate 2x™**, **Cardio-Boost** and **Gluco- Balance™**.

A product will have longevity when it is developed to address a real need and marketed correctly, as evidenced by many of the products Mr. Carlsen developed while at Quest and Enerex.

**Initial Products (January 2012 – December 2015)**

- **SOURCE Optimum**: SONA based multiple vitamin/mineral/enzyme tablets.
- **SOURCE Omega 3-6-9**: Advanced Essential fatty acid formula. Soft Capsules
- **SOURCE Health Pac**: SOURCE Optimum + SOURCE Omega 3-6-9
- **Serrapeptase 72,000 u, 90,000 u & 120,000 u**: DRCaps.
- **CoQ10 75 mg**: Advanced Heart Health formula, DRCaps
- **Vita Zyme**: Advanced Systemic Enzyme formula, DRCaps
- **Grape Seed/Green Tea**: Antioxidant Formula, DRCaps
- **Joint-Mend**: Advanced Joint health formula: tablets
- **Osteo-Mend**: Advanced Bone health formula: tablets
- **Vision Boost™**: Advanced Eye health formula DRCaps
- **C-NAG®**: Advanced Bowel health formula. DRCaps
- **NAC-1000**: Advanced chronic bronchitis formula
- **Bamboo Silica**: Advanced bone health formula
- **Prostate 2x™**: BPH and cholesterol formula

**Additional Products (January 2017 – December 2018)**

- **Vegan Glucosamine Sulfate**: joint health formula
- **Migraine 4x™**: CoQ10 formula
- **Cardio Boost™**: CoQ10 + PQQ formula
- **Gluco-Balance™**: Alpha Lipoic Acid formula for diabetic neuropathy
- **Soya Slim**: premium meal replacement formula

**Additional Products (January 2019 – December 2019)**

- **UTI Relief**: Urinary tract formula
- **Brain Boost**: cognitive function formula
- **Vegan Omega 3-6-9™**: cognitive function formula
- **Bio C**: Tissue and wound healing formula
- **Gamma E Alpha™**: Advanced Vitamin E Formula
- **Evening Primrose Oil**: Hi potency GLA formula.
- **Restore™**: Probiotic formula
- **Immune Balance™**: cold & flu formula
- **C-NAC™ 500**: Advanced chronic bronchitis formula
VITEX HAS RECEIVED 31 PRODUCT LICENSE NUMBERS (NPN):

Grape Seed / Green Tea (NPN 80036770)
Bio C (NPN 80036795),
Joint Mend (NPN 80036849), Vita Zyme (NPN 80037015),
Vision Boost (NPN 80037100),
SOURCE Omega 3-6-9 (NPN 80037138),
Arctic Fish Oil (NPN 80037377),
Evening Primrose Oil (NPN 80039855)
Bamboo Silica (NPN 80040457)
SOURCE Optimum (NPN 80046327)
Co Enzyme Q10 (NPN 80040942)
Restore Probiotic (NPN 80041108)
Osteo Mend (NPN 80041358)
Digest Boost (NPN 80041827)
Bio Stress (NPN 80041827)
Gamma Alpha E (NPN 80042239)
C-NAG® (Vitamin C+N-Acetyl glucosamine) (NPN 80043587)
Vegan Glucosamine Sulfate (NPN 80044242)
Serrapeptase 72,000 su (NPN 80044945)
NAC-1000 (N-Acetyl Cysteine 1000 mg) (NPN 80045389) Immune Balance (NPN 80045843)
C-NAC® 500 (Vitamin C + N-Acetyl Cysteine) (NPN 80053977)
Vegan Omega 3-6-9 (NPN 80057546)
Prostate 2x (NPN 80058572)
Migraine 4x (NPN 80062840)
Cardio Boost (NPN 80063538)
Gluco-Balance (NPN 80066975)
UTI Relief (NPN 80071423)
Brain Boost (NPN 80071505)
Serrapeptase 90,000 su, (NPN 80072122)
Serrapeptase 120,000 su, (NPN 80072120)

A description of each is at www.vitexnutrition.com/products

NEW PRODUCTS IN DEVELOPMENT

Sweet 'n Safe® In the Spring 2019, Vitex will bring to market its own brand of Organic Erythritol, a no calorie natural sugar alternative suitable for diabetics, dieters and others wishing to avoid the health concerns of sugar. (page 44) A technical paper is at http://www.vitexnutrition.com/erythritol-article.pdf

Organic Soya Slim Blueberry. In Spring 2019, Vitex will introduce its updated meal replacement formula to meet international standards for Organic, and to include Organic freeze-dried Blueberries. This is a major improvement in meal replacement formulas and will position Vitex as the clear leader in Premium, Organic meal replacement products in the multibillion-dollar meal replacement category. Details are at Appendix 7.

SHANGRI-LA, A certified Organic ALOE VERA + LUO HAN GUO sugar-free drink sweetened with organic erythritol to be manufactured in China for distribution to world markets including Korea, Canada, and the USA.

This will the world’s first sugar-free Aloe drink incorporating organic erythritol, the very low-calorie natural alternative to sugar, and suitable for diabetics. More details are at http://www.vitexnutrition.com/shangri-la.html
LEADING PRODUCTS

**SOURCE Optimum**: a scientifically balanced formula of fortified ‘green-foods’ Organic Alfalfa Grass powder, Pacific Kelp, Organic Spirulina, Blue-Green Algae, and Citrus Bioflavonoids. These ‘Superfoods’ provide advanced anti-oxidant support, rich in enzymes, vitamins, minerals essential fatty acids and other nutrients to provide a nutritional balance greater than that of any one ingredient alone.

The vitamin levels in **SOURCE Optimum** are based on the Suggested Optimal Nutrient Allowances (SONAs) as proposed to the US Senate. Drs. Emanuel Cheraskin and W. M. Ringsdorf at the University of Alabama Medical School conducted a multimillion dollar fifteen-year study on optimum daily nutrient allowances. The study included 13,500 male and female subjects living in six different regions of the United States. Results from the study form the basis for the **SOURCE Optimum** formula.

A major study published in the Lancet on April 3, 2019 (“Health effects of dietary risks in 195 countries …..”) showed that a sub-optimal diet is an important preventable risk factor for non-communicable diseases (NCDs). This study provides a comprehensive picture of the potential impact of sub-optimal diet on NCD mortality and morbidity, highlighting the need for improving the diet across nations. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)30041-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)30041-8/fulltext)


The 1971 study showed that most major health issues were the result of poor diet, and the 2019 study confirms the early study and substantiates the value of the Vegan Health Pac in preventing disease.

In summary, the researchers found that poor dietary habits are associated with a range of chronic diseases and can potentially be a major contributor to NCD mortality in all countries worldwide. The findings highlight the urgent need for coordinated efforts to improve the quality of the human diet.

**SOURCE Optimum** formula is based on the 1971 study, but it is even more relevant today.

**VEGAN Omega 3-6-9** capsules provide a unique blend of **Omega 3, 6 and 9 fatty acids** from certified non-GMO Evening Primrose Oil containing important gamma linolenic acid (GLA), and a special strain of Algae (Schizochytrium aggregatum) containing docosahexaenoic acid (DHA). This special blend provides the ideal 1:1 ratio of GLA/DHA as found in human cells. and presented in the new vegan soft capsules.

Like vitamins, essential fatty acids (EFA) are required for life. They must come from foods or supplements, because the human body cannot make them. Linoleic acid (LA) and alpha linolenic acid (ALA) are EFA but the body cannot use them in that form; they must first be transformed to the active forms of GLA and DHA. The production of GLA from dietary LA and DHA from ALA occurs slowly or may be blocked entirely in many people. Yet GLA and DHA are necessary precursors in the production of prostaglandins; hormone-like substances that regulate vital cell activities and determine the state of health of all cells, tissues and organs.

The claim allowed by Health Canada:

“Helps to support cognitive health and/or brain function”
GLA is a precursor to the essential series I prostaglandins; hormone-like substances which are involved in a myriad of physiological functions including reducing platelet aggregation, lowering blood pressure, cholesterol and triglycerides, decreasing inflammation, balancing various hormone functions, and maintenance of a healthy immune system.

Clinical studies have demonstrated the value of GLA in managing a variety of disorders including:

- Atherosclerosis,
- Diabetes Mellitus,
- Eczema,
- Multiple Sclerosis,
- Pre-menstrual Syndrome (PMS)
- ADD (Attention Deficit Disorder).

DHA is a precursor to the essential series 3 prostaglandins which are also involved in a myriad of physiological functions including regulating blood pressure and blood platelets, water retention and immune function. DHA is important for the normal functions of brain and nerves, vision and hearing, adrenal function, sperm formation and thromboses and lower blood triglycerides and cholesterol levels.

DHA accounts for 97 percent of the omega-3 fats in the brain. Yet most people don't get enough of this nutrient. Cold-water, fatty fish like salmon are good dietary sources of DHA, but many people including vegetarians prefer not to eat fish. Algae DHA does not come from fish, so there is no risk of ocean-borne contaminants such as heavy metals, PCBs or dioxin and it functions in the body exactly as DHA from fish.

The average American consumes less than 100 mg of DHA daily. With increasing awareness of the importance of DHA, many people now realize that they need to make a change to their diet by adding DHA-rich foods or supplements.

FOR HUMANS, DHA:

- Is the predominant structural fatty acid in the cerebral cortex of the brain and photoreceptors of the retina.
- Reduces chronic diseases risk
- Reduces Cardiovascular diseases risk,
- Reduces arthritis risk,
- Reduces CNS diseases risk
- Reduces fatty liver disease risk

SOURCE Optimum™ + VEGAN Omega 3-6-9™ form the VEGAN Health Pac™: The Most Advanced Dietary Supplement in the World

A 60-second video clip can be seen on https://www.youtube.com/embed/sab1jmB9Bc
WILD ARCTIC FISH OIL

Vitex will soon introduce the most advanced Omega 3 supplement available and will be the first in Canada to provide the purified fish oils in the new Vegan soft capsules.

Health Canada has issued Vitex the NPN 800373771 for the claims:

- Helps maintain/support cardiovascular health
- Helps support cognitive health and/or brain function

Wild Arctic Fish Oil capsules are a high potency source of molecular distillation concentrated fish body oils from wild Arctic fish (sardine, anchovy) yielding:

- 40% EPA, (Eicosapentaenoic Acid),
- 20% DHA (Docosahexaenoic Acid)
- 3.6% DPA (Docosapentaenoic Acid).

Using state-of-the-art equipment, Vitex's fish oils are processed by multi-stages short-path distillation (SPD), which provides a gentle way to protect fish oil from oxidation, thermal decomposition, or trans-isomerization of the unsaturated fatty acids. Fish oil processed by short-path distillation guarantees a higher quality than that by traditional distillation technology; the advantages can be summarized as follows:

- Low level of trans fatty acids
- low level of oxidation
- Odorless & Colorless
- High purity

This special molecular distillation processing technology guarantees that this product meets or exceeds full international pharmaceutical standards for quality and purity including quality limits set by The Global Organization for EPA and DHA (GOED), EU and US Pharmacopoeia.

Wild Arctic Fish Oil is presented in the vegan starch capsule. Starch capsules are more stable in higher temperatures (gelatin capsules soften and often leak above 40 degrees C, which is a frequent temperature in Asia and the Mid-East, whereas the vegan starch capsules retain their shape and texture and do not leak)
Serrapeptase 72,000 su, 90,000 su & 120,000 su

are approved for the claim:

“Helps to reduce symptoms, such as pain, quantity of secretion, inability to perceive smell and stuffy nose from ear, nose and throat infections”

Based on over 40 years of research, Serrapeptase represents what may be the safest and most effective anti-inflammatory known. Experts predict it could be one the best-selling nutritional supplement of all time due to its wide range of applications. With the recall of VIOXX in September 2004, Serrapeptase offers an effective and safe natural alternative.

Serrapeptase, also known as Serratia Peptidase, is a proteolytic enzyme isolated from the non-pathogenic entero-bacteria Serratia E15. Serrapeptase is a stronger caseinolytic (fibrinolytic) agent than any other known alkaline or neutral protease such as bromelain or pronase.

Clinical studies show that Serrapeptase induces fibrinolytic, anti-inflammatory, and anti-endemic (prevents swelling and fluid retention) activity in several tissues, and that its anti-inflammatory effects are superior to other proteolytic enzymes.

Besides reducing inflammation, one of Serrapeptase most profound benefits is reduction of pain, due to its ability to block the release of pain-inducing amines from inflamed tissues. Physicians throughout Asia and Europe have recognized the anti-inflammatory and pain-blocking benefits of this naturally occurring substance and are using it in treatment as an alternative to salicylates, Ibuprofen and other NSAIDs. An advertisement is at Appendix 19
**Coenzyme Q10 75 mg:** is approved for the claim:

"Helps to maintain and / or support cardiovascular health"

CoQ10 is a fat-soluble anti-oxidant nutrient that is found in a variety of foods in relatively small quantities. CoQ10 is an integral component of oxidative phosphorylation. The mitochondria of cells require CoQ10 to convert energy from food into the cellular fuel; *adenosine triphosphate* (ATP).

CoQ10 may help the heart during times of stress by improving cardiac energy utilization. CoQ10 acts as an antioxidant due to its capacity to increase endogenous (internally produced) antioxidant enzymes and reduce lipid peroxidation (damage to lipids and fatty cell membranes). Favorable modifications in plasma lipid concentrations are linked to the intake of CoQ10, thereby reducing potential risk.

May 2013: A study presented at the Congress of the Heart Failure Association of the European Society of Cardiology showed CoQ10 can reduce heart failure by half.

The largest and longest clinical study¹ to date found that taking 100 mg three times daily of CoQ10 for 2 years significantly reduced the chance of an adverse cardiovascular event (e.g. hospitalization, worsening heart failure, or death) by almost 50% compared to a placebo in people with moderate to severe heart failure and significantly improved measures of quality of life such as activity levels, fatigue and shortness of breath.

1. Mortensen, JACC Heart Failure October 2014 - the Effect of Coenzyme Q10 on Morbidity and Mortality in Chronic Heart Failure. Results from Q- SYMBIO: A Randomized Double-Blind Trial.

**COENZYME Q10 FOR MIGRAINE PREVENTION**

**MIGRAINE- 4x** – a CoQ10 formula is approved for the claim:

"Helps to reduce the frequency of migraine headaches and associated nausea and vomiting when taken as a prophylactic"

CoQ10 was the fourth most popular supplement (behind fish oil, multivitamins, and vitamin D). U.S. sales of CoQ10 were $519 million in 2011, according to *Nutrition Business Journal*, and are expected to reach $850 million by 2020 Grand View Research forecasts.
Cardio Boost™

Cardio Boost™ is a proprietary formula providing Coenzyme Q10 with PQQ (Pyroloquinoline Quinone) + Pyridoxine 5 Phosphate at the effective dosages that have been shown to help maintain a healthy heart in persons at risk for Coronary heart disease (CHD) and is approved for the claim:

“Helps to maintain and/or support cardiovascular health”

In 2010, researchers at the University of California at Davis released a peer-reviewed publication showing that PQQ’s critical role in growth and development stems from its unique ability to activate cell-signaling pathways directly involved in cellular energy metabolism, development, and function.

Most significantly, the study demonstrated that PQQ not only protects mitochondria from oxidative stress—it promotes the spontaneous generation of new mitochondria within ageing cells, a process known as mitochondrial biogenesis. The implications of this discovery for human health and longevity are significant because the only other known methods proven to stimulate mitochondrial biogenesis in ageing humans are intense aerobic exercise, strict caloric restriction and certain medications such as thiazolidinedione and the diabetes drug Metformin.

PQQ is a natural companion to CoQ10. CoQ10 is the “spark plug” to the mitochondria, the body’s energy producer. CoQ10 is the source of the energy which activates the cell. With ageing, the number of mitochondria diminishes so there are fewer cells to provide the energy. PQQ can increase the number of mitochondria so there are more cells to distribute the energy. This biochemical “marriage” has the net result of providing increased energy production from CoQ10 formulas, especially important for the heart muscle.

MOLECULAR EVENTS UNDERLYING INFERTILITY

Dr. Robert Casper, Senior Scientist at the Lunenfeld-Tanenbaum Research Institute of Mount Sinai Hospital and Medical Director of the Toronto Centre for Advanced Reproductive Technology (TCART) and Dr. Andrea Jurisicova, Investigator at the Lunenfeld-Tanenbaum Research Institute, and an Associate Professor of Obstetrics and Gynecology at the University of Toronto are investigating the process of mitochondrial activity in oocytes of older females.

By studying the quality of oocytes (in an animal model) in older versus younger mothers, the duo has found that mitochondria, the energy-producing power stations of cells, become less metabolically active with age, putting the offspring at greater risk of developing obesity and metabolic syndrome, and predisposing them to diabetes.

Administration of coenzyme Q10—a vitamin-like substance found in mitochondria—can reverse the effects of mitochondrial changes in oocytes, improve fertility, and perhaps reduce the risk of chromosomal abnormalities.

“Supplementing the diet with Coenzyme Q10 appears to enhance mitochondrial activity and boost the quality of oocytes,” says Dr. Casper.

A descriptive article on CoQ10 is at Appendix 6
An advertisement is at Appendix 20.
**Gluco-Balance™**

**Gluco-Balance™** is a proprietary formula providing a combination of three clinically proven nutrients at the effective dosages that have been shown to help control blood glucose levels in persons with type 2 DM. and is approved for the claim:

**“Helps to Promote Healthy Glucose Metabolism”**

Additionally, more than 20% of diabetic patients develop peripheral neuropathy a type of nerve damage that may result in pain, loss of sensation, and weakness, particularly in the lower extremities. A placebo-controlled trial in patients with diabetic neuropathy found that oral supplementation with 600 mg/day of ALA for five weeks significantly improved neuropathic symptoms.

ALA improves glucose utilization in individuals with type 2 DM. The inner lining of blood vessels, known as the endothelium, plays an important role in vascular disease. Endothelial function is often impaired in diabetic patients, who are at elevated risk for vascular disease.

ALA might improve vascular function in patients with diabetes or metabolic syndrome. Diabetic patients are also at elevated risk for micro vascular disease, which may contribute to diabetic neuropathy.

A randomized controlled trial assessed the effect of oral ALA supplementation on flow-mediated vasodilation in 58 patients diagnosed with metabolic syndrome, a condition characterized by abnormal glucose and lipid (fat) metabolism. Oral supplementation with 300 mg/day of ALA for four weeks improved flow-mediated vasodilation by 44% compared to placebo.

R-Alpha Lipoic Acid, Thiamin and Biotin each have demonstrated positive effects in controlling blood sugar, but this unique combination of all three nutrients in one formula promises maximum benefit and without the side effects of prescription medications.

By using DRCaps absorption in substantially increased by delivering the nutrients directly to the small intestine for absorption and would approach absorption comparable to intravenous infusion.

3.4 million people have been diagnosed with diabetes in Canada and probably another million are living with Type 2 Diabetes,” says Dr. Jan Hux, with the Canadian Diabetes Association, “That number has doubled in the last 12 years and there is another diagnosis every 3 minutes.” Most of these people can be helped by **Gluco-Balance™**.

An advertisement is at [Appendix 20](#).
C-NAG®

C-NAG® is perhaps the most significant supplement in the Vitex product range:

C-NAG® (Vitamin C + N-Acetyl Glucosamine) is now approved for the claim:

Helps promote a healthy intestinal lining in people with symptoms associated with inflammatory bowel disease.

C-NAG® is a breakthrough for Vitex as it can now be marketed directly to the public, and to hospitals, pharmacies, and health care professionals.

Crohn's disease is described as a human scourge, over a half million Americans suffer from this devastating, lifelong condition with annual US medical costs in the billions. Crohn's sufferers experience profuse urgent diarrhea, nausea, vomiting, and fevers. Because of the diarrhea, many people are unable to leave their houses; others drive around in recreational vehicles or mobile homes to keep a bathroom nearby. The director of the National Association for Colitis and Crohn's Disease says the best way to describe the disease to non-sufferers is to have them think of the worst stomach flu they ever had and then try to imagine living with that every day.

What happens is that the immune system starts attacking the lining of the gut, which becomes swollen and inflamed. In extreme cases this painful embarrassing condition can affect any part of the digestive system from the mouth to the anus. This inflammation narrows the digestive tract and can result in excruciating pain during digestion as well as constant uncontrollable bowel movements. Added discomforts associated with Crohn's disease include severe joint pains, weight loss and lack of energy.


Approximately 0.5% of the Canadian population has IBD. Canada has the highest incidence of CD (Crone's Disease) yet reported. About 170,000 people in Canada have CD. This represents a market potential of more than 2 million bottles of 180 capsules per year or $112,000,000 in potential revenue.
NAG as a Supplement

In a healthy bowel, the mucosal cells lining the digestive tract have a high turnover rate, but in acute or chronic disease conditions the loss of cells is increased. This places a greater demand on the body’s building materials which include NAG. Supplementation with NAG compensates for this deficiency providing welcome relief for individuals with digestive tract complaints.

C-NAG® is available over the counter in Canada and has been used orally as a dietary supplement for many years without reported adverse effects.

Large dose intravenous NAG administration demonstrated no toxicity issues and no alterations in blood glucose concentrations or insulin resistance. Chronic systematic toxicological studies up to 104 weeks in animals have further validated NAG as a safe compound with no associated toxicity, including lack of increased cancer risk.

C-NAG® can be used alone or in addition to other immuno-regulatory drugs to increase efficacy and decrease dosage and toxicity.

C-NAG® is in the intermediate category between a Natural Health Product and an OTC drug. Major Drug companies spend billions of dollars to develop a product such as C-NAG®, but so far there is no equivalent. In the USA in 2016, the fee for filing a New Drug Application (NDA) that requires clinical data is US$2,377,200. The average drug developed by a major pharmaceutical company costs at least $4 billion, and it can be as much as $11 billion, and only one in twenty new drug applications get final approval. NAG is a natural product for which no patent can be issued, and the major drug companies are not likely to invest in something they cannot patent.

C-NAG® may provide the first therapeutic approach that directly targets an underlying disease causal mechanism, human clinical trials are warranted.

Vitex is considering applying for a Therapeutic Trial of C-NAG® to evaluate symptom severity and frequency in patients with chronic diarrhea and episodes of abdominal pain, using a simple clinical measure in a cross-over design followed by Phase 2: a double-blind placebo vs C-NAG® evaluation in patients showing initial improvement. The estimated cost to conduct the trial is $200,000. An outline of the proposed Trial is at Appendix 3

Celiac disease is a digestive and auto-immune disorder that results in damage to the lining of the small intestine when foods with gluten are eaten. The damage to the intestine makes it hard for the body to absorb nutrients, especially fat, calcium, iron, vitamin C and folate.

Like IBD, the digestive tract tissues damaged by celiac disease need repair and the body’s normal production of NAG is not able to keep pace with the excessive demand. Supplemental C-NAG® can help make up the deficiency and help restore the normal function of the digestive tract.

Per Health Canada, Celiac disease is recognized as one of the most common chronic diseases in the world. It is estimated that it affects as many as 1 in every 100 - 200 people in North America. As many as 300,000 Canadians could have this disease; however, many remain undiagnosed. A recent Canadian survey on celiac health reported that the average age of diagnosis in adults was 46 years of age. The market potential to individuals with Celiac Disease is almost double that of Crohn’s disease.
**NAG** is produced from Chitin, derived from the soft shells of shrimp and crab, but new technology now produces **NAG** from fermented NON-GMO corn starch. This has a significant appeal for vegetarians and for those with shell fish allergy. **Vitex** will introduce this new Vegan **C-NAG®** formula soon.

A descriptive article on **C-NAG®** is at Appendix 3 and an advertisement is at Appendix 20

A 30-second video clip is at www.C-NAG.com

**July 15, 2013**: Vitex received Health Canada NPN (80043587) for **C-NAG®** (Vitamin C+N-Acetyl glucosamine)

**May 25, 2015**: Vitex received the Registered Trademark Number TMA904,456 for **C-NAG®,** as “a dietary supplement for treating the symptoms of inflammatory bowel disease”

**Vitex** will be submitting a research proposal for a clinical trial for treating bowel disorders with **C-NAG®** An outline of the clinical trial is at Appendix 3

**Vitex** will be submitting Patent Applications to several countries throughout the world as outlined:

**Title:** **C-NAG®** (N-Acetyl Glucosamine + Ascorbic Acid)

**AS A CYTOPROTECTIVE AGENT IN MANAGING THE SYMPTOMS OF INFLAMMATORY BOWEL DISEASE.**

**Inventor:** Barrie Carlsen

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**Vita-Zyme™**

**Vita-Zyme** is a systemic enzyme formula (consisting of combinations of proteolytic enzymes such as bromelain, papain, rutin, amylase, protease, and lipase) necessary for healthy joints and muscles, healthy circulation, a healthy immune system and to minimize the effects of ageing.

Normally, our body can manufacture sufficient enzymes to metabolize our ingested food. Exogenous food enzymes are required only when there is a deficiency of such enzymes in our body. In cases of malabsorption due to pancreatic insufficiency, physicians often prescribe pancreatic digestive enzymes (e.g. Pancreatin) as a replacement therapy.
**NAC® - 1000 & C-NAC® - 500** are approved for the claims:

- **a)** Helps to relieve the symptoms of chronic bronchitis (COPD)
- **b)** A supportive therapy in the treatment of inflammation of the respiratory system
- **c)** Helps to reduce the severity & frequency of influenza-like symptoms.
- **d)** An antioxidant for the maintenance of good health in individuals under oxidative stress.

C-NAC® 500 and NAC 1000: NAC (N-Acetyl Cysteine) is an analogue of the dietary amino acid cysteine. It is known for its mucolytic (mucous breaking) and anti-inflammatory effects. NAC acts as a potent antioxidant (free radical quencher). NAC is a thiol compound thereby providing sulphydryl groups which act as direct free radical scavengers and stimulate the production of the endogenous (internal) antioxidant glutathione.

Glutathione is a potent antioxidant that maintains vitamins C and E in their antioxidant state, and it also acts as a scavenging antioxidant that removes reactive oxygen species once they are formed. Glutathione is a critical phase 2 detoxification factor. Essentially it acts to conjugate fat soluble toxins (i.e. heavy metals), thereby converting them to neutral water-soluble compounds that can easily be excreted out of the body. Glutathione has been suggested as an important anti-cancer and anti-ageing nutrient.

The characteristic antioxidant properties of NAC help to stabilize the cellular redox status, thereby regulating cellular apoptosis, angiogenesis, cell growth and inflammatory response. Both in vivo and in vitro studies confirm the strong antioxidant properties of NAC. Interestingly, it reduces oxidative stress (free radicals in the body) at both high and low concentrations, and in both acute and chronic conditions. The unique antioxidant properties of NAC may explain its strong capacity to attenuate the adverse effects caused by toxic chemicals, environmental pollution and drug reactions. The anti-inflammatory properties of this compound are experienced even at low dosages, with effects being dose-dependent. Greater dosages appear to improve bioavailability to exert greater therapeutic potentials.

For decades, pollution and its harmful effects on people’s health, the environment, and the planet have been neglected both by Governments and the international development agenda. Yet, pollution is the largest environmental cause of disease and death in the world today, responsible for an estimated 9 million premature deaths in 2015 — 16% of all deaths worldwide—three times more deaths than from AIDS, tuberculosis, and malaria combined and 15 times more than from all wars and other forms of violence. In the most severely affected countries, pollution-related disease is responsible for more than one death in four.

**NAC may provide protection from the effects of air & environmental pollution.**

https://www.thelancet.com/commissions/pollution-and-health

An article on **NAC®-1000** is at **Appendix 4** and an advertisement is at **Appendix 20**
Vision Boost™

Vision Boost™ is an advanced eye formula based on the Schepens Eye Research Institute and Department of Ophthalmology, Harvard Medical School.

Vision Boost™ has the NPN for the claim:

Helps to maintain eyesight in conditions associated with sunlight damage such as cataracts and age-related macular degeneration (AMD)

Vision Boost™ provides Nature’s most potent anti-oxidants to help maintain optimal ocular function and to help reduce the risk of Age Related Macular Degeneration of the eyes (AMD).

AMD is the leading cause of irreversible visual loss in the industrialized world. AMD is a common eye condition and a leading cause of vision loss among people age 50 and older. It causes damage to the macula, a small spot near the center of the retina and the part of the eye needed for sharp, central vision, which lets us see objects that are straight ahead.

AMD affects more than 1.75 million individuals in the United States and about 200,000 people in Canada. Owing to the rapid ageing of the US and Canadian population this number will increase to 3 million and 350,000 by 2020.

In some people, AMD advances so slowly that vision loss does not occur for a long time. In others, the disease progresses faster and may lead to a loss of vision in one or both eyes. As AMD progresses, a blurred area near the center of vision is a common symptom. Over time, the blurred area may grow larger or you may develop blank spots in your central vision. Objects also may not appear to be as bright as they used to be.

AMD by itself does not lead to complete blindness, with no ability to see. However, the loss of central vision in AMD can interfere with simple everyday activities, such as the ability to see faces, drive, read, write, or do close work, such as cooking or fixing things around the house.

AMD is the leading cause of irreversible blindness in people age 65 and older. For unclear reasons, parts of the retina and the macula become diseased. As AMD progresses, tiny, fragile blood vessels begin to develop in the retina. These vessels often leak blood and fluid that damages the retina even further.

- Blurred vision may be the first symptom
- Straight lines appear crooked
- Dark or empty space

The macula is in the center of the retina, directly behind the lens. It is a tiny area, made up of millions of cells, which help produce the sharp vision needed to read and see objects clearly. Scientists believe that the macular pigment protects the retina. The density of macular pigment is used to measure eye health.
Studies show that lutein (LOO-teen) and zeaxanthin (Zee-uh-zan’-thin) are the predominant antioxidants found in the macula. Lutein & zeaxanthin are carotenoids found in many fruits and vegetables. They protect cells against light-induced damage. Spinach and kale contain elevated levels of lutein, but it is also present in corn and egg yolk.

**Lutein and Zeaxanthin improve neural efficiency promoting cognitive functioning in old age.**

Scientists assessed the levels of lutein and zeaxanthin in the retina by measuring the macular pigment optical density. Scientists found that higher levels of lutein and zeaxanthin correlated with a lower signal in several areas of the brain, as measured by the level of oxygen in the participants' blood. This indicated lower brain activity in individuals with higher levels of lutein and zeaxanthin during memory tasks, which means they did not have to work as hard to complete the task. The team was led by Cutter Lindbergh, a doctoral candidate in the psychology department of the Franklin College of Arts and Sciences at the University of Georgia. J Int Neuropsychol Soc. 2016 Oct 25:112.

- **Dietary intake of lutein & zeaxanthin increases pigment density.**
- **Smoking and alcohol consumption decrease macular pigment density.**
- **Lifetime sun exposure decreases density.**
- **The macula receives more light, making it susceptible to blue light damage.**
- **Blue light damage may contribute to age-related macular degeneration.**
- **Lutein & zeaxanthin filter out blue light that causes free radical damage in the eyes.**

A an advertisement are at Appendix 19.
Gamma-E-Alpha™

Gamma-E-Alpha obtained its NPN on May 13, 2013 and is licensed for the claim:

An antioxidant for the maintenance of good health

This is the first advanced mixed tocopherol complex licensed in Canada. Gamma Tocopherol has been the subject of much scientific interest in the past few years, for its role in preventing heart disease and cancer.

An article on the benefits of Gamma and Alpha tocopherol is at Appendix 6

Vitex is introducing Gamma-E-Alpha™, to the market in late 2019 featuring the new vegetarian soft capsule technology. This modern technology has now been perfected and Vitex has received approval from Health Canada.

Natural Vitamin E sales in the USA are $340 million per Nutrition Business Journal. The market potential for Vitamin E in vegetarian soft capsules is substantial and Vitex will be the first in Canada and Vietnam to introduce Vitamin E in certified NON-GMO vegetarian starch soft capsules.

Soya Slim

A meal replacement diet is designed to replace two - four meals a day with nutritional formulas usually based on milk, whey, or soy protein, to reduce the amount of carbohydrates and kilojoules in the diet while providing necessary nutrients to maintain normal health. Meal replacements can be helpful if you are unable to meet all your energy and nutrient needs with regular meals and snacks. Meal replacements are mainly for weight loss, but weight gain, wound recovery, and physical fitness, when used in addition to the normal diet are other applications.

Soya Slim is suitable to people with type 2 diabetes who are overweight or obese; which is a risk factor in Diabetes.

The Meal Replacement Product Manufacturing industry is thriving. Heightened obesity rates and increased demand for convenience products are two long-term trends that have strongly favored meal replacement products. Going forward, expected demand for meal replacement products will remain strong. Rising per capita disposable income and increasing health conscious consumers will create positive conditions for manufacturers over the next five years. Additionally, Americans and Canadians will continue to struggle with weight loss and want to improve their nutrition, which will precipitate stronger demand for products such as premium meal replacements. Compounding this effect, increasingly busy consumers will also use meal replacement products to save time during the day....

Vitex has developed Soya Slim to compete in the premium end of the multi- billion-dollar meal replacement industry ($3.6 billion in the USA). Soya Slim will be the first organic meal replacement authorized by Health Canada to make the claim “helps to reduce cholesterol, a risk factor for heart disease”. It will also be one of the very few to provide an alternative to sucrose and fructose or artificial sweeteners such as sucralose and aspartame, as used by most major brands; featuring Organic Erythritol. the revolutionary natural non-caloric sweetener A detailed description is at Appendix 7
Industry Analysis & Industry Trends

Many meal replacement formulas replace sucrose or fructose with artificial sweeteners such as sucralose or aspartame to reduce calories to encourage weight loss while maintaining a sweet taste. Recent research \(^{(3)}\) however warns of concerns for people with pre-existing high blood glucose as scientific evidence show that sucralose promotes metabolic dysfunction. The increase in transportation of glucose into cells may be of concern for adults who have prediabetes or diabetes and among adults who are obese. Also, New research \(^{(4)}\) suggests that aspartame may be ineffective for weight loss, and it may even have the opposite effect by making you hungrier and lead to weight gain.

**Erythritol** does not affect blood sugar nor cause tooth decay. This is good news for diabetics as many diabetics are overweight and need to lose weight, as excess weight is a risk factor for diabetics. **Soya Slim** offers a premium, nutritionally complete, low-calorie, organic meal replacement suitable for everyone including diabetics.

**Soya Slim** is an organic Vegan formula and contains:

- **No Cholesterol**, 
- **No fructose**, 
- **No sucrose**, 
- **No Lactose**, 
- **No Gluten**, 
- **No Artificial Sweeteners**.

Vitex has improved the nutritional profile of Soya Slim by upgrading all the premium ingredients to organic.

Three **Soya Slim** shakes daily with Unsweetened organic Soy Milk + Vegan Omega 3-6-9, provide the ultimate in optimum nutrition, but with the ultra-low calories (240 calories per shake, or 720 calories per day) necessary to reduce fat build up in the pancreas and liver, necessary for metabolic transformation to reverse Type 2 diabetes, and to bring body weight back to normal. For more information see [Appendix 7](#).
**Sweet n Safe®**

**Organic Erythritol**

Erythritol is a sugar alcohol (or polyol) that is naturally present in small quantities in fruits such as pears, melons and grapes, and foods such as mushrooms and in fermented foods such as wine, soy sauce and cheese.

Commercially, it is produced from glucose derived from certified organic corn glucose by fermentation with a yeast (*Moniliella pollinis*)

Erythritol is 70% as sweet as sucrose (table sugar), yet it is non-caloric, has a zero glycemic index and does not affect blood sugar. Erythritol cannot be metabolized by oral bacteria, so it does not contribute to tooth decay. For these reasons Erythritol is recommended for diabetics and people on low-carb diets.

**The Healthy Alternative to Sugar**

Canadians consume on the average of 110 grams of sugar per day representing 440 calories per day or an unhealthy 22% or of total calories of a 2,000 calorie per day diet.

If diabetics or the overweight were to replace 60% (66 grams) of their average daily intake of sugar with Sweet ‘n Safe® then calorie intake from sugar would fall to 44 grams of sugar per day (176 calories per day), or a healthier 8.8% of total calories of a 2,000 calorie per day diet: and weight loss would begin along with the reduction in obesity, diabetes, heart disease, liver and kidney diseases.

Ideally, it would be to replace 90% (100 g) of sugar with Sweet ‘n Safe® reducing daily calorie intake by 400 calories or a healthier 2% of total daily calories, and weight loss would increase along with increased reduction in obesity, diabetes, heart disease, liver and kidney diseases.

Erythritol is a white crystalline powder that is odorless, with a clean sweet taste that is like sucrose. It is approximately 70% as sweet as sucrose and flows easily due to its non-hygroscopic character. Like other polyols, erythritol does not promote tooth decay and is safe for people with diabetes. However, erythritol’s caloric value of 0.2 calories per gram and high digestive tolerance distinguishes it from other polyols. It has approximately 7 to 13% the calories of other polyols and less than 5% the calories of sucrose. Because erythritol is rapidly absorbed in the small intestine and rapidly eliminated by the body within 24 hours, laxative side effects sometimes associated with excessive polyol consumption are unlikely when consuming erythritol containing foods.

**Death by sugar**

**How the sweet killer is fueling the biggest health crisis of our time**


**Learn more about erythritol**

https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/erythritol

A technical paper is at:  http://www.vitexnutrition.com/erythritol-article.pdf
**Prostate 2x®**

Prostate 2x® obtained its NPN on March 2, 2015, and its Registered Trade Mark TMA947,174 on August 24, 2016. Named because it provides relief for both BPH and high cholesterol. Most men over 50 years of age suffers from both conditions and often takes separate drugs to help manage the symptoms, often with serious side effects. Prostate 2x® provides in one safe natural formula, clinically proven relief for both conditions without the side effects of prescription medications.

**THE FORMULA:**

- **Prostate 2x®** contains in one daily dose (4 DR capsules) 1,000 mg Plant Sterol Esters from non-GMO soy oil (Glycine max seed) ≥94% combined β Sitosterol, Campesterol and Stigmasterol, plus 600 mg Saw Palmetto fruit standardized extract (Serona Repens) ≥45% Free Fatty Acids which:
  - **Helps relieve the urologic symptoms (e.g. weak urine flow, incomplete voiding, frequent daytime and night time urination) associated with mild to moderate benign prostatic hyperplasia. (BPH)**
  - **Helps lower blood total and LDL cholesterol**
  - **Helps maintain healthy cholesterol levels**

An advertisement is at Appendix 17
A 30-second video clip is at [www.prostate2x.com](http://www.prostate2x.com)

**BENIGN PROSTATIC HYPERPLASIA (BPH)**

(BPH) is used to describe a non-cancerous enlargement of the prostate which may exert pressure on the urethra, resulting in difficulty urinating.

As men age, prostate tissue grows and changes, resulting in enlargement. Men over the age of 40 may begin to experience the symptoms of an enlarged prostate, and not recognize why these changes are happening, or that they can be treated. The cause of BPH is not known, although there are possible links to high-fat diets, family history and hormones. BPH is not cancer!

Not all men with BPH experience symptoms, but if the prostate enlargement presses on the urethra, it could result in:

- more frequent urination (day and night)
- inability to empty the bladder completely
- weak stream
- inability to delay urination
- difficulty stopping and starting
- incontinence (no control)
- painful or bloody urination
Adenomatous prostatic growth is believed to begin at approximately age 30 years. An estimated 50% of men have histological evidence of BPH by age 50 years and 75% by age 80 years; in 40–50% of these men, BPH becomes clinically significant. In Canada with a total population of 35.54 million, 13.8 million are over 50 years of age of which approx. 49% are male. Of these 6.4 million males, approx. 3 million have clinically significant symptoms of BPH.

**PHYTOSTEROLS, HOW DO THEY WORK?**

**β-Sitosterol, Campesterol** and **Stigmasterol** are substances found in plants. Chemists call them “plant sterol esters.” or Phytosterols. Found in fruits, vegetables, nuts, and seed oils including Saw Palmetto, they are used to make medicine.

**β Sitosterol** is a plant substance like cholesterol. It might help reduce cholesterol levels by limiting the amount of cholesterol that can enter the body. It can also bind to the prostate to help reduce swelling (inflammation).

**β Sitosterol** is used for heart disease and high cholesterol. It is also thought to boost the immune system and for preventing colon cancer, as well as for gallstones, the common cold and flu (influenza), HIV/AIDS, rheumatoid arthritis, tuberculosis, psoriasis, allergies, cervical cancer, fibromyalgia, systemic lupus erythematosus (SLE), asthma, hair loss, bronchitis, migraine headache, chronic fatigue syndrome. However, these are anecdotal reports with little scientific evidence to support these uses.

Some men use β-Sitosterol for enlarged prostate (benign prostatic hyperplasia or BPH). Some women use it for symptoms of menopause. It is also used for enhancing sexual activity. Marathon runners sometimes use β Sitosterol to reduce pain and swelling after a run. Some people apply β Sitosterol to the skin for treating wounds and burns.

In foods, β Sitosterol is added to some margarine (Take Control, for example) that is designed for use as part of a cholesterol-lowering diet and for preventing heart disease. The federal Food and Drug Administration (FDA) allows manufacturers to claim that foods containing plant sterol esters such as β Sitosterol are for reducing the risk of coronary heart disease (CHD). This rule is based on the FDA’s conclusion that plant sterol esters may reduce the risk of CHD by lowering blood cholesterol levels.
Stigmasterol (also known as Wulzen anti-stiffness factor) is an unsaturated plant sterol occurring in the plant fats or oils of soybean, calabar bean and rape seed, and in a number of medicinal herbs including the Chinese herbs Ophiopogon japonicus (Mai men dong), in Mirabilis jalapa and American Ginseng. It is one of a group of plant Phytosterols, that include β Sitosterol, Campesterol, Ergosterol (provitamin D_2), Brassicasterol, delta-7 Stigmasterol and delta-7-Avenasterol, that are chemically similar to animal cholesterol. Phytosterols are insoluble in water but soluble in most organic solvents and contain one alcohol functional group.

Campesterol is a phytosterol whose chemical structure is similar to that of cholesterol. It is so named because it was first isolated from the rapeseed (Brassica campestris). It is thought to have anti-inflammatory effects. It was demonstrated that Campesterol inhibits several pro-inflammatory and matrix degradation mediators typically involved in osteoarthritis-induced cartilage degradation.

It was first shown in the 1950s that plant sterols are beneficial in lowering LDLs and cholesterol. Since then, numerous studies have also reported the beneficial effects of the dietary intake of Phytosterols including Campesterol.

It is thought that the Campesterol molecules compete with cholesterol and thus reduces the absorption of cholesterol in the human intestine. Plant sterols may also act directly on intestinal cells and affect transporter proteins. In addition, there may be an effect on the synthesis of cholesterol transporting proteins in the liver cells through processes including cholesterol esterification and lipoprotein assembly, cholesterol synthesis, and apolipoprotein (apo) B100-containing lipoprotein removal.

Saw palmetto (Serenoa repens) is a palm like plant with berries that were a staple food and medicine for the Native Americans of the southeastern United States. In the early 1900s, men used the berries to treat urinary tract problems, and even to increase sperm production and boost libido. Today, the primary use of saw palmetto is to treat benign prostatic hyperplasia (BPH), a noncancerous enlargement of the prostate gland. Researchers aren’t sure exactly how Saw Palmetto works, but it contains plant-based phytosterols including β Sitosterol and Stigmasterol which may be effective for BPH. Researchers think that Saw Palmetto may affect the level of testosterone in the body, and perhaps reduce the amount of an enzyme that promotes the growth of prostate cells.

Recent research shows that Saw Palmetto extract may reduce symptoms of BPH. Extensive research supports Saw Palmetto’s benefits for prostate health. An analysis of 2,939 men with symptomatic BPH found that those taking Saw Palmetto extract reported greater improvement of urinary tract symptoms and urinary flow measures compared to control subjects. The experimental group also saw a decrease in episodes of nocturia (nighttime urination) and an improvement in peak urinary flow. The improvements were like those seen in men who took the prescription drug Finasteride (Proscar®) for BPH.

Dose: The standard dosage of Saw Palmetto for the treatment of BPH is 160 mg twice a day of an oil extract standardized to contain 85% to 95% fatty acids and sterols or alternatively (as in the Vitex formula) 300 mg twice per day of the fine powder extract containing ≥45% fatty acids and sterols.
ABOUT CHOLESTEROL

Cholesterol is vital to human health and well-being. It plays an important role in the structure, fluidity and permeability of the cell membrane, and helps synthesize vitamin D and various hormones. Two types of cholesterol exist: good and bad. 'Good' cholesterol is found in blood particles called high density lipoprotein (HDL); it helps prevent the narrowing of artery walls by removing and transporting any excess cholesterol to the liver for excretion. 'Bad' cholesterol is found in low-density lipoprotein (LDL) particles. LDL carries the cholesterol from the liver through the entire body and leaves behind any excess on the walls of the arteries. Consequently, 'bad' LDL cholesterol can lead to cardiovascular disease, increasing the risk of heart attacks, strokes, and the necessity for heart bypass surgery. The total cholesterol level represents the amount of both HDL and LDL cholesterol. However, the total cholesterol/HDL cholesterol ratio is more indicative of cardiovascular disease. The CHMS measured the concentrations of HDL, LDL, and total cholesterol in blood (in millimoles per liter - mmol/L) on a nationally representative fasted population sample.

In Canada, approx. 58% of people between the ages of 40-59 have unhealthy total cholesterol and approx. 45% of people between the ages of 60-79 have unhealthy total cholesterol.

Prostate 2x™: The most effective therapy is to combine the known therapeutic benefits of both β Sitosterol complex and Saw Palmetto Extract as in the Prostate 2x™ formula.

ABSORPTION

Vitex’s Prostate 2x™ is provided in the new intestinal release DRcaps; plant origin Hypromellose polymer. DRcaps technology enables the active ingredients to pass through the stomach unchanged and be absorbed in the small intestine. This modern technology eliminates the costly and cumbersome enteric coating process, which requires the use of solvents and heat, which can have a destructive effect on the active ingredients in the formula. Finally, DRcaps are more resistant to moisture and provide a more precise and consistent dissolution rate compared to the traditional method of enteric coating.

DRcaps

Vitex introduced for the first time in Canada a new intestinal release technology incorporating the new DRcaps from Capsugel. These new capsules offer a significant improvement in bioavailability and stability with a significant cost savings compared to conventional enteric-coated capsules or tablets, which incorporate heat and solvents in the manufacturing process.

C-NAG® C-NAC™ 500, Serrapeptase 72,000 su, CoQ10, Vita-Zyme™, Grape Seed/Green Tea, Restore™, Vision Boost™ Cardio Boost™, Gluco-Balance™ and Prostate 2x™ are among the Vitex products incorporating this new technology.

A DRcaps brochure is at Appendix 10
Quality Assurance

Key to Vitex’s commitment to providing consumers with premium nutritional supplements is quality assurance in each step of the development process from pre-production to post-production.

Product Development

Vitex formulations reflect scientific research based on human studies and are developed with input from nutritional experts.

Raw Materials

Raw materials are tested to ensure that they meet pharmaceutical standards for purity and potency. This guarantees that the finished product is pure, potent, stable, and fresh. Vitex sources and supplies all active ingredients to the OEM manufacturer to guarantee quality standards.

Manufacturing and Packaging

Currently, Vitex 2-piece capsule and powder products are manufactured and packaged, and vegan soft capsule and tablets are packaged by Dr. Ma’s Laboratories Inc. www.drmalabs.com a Burnaby, BC based GMP certified contract manufacture with in-house laboratories for quality control. GMP has strict guidelines for:

- the maintenance of the manufacturing facility;
- the maintenance and calibration of equipment;
- the qualification and training of technicians;
- clearly designed, monitored & controlled processes;
- raw material and finished product testing for quality and purity;

Advanced technology is used to avoid using heat or solvents that may denature delicate ingredients.

High quality PETE containers are used to package Vitex products to protect the sensitive ingredients from contamination from air, moisture, light, and reaction with the container.

Vitex intends to build its own “State of the Art” cGMP certified manufacturing and laboratory facility using advanced equipment and processes to produce the Vitex premium formulas (page 78).

COMPETITIVE ANALYSIS

The dietary supplements industry is image-driven. Packaging, marketing, and advertising are major concerns. As such, each company strongly promotes their own unique characteristics to differentiate their company and products, making a true competitive analysis difficult.

Vitex has identified the main direct and indirect competitors whose claims about their company, products, and choice of distribution channels set them apart from Vitex’s exclusive line of premium quality supplements made for the sophisticated, proactive healthcare consumer.

Competition is intense in the wholesale sector and includes major brands such as Enerex, Quest, Sisu, Flora, Natural Factors, Swiss Herbal and Jamieson Vitamins. Competitors’ products are sold in some health foods stores – mainly large chain stores dealing in discount products staffed with employees with little product knowledge – and in the mass market, including pharmacy chains such as London Drugs and Shoppers Drug Mart, and ‘big box’ stores such as Costco and Wal-Mart.

Vitex products appeal to the more knowledgeable retailer and their sophisticated consumers. Vitex products are premium formulations based on extensive scientific research. Vitex will not be competing with discount products that rely mainly on price to establish market share.
Vitex supplies extensive product information to retailers for distribution at store level. These materials serve to educate the retailer and consumer, while promoting Vitex products. The retailers employ knowledgeable staff that can serve customers effectively because they not only understand dietary supplements, but the Vitex products. This educational-customer service focus satisfies the needs of the proactive healthcare consumer. An advertisement is at Appendix 19

CANADIAN PHARMACEUTICAL INDUSTRY PROFILE (2016)


Canada's pharmaceutical sector

The pharmaceutical sector is one of the most innovative industries in Canada. It is composed of companies developing and manufacturing innovative medicines and generic pharmaceuticals, as well as over-the-counter drug products. The sector is made up of several sub-sectors that service different market segments. These include brand-name pharmaceutical companies, generic drug firms, biopharmaceutical small and medium sized enterprises (biopharmaceutical SMEs), and contract service providers (CSP).

Size and structure of the industry

- Pharmaceutical sales in Canada have a 2.0% share of the global market, making Canada the 10th largest world market. Since 2011, compound annual growth has remained positive at 2.8% (IMS Pharmafocus 2021).
- Companies undertake research and development (R&D) to develop new or improved patented therapies, while others develop bio-equivalent copies of innovative drugs once patents expire. An emerging field of biologics and subsequent entry biologics (SEBs) is also taking shape.
- Brand-name products account for 77% of Canadian sales and 34% of prescriptions. Generics account for the rest (IMS Pharmafocus 2020).
- In early 2016, the manufacturing portion of the sector employed 28,500 people and over the last 5 years, employment has fallen by 6.7% (Statistics Canada, CANSIM table 281-0023).
- The industry is clustered mainly in the metropolitan areas of Toronto, Montreal, and Vancouver.

Canadian Drug Sales

From 2001 to 2015, total pharmaceutical sales, including non-patented over-the-counter medicines (including Nutraceutical products such as C-NAG®) have doubled to $24.6 billion, with 87.5% sold to retail drug stores and 12.5% sold to hospitals. Governments account for 42% of drug expenditures and private payers the remaining 58% (private coverage and individuals)

R&D Activities

The pharmaceutical industry is second after the Information Technology (IT) sector in R&D intensity. Twenty pharmaceutical and biotechnology companies are listed in Research Infosource's Top 100 Corporate R&D Spenders 2014 in Canada.

R&D costs per drug averaged US$605 million over 12-13 years. Full costing (including amortization of research failures and opportunity cost of capital) raises average costs significantly. A generic drug may take 2-3 years and require $3 to $10 million of R&D to develop and prove equivalency with original drug.
LEADING PHARMACEUTICAL PRODUCTS IN CANADA

The top ten pharmaceutical products sold in Canada total $4.034 billion in sales and account for 15% of 2016 industry sales of $24.6 billion. Leading therapeutic categories include medicines for arthritis, depression, liver health and Asthma therapies (IMS Pharmafocus 2021)

2016 sales for #1 Remicade, #2 Humira and #5 Enbrel total $2.053 billion, or 8.2% of 2016 industry sales for similar conditions as C-NAG®. 2015 sales were $1.84 billion

2016 sales for #4, Lucentis and #7, Eylea, for vision loss total $594 million, or 2.4% of industry sales for similar conditions as Vision Boost.

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DIRECT-TO-CONSUMER PHARMACEUTICAL ADVERTISING (DTCPA)

Direct-To-Consumer (DTC) Advertising of prescription drugs in the USA has mushroomed from a few isolated and relatively sensational cases in the early 1980s to an omnipresent feature of American consumer society, powered in 2005 by $4.2 billion in promotional dollars. (Kuehn BM. FDA weighs limits for online ads. JAMA.2010;303(4):311–313).

A link to popular prescription drugs ads is at: https://www.youtube.com/watch?v=-6GUdjb6WMI

Initially, Vitex will focus its advertising on C-NAG®. DTCPA is not legal in Canada, but C-NAG® and other Vitex formulas are not Prescription Drugs and are not subject to laws regarding DTCPA. Vitex can make claims about its products as allowed by the NHP claim license.

THE POSITION IN CANADA ON DTCPA IS SUMMARIZED IN THE REPORT:

INFLAMMATORY BOWEL DISEASE (IBD) AND IRRITABLE BOWEL SYNDROME (IBS)

The U.S. market for prescription pharmaceuticals to treat inflammatory bowel disease (IBD) and irritable bowel syndrome (IBS) was $4.26 billion in 2011 and is expected to reach $7.70 billion by 2017, per Frost & Sullivan. The growth is driven by the introduction of biologicals \(^1\) and new, more effective therapies. Development of innovative approaches, however, is limited by incomplete knowledge of the underlying pathology of these diseases. (Canadian industry profile is at page 51)

According to Crohn's and Colitis Canada, biologics are targeted drugs that block inflammation in a patient’s body. They are termed as such since they are created from the living cells of humans, animals, or micro-organisms.

The IBD market of about 4 million has 50% penetration, while IBS’ market of 400 million has only 0.6% penetration,” says Debbie Toscano, senior industry analyst, Frost & Sullivan. Of the two, IBD is a more serious disease. “It may require surgery to remove the bowel, so it is prudent to manage it,” she adds.

The top 3 selling drugs for treating IBD are Humira, the world’s best-selling TNF\(^1\) inhibitor. In 2015, US sales topped $8.4 B. The 2\(^{nd}\) best-selling drug for IBD is Remicade with US 2015 sales of $5.78 B, the 3\(^{rd}\) best-selling drug for IBD is Enbrel with US 2015 sales of $5.01 B (a total of $19.19 B)

Amid projections and prognostications of overall pharma ad spending increases for 2016, iSpot.tv’s ad tracking numbers for May bear that out, with AbbVie’s Humira leading the charge.

AbbVie spent more than $25 million on Humira TV ads in May, bringing the drug’s TV spending total to $118 million for the year. That means AbbVie has already topped its full-year 2015 TV ad spending of $98.6 million.

Humira has been running nine ads since January 2016, spread thematically across its three FDA-approved indications for arthritis, psoriasis, and ulcerative colitis and Crohn's disease, with the most, a total of $60.9 million, spent on placing its 5 TV ads for arthritis, per iSpot.tv data.

The TV spend reflects Humira’s importance to AbbVie; it brought in $8.4 billion in sales last year and accounted for 62% of the company’s total revenue. Humira revenue for the first quarter of 2016 was $2.2 billion.

The Wall Street Journal reported that AbbVie raised the price of Humira 8 times in the past three years, increasing its price 73% to about US$49,000 a year before discounts ($64,000 CDN).

A TNF inhibitor is a drug that suppresses response to tumor necrosis factor (TNF), which is part of the inflammatory response. TNF is involved in clinical problems associated with autoimmune disorders such as rheumatoid arthritis, Crohn's disease, psoriasis, hidradenitis suppurativa, ankylosing spondylitis, and refractory asthma, so a TNF inhibitor may be used in their treatment. The important side effects that have been most extensively related to TNF inhibitors include lymphoma, infections (especially Tuberculosis reactivation), congestive heart failure, demyelinating disease, a lupus-like syndrome, induction of auto-antibodies, injection site reactions, and systemic side effects.

1. The global market for TNF inhibitors in 2008 was US$13.5 billion and US$22 billion in 2009.2.

2. Humira is an epi-pen administered injection that absorbs through the patient’s muscles, that is taken every other week. The cost of one Humira dose is approximately $1,500 - $1,600. A kit of two costs over $3,000 for a one-month supply or US$36,000 per year.

Some of these drug’s effects are attributed to the placebo effect. The roots of the placebo problem can be traced to a lie told by an Army nurse during World War II as Allied forces stormed the beaches of southern Italy. The nurse was assisting an anesthetist named Henry Beecher, who was tending to US troops under heavy German bombardment. When the morphine supply ran low, the nurse assured a
wounded soldier that he was getting a potent painkiller, though her syringe contained only salt water. Amazingly, the bogus injection relieved the soldier's agony and prevented the onset of shock.

The placebo (I please) effect also works in reverse to produce the placebo's evil twin, the nocebo (to harm) effect. For example, men taking a commonly prescribed prostate drug who were informed that the medication may cause sexual dysfunction were twice as likely to become impotent.

The nocebo effect can influence people taking the prescription drug Humira. Advertised frequently on prime-time television, Humira is directed to those suffering from Crohn's disease; almost 75% of the commercial time is to warn consumers about the potential side effects of the drug. It is likely that many of the users of Humira, Remicade, and Enbrel will experience one or more of these symptoms, and some of them will be attributed to the nocebo effect

NAG is a natural substance manufactured by the body and unlike Humira, has no known side effects and will not trigger the nocebo effect. Any advertising of C-NAG® can devote almost the entire commercial to the expected benefits in treating Crohn's disease and could likely trigger the placebo effect in some people, which will further enhance its benefit. C-NAG® commercials will be almost completely free of side effect warnings so a 60-second C-NAG® commercial will have a more positive response without invoking the nocebo effect than a 2-minute Humira commercial.

HUMIRA SIDE EFFECTS

All drugs have side effects but not all people who take a drug will suffer from its side effects. One of the worst side effects of Humira is with TNF, or Tumor Necrosis Factor. This is a natural part of the human body’s immune system and it is present in every person. Humira suppresses the effects of TNF and in doing so actually opens the body to various infections. It also makes it easier for older infections which have been beat, like tuberculosis, to resurface and resume terrorizing the unfortunate person who thought they had overcome their disease.

The curative effects of Humira cannot be dismissed, but there are significant side effects which could prove to be worse than the conditions for which the medicine was prescribed in the first place.

Specifically, HUMIRA has FDA boxed warnings (commonly referred to as “black box” warnings)—the strictest prescription-warning level—because of its risk of death by cancer or infection. For example, its label warns that “MALIGNANCY Lymphoma and other malignancies, some fatal, have been reported in children and adolescent patients treated with TNF blockers including HUMIRA ... Post marketing cases of hepatosplenic T-cell lymphoma (HSTCL), a rare type of T-cell lymphoma, have been reported in patients treated with TNF blockers including HUMIRA. These cases have had a very aggressive disease course and have been fatal” and that “Patients treated with HUMIRA are at increased risk for developing serious infections that may lead to hospitalization or death.”

Here is a link to the side effects of Humira: https://www.peoplespharmacy.com/2017/07/13/humira-side-effects-complications-and-interactions/

IN KICKBACKS CASE, CA INSURANCE CHIEF SAYS ABBVIE USED NURSE ‘AMBASSADORS’ TO PROTECT HUMIRA SALES

California’s insurance commissioner Dave Jones on September 18, 2018 unveiled the suit (PDF) against AbbVie, alleging the company paid kickbacks to doctors and used a network of nurse “ambassadors” to cut out communications between patients and their doctors.

On a call with reporters, Jones said AbbVie paid out cash, meals, drinks and more to secure scripts for the world’s bestselling drug. But the scheme went further than that, he added.
AbbVie hired a network of “ambassadors” to go into patients’ homes and provide care and assistance, the state claims. California says AbbVie provided nurses to physicians at no cost in exchange for Humira prescriptions.

Jones said the scheme was “particularly egregious” because when patients brought concerns over side effects and more to their ambassadors, the nurses didn’t take those complaints to physicians. As AbbVie employees, the nurses served as a communication “cut out” to protect AbbVie’s interest of maintaining and growing Humira prescriptions, according to the commissioner.

An AbbVie nurse whistleblower in Florida brought the alleged conduct to the California department’s office. Private insurers paid out $1.2 billion in Humira claims from 2013 to August 2018, according to the commissioner, and now the state wants to recoup losses and more.

REMICADE: 26.2% OF IBD PATIENTS SAW THEIR CONDITION WORSEN!

In an independent Phase IV study sponsored by the Norwegian government, Remsima, a biosim from South Korea’s Celltrion, kept disease from worsening just as well as its reference product in patients who’d been stable on Remicade for at least 6 months before the switch. In the Remicade arm, 26.2% of patients saw their disease worsen, while 29.6% of Remsima patients did—a difference small enough for researchers to dub the copy non-inferior.

Early in 2016, Celltrion said that through 10 real-world studies spanning 600 irritable bowel disease patients in 8 countries, Remsima proved no less safe or effective for patients who switched to the biosim from Remicade.

These results can apply to Humira and Embrel as well. Essential point is that these drugs are not safe or effective for up to 30% of IBD patients.

C-NAG® is a safe and natural remedy approved to manage the symptoms of IBD and has none of the serious side effects of TNF inhibitors. Average monthly cost for C-NAG® is $60.00.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD),

Also known as chronic obstructive lung disease (COLD), and chronic obstructive airway disease (COAD), among others, is a type of obstructive lung disease characterized by chronically poor airflow. It typically worsens over time. The main symptoms include shortness of breath, cough and sputum production. Most people with chronic bronchitis have COPD.

Air pollution is the world’s deadliest environmental problem. One of out every six premature deaths in the world in 2015 — about nine million — was attributed to disease from toxic exposure, according to a major study in the Lancet medical journal. It kills 7 million people each year, or one in eight deaths globally and is a leading causal factor in COPD.

The diagnosis of COPD should be considered in anyone over the age of 35 to 40 who has shortness of breath, a chronic cough, sputum production, or frequent winter colds and a history of exposure to risk factors for the disease including smoking.

Worldwide, COPD affects 329 million people or nearly 5% of the population. In 2012, it ranked as the third-leading cause of death, killing over 3 million people. The number of deaths is projected to increase due to higher smoking rates and an ageing population in many countries. It resulted in an estimated economic cost of $2.1 trillion in 2010.

The main prescription drug for the treatment of COPD is BREO®. The U.S. market for BREO®
ELLIP TA® (fluticasone furoate and vilanterol) to treat airflow obstruction in patients with chronic obstructive pulmonary disease (COPD), including chronic bronchitis, is expected to generate annual sales of $337m in 2014, per an average of six analysts polled by Thomson Reuters, which some have projected will surpass $1 billion by 2018.

In December 2013 ANORA ELLIPTA® (umeclidinium/vilanterol) is a member of the bronchodilator combinations drug class and is commonly used for COPD. was approved in Canada for the long-term once-daily maintenance bronchodilator treatment of airflow obstruction in patients with chronic obstructive pulmonary disease (COPD), including chronic bronchitis and emphysema. Analysts have predicted peak sales of $1.4 billion for ANORO.

Warnings And Precautions from use of BREO® ELLIPTA® and ANORA ELLIPTA® include upper respiratory tract infection, headache, and oral candidiasis (thrush), bronchitis, sinusitis, cough, oropharyngeal pain, arthralgia, hypertension, influenza, pharyngitis, diarrhea, peripheral edema, and pyrexia. BREO® ELLIPTA® is approved in 42 countries for marketing and has been launched on 12 countries as of April 25, 2014.

GlaxoSmithKline, who recruited more than 16,000 patients in a monumental post-approval effort to distinguish BREO ELLIPTA by improving the mortality rates of high-risk patients with COPD, says that study failed. The study not only failed its primary endpoint, but it also failed key secondary endpoints, leaving the pharma giant with a disappointing product that has failed to deliver the kind of blockbuster revenue that was forecast in the heady days following its approval by the FDA.

SPIRIVA, a Bronchodilator from Boehringer Ingelheim, is a leading COPD drug in Canada with 2015 sales of CDN 192.6 million.

NAC®-1000 received its NPN on Oct. 9, 2013, and C-NAC® 500 on Sept. 17, 2014:

They are approved for the claims:

- Helps to relieve the symptoms of chronic bronchitis (COPD)
- A supportive therapy in the treatment of inflammation of the respiratory system
- Helps to reduce the severity & frequency of influenza-like symptoms.

C-NAC® 500 is the most cost-effective natural remedy approved to manage the symptoms of COPD with none of the serious side effects of prescription medications. The consumer cost based on promotional pricing is about $450.00 per year.
EYE HEALTH FORMULAS

A market of about $60 million in the US: General Eye Health; Helps maintain eye health now and in the future. Age Related Conditions; National Eye Institute (NEI) demonstrated that elevated levels of ocular vitamins (as in Vision Boost) can reduce the risk of developing age-related macular degeneration (AMD) by 25 percent. AMD affects more than 2 million individuals over age 50 in the United States; this number is expected to increase to almost 3 million by 2020. Cataracts affect more than 24 million and Glaucoma 2.7 million. Canadian figures would be approx. 12% of the USA figures.

Vision Boost™ is the most potent Eye Health formula available, containing 4 times the lutein/zeaxanthin of Ocuvite, the leading brand. Vision Boost™ is in the DRcap for enhanced bio-availability. The consumer cost based on promotional pricing is about $360.00 per year.

Vision Boost™ is an advanced eye formula based on the Schepens Eye Research Institute and Department of Ophthalmology, Harvard Medical School.

Vision Boost™ has an NPN for the claim: Helps to maintain eyesight in conditions associated with sunlight damage such as cataracts and age-related macular degeneration (AMD)

BENIGN PROSTATIC HYPERPLASIA (BPH)

Adenomatous prostatic growth is believed to begin at approximately age 30 years. An estimated 50% of men have histological evidence of BPH by age 50 years and 75% by age 80 years; in 40–50% of these men, BPH becomes clinically significant. BPH was one of the ten most prominent and costly diseases in men older than 50 years of age in a study in the United States.

In Canada with a total population of 35.54 million, 13.8 million are over 50 years of age of which approx. 49% are male. Of these 6.8 million males, approx. 3 million have clinically significant symptoms of BPH. In Canada, approx. 58% of people between the ages of 40-59 have unhealthy total cholesterol and approx. 45% of people between the ages of 60-79 have unhealthy total cholesterol. This represents 3 million Canadian men over 40 years of age who have elevated levels of cholesterol and is at risk for developing CHD. Most men over 50 years of age suffers from both BPH and elevated cholesterol and often takes separate drugs to help manage the symptoms, often with serious side effects.

THE FORMULA:

Prostate 2x® contains in one daily dose (4 DR capsules) 1,000 mg Plant Sterol Esters from non-GMO soy oil (Glycine max seed) ≥94% combined β Sitosterol, Campesterol and Stigmasterol, plus 600 mg Saw Palmetto fruit standardized extract (Serona Repens) ≥45% Free Fatty Acids which:

Prostate 2x® has an NPN for the claim:

• Helps relieve the urologic symptoms (e.g. weak urine flow, incomplete voiding, frequent daytime and night time urination) associated with mild to moderate benign prostatic hyperplasia. (BPH)

• Helps lower blood total and LDL cholesterol

• Helps maintain healthy cholesterol levels
NEW DRUG DEVELOPMENT COSTS and SAFETY CONCERNS

Major Drug companies spend billions of dollars to develop a drug to treat conditions such as IBD or COPD. In the USA in 2012, the fee for filing a New Drug Application (NDA) that requires clinical data was US$ 1,841,500 and only one in twenty new drug applications get final approval. For 2016 that cost has risen to US$ 2,377,200. The average drug developed by a major pharmaceutical company can cost up to $4 billion and can be as much as $11 billion: Of the one in twenty new drugs that get approval, only 3 out of 10 new drugs on the market recover their R&D investment. Additionally, 20% of new drugs eventually receive new black box warnings on the product monograph after marketing or are withdrawn from the market because of serious safety concerns.

The number of recalls and alerts for defective prescription drugs in Canada has soared over the last nine years, often highlighting problems that could put patients in significant danger, a new, British-led study reports.

The annual volume of faulty medicines disclosed by Health Canada more than tripled to 143 last year, from 42 in 2005, per the research, just published in the journal BMJ Open. Less than half as many cases became known in the U.K. over the same period, the team reported.


2. National Post: | November 24, 2014 |

NAG and NAC are natural substances for which no patent can be issued, and major drug companies are not likely to invest in something they cannot patent. Additionally, NAG and NAC are natural substances and, unlike prescription drugs there is no serious side effect. C-NAG® and C-NAC 500™ are proprietary formulas of Vitex for managing the symptoms of IBD and COPD but without the high development cost and financial risk associated with a New Drug Application.
INVESTOR INFATUATION UNTEMPERED

Healthcare stocks of all sizes continued to prove popular with investors last year, with all major indices moving higher in the US, Europe, and Japan.

The US continued to set the pace, and the ongoing biotech rally is clear in the performance of the NBI. While the index might not have repeated 2013’s 66% advance it ended the year at double the previous peak set at the height of the genomics bubble in 2000. In Europe healthcare stocks easily outpaced wider markets, which are still more concerned with sluggish economic growth and the rumblings of political unrest further east.

RECENT ACTIVITY IN THE INDUSTRY

An example of the value placed on Nutraceutical and health food based companies is the June 2015 sale of Burnaby based Vega Nutritional Products www.myvega.ca for $550 million US in cash (about $687 million Canadian) to industry giant, WhiteWave Foods (NYSE: WWAV). WhiteWave Foods is a leading consumer packaged food and beverage company in North America and Europe.

http://www.whitewave.com

Vega generated net sales of approx. US$100 million over the last twelve months, representing growth of over 30% on a constant currency basis, and grew at a faster rate on a year-to-date basis in 2015.

Vega’s growth momentum, coupled with its attractive margin profile and related financial benefits, make this a compelling investment opportunity for WhiteWave.

THE ACQUISITION OF JAMIESON WELLNESS


Jamieson sold $300-million worth of its shares though its initial public offering (TSX: JWEL-T) and a secondary offering priced at $15.75 per share. About an hour after markets opened, its shares were trading at $17.70, up 12.4 per cent. The company plans to use the money raised from its share of the offering to repay debt and its preferred shareholders.

At July 6, 2018 the shares were trading at $26.00, a one-year increase of 61%

Jamieson Wellness is relying on an ageing population and rising disposable incomes to help accelerate a five-year expansion plan, the head of the company says as its stock soared on its debut Friday July 7, 2017 on the Toronto Stock Exchange.

For nearly a century, the Toronto-based maker of vitamins, minerals and other supplements has capitalized on consumer appetite to live healthy – and it is counting on that to grow.

“There is a global health and wellness mega-trend that is going on that affects everyone, no matter which country you’re in,” president and CEO Mark Hornick said in an interview before the company went public.

“People want to live longer, and they want a higher quality of life. They want to prevent health concerns before they become problematic.”

Jamieson says it controls about 25 per cent of the vitamin market in Canada. It also sells other products including natural sleep aids, herbal extracts and natural beauty and skin care products. It has a revenue target of $390-million for 2017, with expectations of $410-million in 2021, according to regulatory filings.
Jamieson says in addition to increasing its sales in Canada, where it has more than 500 products in 10,000 stores, it is focused on growing its presence internationally, particularly in markets such as Asia, Eastern Europe, and the Middle East.

The company already exports to more than 40 countries, with some of its oldest markets being Trinidad, Jordan, and Hong Kong.

Hornick says the brand has “premium” cachet in the international market because its production meets stringent Health Canada regulations.

Jamieson makes about 90 per cent of its products at three facilities in Windsor, Ont., and Toronto, and has no expectations of moving its factories overseas. It currently employs about 800 people.

Earlier this year, Jamieson acquired sports nutrition company Body Plus, and is planning to launch a line of vitamin-enhanced protein powder next year. It also is slated to bring a new cough and cold prevention pill on the market in the fall.

Hornick says CCMP is expected to hold about a 44 per cent stake in the company after the IPO on a diluted basis while management will hold about eight per cent.

CONTINUED INVESTOR INTEREST IN DIETARY SUPPLEMENTS


- **Celsius Holdings Inc.** [www.celsius.com](http://www.celsius.com) Boca Raton energy drink maker Celsius raises another $15 million in March 2017, from Hong Kong billionaire Li Ka Sheng, following a $16 million investment in 2015

- **Deerland Enzymes & Probiotics** [www.deerlandenzymes.com](http://www.deerlandenzymes.com) announced a private equity investment from RoundTable Health Partners (June 2017)


NESTLÉ EXTENDS CONSUMER HEALTHCARE PORTFOLIO BY AGREEING TO ACQUIRE ATRIUM INNOVATIONS


Vevey, Switzerland, Dec 5, 2017

Nestlé today announced that it agreed to acquire privately-held Atrium Innovations (owner of Garden of Life, among other brands), a global leader in nutritional health products, from a group of investors led by Permira Funds for USD 2.3 billion in cash. Atrium’s 2017 sales are expected to reach almost USD 700 million.
The move supports Nestlé’s pursuit of growth opportunities in consumer healthcare to complement the company’s focus on its high-growth food and beverage categories. The transaction is expected to close in the first quarter of 2018 following the completion of customary approvals and closing conditions.

Upon closing, Atrium, with its corporate offices in Quebec, Canada, will become part of Nestlé Health Science. Its existing management team will continue to manage the business, led by Peter Luther, Atrium Innovations President and Chief Executive Officer.

Greg Behar, Nestlé Health Science Chief Executive Officer said: “We value Atrium’s history as a highly successful company and welcome its 1,400 employees to the Nestlé family. Their brands are a natural complement to our Consumer Care portfolio, which offers nutritional solutions in the areas of Healthy Aging, Healthy Growing, Gut Health and Obesity Care. Atrium’s portfolio will extend our product range with value-added solutions such as probiotics, plant-based protein nutrition, meal replacements and an extensive multivitamin line, enabling consumers to address their health and wellness goals.”

Behar added, “Atrium’s established brands are in attractive categories and have the potential for continued robust growth as part of Nestlé through category, channel and geographic expansion. It also represents additional offerings in the segment for non-GMO, organic and natural supplements, a fast-growing consumer trend, as well as a recent sales channel.”

Peter Luther said: “Since Atrium was established in 1999, we provide premium-quality, science-based, professionally recognized products to consumers and healthcare practitioners. We are very pleased to be joining Nestlé Health Science as we share a common purpose of helping people lead healthier lives by providing “good-for-you” products made with the highest standards for quality and efficacy. Nestlé will provide Atrium with the resources to accelerate the growth of our brands and reach more people globally.”

Atrium’s largest brand, Garden of Life®, is the #1 brand in the natural supplement industry in the U.S. Garden of Life, headquartered in Palm Beach Gardens, Florida, manufactures certified organic, non-GMO supplements that are sold in more than 14,000 health food stores and online in the U.S., as well as select markets internationally.

Pure Encapsulations® is a full line of hypoallergenic, research-based dietary supplements and is the #1 recommended brand in the U.S. practitioner market. Pure Encapsulations, headquartered in Sudbury, Massachusetts, product line is free from common food allergens, GMOs, fillers, binders, and artificial colors and is sold in the U.S. via healthcare practitioners, online as well as in pharmacies in several markets in Europe.

Other Atrium portfolio includes strong specialty brands like Wobenzym®, Douglas Laboratories®, Genesta Brands™, Orthica®, AOV®, Minami®, Klean Athlete®, Pharmax and Trophic™.
**MERGERS & ACQUISITIONS:**

- Large companies are focusing on acquisition of regional players in the dietary supplementary market.
- In 2019, Glanbia Nutritionals has agreed to acquire Watson, Connecticut-based manufacturer and supplier of high-quality custom nutrient premix and material conditioning solutions for the nutrition, food and beverage, personal care and supplement industries.
- In 2019, PepsiCo has agreed to buy CytoSport Inc, including the Muscle Milk and Evolve Protein brands, from Hormel Foods Corporation.
- In 2019, Mondelez International has taken a minority investment in Uplift Food, a U.S.-based, early-stage start-up focusing on prebiotic functional foods.
- In 2018, Pfizer Inc. and GlaxoSmithKline plc have entered into an agreement to create a premier global consumer healthcare company.
- Ingredient manufactures were also keen on major investments to strengthen their market share.
- In 2019, ADM acquired Florida Chemical Company (FCC), one of the world’s largest natural citrus oils and ingredients manufacturers.
- In 2018, Ingredion invested USD 140 Million to Accelerate Growth in plant-based protein.
- In February 2016, NBTY, Inc., agreed to sell Vitamin World, a U.S retail business to Centre Lane Partners. This agreement is a standalone business with investment and resources tailored to retail business operations. This strategy is expected to benefit the company to position itself in the market with long-term growth and success.

**MEDIA THAT DISTRIBUTE DIRECT TO CONSUMER DRUG ADS**

Channels used to distribute DTCPA most commonly include television, print (magazines, newspapers), radio, the Internet, and other forms of mass media (billboards and direct mailings). Promotional brochures supplied to health care professionals and to retailers to distribute to client/patients can also be considered DTCPA, even though they aren’t provided directly to the consumer by the manufacturer.

Many marketers are also beginning to recognize the enormous potential of online DTCPA, which reaches millions of potential consumers globally. Though the clear majority of DTCPA budgets are still allocated to traditional media (television, newspaper, magazine, radio), marketers are beginning to shift some of their promotional spending to digital promotion, such as product Web sites, online display advertising, search engine marketing, social media campaigns, and mobile advertising.

With the medical claims now allowed by Health Canada for C-NAG®, C-NAC® 500 and other Vitex products, Vitex can capitalize on the tremendous sales potential provided by patients with inflammatory bowel disease, Celiac disease (C-NAG®) and to those with acute bronchitis and Chronic Obstructive Pulmonary Disease (COPD) (C-NAC® 500). In Canada alone, it is estimated there are over 2 million sufferers with these conditions.

Major pharmaceutical companies direct their advertising budgets mainly through TV and Magazines, and more recently through internet marketing. Vitex’s advertising approach will be to focus on TV commercials and internet advertising to direct the consumer directly to its website www.C-NAG.com where they can purchase the products. This approach will bring the maximum return to Vitex as the products will be sold at retail featuring promotional pricing. Vitex will enjoy the retail profit, the wholesale profit, and the manufacturing profit.

For C-NAG® these profits will be 87% of gross revenue and for C-NAC 500™, 83.5% of gross revenue.
Monday, March 7, 2016 | By Beth Snyder Bulik

More drugs have come to mean more DTC advertising. And 2015 was a record year for both.

Pharma spent $5.17 billion on direct-to-consumer advertising last year, per Nielsen's calculations, nearing the previous pinnacle of $5.4 billion set in 2006. That's a 14.9% increase over the $4.5 billion spent in 2014, capping three years of DTC ad gains since a low of $3.4 billion in 2012.

"Drug DTC spending all depends on new product launches. It's no longer 'are they doing it?' They are doing it," said Bob Ehrlich, chairman-CEO of DTC Perspectives, a DTC publishing, conference, training, and consulting company. "There is pressure to stay competitive with the competition, but also “the recognition that advertising does work.”"

For every $1.00 spent advertising prescription drugs, it is estimated to increase their retail sales by $4.20.\(^1\)

1) Henry J. Kaiser Family Foundation,
"Impact of Direct-to-Consumer Advertising on Prescription Drug Spending"

For example, AbbVie spent $US 118 million on advertising Humira in 2015 and generated $US 8.4 billion in sales. This is equivalent to 73 times return on advertising dollars.

The marketing of Prostate 2x\(^\text{®}\), C-NAC\(^\text{®}-\text{500}, \)Vision Boost\(^\text{™}, \)Gluco Balance, Cardio Boost, Gamma E Alpha\(^\text{™}, \)Restore, Vegan Omega 3-6-9\(^\text{™}\) and other Vitex products will follow the successful launch of C-NAG\(^\text{®}\) and will generate more revenue.

Sales from other Vitex products such as C-NAC\(^\text{®}-\text{500}, \)Health Pac\(^\text{™}, \)Restore\(^\text{™}, \)CoQ10 and Vision Boost\(^\text{™}\), which will be promoted directly to C-NAG\(^\text{®}\) clients (promotional brochures will be included with each order), will add substantial additional revenue. Sales growth is estimated at a modest 10% growth per year, but the potential is much higher.

**NEW PERSPECTIVES ON CONSUMER HEALTH IN PHARMERING MARKETS\(^1\)**

The global market for consumer medicines (over the counter medicines, OTC) is worth $111 B in sales and continues to demonstrate robust growth potential, with growth over 5% in the latest year. Pharmerging countries are at the forefront of this robust growth, fueled by higher out-of-pocket expenditure, favorable demographic trends, and a growing and increasingly prosperous middle class. In these markets, distant from the corporate headquarters of multinational companies, OTC is growing faster than in mature markets, and consequently has a larger share of the total healthcare market.

Vitex products are in the class of “Consumer Health”, a US$ 111 Billion worldwide industry representing 20% of total Pharma Sales in emerging countries such as Vietnam and China. Vitex has established a foundation in Vietnam and will begin supplying the Vietnam market once registration by the new owners is completed in early 2019.
IMS HEALTH FORECASTS GLOBAL DRUG SPENDING TO INCREASE 30 PERCENT BY 2020, TO $1.4 TRILLION, AS MEDICINE USE GAP NARROWS.

Danbury, CN, November 18, 2015 – More than half of the world’s population will live in countries where medicine use will exceed one dose per person per day by 2020, up from 31 percent in 2005, as the “medicine use gap” between developed and pharmerging markets narrows. Per new research released today by the IMS Institute for Healthcare Informatics, total spending on medicines will reach $1.4 trillion by 2020 due to greater patient access to chronic disease treatments and breakthrough innovations in drug therapies. Global spending is forecast to grow at a 4-7 percent compound annual rate over the next five years.

The report Global Medicines Use in 2020: Outlook and Implications, found that total global spend for pharmaceuticals will increase by $349 billion on a constant-dollar basis, compared with $182 billion during the past five years. Spending is measured at the ex-manufacturer level before adjusting for rebates, discounts, taxes and other adjustments that affect net sales received by manufacturers. The impact of these factors is estimated to reduce growth by $90 billion, or approximately 25 percent of the growth forecast through 2020.

During the next five years, we expect to see a surge of innovative medicines emerging from R&D pipelines, as well as technology-enabled advances that will deliver measurable improvements to health outcomes,” said Murray Aitken, IMS Health senior vice president and executive director of the IMS Institute for Healthcare Informatics. “With unprecedented treatment options, greater availability of low-cost drugs and better use of evidence to inform decision making, stakeholders around the world can expect to get more ‘bang for their medicine buck’ in 2020 than ever before.”

IN ITS LATEST STUDY, THE IMS INSTITUTE HIGHLIGHTS THE FOLLOWING FINDINGS:

Global medicine uses in 2020 will reach 4.5 trillion doses, up 24 percent from 2015. Most of the global increase in use of medicines over the next five years will take place in pharmerging markets, with India, China, Brazil, and Indonesia representing nearly half of that growth. Volumes in developed markets will remain relatively stable and trend toward original branded products as use of specialty medicines becomes more widespread. Generics, non-original branded and over the counter (OTC) products will account for 88 percent of total medicine use in pharmerging markets by 2020 and provide the greatest contribution to increased access to medicines in those countries. Newer specialty medicines, which typically have low adoption rates in pharmerging countries lacking the necessary healthcare infrastructure represent less than 1 % of the total volume in those markets.

Global spending will grow by 29-32 percent through 2020, compared with an increase of 35 percent in the prior five years. Spending levels will be driven by branded drugs primarily in developed markets, along with the greater use of generics in pharmerging markets—offset by the impact of patent expires. Brand spending in developed markets will rise by $298 billion as new products are launched and as price increases are applied in the U.S., most of which will be offset by off-invoice discounts and rebates. Patent expiries are expected to result in $178 billion in reduced spending on branded products, including $41 billion in savings on biologics as biosimilars become more widely adopted. Many of the newest treatments are specialty medicines used to address chronic, rare, or genetic diseases and yielding significant clinical value. By 2020, global spending on these medicines is expected to reach 28 percent of the total.
More than 90 percent of U.S. medicines will be dispensed as generics by 2020. Generic medicines will continue to provide most of the prescription drug usage in the U.S., rising from 88 percent to 91-92 percent of all prescriptions dispensed by 2020. Spending on medicines in the U.S. will reach $560-590 billion, a 34 percent increase in spending over 2015 on an invoice price basis. While invoice price growth – which does not reflect discounts and rebates received by payers – is expected to continue at historic levels during the next five years, net price trends for protected brands will remain constrained by payers and competition, resulting in 5-7 percent annual price increases. The impact of the Affordable Care Act (ACA) will continue to influence medicine spending during the next five years largely due to expanded insurance coverage. By 2020, there will be broad adoption of ACA provisions that encourage greater care coordination and movement of at least one-third of spending to an outcomes or performance basis.

More than 225 medicines will be introduced by 2020, with one-third focused on treating cancer. Disease treatments in 2020 will be transformed by the increased number and quality of new drugs in clusters of innovation around cancer, hepatitis C, autoimmune disorders, heart disease and an array of rare diseases. During the next five years, an additional 75 new orphan drugs are expected to be available for dozens of therapeutic areas that currently have limited or no treatment options. By 2020, technology will be enabling more rapid changes to treatment protocols, increasing patient engagement and accountability, shifting patient-provider interaction, and accelerating the adoption of behavior changes that will improve patient adherence to treatments. Every patient with multiple chronic conditions will have the potential to use wearable, mobile apps, and other technologies to manage their health, interact with providers, fellow patients, and family members. The ubiquity of smartphones, tablets, apps, and related wearable devices, as well as electronic medical records and exponentially increasing real-world data volumes, will open new avenues to connect healthcare while offering providers and payers new mechanisms to control costs.

DIETARY SUPPLEMENTS MARKET SIZE WORTH $278.02 BILLION BY 2024
February 2018 | Report Format: Electronic (PDF)

The global dietary supplements market is expected to reach USD 278.02 billion by 2024, at a CAGR of 9.6% from 2016 to 2024, according to a report by Grand View Research, Inc. Rising obesity rates in developed economies including the U.S. and Germany as a result of fluctuating dieting patterns along hectic work style among adults is expected to prompt the spending on nutritional supplements. Over the past few years, the high adoption rate of fast foods along sedentary lifestyle in emerging economies including China and India has led to the increase in the prevalence of cardiovascular disorders, diabetes, and obesity. As a result, the individuals among high socio-economic and upper-middle-class income groups are expected to perceive the nutraceuticals including dietary supplements as the alternatives to prescribed drugs.

Vitamin supplements market revenue was more than USD 50 billion in 2015. Rising application of sports-related supplements for old-aged groups coupled with targeting the supplements against muscle wastage and maintenance of healthy joints is expected to have a strong impact on vitamin ingredient category in the near future.

NEW YORK, March 25, 2019 (GLOBE NEWSWIRE) -- According to the current analysis of Reports and Data, the global Dietary Supplements Market was valued at USD 124.8 Billion in 2018 and is expected to reach USD 210.3 Billion by year 2026, at a CAGR of 6.4%.

Key findings from the report suggest:

- Dietary supplements market in North America was the largest with a share of 2% in 2018. The market here is projected to grow at a CAGR of 5.7% during the forecast period.
- In 2018, the U.S. supplement market sales grew to USD 42.6 billion, at a CAGR of 5.3% during the forecast period.
- Asia Pacific Market is expected to grow at the highest CAGR of 9.2% during the forecast period. Increasing disposable incomes in developing nations such China, and India is likely to propel the market growth.
- The Chinese market for dietary supplements was USD 21.3 billion 2018. China is the second largest consumer of dietary supplements after the USA.
- By ingredient type, vitamin supplements market was the largest segment in 2018, growing at a CAGR of 5.5% during 2019–2026.
- Under the application segment, the sports supplement sector is expected to grow at the highest CAGR of 8.4% during 2019–2026.
- By distribution channel, the online sector is projected to grow at the fastest rate during the forecast period.
- Due to increasing costs of healthcare, people are turning towards dietary supplements to help them stay healthy.
- These supplements provide various health benefits such as strengthening the immune system, protection from cold and flu, prevention of migraine headaches, treat of arthritis, rheumatic diseases, allergies, lower cholesterol, triglyceride levels and blood pressure, cardiovascular diseases, and cognitive diseases at lower costs.
- Dietary supplementary sales for children are expected to rise during the forecast period. It was observed that Chinese parents were willing to spend relatively large amounts of money on the health of their children in relation to family income.

Further key findings from the report suggest:

- Tablets are projected to generate a revenue of exceeding USD 100 billion by the end of 2025. Increased prevalence of multivitamin products in the form of tablets on account of comfortable dosage patterns is projected to have a substantial impact over the next eight years.
- Pregnant women segment reported a revenue of USD 12.55 billion in 2015. Rising importance of folic acid-based nutraceuticals for fetal development during the initial stage of pregnancy is projected be a key market trend.
- Asia Pacific is expected to foresee the fastest growth at a CAGR of 11.2% from the period of 2016 to 2024. The strong foothold of middle-class income groups in China, India, Bangladesh, Pakistan, and Thailand is expected to force the nutraceuticals manufacturers to invest in the above-mentioned countries.
- Key manufacturers dominating the Dietary Supplement market are Amway, Archer Daniels Midland Company, Abbott Laboratories, Bayer, Glanbia, Arkopharma Laboratories Pharmaceuticals, Glaxo SmithKline. Strengthening product length and capital expansion are expected to remain a key critical success factor for the industry for coming years.
FINANCE

Vitex’s plans to fund its growth strategy in 2019/2020 from $13,357,000 in new equity capital.

Vitex will launch a national advertising and marketing program, initially to focus on C-NAG® and Sweet ’n Safe directly to consumers via Internet marketing and to list with national pharmacy and grocery chains across Canada.

SOURCE OF FUNDS:

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrie Carlsen (Initial capital)</td>
<td>$ 200,100</td>
</tr>
<tr>
<td>Bao Chau Tran (initial capital)</td>
<td>200,000</td>
</tr>
<tr>
<td>Bao Chau Tran (additional equity capital)</td>
<td>440,000</td>
</tr>
<tr>
<td>Other Investors</td>
<td>145,000</td>
</tr>
<tr>
<td>Friends &amp; Family (482 units subscribed as at Sept. 30, 2018)</td>
<td>482,000</td>
</tr>
<tr>
<td>Total to September 30, 2018</td>
<td>1,487,100</td>
</tr>
<tr>
<td>Private Placement (280 units x 2,000 shares + warrants)</td>
<td>2,800,000</td>
</tr>
<tr>
<td>IPO</td>
<td>5,000,000</td>
</tr>
<tr>
<td>Redemption of Warrants</td>
<td>5,557,000</td>
</tr>
<tr>
<td>Total New Capital</td>
<td>$ 13,357,000</td>
</tr>
</tbody>
</table>

APPLICATION OF FUNDS:

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition of the Vitex Brand</td>
<td>$ 200,000</td>
</tr>
<tr>
<td>Term Loan (Enerex) (Note 1)</td>
<td>400,000</td>
</tr>
<tr>
<td>Operating deficit (net after depreciation) at September 30, 2016</td>
<td>291,280</td>
</tr>
<tr>
<td>Marketing of C-NAG</td>
<td>700,000</td>
</tr>
<tr>
<td>Marketing of Sweet ’n Safe</td>
<td>700,000</td>
</tr>
<tr>
<td>Inventory increase (Canada)</td>
<td>900,000</td>
</tr>
<tr>
<td>Down Payment on building</td>
<td>2,600,000</td>
</tr>
<tr>
<td>Building South Ocean Nutraceutical (Canada) Ltd</td>
<td>2,042,000</td>
</tr>
<tr>
<td>Working capital</td>
<td>7,010,820</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$ 14,844,100</td>
</tr>
</tbody>
</table>

Founding Shareholders (Note 2) 4,550,000 shares (40.94%)
Friends and family (482 x 2,000 shares) (Note 3) 964,000 shares (8.67%)
Private Placement (280 x 2000 shares) 5,600,000 shares (50.39%)

Shares before IPO 11,114,000 shares (100%)

Founding Shareholders 4,550,000 shares (18.40%)
Friends and family (482 x 2,000 shares) 964,000 shares (3.90%)
Private Placement 5,600,000 shares (22.65%)
IPO 2,500,000 shares (10.11%)
Redemption of Warrants 11,114,000 shares (44.95%)

Total class A NPV common shares after IPO 24,728,000 shares (100%)

Financial Statements: Year ending September 30, 2016 Appendix 1
Note:

1. The term loan to Enerex Botanicals Ltd. is in default and the promissory note of more than $627,329 in principal and accrued interest is due (at June 30, 2019). A NOTICE OF CIVIL CLAIM No. S 149301 was filed in BC Supreme Court on December 2, 2014 against Enerex to collect the full amount. A NOTICE OF INTENTION TO PROCEED was filed in the Supreme Court on June 28, 2018.

A Supreme Court Notice of Trial entered on December 27, 2018, has been set for August 6-9, 2019 in Vancouver, BC. If a Judgment (expected) is obtained against Enerex then a likely result would be to acquire Enerex to satisfy the debt.

2. February 17, 2015: Shares were split 100/1. An option to existing shareholders to allow the purchase of an equal number of shares for $0.50 each for a period of 1 year following the listing of Vitex on a Canadian stock exchange was passed on April 7, 2015.

3. 400 units consisting of 2,000 class A common shares at a price of $1,000 ($0.50 per share) with a warrant to acquire an additional 2,000 shares at $1,000 ($0.50 per share) for a period of 1 year following the listing of Vitex on a Canadian stock exchange. As at September 30, 2018, 482 units were fully subscribed.

4. A suitable building (approx. 35,000 sq. ft.) will be leased or purchased. The building will be designed and built to Vitex specification to accommodate the offices, laboratory, and production area to GMP standard.

5. Summary does not include expected net income of $5,609,000 from 1st year of operations (page 67 of the Business Plan). These funds can be applied to increase the down payment on the factory or other uses as determined by the directors.

ORDER OF APPLICATION OF FUNDS:

When the $2,800,000 private placement is completed, Phase 1 will proceed which includes initial marketing of C-NAG® and Sweet 'n Safe in Canada and internet sales in USA and acquiring $900,000 in inventory to service C-NAG and Sweet 'n Safe orders and for other Vitex products. Purchasing land and constructing a building to GMP standard and installing the manufacturing and laboratory equipment will follow the IPO.

<table>
<thead>
<tr>
<th>Phase 1 (Private Placement)</th>
<th>$ 2,800,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Marketing of C-NAG and Sweet 'n Safe</td>
<td>1,400,000</td>
</tr>
<tr>
<td>2. acquiring inventory</td>
<td>900,000</td>
</tr>
<tr>
<td>3. Audit September 30. 2019</td>
<td>50,000</td>
</tr>
<tr>
<td>4. Enter the USA on-line market with C-NAG (Appendix 16 &amp; 17)</td>
<td>100,000</td>
</tr>
</tbody>
</table>

Phase 2: IPO ($5,000,000) + Redemption of Warrants ($5,557,000) $ 10,557,000

<table>
<thead>
<tr>
<th>Phase 2: IPO ($5,000,000) + Redemption of Warrants ($5,557,000)</th>
<th>$ 10,557,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Brokers fees (6%)</td>
<td>300,000</td>
</tr>
<tr>
<td>6. Building South Ocean Nutraceutical (Canada) Ltd</td>
<td>2,042,000</td>
</tr>
<tr>
<td>7. Down Payment on building</td>
<td>2,600,000</td>
</tr>
<tr>
<td>8. Working Capital</td>
<td>5,965,000</td>
</tr>
</tbody>
</table>
Marketing of C-NAG®

Vitex proposes to use Media Solutions to use CBC prime time national television combined with Internet (People spend more time with TV & Internet than any other media) to drive retail & online sales of C-NAG and other Vitex formulas with a monthly budget of $200,000, generating over 1.7 million impressions monthly, or over 20 million annually. This will generate significant Brand Exposure for Vitex and supports projections on page 69. An overview is at Appendix 15.

Risks

The information and estimates contained in this business plan rest upon the following assumptions and consider the following risks:

Management

Vitex will rely on Barrie Carlsen and his team for management and for his ability to develop new products. As founder and former president for 16 years of Quest Vitamins, and for over 10 years as Managing Director of Enerex, Mr. Carlsen has the necessary experience to direct Vitex through its growth plans.

Regulatory Environment

Health Canada could implement more stringent regulations or prohibit non-prescribed use of certain substances; this, however, would affect the entire industry and would not unduly affect Vitex. Once a product has received an NPN number it is unlikely that it would be ordered off the market.

PROJECTED INCOME VITEX SALES CANADA

<table>
<thead>
<tr>
<th>Projected Income Statement - Sales ($'000s)</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (Canadian Sales)</td>
<td>5,000</td>
<td>6,000</td>
<td>7,000</td>
<td>8,000</td>
<td>9,000</td>
</tr>
<tr>
<td>Cost of sales (50%)</td>
<td>2,500</td>
<td>3,000</td>
<td>3,500</td>
<td>4,000</td>
<td>4,500</td>
</tr>
<tr>
<td>Gross margin (50%)</td>
<td>2,500</td>
<td>3,000</td>
<td>3,500</td>
<td>4,000</td>
<td>4,500</td>
</tr>
<tr>
<td>Revenue (export Sales)</td>
<td>500</td>
<td>1,000</td>
<td>1,500</td>
<td>2,000</td>
<td>2,500</td>
</tr>
<tr>
<td>Cost of sales (75%)</td>
<td>375</td>
<td>750</td>
<td>1,125</td>
<td>1,500</td>
<td>1,875</td>
</tr>
<tr>
<td>Gross margin (25%)</td>
<td>125</td>
<td>250</td>
<td>375</td>
<td>500</td>
<td>625</td>
</tr>
<tr>
<td>Revenue (Total, Canada + export)</td>
<td>5,500</td>
<td>7,000</td>
<td>8,500</td>
<td>10,000</td>
<td>11,500</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>2,875</td>
<td>3,750</td>
<td>4,625</td>
<td>5,500</td>
<td>6,375</td>
</tr>
<tr>
<td>Gross margin</td>
<td>2,625</td>
<td>3,250</td>
<td>3,875</td>
<td>4,500</td>
<td>5,125</td>
</tr>
<tr>
<td>Head office expenses (5%)</td>
<td>275</td>
<td>350</td>
<td>425</td>
<td>500</td>
<td>575</td>
</tr>
<tr>
<td>Depreciation and amortization</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Sales &amp; Marketing (10%)</td>
<td>550</td>
<td>700</td>
<td>850</td>
<td>1,000</td>
<td>1,150</td>
</tr>
<tr>
<td>Salaries and Benefits (5%)</td>
<td>275</td>
<td>350</td>
<td>425</td>
<td>500</td>
<td>575</td>
</tr>
<tr>
<td>Gross Income</td>
<td>1,475</td>
<td>1,800</td>
<td>2,125</td>
<td>2,450</td>
<td>2,925</td>
</tr>
<tr>
<td>Income taxes (26%)</td>
<td>383</td>
<td>468</td>
<td>552</td>
<td>637</td>
<td>760</td>
</tr>
<tr>
<td>Net Profit</td>
<td>1,092</td>
<td>1,332</td>
<td>1,573</td>
<td>1,813</td>
<td>2,165</td>
</tr>
</tbody>
</table>

Canadian sales assume that the national media advertising for C-NAG and Sweet ‘n Safe will generate strong brand awareness for the Vitex brand and that the major drug store and grocery chains across Canada will stock the Vitex Line. This will in turn encourage the Health food stores and independent pharmacies to stock the Vitex products as well.
Notes to Projected Financial Statements

1. Head Office Costs: The primary head office cost is salary.

2. Other expenses: combined advertising and marketing costs will average 5% of net sales. Depreciation is calculated at 20% per year on a declining balance basis.

3. Profits: Profits after taxes are projected to increase to more than 22% of annual sales by year 5.

4. Projected profits of Agly-Gen are shown at page 74

5. Income taxes: Tax is calculated at the rate of 26% (15% Federal tax + 11% B.C. tax).

6. Working capital: Working capital projections assume that accounts receivables are paid in 45 days; that inventories average 120 days of sales and payables are paid in 45 days.

7. Inventory: Currently, inventory turnover is 2 times per year. Dating is not an issue since most products have a 3-year shelf life. As volumes increase, inventory turnover is expected to be 4 times per year.

8. Export sales: are based on projections from the management of Vitex Vietnam.

9. Domestic sales: Partly depend on the major pharmacy chains like Shoppers Drug Mart, London Drugs and others agreeing to stock the Vitex products once the national advertising is underway for C-NAG® Prostate 2x, Sweet 'n Safe and other Vitex products.

PROJECTED INCOME STATEMENT FOR RETAIL C-NAG & Sweet ’n Safe SALES

<table>
<thead>
<tr>
<th>Projected Income Statement - Internet ($'000s)</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue C-NAG® (internet)</td>
<td>10,861</td>
<td>+ 10%</td>
<td>+ 10%</td>
<td>+ 10%</td>
<td>+ 10%</td>
</tr>
<tr>
<td>Revenue Sweet ‘n Safe (internet)</td>
<td>9,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total sales</td>
<td>19,861</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of C-NAG sales (12%)</td>
<td>1,303</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross margin (88%)</td>
<td>9,558</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of Sweet ’n Safe (34.8%)</td>
<td>3,132</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Margin (65.2%)</td>
<td>5,868</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Advertising (25%)</td>
<td>5,186</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head office expense (12%)</td>
<td>1,636</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shipping cost (6.1%)</td>
<td>1,210</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Income</td>
<td>8,996</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net income (after 26% tax)</td>
<td>5,609</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. (a) Approx. 170,000 people in Canada are being treated for Crohn’s Disease.
   (b) Approx. 247,000 people in Canada are being treated for IBD which includes Crohn’s Disease, Ileitis, colitis, diverticulitis, and other bowel disorders.
   (b) Approx. 330,000 people in Canada have Celiac Disease
   (c) Approx. 340,000 people in Canada have Rheumatoid Arthritis.

2. Sales estimates assume that 10% of CD patients or 17,000 people will use C-NAG® based on the new claims regarding treating Inflammatory Bowel Disease that can now be made. No sales estimate is made for other variants of IBD, or for Celiac Disease or Rheumatoid Arthritis.

3. Current cost of one bottle of 180 caps (one-month supply) is $6.72 including active ingredient, DRcaps + bottle and label. Retail selling price is $75.00 less $18.75 for a net introductory price of $56.25 or $675 annually. This cost can be reduced by up to 30% with the expected economies of scale and production profits when Vitex begins manufacturing in its own GMP facility.

4. Retail sales are mainly internet based through www.C-NAG.com and through direct marketing to various Crohn’s support groups and celiac support groups via Facebook and other social networks.
PROJECTED INCOME STATEMENT FOR RETAIL Prostate 2x® SALES

<table>
<thead>
<tr>
<th>Projected Income Statement - Internet ($'000s)</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue Prostate 2x® (retail)</strong></td>
<td>9,000</td>
<td>10,000</td>
<td>11,000</td>
<td>12,000</td>
<td>13,000</td>
</tr>
<tr>
<td><strong>Cost of sales (18%)</strong></td>
<td>1,620</td>
<td>1,800</td>
<td>1,980</td>
<td>2,160</td>
<td>2,340</td>
</tr>
<tr>
<td><strong>Gross margin (82%)</strong></td>
<td>7,380</td>
<td>8,200</td>
<td>9,020</td>
<td>9,840</td>
<td>10,660</td>
</tr>
<tr>
<td><strong>Head office expenses (5% of sales)</strong></td>
<td>450</td>
<td>500</td>
<td>550</td>
<td>600</td>
<td>650</td>
</tr>
<tr>
<td><strong>Sales and marketing (25% of sales)</strong></td>
<td>2,250</td>
<td>2,500</td>
<td>2,750</td>
<td>3,000</td>
<td>3,250</td>
</tr>
<tr>
<td><strong>Salaries and Benefits (10% of sales)</strong></td>
<td>90</td>
<td>1,000</td>
<td>1,100</td>
<td>1,200</td>
<td>1,300</td>
</tr>
<tr>
<td><strong>Shipping cost (7% of sales)</strong></td>
<td>620</td>
<td>700</td>
<td>770</td>
<td>840</td>
<td>910</td>
</tr>
<tr>
<td><strong>Gross Income</strong></td>
<td>3,160</td>
<td>3,500</td>
<td>3,850</td>
<td>4,200</td>
<td>4,550</td>
</tr>
<tr>
<td><strong>Income taxes (26%)</strong></td>
<td>82</td>
<td>910</td>
<td>1,001</td>
<td>1,092</td>
<td>1,183</td>
</tr>
<tr>
<td><strong>Net income</strong></td>
<td>2,338</td>
<td>2,590</td>
<td>2,849</td>
<td>3,118</td>
<td>3,367</td>
</tr>
</tbody>
</table>

1. Approx. 3,000,000 men in Canada have Benign Prostatic Hyperplasia (BPH) and about 3,000,000 men have elevated cholesterol levels. Most men suffer from both conditions.

2. Prostate 2x® sales estimates assume that at least 1% of men with BPH and high cholesterol or 30,000 men will use Prostate 2x® based on the claims regarding BHP and High Cholesterol that can now be made. Cost of one bottle of 120 caps (one-month supply) is $5.43 including active ingredients, DRcaps + bottle and label. Retail promotional selling price is $40.00 less $10.00 for a net introductory price of $30.00 monthly or $360.00 annually. This cost can be reduced by 40% with the expected economies of scale and production profits.

3. Retail sales are mainly internet based through www.Prostate2x.com through direct marketing to men with BPH and high cholesterol and via Facebook and other similar social networks.

4. Note: If C-NAG® and Prostate 2x® are marketed simultaneously then savings of about 25 % would be realized on Head Office expense and Salaries and Benefits. This would amount to a $800,000 after tax increase in the combined profits the first year.
# PROJECTED INCOME STATEMENT FOR INTERNET C-NAG® SALES

PROJECTIONS FROM C-NAG® ADVERTISING:

<table>
<thead>
<tr>
<th>INITIAL BUDGET ($700,000)</th>
<th>ADVERTISING</th>
<th>SALES</th>
<th>PROFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV advertisement production cost:</td>
<td>$100,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Quarter media advertising</td>
<td>600,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial Retail sales ($600,000 x 4.20)</td>
<td></td>
<td>2,520,000</td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $ 302,000</td>
<td></td>
<td></td>
<td>1,518,000</td>
</tr>
<tr>
<td>Profit (before operation expense)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Quarter media advertising (25% of sales)</td>
<td>630,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail sales ($630,000 x 4.2)</td>
<td></td>
<td>2,646,000</td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $317,500</td>
<td></td>
<td></td>
<td>1,728,500</td>
</tr>
<tr>
<td>Profit (before operation expense)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Quarter Media advertising (25% of sales)</td>
<td>661,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail sales ($661,500 x 4.2)</td>
<td></td>
<td>2,778,000</td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $333,400</td>
<td></td>
<td></td>
<td>1,844,600</td>
</tr>
<tr>
<td>Profit (before operation expense)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th Quarter Media advertising (25% of sales)</td>
<td>694,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail sales ($694,500 x 4.2)</td>
<td></td>
<td>2,917,000</td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $350,000</td>
<td></td>
<td></td>
<td>1,967,000</td>
</tr>
<tr>
<td>Profit (before operation expense)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st year total</td>
<td>$2,686,000</td>
<td>$10,861,000</td>
<td>$7,058,100</td>
</tr>
<tr>
<td>Outgoing shipping costs (7% of selling price)</td>
<td></td>
<td>760,300</td>
<td></td>
</tr>
<tr>
<td>Operation expense</td>
<td></td>
<td>1,336,000</td>
<td></td>
</tr>
<tr>
<td>Profit before taxes</td>
<td></td>
<td>4,961,800</td>
<td></td>
</tr>
<tr>
<td>Income taxes (26%)</td>
<td></td>
<td>1,290,068</td>
<td></td>
</tr>
<tr>
<td><strong>NET PROFIT</strong></td>
<td></td>
<td></td>
<td>$3,671,000</td>
</tr>
</tbody>
</table>

**Note:** Sales projections do not include potential USA C-NAG® on-line sales. However, by retaining INHEALTH MEDIA and Nutritional Products International (NPI) Appendix 16 and Appendix 17, it is estimated that first year sales will reach a minimum of 1 million USD with a 54% net profit. or $540,000 CDN

**NOTE:** Projections for C-NAC® 500, Vision Boost™ and Prostate 2x® would follow a similar pattern.

Other Vitex formulas such as Cardio Boost, Restore™, Osteo Mend™, Joint Mend™, Gluco Balance and VEGAN Health Pac™ are expected to generate similar revenue and collectively they will make a significant contribution to sales as the Vitex brand becomes better known.
**PROJECTIONS FROM C-NAG® ADVERTISING:** (minimum return)

<table>
<thead>
<tr>
<th>INITIAL BUDGET ($700,000)</th>
<th>ADVERTISING</th>
<th>SALES</th>
<th>PROFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial production cost:</td>
<td>$100,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Quarter media advertising</td>
<td>600,000</td>
<td>1,260,000</td>
<td>408,800</td>
</tr>
<tr>
<td>Initial Retail sales ($600,000 x 2.10)</td>
<td>1,260,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $ 151,200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit (before operation expense)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Quarter media advertising</td>
<td>600,000</td>
<td>1,260,000</td>
<td>508,800</td>
</tr>
<tr>
<td>Retail sales ($600,000 x 2.10)</td>
<td>1,260,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $151,200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit (before operation expense)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Quarter Media advertising</td>
<td>600,000</td>
<td>1,260,000</td>
<td>508,800</td>
</tr>
<tr>
<td>Retail sales ($600,000 x 2.10)</td>
<td>1,260,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $1,071,000 Profit (before operation expense)</td>
<td>508,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th Quarter Media advertising</td>
<td>600,000</td>
<td>1,260,000</td>
<td>508,800</td>
</tr>
<tr>
<td>Retail sales ($600,000 x 2.10)</td>
<td>1,260,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $1,071,000 Profit (before operation expense)</td>
<td>508,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st year total</td>
<td>$ 2,525,000</td>
<td>$ 5,040,000</td>
<td>$ 1,935,200</td>
</tr>
<tr>
<td>Outgoing shipping costs (7% of selling price)</td>
<td>352,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation expense</td>
<td>1,000,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit before taxes</td>
<td>582,400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income taxes (26%)</td>
<td>151,424</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NET PROFIT</strong></td>
<td><strong>$ 430,976</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** When C-NAG® is manufactured, and packaged by South Ocean Nutraceutical (Canada) Ltd. the production costs are estimated as follows:

| Bulk NAG powder (new vegan Non-GMO source) | $12.50/m | $ 2.25 per 180 capsules |
| DRCap #00 + 100 mg Vitamin C | $11.00/m | $ 1.98 per 180 capsules |

| 400 cc bottle + cap | $ 0.45 per bottle |
| Label per bottle | 0.11 per bottle |
| **Net cost per bottle before overhead** | **$ 4.79 per bottle** |
| Gross profit per 204,000 bottles ($6.72 – $4.79 = $1.92 x 204,000) = | **$ 393,720** |
| Estimated annual overhead including labor | **$100,000** |
| Production net profit on C-NAG® | **$ 293,720** |
| Income taxes (26%) | 76,367 |
| **Net Profit** | **$ 217,353** |
## PRODUCTION COST OF C-NAG®

<table>
<thead>
<tr>
<th></th>
<th>PER QUARTER</th>
<th>PER YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total customers:</td>
<td></td>
<td>17,000</td>
</tr>
<tr>
<td>Bottles of 180 caps</td>
<td>51,000</td>
<td>204,000</td>
</tr>
<tr>
<td>Total capsules</td>
<td>9,180,000</td>
<td>36,720,000</td>
</tr>
<tr>
<td>Total NAG bulk powder</td>
<td>4,590 KG</td>
<td>19,800 KG</td>
</tr>
<tr>
<td>Cost of NAG powder @ $25.00 / kg</td>
<td>$123,750</td>
<td>$495,000</td>
</tr>
<tr>
<td>Cost of DR cap +100 mg Vitamin C + labour @ 22.00/m</td>
<td>201,960</td>
<td>807,840</td>
</tr>
<tr>
<td>Cost of label @ $0.16</td>
<td>8,160</td>
<td>32,640</td>
</tr>
<tr>
<td>Cost of 400 cc PETE bottle + labour @ $1.30 per bottle</td>
<td>66,300</td>
<td>265,200</td>
</tr>
<tr>
<td>Total cost</td>
<td>$400,170</td>
<td>$1,600,680</td>
</tr>
<tr>
<td>Selling Price Net @ $56.25</td>
<td>$2,868,750</td>
<td>$11,475,000</td>
</tr>
<tr>
<td>Cost Price @ $6.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>per bottle of 180</td>
<td>-342,720</td>
<td>-1,370,880</td>
</tr>
<tr>
<td>Outgoing postage (7%)</td>
<td>-200,812</td>
<td>-803,250</td>
</tr>
<tr>
<td>Advertising cost (25% of sales)</td>
<td>-717,187</td>
<td>-2,868,750</td>
</tr>
<tr>
<td>Operation expense</td>
<td></td>
<td>-1,336,000</td>
</tr>
<tr>
<td>Gross profit</td>
<td>$1,608,031</td>
<td>$5,096,124</td>
</tr>
<tr>
<td>Income taxes (26%)</td>
<td></td>
<td>-1,324,992</td>
</tr>
<tr>
<td>Net Profit</td>
<td></td>
<td>$4,331,705</td>
</tr>
</tbody>
</table>

**NOTE:** When C-NAG® is manufactured, and packaged by South Ocean Nutraceutical (Canada) Ltd. the production costs are estimated as follows:

- **Bulk NAG powder (new vegan Non-GMO source)**: $12.50/m, $2.25 per 180 capsules
- **DRCap #00 + 100 mg Vitamin C**: $11.00/m, $1.98 per 180 capsules

- **400 cc bottle + cap**: $0.40 per bottle
- **Label per bottle**: 0.11 per bottle

**Net cost per bottle before overhead**: $4.74 per bottle

**Gross profit per 204,000 bottles ($6.72 – $4.74 = $1.98 x 204,000) =** $403,920

**Estimated annual overhead including labor**: -100,000

**Production net profit on C-NAG®**: $303,920

**Income taxes (26%)**: 79,019

**Net Profit**: $224,901
NOTE 1:

Projections for C-NAG® do not include sales to other target markets for people with health conditions such as Celiac disease and rheumatoid arthritis. C-NAG® sales projections (page 58) are based on industry established 4.20 x returns for each dollar of advertising expenditure and with 25% of gross sales for future advertising. C-NAG® sales minimum projections (page 59) are based on 2.1 x returns with approx. 50% of gross sales for advertising.

About 1 in 133 persons in Canada is affected by Celiac disease or about 256,000 people. About 1 in 100 persons in Canada is affected with rheumatoid arthritis (RA) or about 340,000 people.

The next product to follow C-NAG® would be C-NAC® 500 and sales projections would follow a similar pattern as C-NAG® and are based on industry established 4.20 x returns for each dollar of advertising expenditure and with 25% of gross sales for future advertising.

The market potential for C-NAC® 500 is even greater than for C-NAG®: There are over 1.5 million Canadians diagnosed with Chronic Bronchitis, now referred to as Chronic Obstructive Pulmonary Disease or COPD. However, a recent report shows that as many as 1.6 million more Canadians may have COPD but remain undiagnosed. This confirms medical knowledge that COPD is dramatically under-diagnosed and under-treated.

While COPD is not as well-known as other illnesses, COPD is the fourth leading cause of death in Canada surpassed only by heart disease, stroke, and respiratory infections. Doctors predict that by the year 2020, COPD will rise to become the third leading cause of death in Canada and worldwide.

NOTE 2:

The next product for marketing would be Vision Boost™. (See pages 39-40 for details). Per the CNIB, age-related macular degeneration (AMD) is a common eye disease, affecting one million people in Canada (or one in 35 persons). More Canadians have AMD than breast cancer, prostate cancer, Parkinson’s, or Alzheimer’s combined, yet few Canadians even realize it exists. AMD is a progressive eye disease that affects central vision. People who have AMD may no longer be able to read, drive or see the faces of their family members. For many people, the personal, social and economic costs of AMD can be extremely challenging. With an ageing population, the number of people with the disease is expected to double in the next 25 years.

Clinical studies show that Lutein and Zeaxanthin can slow the progression of AMD. Considering these facts, the potential for Vision Boost™ is greater than that for C-NAG® and C-NAC® 500, and the 4.2 x retail sales return on advertising can also be expected for Vision Boost™.

A new study published in the J Int Neuropsychol Soc. 2016 Oct. 25: 1-12, shows that Lutein and Zeaxanthin improve neural efficiency promoting cognitive function in old age. This has added marketing benefits as most consumers purchasing Vision Boost™ for AMD will be seniors and many are concerned with cognitive decline.

Projected Income Statement – Sales (page 72)

Projections are based on sales and growth of the complete Vitex product line to traditional customers in Canada and to Vitex Vietnam. Sales projections do not include sales of C-NAG® to consumers through www.c-nag.com. Expected sales for C-NAG® are at page 68 and minimum sales is at page 69.
# PROJECTED INCOME STATEMENT FOR MANUFACTURING DIVISION

## Projected Income Statement - Manufacturing ($ '000)

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Manufacturing</td>
<td>3,000</td>
<td>4,000</td>
<td>5,000</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>Gross margin (50%)</td>
<td>1,500</td>
<td>2,000</td>
<td>2,500</td>
<td>3,000</td>
<td></td>
</tr>
<tr>
<td>Head office expenses (20%)</td>
<td>600</td>
<td>800</td>
<td>1,000</td>
<td>1,200</td>
<td></td>
</tr>
<tr>
<td>Lease and taxes</td>
<td>550</td>
<td>550</td>
<td>550</td>
<td>550</td>
<td></td>
</tr>
<tr>
<td>Depreciation (30%)</td>
<td>500</td>
<td>400</td>
<td>300</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Gross Income</td>
<td>150</td>
<td>250</td>
<td>650</td>
<td>1,050</td>
<td></td>
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<tr>
<td>Income taxes (26%)</td>
<td>-0</td>
<td>-65</td>
<td>-169</td>
<td>-273</td>
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</tr>
<tr>
<td>Net income</td>
<td>-150</td>
<td>185</td>
<td>481</td>
<td>770</td>
<td></td>
</tr>
</tbody>
</table>

1. Year one is construction period with no sales
2. Lease + taxes payment is for entire project, but a portion can be allocated to office administration.
3. Projections are for Vitex products only and do not include expected income from OEM contract manufacturing

## COMBINED PROJECTED INCOME STATEMENT – C-NAG – RETAIL - MANUFACTURING

<table>
<thead>
<tr>
<th>Combined Projected Income Statement - C-NAG – Retail - Manufacturing ($ '000)</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue</td>
<td>16,000</td>
<td>21,000</td>
<td>24,000</td>
<td>27,000</td>
<td>31,000</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>3,820</td>
<td>6,240</td>
<td>7,460</td>
<td>8,680</td>
<td>10,020</td>
</tr>
<tr>
<td>Gross margin</td>
<td>12,180</td>
<td>14,760</td>
<td>16,540</td>
<td>18,320</td>
<td>20,980</td>
</tr>
<tr>
<td>Advertising &amp; Marketing</td>
<td>3,250</td>
<td>3,600</td>
<td>3,950</td>
<td>4,300</td>
<td>4,900</td>
</tr>
<tr>
<td>Depreciation</td>
<td>50</td>
<td>650</td>
<td>530</td>
<td>484</td>
<td>357</td>
</tr>
<tr>
<td>Head Office + Lease Payment</td>
<td>3,090</td>
<td>4,680</td>
<td>5,270</td>
<td>5,860</td>
<td>6,640</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>5,790</td>
<td>5,830</td>
<td>6,790</td>
<td>7,676</td>
<td>9,083</td>
</tr>
<tr>
<td>Income taxes (26%)</td>
<td>1,505</td>
<td>1,516</td>
<td>1,765</td>
<td>1,151</td>
<td>2,362</td>
</tr>
<tr>
<td>Net income</td>
<td>4,285</td>
<td>4,314</td>
<td>5,025</td>
<td>6,525</td>
<td>6,721</td>
</tr>
</tbody>
</table>

**Note:** Vitex has received (September 2016) Health Canada approval for the vegan starch capsule ingredients manufactured by ER-Kang. ER-Kang has received Chinese government approval to export finished capsules to the world market including Canada (September 2018). Plans will now be made to add vegan soft capsule distribution to the planned hard capsule and tablet manufacturing facility.

The bulk of the vegan soft capsules manufactured by ER-Kang will be supplied to OEM customers who have their own packaging facilities or to other OEM contractors. Vitex will initially manufacture about 1 million bottles per year for its own needs. (90 million capsules)
## PROJECTIONS FOR Sweet ‘n Safe®

<table>
<thead>
<tr>
<th>INITIAL BUDGET ($400,000)</th>
<th>ADVERTISING</th>
<th>SALES</th>
<th>GROSS PROFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial production cost:</td>
<td>$100,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media advertising (12 months x $200,000)</td>
<td>2,400,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet sales 200,000 bottles x $36.00 – $9.00</td>
<td></td>
<td>$ 5,400,000</td>
<td></td>
</tr>
<tr>
<td>Wholesale Sales 200,000 bottles x $24.00 – $6.00</td>
<td></td>
<td>$ 3,600,000</td>
<td></td>
</tr>
<tr>
<td>Promotional discounts (25%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Profit (Internet sales) $27.00 - $7.83 x 200,000</td>
<td></td>
<td>$ 3,834,000</td>
<td></td>
</tr>
<tr>
<td>Gross Profit (Wholesale Sales) $24.00 – $6.00 - 7.83 x 200,000</td>
<td></td>
<td>$ 2,034,000</td>
<td></td>
</tr>
<tr>
<td><strong>1st year total</strong></td>
<td>$ 2,500,000</td>
<td>$ 9,000,000</td>
<td>$ 5,868,000</td>
</tr>
</tbody>
</table>

- Media advertising + production cost.
  - 2,500,000
- Outgoing shipping costs (5% of selling price)
  - 450,000
- Operation expense
  - 300,000
- Profit before taxes
  - 2,618,000
- Income taxes (26%)
  - (680,000)

**NET PROFIT**

- **$ 1,938,000**

**NOTE:** When Sweet ‘n Safe® is manufactured, and packaged by South Ocean Nutraceutical (Canada) Ltd. the production costs are estimated as follows:

- Bulk Organic Erythritol powder CDN$ 4.42/ kg
  - $ 110.55 per 25 kg drum
- 1,200 g erythritol
  - $ 5.31 per bottle
- 1,200 g bottle + cap
  - $ 1.27 per bottle
- Label per bottle
  - 0.25 per bottle
- Filling and packaging
  - 1.00 per bottle
- 1,200 g finished product
  - 7.83 per bottle
- Internet Price per bottle (after 25% marketing discount).
  - $ 27.00 per bottle
- Dealer price per bottle (after 25% marketing discount).
  - $ 18.00 per bottle

**NOTE:** Canadians consume 110 grams of sugar per day. (36,000,000 x 110 g per day = 3,960 metric tons per day). If only one in 1,000 (37,000 persons) were to replace sugar with erythritol it would be 4 metric tons per day or 1,460 metric tons per year, or 1,220,000 bottles of 1,200 gm Sweet ‘n Safe® per year. This represents estimated gross sales revenue of $27,450,000 with estimated net after tax profits of $6,588,000.

Diabetics are a group likely to use Sweet ‘n Safe®. In Canada there will be 5 million diabetes in 2025

The obese is another group likely to use Sweet ‘n Safe®. 34% or 13.6 million Canadians will be obese by 2015.

Dieters make up the largest group with over 50% of Canadians on a diet at some point in their lives and spend an estimated $10 billion annually on various diet programs.
## PROJECTED 1st year INCOME STATEMENT FOR USA INTERNET C-NAG® SALES

### PROJECTIONS FROM C-NAG® ADVERTISING:

<table>
<thead>
<tr>
<th>Initial Budget ($700,000)</th>
<th>Advertising</th>
<th>Sales</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setup cost for 3 products (one time)</td>
<td>$30,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Quarter media advertising</td>
<td>60,000</td>
<td>250,000</td>
<td>220,000</td>
</tr>
<tr>
<td>Initial Retail sales ($60,000 x 4.20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $30,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit (before operation expense)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Quarter media advertising</td>
<td>60,000</td>
<td>250,000</td>
<td>220,000</td>
</tr>
<tr>
<td>Retail sales ($60,000 x 4.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $30,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit (before operation expense)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Quarter Media advertising</td>
<td>60,000</td>
<td>250,000</td>
<td>220,000</td>
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<tr>
<td>Retail sales ($60,000 x 4.2)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cost of goods (12%) $30,000</td>
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<td></td>
<td></td>
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<tr>
<td>Profit (before operation expense)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4th Quarter Media advertising</td>
<td>60,000</td>
<td>250,000</td>
<td>220,000</td>
</tr>
<tr>
<td>Retail sales ($694,500 x 4.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of goods (12%) $30,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit (before operation expense)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st year total</td>
<td>$270,000</td>
<td>$1,000,000</td>
<td>$850,000</td>
</tr>
<tr>
<td>Outgoing shipping costs (7% of selling price)</td>
<td></td>
<td>70,000</td>
<td></td>
</tr>
<tr>
<td>Service Fee ($5,000 per month)</td>
<td></td>
<td>60,000</td>
<td></td>
</tr>
<tr>
<td>Sales Commission (8%)</td>
<td></td>
<td>80,000</td>
<td></td>
</tr>
<tr>
<td>Bonus to Agent (NPI) (0.5%)</td>
<td></td>
<td>5,000</td>
<td></td>
</tr>
<tr>
<td>Profit before taxes</td>
<td></td>
<td>635,000</td>
<td></td>
</tr>
<tr>
<td>Income taxes (26%)</td>
<td></td>
<td>165,000</td>
<td></td>
</tr>
<tr>
<td><strong>NET PROFIT</strong></td>
<td></td>
<td></td>
<td><strong>470,000</strong></td>
</tr>
</tbody>
</table>

**Note:** Sales projections do not include potential USA C-NAG on-line sales. However, by retaining INHEALTH MEDIA and Nutritional Products International (NPI) Appendix 16 and Appendix 17, it is estimated that first year sales will reach a minimum of 1 million USD with a 60% net profit. or $600,000 CDN

**NOTE:** Projections for C-NAC® 500, Vision Boost™ and Prostate 2x® would follow a similar pattern.

Other Vitex formulas such as Cardio Boost, Restore™, Osteo Mend™, Joint Mend™, Gluco Balance and VEGAN Health Pac™ are expected to generate similar revenue and collectively they will make a significant contribution to sales as the Vitex brand becomes better known.
AGLY-GEN™

David M. Lo has signed an irrevocable letter of intent with Vitex, to sell his proprietary technology for the manufacture of AGLY-GEN™ by an exclusive fermentation process to produce Genistein from organic soy beans. This unique process produces the highest concentration of isoflavones in the most bio-available aglycone form, a high percentage of unconjugated isoflavone Genistein. Testing at the University of British Columbia indicates that the amount of Genistein in AGLY-GEN™ is 0.091% by weight, or 1.73 mg in a 1900 mg daily dose. (4 x 475 mg DR Capsules).

A study published in the February 21, 2000 edition of the American Society for Nutritional Sciences confirmed that genistein in the aglycone form has up to 5 times more plasma concentration than the glucoside in humans. The study confirms that Genistein is a potent growth inhibitor in breast cancer, prostate cancer, and gastric cancer cells. [http://jn.nutrition.org/content/130/7/1695.full.pdf+html](http://jn.nutrition.org/content/130/7/1695.full.pdf+html)

This exclusive fermentation process achieves superior potency while maintaining a naturally balanced mix of soy protein and isoflavones. While some soy products (fermented and extract/isolate) achieve high isoflavone content by adding additional isolated isoflavones to the supplement. Research by the US Soyfood Board has demonstrated that this is of only marginal benefit. It has been further shown that the natural balance of isoflavones, soy protein and other nutrients work synergistically to enhance bioavailability and potency.


David Lo became interested in this line of research and assembled a team of renowned scientists to explore the possibilities of producing a high bio-available aglycone form of genistein. Years of research and millions of dollars later, David has perfected the process of commercially producing the high efficiency Genistein which shows great promise in treating cancer. The process requires a special proprietary strain of bacteria discovered by David Lo, to initiate the fermentation process.

The process requires custom made fermentation equipment and it is the intention of Vitex to include the fermentation equipment into its planned new manufacturing facility.

1st stage production will require 4 x 1200-liter fermenters with the capacity to produce 400 kg of powder every 72 hours or 20,000 Kg per year at a fully expensed cost of $30.00 per KG. This equates to 42 million capsules containing 475 mg of AGLY-GEN™ or 3.5 million bottles of 120 caps.
**AGLY-GEN™** if manufactured, and packaged by South Ocean Nutraceutical (Canada) Ltd. the production costs are estimated as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Per 120 Capsules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk AGLY-GEN™ powder</td>
<td>$30.00 / kg</td>
<td>$1.71</td>
</tr>
<tr>
<td>DRCap #00</td>
<td>$11.00 / m</td>
<td>$1.32</td>
</tr>
<tr>
<td>250 cc PETE bottle + cap</td>
<td>$0.35 per bottle</td>
<td></td>
</tr>
<tr>
<td>Label per bottle</td>
<td>0.05 per bottle</td>
<td></td>
</tr>
<tr>
<td><strong>Net cost per bottle of 120 capsules</strong></td>
<td><strong>$3.43 per bottle</strong></td>
<td></td>
</tr>
</tbody>
</table>

Annual Capacity = 20,000 kg = 3.5 million bottles of 120 DR caps. (475 mg per capsule)

Gross profit per 3.5 million bottles ($15.00 – $3.43 = $11.57) = $40,495,000

Estimated annual overhead including labor = 2,000,000

Sales & Marketing (25% of gross sales) = 10,000,000

Gross profit = $28,495,000

Income taxes (26%) = 7,408,700

**Net Profit** = $21,086,300

**Note:** suggested retail for 1 bottle of 120 caps = $49.95
Dealer price is = $30.00
Distributor price is = $15.00

Profit projections assume all sales are at the distributor price of $15.00 per bottle.

A detailed description of **AGLY-GEN™** and the manufacturing equipment required for production is at **Appendix 14**

The market for the finished product is substantial as **AGLY-GEN™** offers a natural, safe, and effective complement or alternative to drug therapy in the treatment of many types of cancer, without the side effects of prescription drugs.
SOUTH OCEAN NUTRACEUTICAL (CANADA) LTD.

South Ocean Nutraceutical (Canada) Ltd. was incorporated in the Province of British Columbia on Sept. 18, 2014: Number BC 1014025, is a wholly owned subsidiary of Vitex Nutrition Ltd.

As per the Finance allocation of the Business Plan (Page 64),

- $2,600,000 as a down payment to purchase and build the property to GMP specifications (description of typical building is at page 80) and $2,042,000 to equip it with the specialized manufacturing equipment necessary to begin production.

- Vitex is in discussion with Fusion Projects of Vancouver B.C www.gofusion.ca to coordinate the construction of the manufacturing area and to assure compliance with Health Canada Site License and GMP standards.

- The completion of the building is expected by late 2020. Mortgage payments will begin upon completion.

- It is expected that the marketing of C-NAG, Sweet ‘n Safe and other Vitex products will be generating substantial sales revenue by the Fall of 2019 and throughout 2020 and will contribute to the manufacturing facilities’ profitability

- The manufacturing facility will use the most advanced processing systems eliminating the use of heat and chemical solvents.


Images of some of the other manufacturing and laboratory equipment required for manufacturing are shown at Appendix 2

1) IR 520 Chilsonator full system with granulator and screen.
2) 150 kg aqueous film coating machine
3) 35 cu ft. V Blender
4) automatic capsule filling machine
5) automatic tablet press
6) Proposed laboratory equipment
7) Automatic tablet and capsule counting and bottle filling line.

The annual production capacity of the new facility for one shift (based on 8-hour days, 5 days per week, 50 weeks per year) using one hard capsule filling machine of 54,000 capsules per hour, and one tablet pressing machine of 100,000 tablets per hour

<table>
<thead>
<tr>
<th>Capsule filling machine</th>
<th>100 million capsules per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tablet pressing machine</td>
<td>200 million tablets per year.</td>
</tr>
</tbody>
</table>
Automatic bottle filling line (50 bottles of 90 capsules/tablets per minute): 6,000,000 bottles per year. (550,000,000 capsules/tablets), Note: maximum capacity is 60 x 90 bottles per minute.

Revenue at current market price of one PETE 250 cc bottle with cap is $1.20 per bottle. Cost of material (bottle + cap) is currently $0.50.

**Note:** this does not include cost of ingredients and the mark up on ingredients.

**South Ocean Nutraceutical**, in addition to providing the manufacturing needs of **Vitex**, will be able to pursue contract manufacturing for domestic and foreign clients. Local contract manufacturing companies are running at near capacity with long turnaround times for new clients. Currently, there is no Canadian OEM manufacturer offering vegan soft capsules.

**RAW MATERIAL BROKERAGE:**

**South Ocean Nutraceutical**, with its many contacts with raw material manufacturers and brokers, can be a Canadian agent for many premium raw materials, creating an additional profit center for the company.

An example is the **(September 2015)** EXCLUSIVE DISTRIBUTION AGREEMENT with Xi’an Healthful Biotechnology Co. Ltd [www.healthfulbio.com](http://www.healthfulbio.com) a specialized natural vitamin E manufacturer who can supply **Vitex** certified NON-GMO natural Vitamin E and Phytosterols at substantial savings. Vitamin E sales are in the hundreds of millions of dollars annually and South Ocean Nutraceutical will be able to make significant sales in this sector. Additionally, Xi’an produces several other certified NON-GMO raw materials, which will give South Ocean access to a substantial market.

**July 28, 2016:** **Vitex** received an NPN for **Brain Boost**, a proprietary formula in the new starch capsule.

**August 2016:** **Vitex** received Health Canada amendments to its **Gamma E Alpha, Evening Primrose Oil** and **Vegan Omega 3-6-9** formulas to provide these products in starch capsules. **Vitex** will now be able to provide, not only for its own needs, but for the requirements of other brands in Canada and throughout the world. An overview of the vegetarian soft capsule market potential is at [Appendix 11](#).

**September 2018:** ER Kang received the Chinese Government approval to export its starch capsules to the world markets including Canada. Now **Vitex** will be able to import finished capsules directly from ER Kang for its own needs as well as for OEM customers, eliminating the necessity to install in house starch capsule making equipment. (eliminating the need for over $1 million in specialized equipment and 10,000 sq. ft. of floor space) This will be a substantial benefit for **Vitex** as we can now compete with traditional gelatin capsule manufactures and offer the customer a superior product at a competitive price.

**October 2018:** **Vitex** has signed a DISTRIBUTION AGREEMENT FOR CANADA with ER-Kang Pharmaceutical Co Ltd. a specialty manufacturer of NON-GMO starch based vegetarian soft capsules and two-piece hard capsules [www.starchcap.com](http://www.starchcap.com). ER-Kang has submitted all the required documents to Health Canada for acceptance of their starch-based capsules for sale in Canada and **Vitex** has obtained Health Canada NPN for several of its oil-based formulas. First delivery of **Vegan Omega-3-6-9 capsules** was in January 2019.

Being able to offer a certified NON-GMO Vitamin E in a certified NON-GMO vegan starch-based soft capsule will be a market first for **Vitex**, (see page 42) and will create a market demand, which other brands will want to follow. When completed the new facility will be the first certified Vegan facility offering soft and hard capsules and tablets and powders of 100% vegan origin.

In addition to Vitamin E, **Vitex** will be able to offer other products such as **Vegan Omega 3-6-9™** (page 30), **Evening Primrose Oil, Oregano Oil**, and a myriad of other oil-based formulas to the market place. **Vitex** will also be able to offer custom blends for other brands.
The market for vegan soft capsules is large and currently there are few manufactures of vegan capsules and none in Canada, to meet this demand. Only ER Kang offers NON-GMO vegan starch capsules.

March 18-20, 2019: Vitex obtains distribution rights in Canada for certified Non-GMO vitamin C products from a specialty Chinese manufacturer. This gives Vitex an advantage in the substantial vitamin C raw material market as there are currently no North American manufacturers offering non-GMO vitamin C products, and consumers are increasingly demanding non-GMO products. Vitex will launch its Bio C -500 formula in the Spring of 2019 featuring the non-GMO insignia, which will be a first for Canada.

Vitex also obtains distribution rights for iMOS, a patented Konjac extract which has been shown to reduce blood sugar equal to or better than Metformin, the world’s largest selling prescription medication for type 2 diabetes. Initially, Vitex will introduce iMOS as part of its Soya Slim meal replacement formula directed at type 2 diabetics and will introduce a stand-alone formula for blood sugar control once Health Canada approval has been received.

ASIAN CONSUMERS ARE MORE INTERESTED IN NUTRITION AND HEALTHY EATING THAN WESTERNERS:

According to a February 17, 2017 survey conducted by market researchers Asian Opinions www.asiaopinions.com 68% of Asian consumers said they were ‘very interested’ in nutrition and healthy eating compared to just 38% for westerners.

39% of respondents in Asia considered eating less meat to be important to achieving a healthy diet, but only 25% of westerners felt the same way. Accordingly, a vegetarian health claim is nearly three times more likely to influence an Asian consumer to buy a product than for a consumer in the west (28% vs 10%).

Neil Cary, founder of Asia Opinions. Added “Asian consumers are well known for their knowledge of and passion for food and this research shows just how much they care about nutrition and healthy eating--”

The potential market includes 370 million Buddhists, 1 billion Hindus, 1.2 billion Muslims and 600 million vegetarians. Given a choice, most people prefer a vegetarian capsule, particularly when they learn that the vegan starch capsule is more stable in higher temperatures (gelatin capsules soften and often leak above 40 degrees C, which is a frequent temperature in Asia and the Mid-East, whereas the vegan starch capsules retain their shape and texture and do not leak).

A growing public awareness in North America, Europe, Australia, Japan, and other countries is concerned about GMO foods, and the risk of “Mad Cow Disease” which can be transmitted in gelatin. The vegetarian starch capsules will also appeal to these people as a safe alternative.

The new vegan starch soft capsules also have a more elegant look, having a clear “diamond-like” appearance, clearly distinguishing them from gelatin or carrageenan based vegetarian capsules.

The combination of certified non-GMO raw materials from Xi’an Biotechnology, the non-GMO vegetarian starch soft capsules of ER Kang and the non-GMO vitamin C products will Vitex an unprecedented advantage in the growing worldwide demand for non-GMO and vegetarian alternatives.
The *Phoenix* brand of nutritional supplements was developed in 1990 by Mr. Carlsen as an export brand for Quest Vitamins. The *Phoenix* brand consisted of over 100 formulas and was sold in the UK to Health Food Stores and in Malaysia through multi-level distribution as a premium brand. The *Phoenix* formulas were manufactured by Quest Vitamins in their State-of-the-Art facility. When Mr. Carlsen sold certain assets of Quest Vitamins to Boehringer Ingelheim in Jan. 1993, he retained ownership of the *Phoenix* brand.

There is now interest in using the *Phoenix* brand to market the *Vitex* formulas under the *Phoenix* label as an exclusive brand for Health Professionals and Hospitals in China as well as in Canada and other Countries. If *Phoenix* becomes a wholly owned subsidiary of *Vitex*, then the extensive documentation behind the NPN's of *Vitex* can be transferred to the *Phoenix* brand allowing the granting of new numbers to Phoenix Nutraceuticals Ltd. without the substantial costs and long waiting times of starting from scratch. The directors are considering a suitable acquisition of *Phoenix* by *Vitex* on a share exchange basis.
# Proposed New Premises

## Proposed Details

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<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Floor</td>
<td>25,000 sq. ft.</td>
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<tr>
<td>Mezzanine</td>
<td>10,000 sq. ft.</td>
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<tr>
<td><strong>Total Area</strong></td>
<td><strong>35,000 sq. ft.</strong></td>
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<tr>
<td>Value of building @ $300.00 sq. ft.</td>
<td>$10,500,000</td>
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<tr>
<td>Down payment (25%)</td>
<td>$2,600,000</td>
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<tr>
<td>3.72% 10-year term mortgage on $7,900,000 (30-year amortization)</td>
<td>$36,452</td>
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<tr>
<td>Principle &amp; Interest (monthly)</td>
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<tr>
<td>Maintenance + taxes @ $3.65 sq./ft.</td>
<td>$10,646</td>
</tr>
<tr>
<td><strong>Monthly payment</strong></td>
<td><strong>$47,098</strong></td>
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### Lease Option:

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<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Long term lease rate @ 1.00 /sq. ft. per month</td>
<td>$35,000</td>
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<tr>
<td><strong>Monthly payment</strong></td>
<td><strong>$45,646</strong></td>
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</tbody>
</table>

**NOTE:** Building is custom built to GMP specifications to facilitate full manufacturing requirement.