

Technology Solutions for Healthy Living



ecovatec
SOLUTIONS INC



Adding 600% in value to egg yolk

New Continuous Flow CO₂-Cavitation Technology

Proven Technologies - Proven Market

Value-Added Products

Green Processing

Patentable Technology

Large and Growing Market



Executive Summary

What We Do:

- Split **liquid** egg yolk into multiple separate products:
 - 1) **Lipids (Plasma)**
 - i) **Phospholipids**
 - ii) **Neutral Lipids – Egg Oil**
 - 2) **Proteins (Granule) – Previously unproduceable**
 - i) **Phosvitin (Phosvitin Phosphopeptides - PPP)**
 - ii) **HDL**
 - iii) **IgY ***
- Products have multiple forms – including protein peptides
- Split the yolk with greater **purity, efficiency, and effectiveness.**
- Use no dangerous chemicals, which:
 - avoids product contamination
 - lowers manufacturing costs



* Water Soluble Protein

Value Add - 5 Products Produced (\$CDN)



Input:	Weight (kg)	Price (\$/kg)	Total (\$)
Liquid Yolk	1000	\$ 5.33	\$ 5,333
Output:			
PL-60	70	\$ 167	\$ 11,690
PPP	40	\$ 267	\$ 10,680
Egg Oil	100	\$ 33	\$ 3,300
Yolk Protein	90	\$ 133	\$ 11,970
IgY	4	\$1,000	\$4,000
Processing Gain from 1000 kg			\$ 36,307
Percent Value-Added			680 %

Current egg
yolk pricing
= \$3.30/kg
CAD

Processing Plant – Abbotsford, BC



- Capital Expenditure: CDN \$3 million invested into existing pharmaceutical grade facility. The project was designed, constructed and commissioned in 16 months
- Long term 10 year lease agreement in place for the 10,000 sq. ft. facility capable of processing up to 176,000 L of egg yolk per month



Project Timeline

Sept 2015 – June 2016

- Plans, Design, Purchase equipment

March – November 2016

- Construction

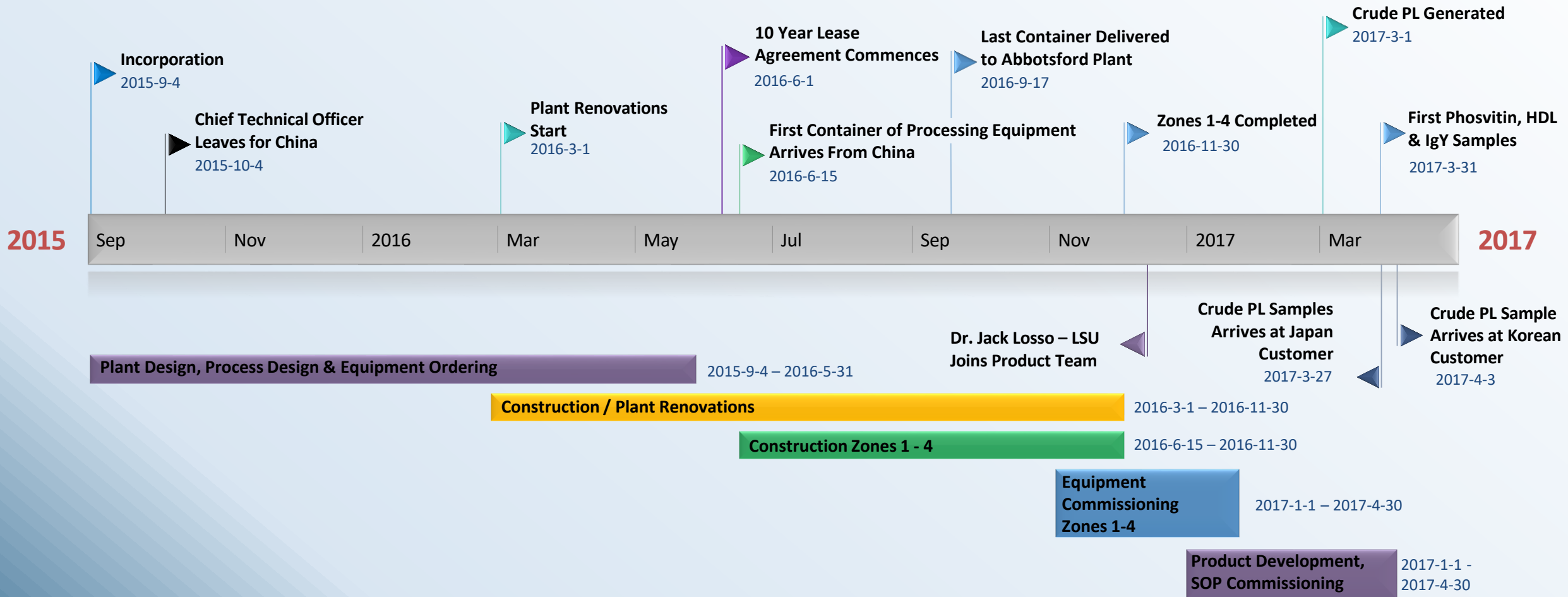
December 2016

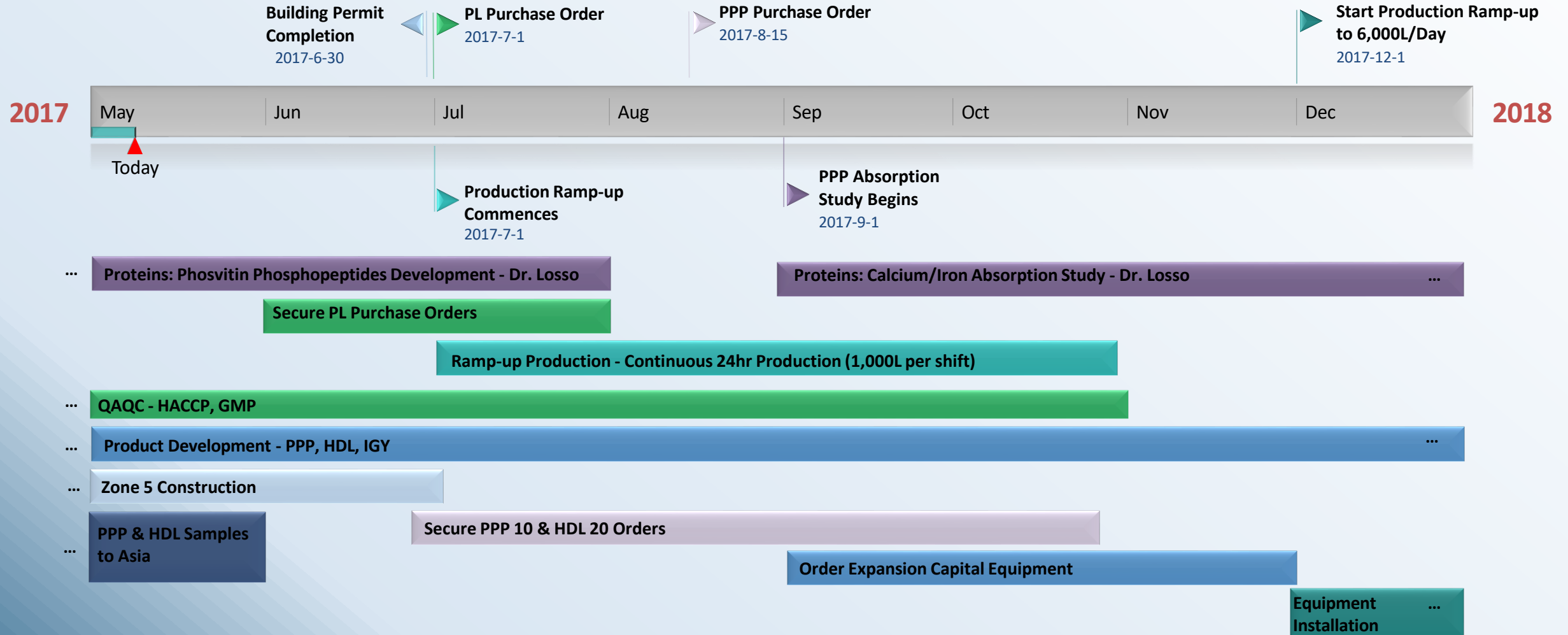
- Commission Equipment

January – April 2017

- Commission SOP ~ Product Optimization
- Generate and deliver product samples ~ PL 25, PL 30 and Phosvitin (PV 10-15)







Plant Photos



Plant Photos



Project Risk Management

Graduated Risk Mitigation

- C\$ 5.5 Million raised to date
 - \$250k CAPEX remaining to complete
 - New raise will cover, OPEX, overhead and sustaining capital for 8 months
 - Purchase orders for raw PL are expected to be firm within 60 days
- Process engineering and manufacturing processes streamlined with a proven team
- SOP commissioning 90% complete
- Production testing added new products and value

Project Economics



- **Initial Capital Expenditures:** C \$ 3.1 Million
- **3-Year Expansion CAPEX*:** C \$ 3.3 Million
- **13 month payback period**

	Gross Margin	EBITDA
➤ Year 1**	41%	C\$ 1.2 M
➤ Year 2	59%	C\$ 20 M
➤ Year 3	61%	C\$ 33 M

Assumptions:

- * Year 1 - Plant finishes year at 150% of initial production capacity (66,000 L of yolk/month)
- * Year 2 - Plant capacity doubles, production ramps from 150% to 250%
- * Year 3 - Plant capacity doubles, production ramps from 250% to 400% (176,000 L/month)
- ** Fiscal Year 1 begins Nov. 2016
- ** Production is limited to 5 months and a conservative ramp up schedule beginning in June

Projected Annual Revenue vs EBITDA



Corporate Structure



Private Canadian Company (Non-Reporting Issuer)

- Management, Insiders & IP 20 Million Shares
- New Investors: 23.02 Million Shares
- Total Issued Shares: 43.02 Million Shares

20 Million Shares between IP, Insiders and Management will be restricted shares (3yrs) when the company goes public on the TSX-V

Corporate Structure



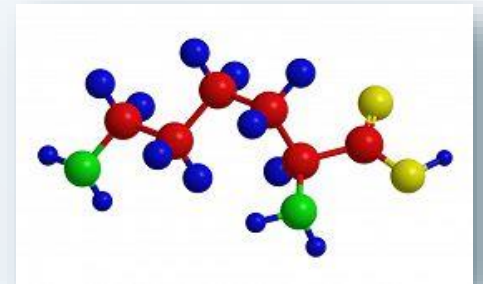
Financing Terms

Seed Round (Oct 2015)	3.7 million shares	@ .20 =	\$740k
Private Placements	19.3 million shares	@ .30 =	\$5.8 Million
Total Raised to Date			\$6.55 Million
Total Shares Outstanding	43.02 million shares		
Treasury			\$750k
Market Capitalization			\$17 Million
Current Raise	2.5 million shares	@ .40 =	\$1 Million

Nutraceutical Products

Phospholipids

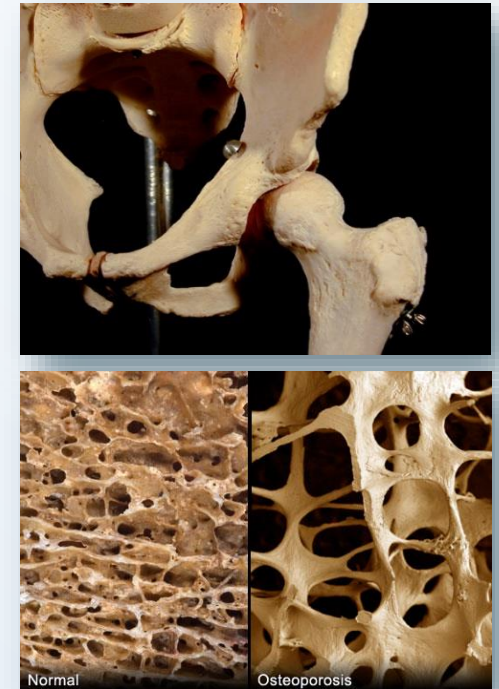
- ✓ key element of cell membranes and lipoproteins
- ✓ dietary supplement
 - source of lecithin (phosphatidylcholine = brain food)
- ✓ additive to infant formula, contained arachidonic acid
- ✓ food additive for short-term memory retention, delaying dementia
- ✓ cosmetic application for high quality creams, serums and lotions
- ✓ pharmaceutical applications
 - drug delivery systems,
 - topical, oral and parenteral drugs



Nutraceutical Products

Phosvitin (Phosvitin Phosphopeptide - PPP)

- ✓ natural anti-oxidant
- ✓ enhances bioavailability of Calcium and Iron
- ✓ additive for anti-osteoporosis products
- ✓ maintain good memory function and neuroplasticity
- ✓ potentially pharmaceutical use for dementia delay
- ✓ no egg phosvitin producers in North America or the EU



Egg Oil Products

Egg Oil (Lysolecithin)

- ✓ food additive as emulsifier: chocolate, ice cream, mayonnaise
- ✓ cosmetic applications: skin and hair care
- ✓ many Chinese traditional medicinal uses for egg oil
 - burns, eczema, dermatitis, chapped skin, mouth & skin ulcers
 - ringworm, nasal vestibulitis, frostbite, and hemorrhoids
- ✓ emerging new market as a natural pesticide and fertilizer



PL 40-Egg Oil Fertilizer: Research & Development



- The egg oil solution has been proven to maximize plant yields by providing essential macro nutrients (Nitrogen and Phosphorus) to the plants while also demonstrating beneficial side-effects in fighting off fungus and insects. Several products and application methods are being developed (foliar Spray and direct plant root feed).
- Ecovatec is working closely with a dedicated group of scientists lead by the programs Director Dr. Deborah Henderson, PhD at the Institute for Sustainable Horticulture at Kwantlen Polytechnic University in Langley
- Ecovatec is also working in collaboration with an ACMPR licensed grower in the Fraser Valley with various applications of the products on Juvenile and Mature Marijuana Plants. The experiments are focusing on maximizing plant growth while testing the effectiveness of combating mildew and mites.



Historical Research and Development

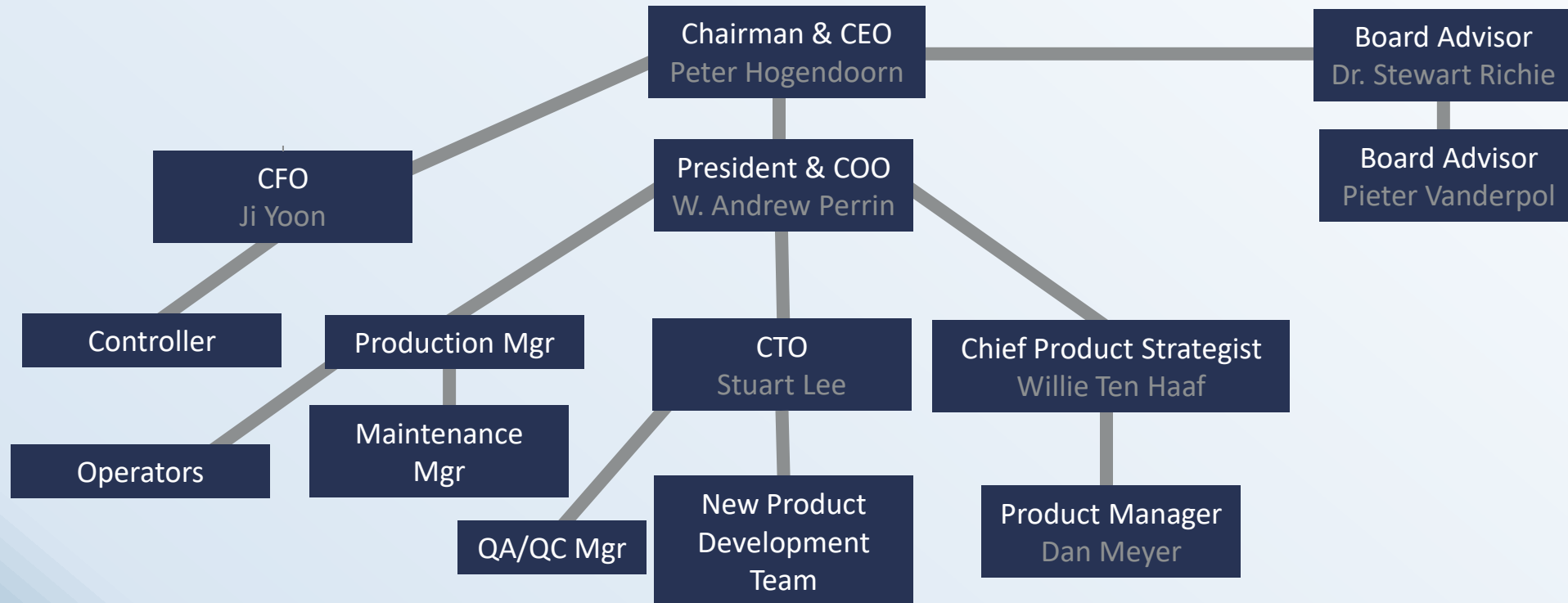
- Various research and development projects utilizing the valuable nutrients found in egg yolks have been undertaken by the Korean Government and private institutions in the past 15 years
- The Nitrogen and Phosphorus compounds that exist in the egg yolks have been proven to offer beneficial growth factors when applied to plants and crops
- A 2009 study performed by the Korean government found water spraying a mixture of emulsified egg yolk and vegetable oil was an effective natural pesticide-fungicide and growth enhancer ¹
- Doosan, a Large Korean Company, is the first company in the world to commercialized the production of LPE derived from egg yolks (*lyso*-phosphatidylethanoamine) as a plant growth regulator ^{2,3}

¹ http://www.fftc.agnet.org/library.php?func=view&style=&type_id=&id=20110712072318&print=1

² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664497/>

³ <http://www.doosan.com/en/business-area/materials-and-ingredients/ingredients-for-manufacturing.do>

Organizational Structure



Advisory Board



Dr. Stewart Ritchie Ph.D., M.S., D.V.M., Diplomate – **Board Advisor**

Dr. Ritchie is the President of Canadian Poultry Consultants and S.J. Ritchie Research Farms. He developed and has been participating in the Platinum Brooding® program since inception. The Platinum Brooding® program is an educational session used by poultry producers to promote poultry health and is now part of the curriculum at the University of Georgia, Master of Avian Medicine program and the Aviagen International Broiler Production School in Alabama. The Platinum Brooding® program is now part of the New Producer Entrant program of the British Columbia Broiler Chicken Marketing Board. He has now completed his term as President of the American Association of Avian Pathologists (AAAP). Stew was the founder of the Western Meeting of Poultry Clinicians and Pathologists in 1990 and is a member and has participated in numerous poultry production and scientific sessions throughout the globe.

Stewart's degrees include: B.Sc.(Agr) - UBC, M.S. - U of Arkansas, D.V.M. - U of Saskatchewan, and Diplomate American College of Poultry Veterinarians. Over the course of his extensive and renowned research career, Stew has developed numerous technological advances which have been commercialized by some of the world's largest Vitamin and Pharmaceutical Manufacturing companies. He is also a featured keynote speaker and presenter at research seminars and forums across the globe.

Pieter Vanderpol –Board Advisor

Mr. Vanderpol is the founder of Vanderpol's Eggs, a family owned and operated egg processor dedicated to the development and delivery of innovative, functional egg solutions to their valued customers and industry partners for over 50 years. Vanderpol's is an industry leader in value-added products and processes having created over 31 distinct product offerings ranging from Industrial, Commercial, Sauces and Prepared Foods. The Vanderpol group operates across Canada and includes Dairy and Fruit product divisions. Specialties include: bakery ingredients, dairy ingredients, Eggs, fruit based ingredients, Industrial Ingredients, Foodservice Sauces, Foodservice, Private Label, contract manufacturing. Vanderpol's has been a pioneer in numerous new technological advances that have become industry standards across North America, including enhanced shelf-life processes, egg-white enzyme and whey protein extraction.

Management Team



Peter Hogendoorn – CEO & Chairman

Over the past 20 years, Mr. Hogendoorn has been involved in Corporate Finance and Venture Capital as an Independent Consultant, specializing in Technology and Mining and has participated in successfully financing over 25 companies during this period. From 2009 to 2015 Peter was President of Scepter Media and its wholly owned subsidiary, Odyssey Media Inc, which recently raised \$20 million in new investor funding. This provided Odyssey with the resources to film around the world with A-list casts and top producers for the next 15 films that are slated for production. Peter's involvement with LML Payment Systems Inc, an electronic payment processing company, led to \$26 million in investor funding to further propel the company into the \$20 billion dollar market of global online transactions. LML was recently sold to Digital River, Inc of Minneapolis. Mr. Hogendoorn is also a founder of Carbon One Inc. and First Power Inc., companies involved with waste plastic conversion to carbon commodities, composite materials manufacturing for the RV and Transportation industry, 4D Wind Turbines and Asynchronous AC Power conditioning.

W. Andrew (Drew) Perrin B.A.Sc. Eng., B.Ed – President & Director

A proven business leader, Drew has dedicated his career to improving the use of energy in our world. He brings more than 25 years of experience in the energy field, including energy in buildings, energy management, and energy product conceptualization, design, and commercialization. His skills managing commercialization efforts, building control processes, budgets, and financial reporting to stakeholders are invaluable. At CopperTree Analytics, Drew grew the team from 4 to 27 while designing, developing, and commercializing an industry leading building energy analytics software. At Delta Controls he brought multiple products to market while developing the OEM business. During this time, Drew worked with numerous multi-national corporations including GE, York, and Uponor. Drew holds a Bachelor's of Applied Science in Mechanical Engineering from the University of Waterloo, Ontario, Canada and the Bachelor's of Education from the University of Western Ontario.

Management Team



Ji Yoon, B.Comm, MBA, CPA - CFO

Mr. Yoon is presently the Chief Financial Officer for On Side Restoration, established in 1979, On Side has over 22 locations across Canada and 700 staff, is one of Canada's leading restoration companies. Previously, he was the Finance Director and Corporate Secretary of SeaStar Solutions (formerly known as Teleflex Canada Inc. and formerly owned by Teleflex Incorporated (NYSE: TFX)) and was formerly the Chief Financial Officer and Corporate Secretary of JER Envirotech International Corp. Mr. Yoon has also acted as Chief Financial Officer and Controller for Taiga Building Products Ltd.

Mr. Yoon holds his CPA, CMA, FCMA and C.Dir designations. He has a Bachelor of Commerce degree from the University of Alberta and a Business Diploma (Honours) from Lambton College of Applied Arts and Technology in Sarnia, Ontario and an MBA from Queen's University, Ontario. He is a member of the American Institute of Certified Public Accountants and also served on the adjudicating board of the Certified Management Accountants Strategic Leadership Program for several terms. In addition, he obtained his Chartered Director (C.Dir.) designation from The Directors College, a joint venture between The Conference Board of Canada and McMaster University.

Patrick J. Elliott, M.Sc., MBA – VP Corporate Development

Mr. Elliott is an accomplished geologist who has completed a Master of Science Degree in Mineral Economics and a Master's Degree in Business Administration from the Curtin University of Technology in Perth, Australia. He is currently Vice President, Business Development at Veridyne Power Corporation; and President/CEO of Lexore Capital Corp., a private investment company. His previous professional position was as Consulting Geologist for Midas Gold Corporation working on the world class Golden Meadows Gold Project in Idaho, USA. Previous to this, he was Project Geologist at the Zafranal Porphyry Copper Project for AQM Copper Inc. in Arequipa, Peru. He graduated with a Bachelor of Science Degree in Geology from the University of Western Ontario in 2002. He has over 7 years experience in all facets of mineral exploration including positions as regional and project geologist. Combined with his technical knowledge, Mr. Elliott also has a wealth of contacts in the financial sector, including clients in retail, institutional, corporate finance, research, private equity and venture capitalism. He also has extensive experience in project management, corporate promotion, investor relations and has helped raise over CDN\$60 million for his representative resource companies through way of private placements.

Management Team – Abbotsford



Willie Ten Haaf – Chief Product Strategist

Mr. ten Haaf has an accomplished career of over 25 years in the nutra-pharmaceutical and food sectors. He began in sales and marketing of extended-life liquid egg products with Vanderpols Eggs along with heading various formulating and R&D projects. He then brought his experience in international sales and marketing to Inovatech Canada Inc., where he sold long shelf-life egg products, whey protein concentrates, and isolates. Mr. ten Haaf's abilities as a strategic thinker and visionary led to a patent in flax protein extraction with Nutrex Wellness Inc., before focusing his efforts as president of a co-founded technology company that extracted various skin products derived from the IgY-enhanced egg yolk: Isotech Research Inc. Isotech was sold to IRI in 2006. Mr. ten Haaf then took his knowledge in IgY to Immune Bio Tech Inc., which developed and manufactured vaccines for the production of chicken IgY eggs for various applications. Mr. ten Haaf has been working with Mr. Lee for several years in researching and developing the ground breaking technology now utilized by Ecovatec Solutions Inc.

Stuart Lee – Chief Technical Officer

Mr. Lee brings with him a breadth of technical experience and has been involved in many R&D and manufacturing projects of health food & pharmaceutical products in Canada, USA, Korea, China, and Ukraine. A few such noteworthy projects include: extracting proteins and lipids for the nutra-pharmaceutical industry including quinine, grapefruit, flax seed, lumbricus rubellus peptide (Inovatech Canada); and human placenta extraction (Korea and Ukraine). Stuart has also been part of developing egg oil manufacturing processes (Korea & Canada, 1986) and played a key role in developing a patented process for egg yolk phospholipid extraction involving Supercritical Fluid CO2 Extraction (2010, Ukraine).

Stuart has also brought his technical knowledge in applied science through engineering technical processing components for biodiesel cleaning and transesterification (Korea & China) and for water and fuel emulsion (China, Korea, and Canada). On top of his technical experience in engineering and development, Mr. Lee has also made some successful international sales transactions: nutra-pharmaceutical ingredients in Japan, Korea, and China (lysozyme, colostrum, egg and flax lipids) and biodiesel manufacturing process equipment in China and Korea. has been involved in many R&D and manufacturing projects of health food & pharmaceutical products in USA, Korea, and Canada. He has also developed many different types of hydrodynamic cavitation modules with Jet-Cavitation and Super-Cavitation used for high pressure washer cleaning biodiesel transesterification process, water emulsion fuel in China, Korea and Canada. He now owns FSN Tech Co. in Langley, BC.

Technical Advisor



Dr. Jack Losso Ph.D., M.S., B.S., **Professor at LSU - School of Nutrition and Food Science**

EDUCATIONAL BACKGROUND

- Ph.D. - Food Science. Dissertation area: Interactions of phaseolin and procyanidin in the presence of carbohydrate
- M.S - Food Science. Thesis research area: Phytic acid and Minerals in dry beans
- B.S. - Chemistry

CURRENT RESEARCH INTERESTS

- Food proteins and enzymes
- Recovery of bioactive compounds from novel and underutilized sources for food and biomedical
- Applications, Identification and development of dietary anti-angiogenic functional foods and nutraceuticals

TEACHING EXPERTISE AREA

- Food Analysis
- Food Proteins and Enzymes

CURRENT COMMITTEES

- Departmental Graduate committee
- College of Agriculture Graduate Council

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- Institute of Food Technologists
- American Chemical Society
- American Association of Cereal Chemists
- American Oil Chemists' Society

Forward Looking Statements (1)



Statements contained in this presentation that are not historical facts are “forward-looking information” or “forward-looking statements” (collectively, “Forward-Looking Information”) within the meaning of applicable Canadian securities legislation and the United States Private Securities Litigation Reform Act of 1995. Forward Looking Information includes, but is not limited to, statements relating to the timing, availability and amount of financings; expected use of proceeds; business objectives; the timing and costs of future activities on the Corporation’s properties; success of exploration activities; planned expenditures and budgets and the execution thereof; evaluation of the potential impact of future accounting changes; estimates concerning recovery of accounts receivable, stock-based compensation and carrying value of properties. In certain cases, Forward-Looking Information can be identified by the use of words and phrases such as “plans”, “expects” or “does not expect”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates” or “does not anticipate”, or “believes”, or variations of such words and phrases or statements that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved”. The Corporation has applied several material assumptions, including, but not limited to, the assumption that the Offering will be completed and that any additional financing needed will be available on reasonable terms; the exchange rates for the U.S. and Canadian currencies in 2015 and 2016 will be consistent with the Corporation’s expectations. Other assumptions are discussed throughout this presentation and Forward-Looking Information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Corporation to be materially different from any future results, performance or achievements expressed or implied by the Forward-Looking Information. (continued)

Forward Looking Statements (2)



Such risks and other factors include, among others, risks related to the completion of financings and the use of proceeds; operations and contractual obligations; changes in exploration programs based upon results of exploration; changes in estimated mineral reserves or mineral resources, future prices of metals; availability of third party contractors; availability of equipment; failure of equipment to operate as anticipated; accidents, effects of weather and other natural phenomena and other risks associated with the technology and alternative energy industries; environmental risks, including environmental matters under U.S. federal rules and regulations; impact of environmental remediation requirements and the terms of existing and potential consent decrees on the financing; fluctuations in currency prices; the Corporation's dependence on fuel sources; currency fluctuations; changes in environmental laws and regulations and changes in the application of standards pursuant to existing laws and regulations which may increase costs of doing business and restrict operations; risks related to dependence on key personnel; and estimates used in financial statements proving to be incorrect. Although the Corporation has attempted to identify important factors that could affect the Corporation and may cause actual actions, events or results to differ materially from those described in Forward-Looking Information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that Forward-Looking Information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on Forward-Looking Information. Except as required by law, the Corporation does not assume any obligation to release publicly any revisions to Forward-Looking Information contained in this presentation to reflect events or circumstances after the dates thereof or to reflect the occurrence of unanticipated events.